

# **Annual Report 2017**



**National Science Foundation**



## It's all about the NSF'S hard work done in 2017 !

*The NSF is moving ahead progressively with the energy and drive of its committed staff delivering the maximum output as empowered by the institutional mandate described in the Act. This year's Annual Report captures basically the completed work as set out in the Action Plan for the year. All relevant information that would enable the interested parties to form a judgment on performance, future prospects and constraints of the institute is contained in this report with 47 Graphical Presentations, 12 Tables, 79 Pictures, and 23 Annexes. The entire annual report contains 272 Pages together with the Audit Report & the NSF feedback on the Audit Report.*



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# Overview

- **About**
- **Functions as Mandated by the Act**
- **Vision for Science, Technology, Research & Innovation**
- **Mission**
- **NSF's future direction**



## **About**

The National Science Foundation, which functions under the purview of Ministry of Science, Technology and Research completed 49 years of its dedicated service to the nation in May, 2017. The organization 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).

## **Functions as mandated by the Act**

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; and
  - Training research personnel in science and technology.
- b) to foster the interchange of scientific information among scientists in Sri Lanka and abroad.

**Vision for  
Science,  
Technology,  
Research &  
Innovation**

- 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 personnel 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.

“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, innovation and technology transfer by providing funding to carry out relevant programmes, knowledge creation, capacity building, information dissemination, building partnerships and popularizing science so as to;

- Create a knowledge driven economy and well-informed society,
- Improve the quality of life and standard of living of people in Sri Lanka,

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

## ***NSF's future direction***



NSF will continue to be the nation's premier driving force in promoting Science, Technology and Innovation for economic and social prosperity of Sri Lanka under the five mandates empowered by the Act. Major emphasis in its future direction would be to provide more attention to the outputs and outcomes of the efforts of the NSF, actions of the mandates and internal process improvements in achieving NSF's vision.

In order to move to the future, NSF's key performance indicators will be derived based on the results rather than the investment. Internal processes and external communications with the stakeholders for various types of grants, journal management system are expected to be online moving away from the paper based operations to paperless operations with performance on process efficiency measured based on how efficiently and accurately NSF provides its services. Further, NSF will constantly review its existing programmes for impact and effectiveness and introduce innovative initiatives for greater impact in realizing its vision.

**Prof. Ananda Jayawardane**  
**Director General**





## Administrative highlights

- **Brief profile of the Board of Management**
- **Senior Management Committee**
- **Organizational Structure & Staff review**



## Brief profile of the Board of Management

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 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.



**Prof. Sirimali Fernando** (*w.e.f. 8<sup>th</sup> June, 2015 - to date*)  
Chairperson, National Science Foundation  
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**Dr Thamara F Dias** (*w.e.f. 01<sup>st</sup> August, 2016 - 16<sup>th</sup> October, 2017*)  
Director General (Covering), National Science Foundation  
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**Dr Jayantha Wattavidanage** (*w.e.f. 17<sup>th</sup> October, 2017 - 17<sup>th</sup> January, 2018*)  
Director General (Acting), National Science Foundation  
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**Mr H C D L Silva** (*w.e.f. 01<sup>st</sup> April, 2015 - to date*)  
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**Eng. Jayavilal Meegoda** (*w.e.f. 22<sup>nd</sup> October, 2016 - to date*)  
President, The Institution of Engineers, Sri Lanka  
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**Dr Gotabhaya Ranasinghe** (w.e.f. 24<sup>th</sup> November, 2016 - to date)  
Consultant Cardiologist, Institute of Cardiology  
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**Mr M F S P Jayawardana** (w.e.f. 01<sup>st</sup> April, 2015 - October, 2017)  
Deputy Director General (Science & Technology)  
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**Prof. Thakshila Serasinhe** (w.e.f. 24<sup>th</sup> February, 2015 - to date)  
Senior Professor, Department of Animal Science  
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**Dr D M Suratissa** (w.e.f. 13<sup>th</sup> November, 2015 - to date)  
Department of Zoology, University of Colombo, Colombo 03  
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**Prof. Manjula Vithanapathirana** (w.e.f. 20<sup>th</sup> July, 2016 - to date)  
General President  
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**Prof. Mohan de Silva** (w.e.f. 29<sup>th</sup> August, 2016 - April, 2017)  
Chairman, University Grants Commission  
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**Dr T A R J Gunasekera** (w.e.f. 17<sup>th</sup> October, 2017 - to date)  
Director General, National Institute of Education  
High Level Road, Maharagama

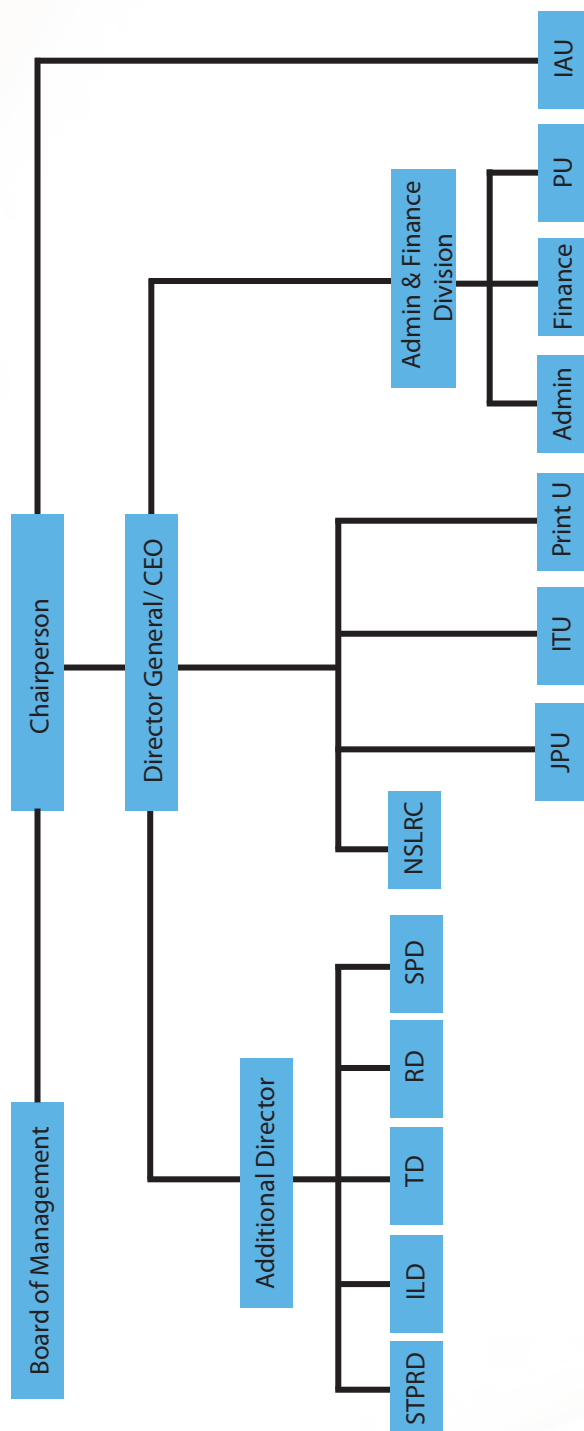
## Senior Management Committee

In order to reap the desired effects of good governance, and helping the Board of Management to ensure smooth functioning of the Foundation, and also to bring into focus the matters/issues that may have negative impact for the Foundation and further enhancing the inter-relationships and interactions between the Staff and the Board of Management, the Senior Management Committee (SMC) functions in the following composition.

- Chairperson
- Director General
- Additional Director
- Head/ Research Division
- Head/ Technology Division
- Head/ International Liaison Division
- Head/ Science Popularization Division
- Head/ Science & Technology Policy Research Division
- Head/ National Science Library & Resource Centre
- Head/ Journal Publication Unit
- Senior Accountant
- Senior Administrative Officer
- IT Manager/ IT Unit
- Printing Manager/ Printing Unit
- Internal Auditor/ Internal Audit Unit

The Senior Management Committee meets every month to discuss matters according to a specific agenda and the minutes of the meetings are submitted to the Board of Management for information.

# Organizational Structure & Staff Review

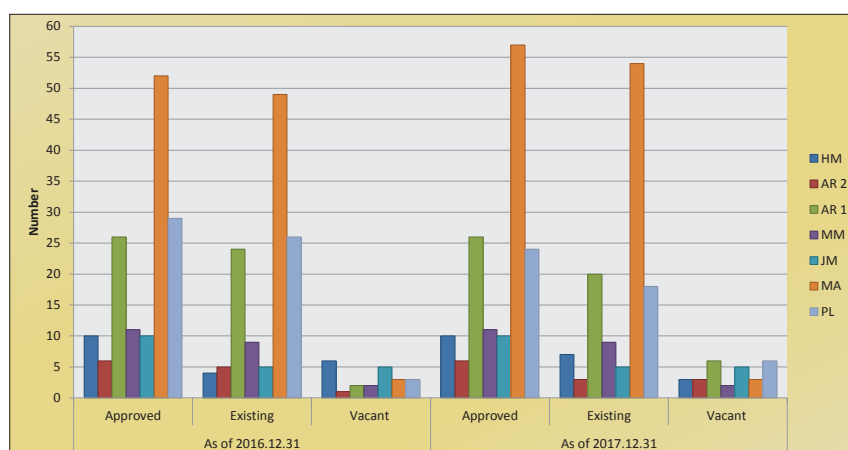


STPRD - Science and Technology Policy Research Division; ILD - Internal Liaison Division; TD - Technology Division; RD - Research Division; SPD - Science Popularization Division; NSLRC - National Science Library and Resource Centre; JPU - Journal Publication Unit; ITU - Information Technology Unit; Print U - Printing Unit; Admin - Administration; PU - Procurement Unit; IA - Internal Audit Unit

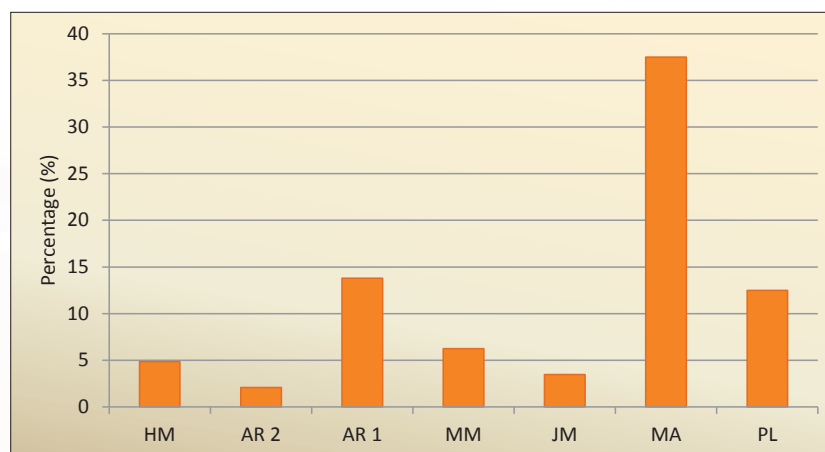
The NSF functions with an approved cadre of 144. Due to high turnover the NSF experienced throughout, the human capital development had been changed. However, the vacant posts were advertised and some of those were filled based on the assessments done by the interview panels. A complete review of the NSF staff occupation is given in *Table 1* and is graphically presented in *Figures 1 & 2*.

**Table 1:** Staff distribution based on category

Category	Year					
	2016.12.31			2017.12.31		
	Approved	Existing	Vacant	Approved	Existing	Vacant
HM	10	4	6	10	7	3
AR 2	6	5	1	6	3	3
AR 1	26	24	2	26	20	6
MM	11	9	2	11	9	2
JM	10	5	5	10	5	5
MA	52	49	3	57	54	3
PL	29	26	3	24	18	6
<b>Total</b>	<b>144</b>	<b>122</b>	<b>22</b>	<b>144</b>	<b>116</b>	<b>28</b>



**Figure 1:** Staff distribution based on category



**Figure 2:** Staff occupation against the approved cadre in 2017

## Principal Staff - As at 31<sup>st</sup> December, 2017

### Chairperson

Prof. Sirimali Fernando

*MBBS (Colombo), Dip.Med.Micro (Colombo), M.Sc. (London), FNASSL*

### Director General

Dr Jayantha Wattavidanage, *B.Sc. (Sri Jayewardenepura)*  
*M.Phil. (Sri Jayewardenepura) Ph.D. (Colombo)*

From 17.10.2017  
(Acting)

### Director General

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

Up to 16.10.2017  
(Covering)

### Additional Director

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

From 12.10.2017

### Additional Director

Mr K G Janaka Karunasena, *B.Sc. Agric. (Hons)(Peradeniya),*  
*M.Phil. (Agric.) (Peradeniya)*

Up to 11.10.2017  
(Covering)

### Research Division

Dr C G Yapa, *B.Sc. Special (Hons) (Colombo), Ph.D. (Colombo)*

Head/Principal Scientific  
Officer

Ms W L C Dasanayake, *B.Sc. Agric. (Hons) (Peradeniya),*  
*M.Sc. (Peradeniya), M.Sc (Japan), M.Eng (Germany)*

Scientific Officer

Dr P V S Panawala, *B.V.Sc. (Peradeniya), M.Phil. (Peradeniya)*

Scientific Officer

Mrs H D N Jayaweera, *B.Sc. (Hons.) (Sri Jayewardenepura)*

Scientific Officer

Ms Amali Ranasinghe, *B.Sc. (Hons) (Bangalore),*  
*M.Sc. (Peradeniya), M.Sc. (Food & Nutrition)(Peradeniya)*

Scientific Officer

Ms Sarani K Meneripitiya, *B.Sc. Special (Hons.) (Kelaniya)*

Scientific Officer

Mrs G G K P S Kumari, *B.Sc. Special in Agric. (Peradeniya)*

Scientific Officer

Ms. S S Ediriweera, *B.Sc. Special (Kelaniya), M.Phil. (Colombo)*

Scientific Officer

### Science and Technology Policy Research Division

Dr P R M P Dilrukshi, *B.Sc. Special (Hons) (Peradeniya),*  
*Ph.D. (Peradeniya)*

Head/ Senior Scientific  
Officer

Ms Chamika Dharmasena, *B.Sc. Special (Hons) (Colombo)*

Scientific Officer

Ms W M U K Rathnayake, *B.Sc. Special (Hons) (Wayamba)*

Scientific Officer

Ms M A D D Munasinghe, *B.Sc. Special (Agric.) (Hons) (Peradeniya)*

Scientific Officer

### International Liaison Division

Mr S M A W Anuruddha, *B.Sc. (Hons) (Colombo),*  
*M.Sc. (Colombo)*

Head/ Principal Scientific  
Officer

Ms A M N S Nadugala, *B.Sc. Agric. (Hons) (Peradeniya),*  
*M.Sc. (Asian Institute of Technology)*

Scientific Officer

Ms E M D C K Ekanayake, <i>B.Sc. Agric. (Hons) (Peradeniya), M.Sc. (Peradeniya)</i>	Scientific Officer
Ms K A T K G Kandanamulla, <i>B.Sc. Agric. (Hons) (Ruhuna), M.Sc. (Colombo)</i>	Scientific Officer
<b>Technology Division</b>	
Mr J G Shantha Siri, <i>B.Sc. (Hons) (Colombo), M.Sc. (Kelaniya)</i>	Head/Principal Scientific Officer w.e.f 15.12.2017
Ms D N Wickramarachchi, <i>B.Sc. (Hons) (The Open University), M.Sc. (Sri Jayewardenepura)</i>	Senior Scientific Officer
Ms P S Warakagoda, <i>B.Sc Agric. (Hons) (Ruhuna), M.Phil. (Ruhuna)</i>	Scientific Officer
<b>Science Popularization Division (SPD)</b>	
Mr K G Janaka Karunasena, <i>B.Sc. Agric. (Hons) (Peradeniya), M.Phil. Agric. (Peradeniya)</i>	Head/Principal Scientific Officer
Ms M D Senarathne, <i>Graduateship in Chemistry (I. Chem.)</i>	Scientific Officer / Head (Covering) up to 10.10.2017
Mr D M Dilan Rasika, <i>B.Sc. Special Agric. (Hons) (Peradeniya), M.Sc (Kyushu, Japan)</i>	Scientific Officer
<b>Journal Publication Unit</b>	
Dr S A V Moorthy, <i>B.Sc. (Jaffna), M.Sc. (Colombo), Ph.D. (Colombo)</i>	Head (Covering )/ Principal Scientific Officer
Ms Uthpala Karunarathne, <i>B.Sc. Special (Hons) (Kelaniya)</i>	Scientific Officer
Ms R A A R Ranatunga, <i>B.Sc. Special (Hons) (Colombo)</i>	Scientific Officer
Dr H I Sandanayake, <i>B.V.Sc. (Peradeniya)</i>	Scientific Officer
Mrs S Samarasekera, <i>B.Sc Special (Hons.) (Sri Jayawardenapura) B.Sc (Economic &amp; Mgt.) (Uni. of London)</i>	Scientific Officer
<b>Director's Office</b>	
Ms G R P I Abeysiri, <i>B.Sc Agric. Special (Wayamba)</i>	Scientific Officer
<b>National Science Library and Resource Centre (NSLRC)</b>	
Mr Manuja Karunarathne <i>B.Sc. (Kelaniya), M.Sc. (Kelaniya)</i>	Head/Principal Information Officer w.e.f. 06.11.2017
Ms A Tennakoon, <i>B.Sc. (Kelaniya)</i>	Head (covering)/Information Officer Up to 05.11.2017
Ms R P Sugathadasa, <i>B.Sc. (Sri Jayewardenepura)</i>	Information Officer
Mr Pujitha D Hewawasam, <i>B.Com. (Swinburn University)</i>	Information Officer
Ms M Niyas Thasneem, <i>B.Sc. (Southern University)</i>	Information Officer

## Printing Unit

Mr K P Senanayake

Printing Manager

## Administration Division

Mr P Sapumohotti, *B.Sc. (Peradeniya),  
Master of Public Management (SLIDA)*

Senior Administrative Officer

Ms B T Wickremasinghe, *B.Sc. (Sri Jayewardenepura)*

Procurement & Transport  
Officer

## Finance Division

Ms T D P P Samaranyake, *Professional Part II of ICASL*

Senior Accountant / Head  
Administration & Finance  
(Covering) up to 15.12.2017

Ms E M P Bamunendra, *B.Com. (Sri Jayewardenepura)  
Licentiate Certificate of ICASL*

Accountant

## Internal Audit Unit

Ms M M Jayajewani, *B.Sc., B.Ad. Special (Sri Jayewardenepura)*

Internal Auditor

## IT Unit

Mr H M M Perera, *MBCS*

IT Manager

Mr W A B Fernando, *B.Sc. (Networking) (Wolverhampton)*

## Confidential Secretaries

Ms Sobitha Wijenayake, *B.Com. Special (Sri Jayewardenepura)*

(Chairperson's Office )

Ms Ayomi Palihawadana

## Recruitment during the year 2017

Dr Thamara F Dias	Additional Director	from 12.10.2017
Mr K G Janaka Karunasena	Principal Scientific Officer	from 25.10.2017
Mr J G Shanthasiri	Principal Scientific Officer	from 25.10.2017
Dr S A V Moorthy	Principal Scientific Officer	from 25.10.2017
Mr Manuja Karunarathne	Principal Information Officer	from 06.11.2017

## Resigned during the year 2017

Mr K H N D Rupasinghe	30.06.2017
Ms S T Gonapinuwala	13.07.2017
Ms M Prishanthini	05.10.2017

## Retired during the year 2017

Mr R P D Sunil	06.03.2017
Mr K A Ranatunga	31.03.2017
Mr D D Siripala	02.05.2017

## NSF Committees

- Research Advisory Board

- Working Committee on Agriculture & Food Science
- Working Committee on Basic Sciences
- Working Committee on Biotechnology
- Working Committee on Oceanography and Marine Resources
- Working Committee on Environment & Biodiversity
- Working Committee on Health Sciences
- Working Committee on Engineering, Architecture and ICT
- Working Committee on Library and Information Services
- Working Committee on Technology
- Working Committee on Science & Technology Policy Research
- Working Committee on Social Sciences
- Working Committee on Indigenous Knowledge
- Working Committee on International Liaison
- Working Committee on Bioethics
- Working Committee on Workshop and International Grants
- Working Committee on Science Popularization
- Working Committee on STEM Education

- Steering Committee on Climate Change & Natural Disasters
- Steering Committee on Food Security
- Steering Committee on Research Programme on Health Science
- Steering Committee on Special Project on Cinnamon

- Editorial Board of the JNSF (Journal of the National Science Foundation of Sri Lanka)

- Editorial Board of the SLJSS (Sri Lanka Journal of Social Sciences)

- National Committee on Man and the Biosphere

## **Chairperson's review**



I am pleased to present the Annual Report of National Science Foundation (NSF), Sri Lanka for the Financial Year 2017 (FY 2017). The NSF having its roots in the National Science Council (established in 1968) and its successor the Natural Resource Energy and Science Authority (NARESA - established in 1981) was established in 1998 as a Statutory Body under the Science and Technology Development Act No. 11 of 1994. Its mission is to initiate, facilitate and support research, development, innovations and technology transfer through funding, knowledge creation, building capacities and partnerships, information dissemination and popularization of Science. Through this performance report for FY 2017 we attempt to demonstrate our accountability to the stakeholders and the People of Sri Lanka.

A total of 524 researchers working in 51 universities and research institutes in Sri Lanka were supported for research and technology development through 147 NSF grants to the value of LKR 134.9 M of which 55 grants were newly awarded in 2017. These grants also supported living expenses as stipends of 21 NSF scholars, 64 research students, 2 research scientists and one post-doctoral scientist. The research capacity of 4 institutions and universities were enhanced with 6 Equipment Grants awarded to the value of LKR 7 M.

Design and construction of remotely operated under water vehicle, wireless pad based vehicle weighing system, locally developed DNA extraction kits, smart device for power restoration, improved paddle thresher for paddy, coconut de-husking machine, drying and pelletizing machine for waste polythene are among the 10 new pilot products completed with technology grants in FY 2017. The new knowledge generated through some of the 43 completed NSF research grants in FY 2017 included identification of protein segments in the dengue virus that can stimulate neutralizing antibody production in the human body as a new vaccine candidate for dengue; development of a recombinant yeast system that can produce cellulose and xylanase capable of direct ethanol production from woody/dry plant material; development of a new cryo-preservation method for conserving the germplasm of coconut; identification of new bacterial strains that can eat up heavy metals showing potential application for heavy metal bioremediation, especially in textile dyeing industry; and a new bacterial strain antagonistic towards gastric ulcer causing *Helicobacter pylori* bacterium showing potential to be used in probiotic formulations and the development of a laboratory scale affordable hybrid reactor for oil wastewater treatment.

Two budget proposals to support programmes on health and cinnamon research initiated in 2016, continued with additional allocations of Rs.100M and 35M respectively in FY 2017. With this funding, the NSF supported 22 research projects under the Research Programme on Health Science (RPHS) and 5 projects under the Cinnamon Research Programme in 2017.

NSF expanded its international activities with German Academic Exchange Service in April 2017 and Japan Science and Technology Agency in October 2017 through Memoranda of Understanding to support collaborative research by Sri Lankan scientists with scientists in these countries. The 1<sup>st</sup> joint workshop organized by the NSF

and National Natural Science Foundation, China was held in Beijing, China on the themes CKDu & Health Science and Water & Environmental Sciences in July 2017. The Second Joint Committee meeting between NSF and Pakistan Science Foundation was held in Islamabad, Pakistan in September 2017 selecting 6 projects for funding. The Asia Pacific Regional Meeting of the Global Research Council was held in November 2017 in Colombo with 41 participants from 19 countries and was jointly organized by the NSF and the New Zealand Ministry of Business, Innovation and Employment.

NSF is the main organization which provides funding for overseas travel for local scientists. In FY 2017, the NSF supported 99 scientists and technologists for international collaborations to develop joint research programmes, capacities and networking through its Travel Grant Scheme and Overseas Science and Technology Programme (OSTP), by providing a total of LKR 45.1 M. It also supported the Sri Lankan Scientists to get down 27 foreign scientific experts as resource persons to visit Sri Lanka through its International Partnerships for Science and Technology (IPSAT) Programme by spending LKR 4.2 M.

It is encouraging to note that the increase in the number of SUSRED awards from 24 (2016) to 45 in 2017. I express my best wishes to the 45 recipients of the awards for Supervision of Research Degrees (SUSRED) and TWAS/NSF Young Scientists Awards. These awards will boost research spirit of scientists and increase their contribution to the national development.

I am pleased that two students trained through the NSF's Science Research Projects Competition (SRPC) and nominated by the NSF, for the first time won a Grand Award at the Intel International Science & Engineering Fair 2017, held in Pittsburgh, Pennsylvania, USA. The two students also won a special Award (Mawhiba's Special Award) at the special award ceremony of the Intel ISEF 2017.

During the year under review, of the 144 approved cadres, 28 vacancies existed. Due to delay in obtaining approval for finalized Scheme of Recruitment (SoR), vacancies were covered with temporary appointments and assignments. 2017 was particularly a challenging year to the management as temporary arrangements had to be made to cover the senior most positions of the Director General (the Chief Executive Officer), Additional Director and Head Administration and Finance.

Unpredictable trends in releasing funds from the Treasury continued into FY 2017, creating uncertainties that severely affected the planning and implementation of programmes and projects and prevented quick decision making where required. Despite these constraints, I am happy to record that NSF performed well both physically and financially, utilizing the entire allocation of Rs. 260m for FY 2017 and am particularly pleased to have received an unqualified audit opinion from the Auditor General for 2016.

The unstinted cooperation and direction given by Hon. Susil Premajayantha, Minister of Science Technology and Research is greatly acknowledged. I am grateful to all the staff at NSF who worked hard amidst many constraints, especially to Dr Jayantha Wattavidanage, who acted for Director General, and Dr Thamara F. Dias who covered the duties of the Director General for implementation of the activities to achieve the goals of NSF. They were supported by the Board of Management, 17 Working Committees with the pool of 160 research evaluators, Research Advisory Board, Steering Committees of thematic research programmes and the Editorial Boards that led the Foundation in 2017 to be a driving force for promoting science, technology and innovation in the country.

**Prof. Sirimali Fernando**  
Chairperson

# Director General's Report

The Director General's report contains a summary highlighting the main achievements, the information on Special Projects followed by a detailed account on the work performed under the 6 Major Programmes



# SUMMARY

The following highlights the NSF performance in 2017.

- The NSF worked hard towards completing the planned activities. It is difficult to measure and depict as a % the exact physical progress made during the year according to the action plan. Some actions planned for the year could not be performed due to various reasons. Together with other activities introduced in the middle of the year bringing revisions to the Action Plan, the NSF was able to spend a sum of Rs. 260 Mn, the total allocation, granted by the Treasury to carry out the functions as stipulated in the Science & Technology Development Act no. 11 of 1994. The total physical and the financial progress made during the year under the six major programmes are graphically depicted in *Figures 3 & 4*.

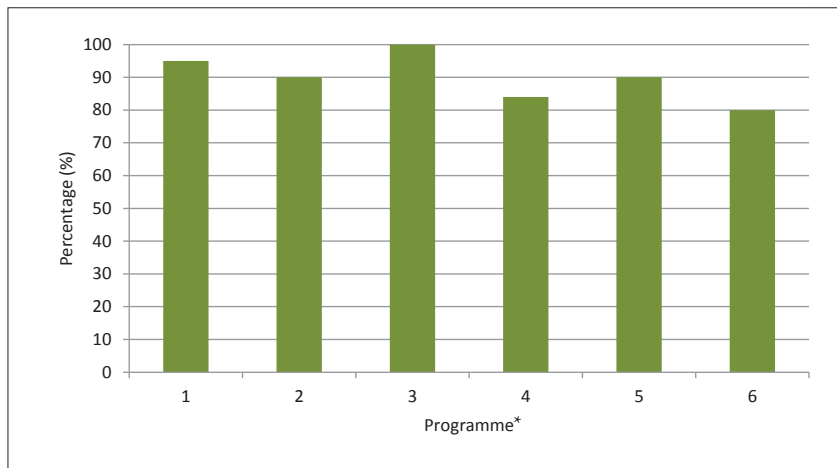


Figure 3: Physical performance 2017

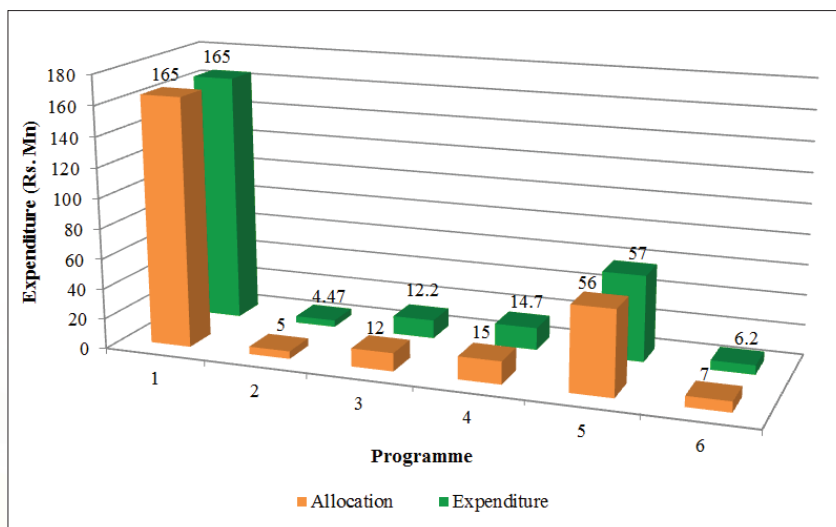
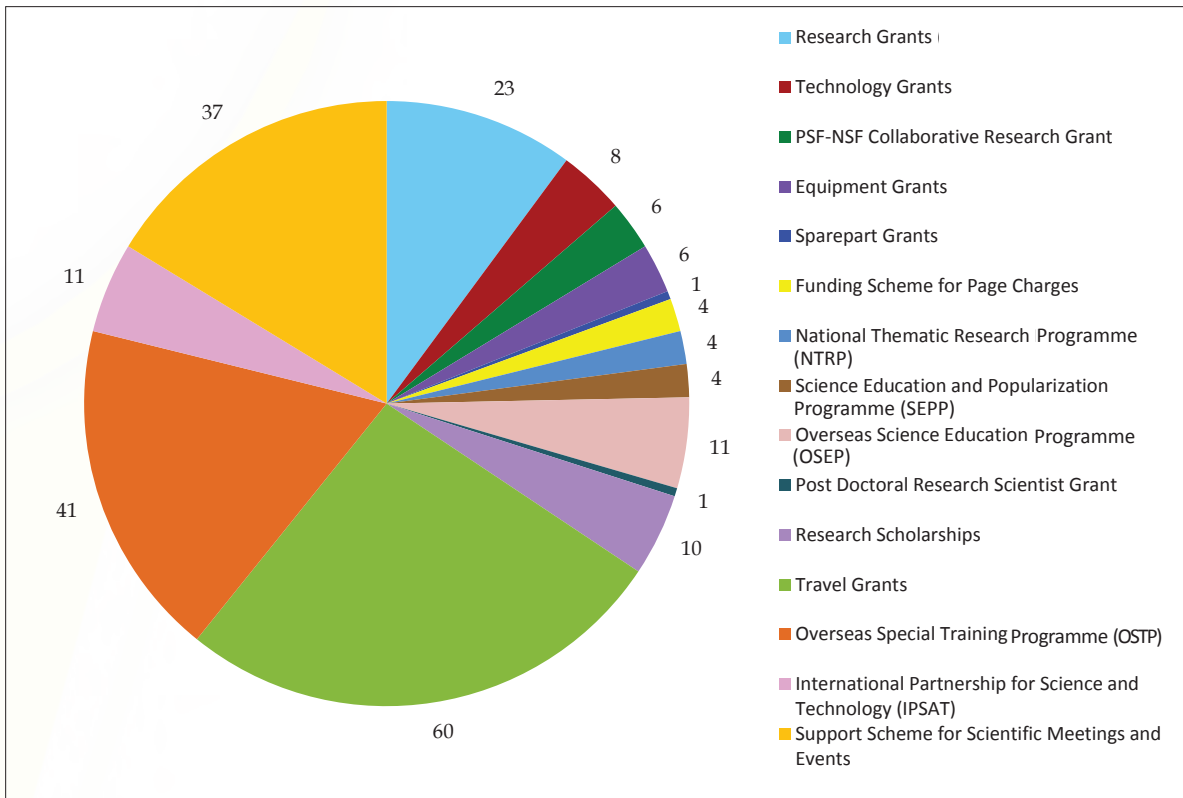


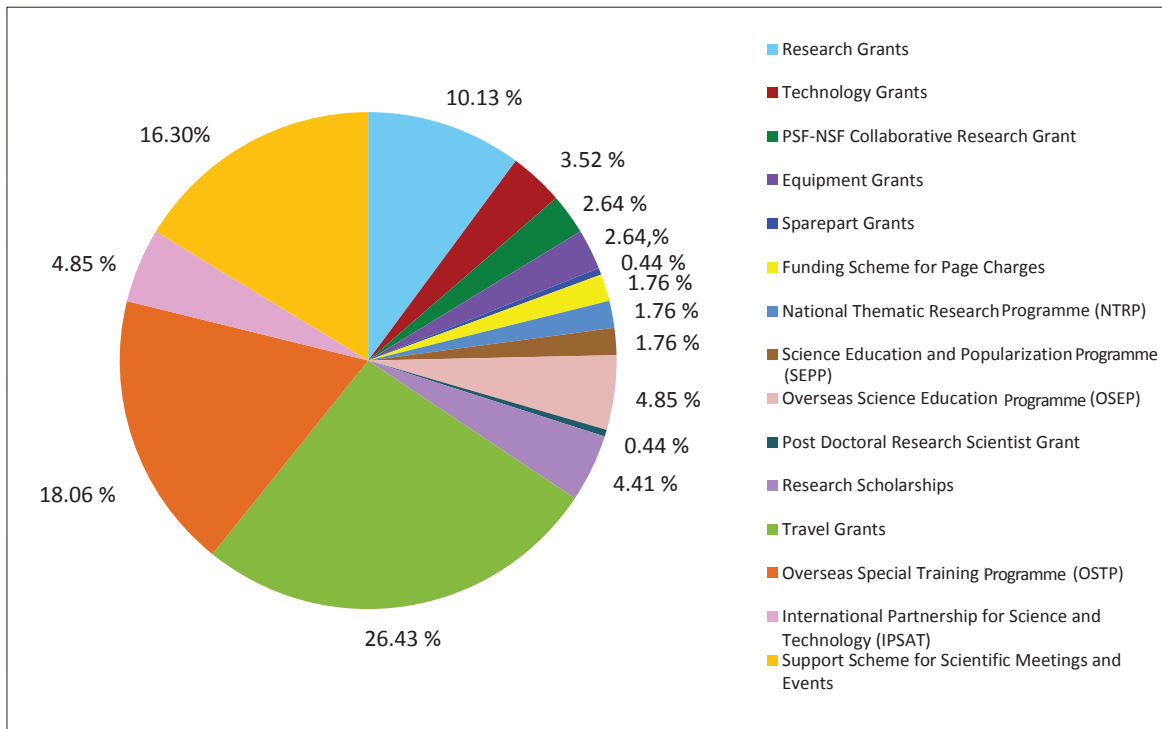
Figure 4: Financial performance 2017

\* Refer to Page 39 for the titles of the programmes 1-6.

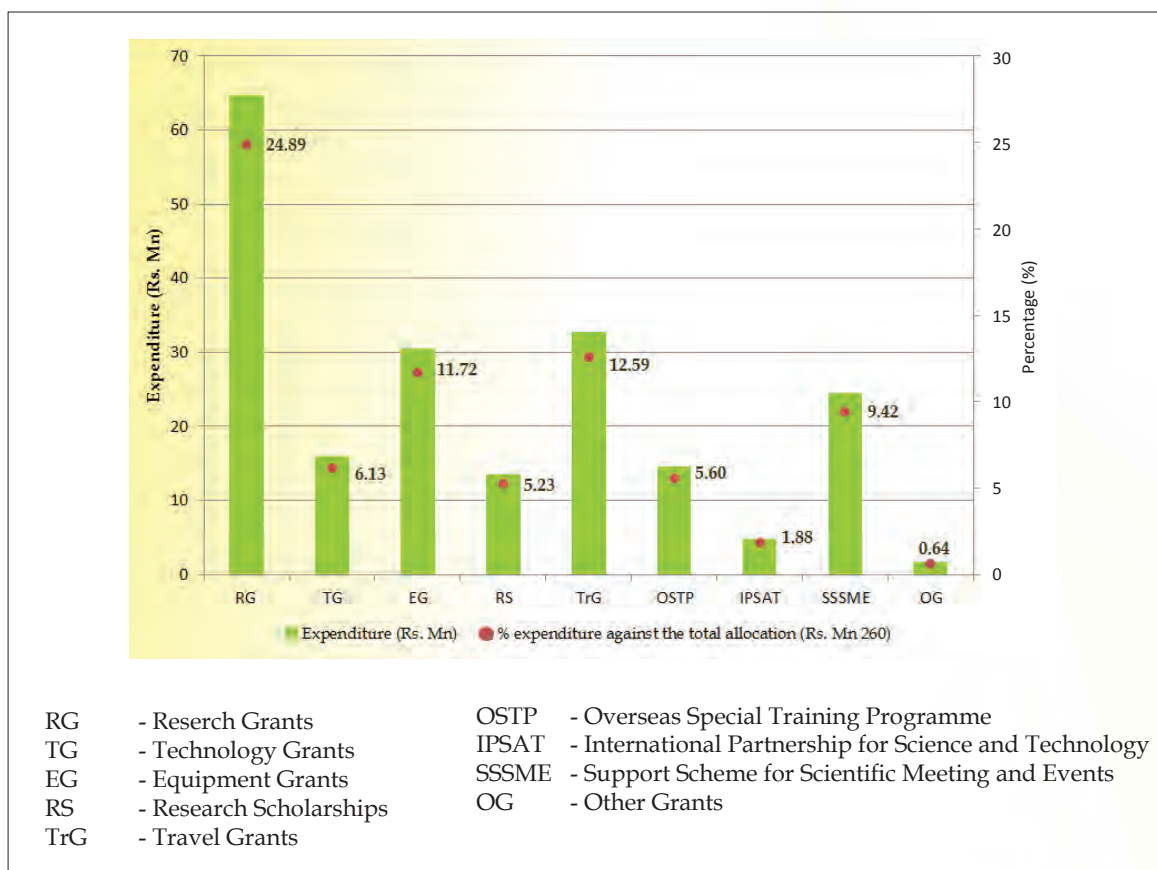
➤ The support provided under different grant schemes during the year is summarized in the following graphs (Figures 5, 6 & 7).



**Figure 5:** Number of grants awarded under different grant schemes

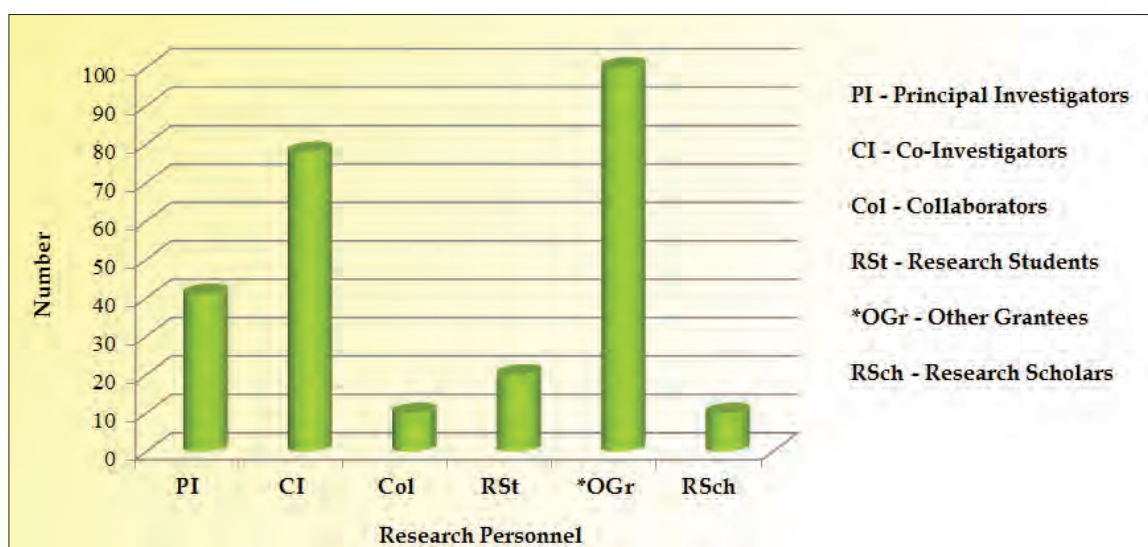


**Figure 6:** Scheme performance as a % against the total number of grants (227)



**Figure 7:** Financial support provided under different grant schemes

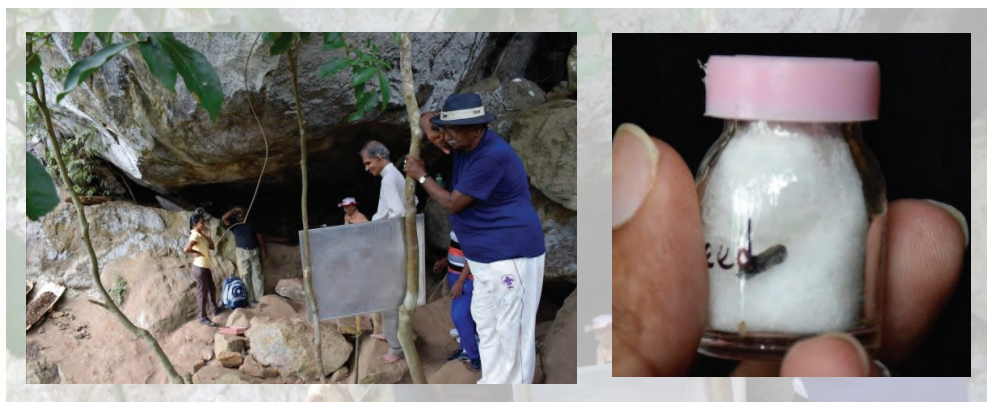
Other Grants depicted in *Figure 7* include the grants awarded under Overseas Science Education Program (OSEP) (Rs. 0.08195 Mn), Post Doctoral Research Scientist Grant (Rs. 1.295 Mn), Funding Scheme for Page Charges (Rs. 0.216 Mn) and National Thematic Research Program (NTRP) (Rs. 0.07225 Mn) where Rs. 1.67 Mn was spent.



**Figure 8:** Research personnel supported under different schemes in 2017

*Note :* Research personnel supported under number of different schemes being executed in 2017 are included in this category.

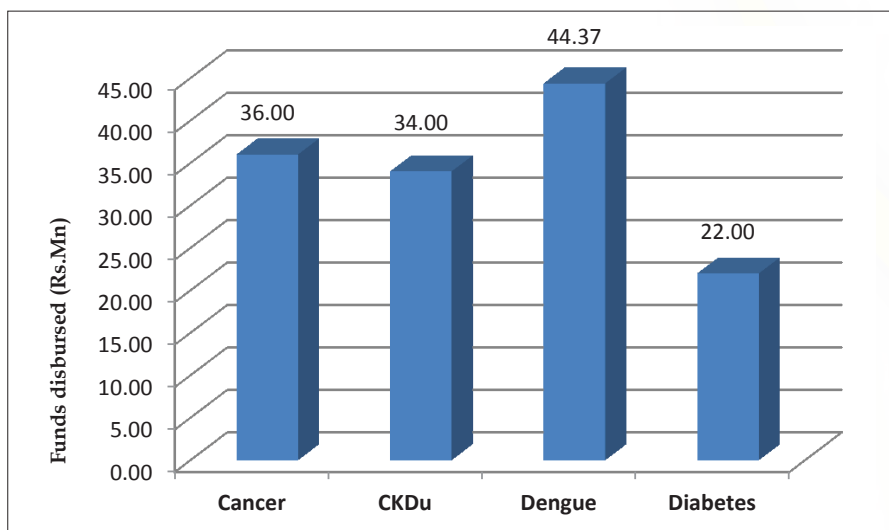
- The Research project titled “Climate Change and the Human Adaptations in Early and Middle Holocene in Sri Lanka” revealed important evidence for use of grains (not in raw form) by people in Balangoda which had been carbon dated to 4350 BC.



- Food Security Programme under NTRP was successfully completed.
- As a result of implementing M-advertising strategy implemented giving publicity to “the Support schemes for Technology Development” and Start-up Businesses based on Novel Technologies, over 700 queries were received from different stakeholders. All these queries were attended with positive responses.
- Following Technology Grants outputs were recognized at national level competitions
  - The project, TG/2016/Tech-D/01, was awarded the 1<sup>st</sup> place at Seedstars national level competition for development of non-invasive diagnostic method to diagnose vascular diseases. “Seedstars World” is one of the largest global pitching platform for start-ups which promotes, connects and invests up to \$1.0 million USD on emerging start-ups that win at the tech startup competition globally.
  - Sri Lanka Inventors Commission recognized the coconut de-husking machine developed under the project, 2015/Tech-D/06, by presenting the ‘Dasis Award’.
- Technology Division mentored a young inventor to improve his business plan and the inventor won the 3<sup>rd</sup> place at the competition “කෝටියක් වටින අදහසක්” organized by the “Sirasa TV”. The contestant acknowledged the NSF during his presentation.
- Established development cooperation with the Navy R&D Division for taking forward the technology grant output of the project (TG/2015/Tech-D/07) titled “Design and development of remotely operated under water vehicle (ROV)”.
- Biological pest control system developed under the Technology grant, TG/2014/Tech-D/01, for controlling cabbage pest was successfully implemented during 2017. The economic gain from the output of the project was Rs.103,555.00/ha/crop cycle according to the trial.

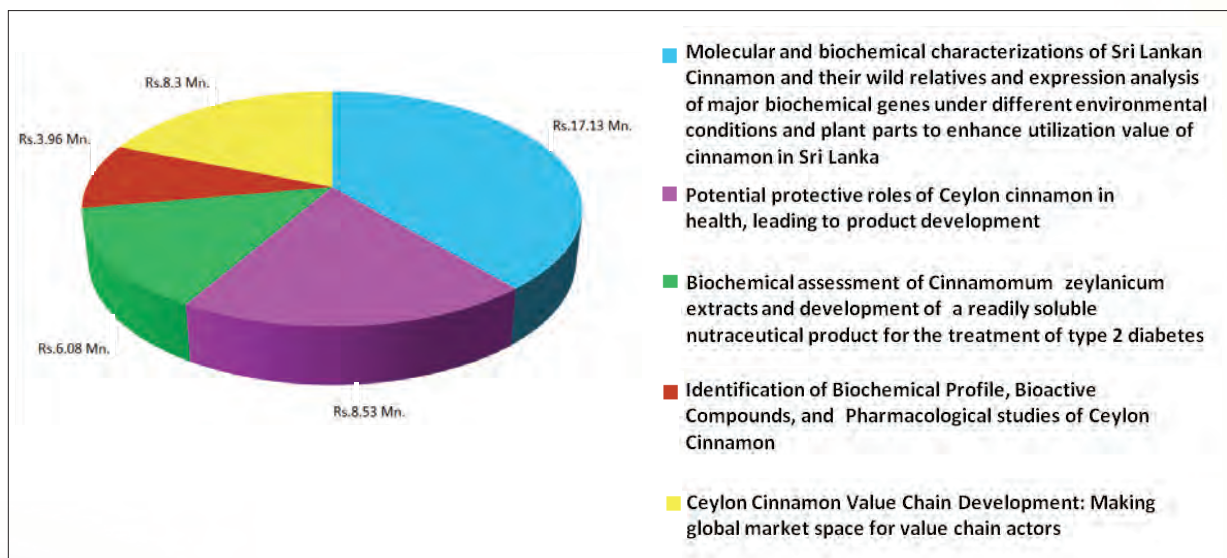


- NSF commenced a special project to support the health sector and improve health research. Research was carried out under four specific areas.



**Figure 9:** Fund disbursement under four areas in 2017.

- The special project on "Cinnamon and Cinnamon Research Related Activities" was in progress.



**Figure 10:** Fund disbursement under five projects during the year 2017

➤ The NSF conducted policy studies and published the following.

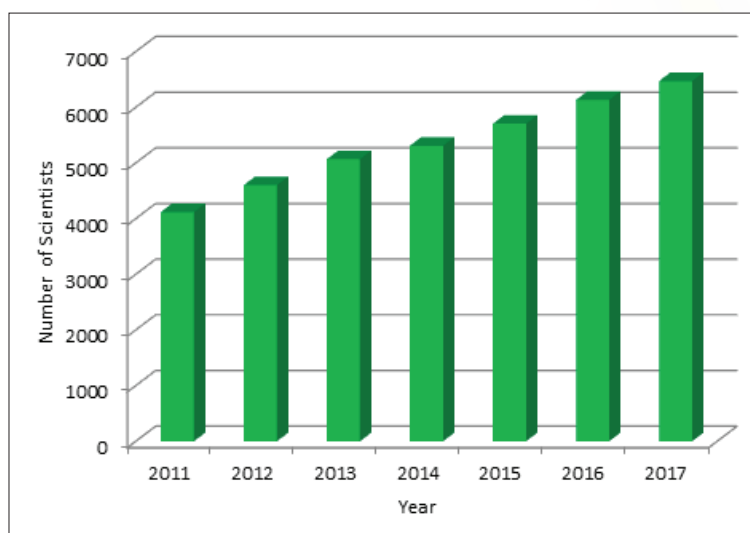
1. Sri Lanka Science, Technology & Innovation Statistical Handbook 2014
2. Report on "Social and Public Health Implications of Solid Waste Management in Sri Lanka"
3. "ගෙවිතැනේ හෙළ දැනුම" based on indigenous knowledge pertaining to agriculture farming practices in Sri Lanka
4. Policy brief on "Outbound migration from Sri Lanka: the way forward"
5. Report on "Developing National Projects on Big Data"
6. Report on "Managing Social and Economic Changes Towards Sustainable Development Goals (SDGs)"
7. Policy Brief on "Indigenous Knowledge to achieve Sustainable Development Goals"



➤ A programme to make aware scientists the use of Big Data in evidence-based policy research was implemented.



- The total number of scientists registered in the Science and Technology Management Information System (STMIS) database was increased up to 6,470 (Figure 11). Work on upgrading the STMIS database was in progress.



**Figure 11:** Patten of development of the STMIS during from 2011-2017

- The Impact Factor of the JNSF was raised from 0.277 to 0.42 due to hard work performed by the Journal publication Unit.
- Sri Lanka Journal of Social Sciences was selected to be indexed in the SCOPUS Citation & Abstracting Database.
- Phase III of the National Digitization Project demonstrated considerable progress. Over 44% of the digitization work at eight (8) institutions out of fifteen institutions planned for phase III was completed.
- Sri Lanka Journals Online (SLJOL) was being operated successfully with 75 journals of local origin. The standards were introduced to the journals in SLJOL according to the Journal Publishing Practices and Standards (JPPS) framework which contains internationally recognized high standards of publishing and follows editorial best practices.
- Grand Award was won for the first time in the history at the Intel International Science & Engineering Fair (ISEF) by a student for the science project titled “Micro and Nano engineering for wastewater: magnetized biochar and nanoparticle composite for toxic Cr (VI) removal” mentored under the Science Research Project Competition (SRPC) conducted by the NSF (Description is given in pages 95-96).
- Prepared the Science, Technology, Engineering & Mathematics (STEM) Action Plan and the Interim Report on STEM Education and submitted to the Ministry of Science, Technology and Research and the Ministry of Education for follow up.

- Established S & T cooperation by signing MOUs and began joint research collaborations with;
  - Japan Science and Technology Agency (JST)
  - Pakistan Science Foundation (PSF)
  - National Natural Science Foundation of China (NSFC)



- Multilateral activities took place as follows;
  - Asia Pacific Regional Meeting of the Global Research Council (GRC) was held from 29<sup>th</sup>-30<sup>th</sup> November, 2017 in Colombo with forty-one (41) participants from nineteen (19) countries.
  - The Workshop on “Research Management” was successfully conducted on the 27<sup>th</sup> November, 2017.
  - A Planning meeting to establish the ICGEB Regional Research Centre (RRC) in Sri Lanka was held from 2<sup>nd</sup>-8<sup>th</sup> November, 2017.
  - ICGEB - CRP Proposal Writing Workshop was held on the 7<sup>th</sup> November, 2017.



- A collaborative workshop on “Women in Science” was organized in collaboration with Sri Lanka Academy of Young Scientists (SLAYS), Prof. Geraldine Richmond of University of Oregon being the Chief Resource Person of the event.
- The NSF functioned with a staff of 122 at the beginning of 2017 and the figure decreased to 116 by the 31<sup>st</sup> of December, 2017.

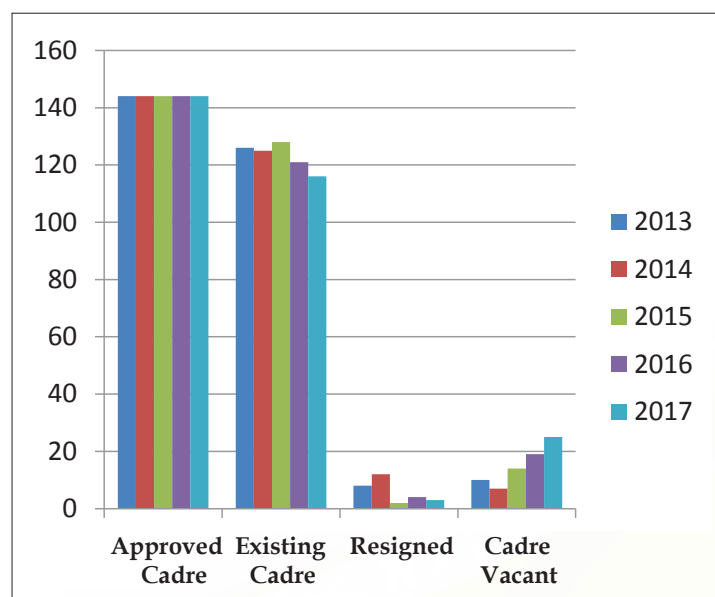


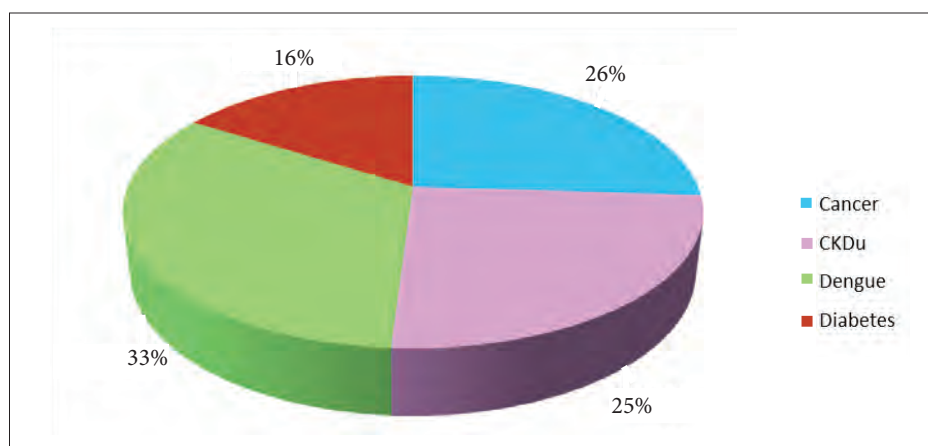
Figure 12: Staff status from 2013 - 2017

**The NSF was entrusted with carrying out special projects of national importance relating to the health science and minor export crops (Cinnamon).**



## **RESEARCH PROGRAMME ON HEALTH SCIENCE (RPHS)**

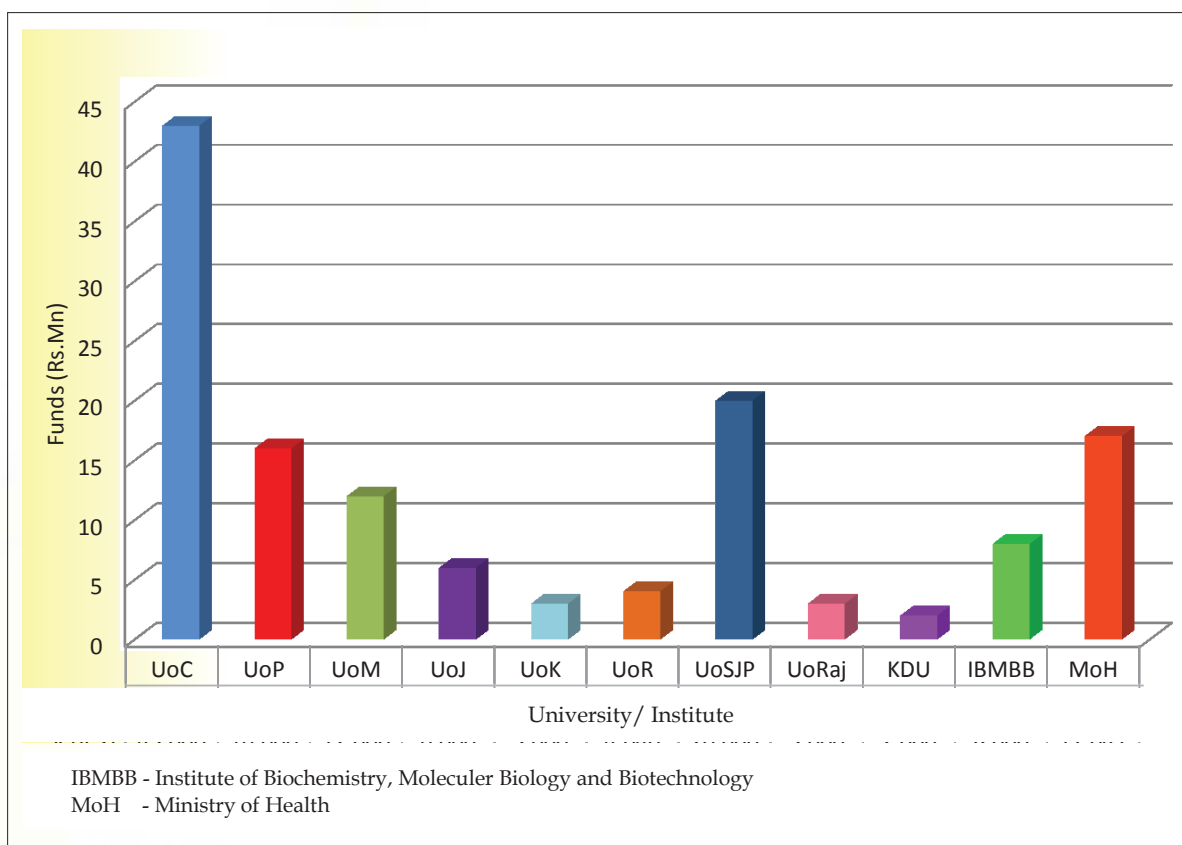
Having recognized the need to improve R & D in the health sector, the government of Sri Lanka allocated Rs. 250 Mn in 2016 and Rs. 100 Mn in 2017 to support research in four key national priority areas in health; Diabetes, Dengue, Chronic Kidney Disease of unknown aetiology (CKDu) and Cancer. The NSF conducted a Research Summit "Empowered by Research & Innovation" in 2016 giving special reference to Health sector research to identify the specific issues under the four areas for funding. Accordingly, using the total disbursements received by the NSF to carry out health research, a total of Rs. 136.37 Mn was distributed to conduct 22 special projects under the four main areas as graphically presented below.



**Figure 13:** Fund disbursement under four areas of health research

Seven research teams are working on CKDu and another seven research teams are carrying out research in the area of cancer. Two teams also are conducting research in the area of Diabetes where as six research teams are carrying out research in the area of Dengue. The description is given in *Annex 01*.

This RPHS has benefitted 22 Principal Investigators and 55 Co-Investigators and in some instances, with foreign collaborations. A strong capacity building component is built into this special project. Currently, 54 research students have registered for post graduate degrees with



**Figure 14:** Allocation of funds to different institutions

32% leading up to PhDs. 14 post doctoral and other research scientists are working with them. In total, 09 universities out of the 15 in the state sector university system are benefitted. The Ministry of Health, Nutrition and Indigenous Medicine is also actively involved in the research programme. Through this research, the NSF has been able to extensively reach out to Universities and Institutes across the country with funding as shown in *Figure 14*.

Key feature of the RPHS is to promote international collaborations by supporting staff training, participation in conferences and engagement of foreign expert in research work. Already 02 research scientists have attended conferences overseas, 02 research students have applied for overseas training and 01 foreign expert is assisting research activities in Sri Lanka.

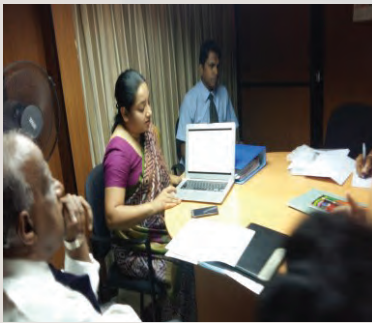
Monitoring of progress of the projects is done by visiting the project sites and conducting review sessions periodically (quarterly and half yearly).



*Progress review at University of Peradeniya*



*Progress review at National Cancer Institute, Maharagama*



*Progress review at University of Colombo*

Research related to epidemiology studies has made good progress in the areas of Diabetes, Dengue and CKDu. Dengue epidemiology work covers the Southern, Northern, Western (including Colombo and Gampaha districts) and Eastern Provinces leading to development of surveillance and early warning systems including a Dengue dash board as a tool. Work on Dengue pathogenesis is also progressing well. The Diabetes foot research and development of biomedical tools and devices has shown promising results. Work on health information systems in Cancer funded by the NSF has led to a possible linking of Hospital Information System (HIS) to the electronic Morbidity and Mortality system (eMMIR) at the National Cancer institute, Maharagama. Estimation of disease burden from CKD/CKDu on dialysis units is in progress. While work on aetiology of CKDu is being vigorously pursued, histopathological study in the CKDu endemic areas has commenced. In Cancer research, molecular work is in progress while progress has also been observed in biomarker related work and development of anti-cancer compound libraries. Based on the work carried out so far, two journal publications are in preparation.

### **Establishment of National Science Foundation Research Collaboration Centres (NSF-RCCs)**

A proposal titled “Establishment of National Science Foundation Research Collaboration Centres (NSF-RCCs)” was submitted to the Department of National Planning, Ministry of Finance. The NSF-RCCs are envisaged to build and sustain motivated and dedicated multi-disciplinary, multi-institutional research & development teams and partnerships with renowned international institutes and companies.



## **RESEARCH & RESEARCH RELATED ACTIVITIES ON CINNAMON**

Sri Lanka has a great potential for leveraging its socio-economic development by harnessing full potential of the global cinnamon market through exportation of value-added cinnamon products, especially pharmaceuticals related Ceylon cinnamon products. However, a systematic research is yet to be carried out in associated fields such as clinical trials, chemical characterization and value chain analysis leading to value added products. Major challenges in introducing value added cinnamon products to the global market are maintaining quality consistency, traceability and repeatability.

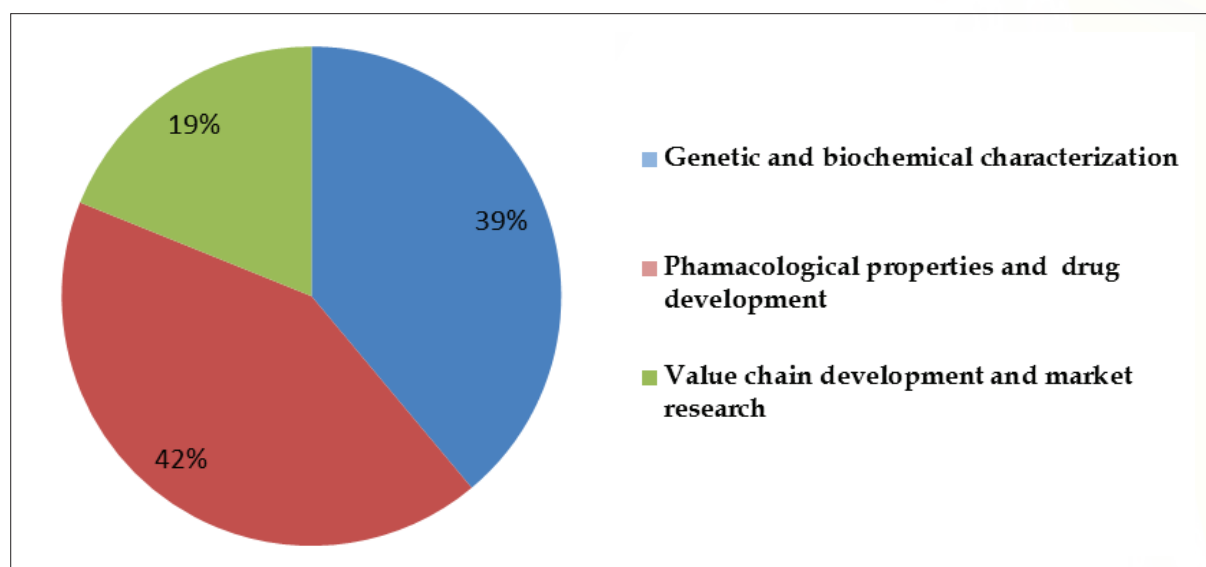
The Ministry of Primary Industries and the National Science Foundation collaboratively implemented the Special Project on Cinnamon addressing these issues. Accordingly, five projects were funded under three thematic areas in order to better reach the global market. The progress of the five projects is being monitored continuously and systematically in order to obtain the envisaged deliverables.

Theme	Project Title
Genetic and biochemical characterization	Molecular and biochemical characterizations of Sri Lankan Cinnamon and their wild relatives and expression analysis of major biochemical genes under different environmental conditions and plant parts to enhance utilization value of cinnamon in Sri Lanka
Pharmacological properties and drug development	Potential protective roles of Ceylon cinnamon in health, leading to product development
	Identification of Biochemical Profile, Bioactive Compounds, and Pharmacological studies of Ceylon Cinnamon
	Biochemical assessment of <i>Cinnamomum zeylanicum</i> extracts and development of a readily soluble nutraceutical product for the treatment of type 2 diabetes
Value chain development and market research	Ceylon Cinnamon Value Chain Development: Making global market space for value chain actors

The progress of the five projects is evaluated by the NSF with the support of the Project Coordinator (after signing a MoU) and the Steering Committee appointed by the NSF. Two funding cycles took place and *Table 2 & Figure 15* summarize the funds disbursed under three themes during the year.

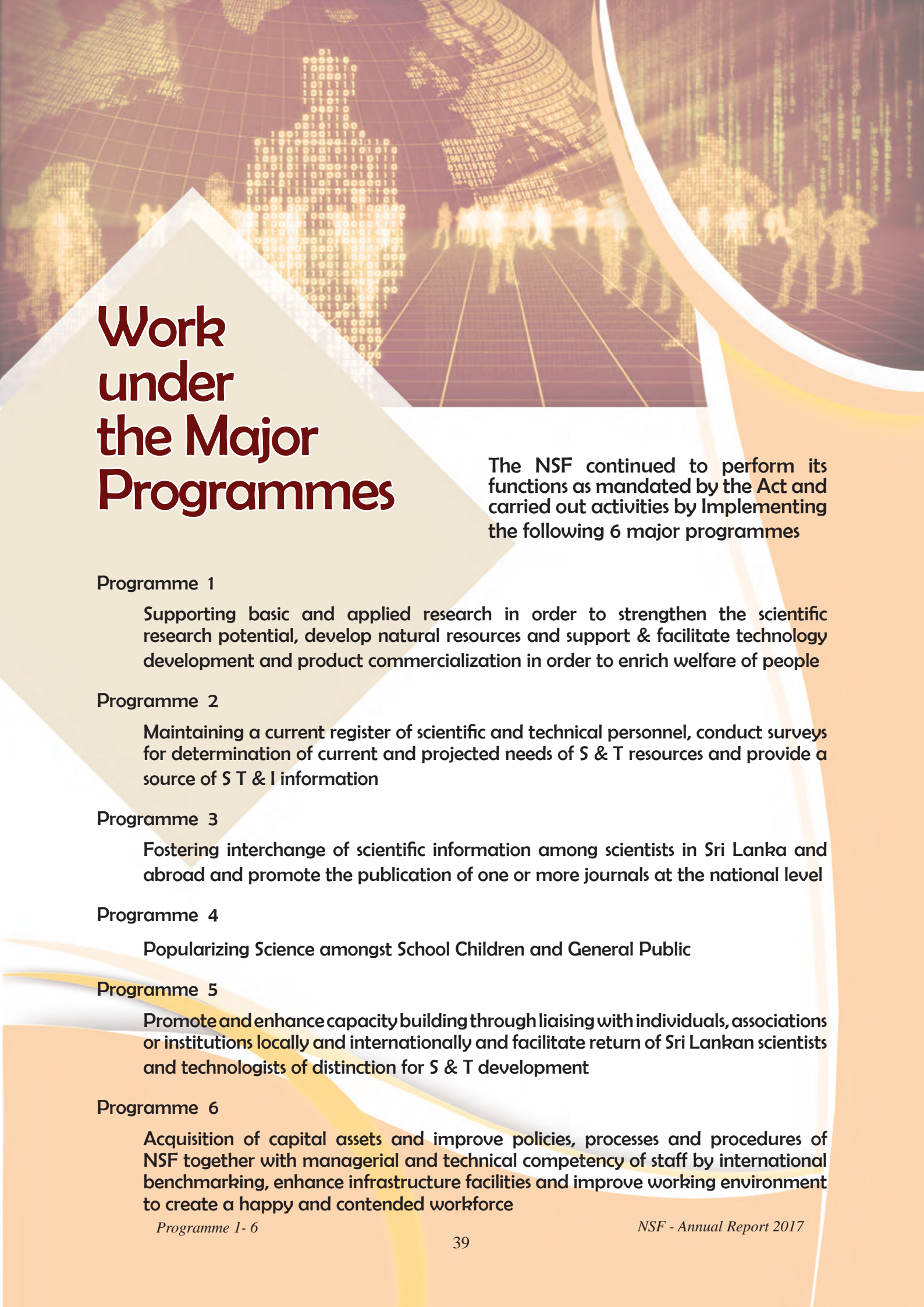
**Table 2:** Funds disbursed under three themes

Theme	Amount Disbursed (Rs.Mn)
Genetic and biochemical characterization	17.13
Pharmacological properties and drug development	18.57
Value chain development and market research	8.30
Total	44.00



**Figure 15:** Fund disbursement (%) under three themes





# Work under the Major Programmes

The NSF continued to perform its functions as mandated by the Act and carried out activities by Implementing the following 6 major programmes

## Programme 1

Supporting basic and applied research in order to strengthen the scientific research potential, develop natural resources and support & facilitate technology development and product commercialization in order to enrich welfare of people

## Programme 2

Maintaining a current register of scientific and technical personnel, conduct surveys for determination of current and projected needs of S & T resources and provide a source of S T & I information

## Programme 3

Fostering interchange of scientific information among scientists in Sri Lanka and abroad and promote the publication of one or more journals at the national level

## Programme 4

Popularizing Science amongst School Children and General Public

## Programme 5

Promote and enhance capacity building through liaising with individuals, associations or institutions locally and internationally and facilitate return of Sri Lankan scientists and technologists of distinction for S & T development

## Programme 6

Acquisition of capital assets and improve policies, processes and procedures of NSF together with managerial and technical competency of staff by international benchmarking, enhance infrastructure facilities and improve working environment to create a happy and contented workforce





# Programme 1

Supporting basic and applied research in order to strengthen the scientific research potential, develop natural resources and support & facilitate technology development and product commercialization in order to enrich welfare of people



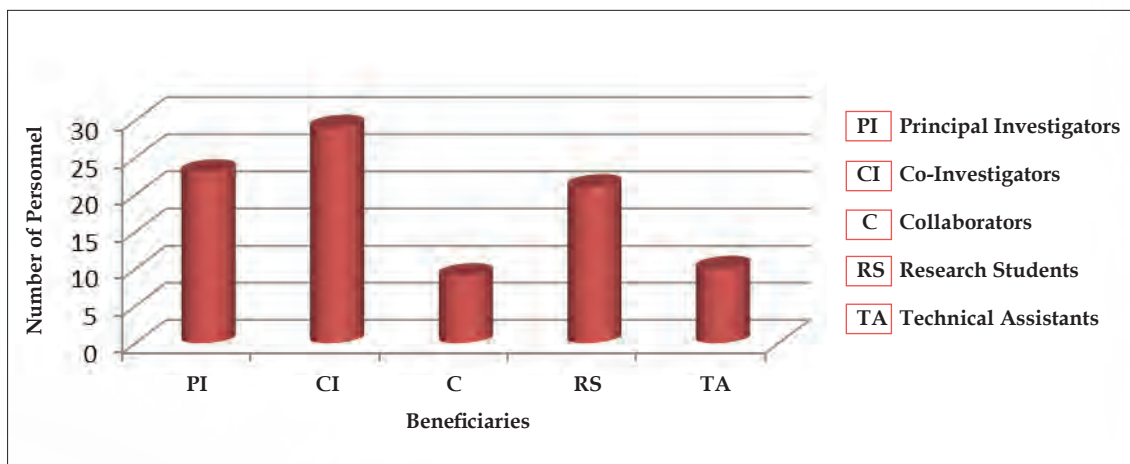
*The National Science Foundation focuses on promoting R & D and Innovation through various grant schemes and projects helping to create a knowledge-based economy by technology development and initiating start-up businesses by all categories of people in the country.*

## Competitive Research Grants Scheme

The 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 & Technology.

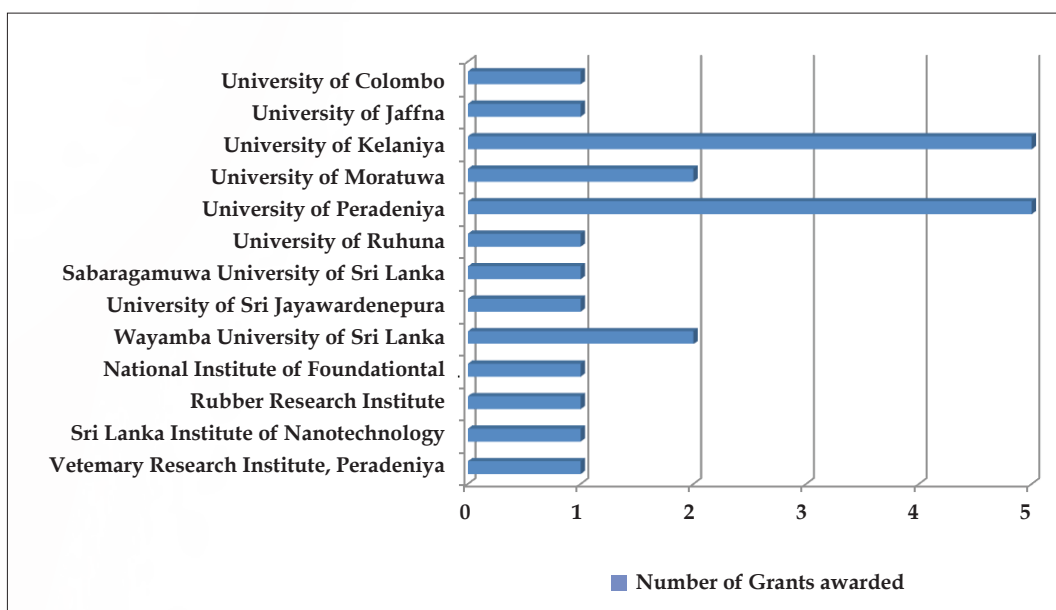
As per the directive of the Board of Management, NSF entertained Competitive Research Grant applications throughout the year in 2017. Thirty seven (37) applications received in the latter half of 2016 and 15 applications received in the first half of 2017 were processed and 23 new grants were awarded in 2017. Details of grants awarded are given in *Annex 2*. Fifteen (15) applications received in the latter part of 2017 were being processed to be awarded in 2018.

Twenty three (23) Principal Investigators, 29 Co-Investigators, 09 Collaborators, 20 Research Students and 10 Technical Assistants have benefited by the grants awarded in 2017 (*Figure 16*).



**Figure 16:** Number of beneficiaries under the Competitive Research Grants awarded in 2017

The new grants awarded are distributed among 09 National Universities and 04 Research Institutes as shown in *Figure 17*.



**Figure 17:** Distribution pattern of Research Grants awarded in 2017

A total of 42 grants were completed in 2017. Details are given in *Annex 3*.

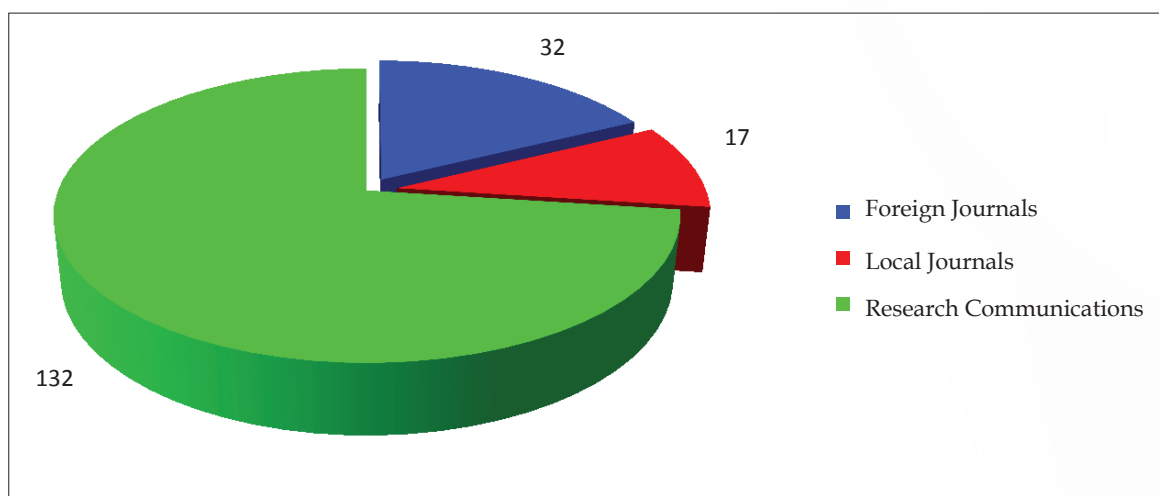
During the year, 21 Research Students registered for postgraduate degrees. Four postgraduate degrees (01 PhD and 03 MPhil) that had commenced before, were completed.

Funds were released for 64 ongoing projects based on financial needs and satisfactory progress. The status of ongoing Research Grants as at 31.12.2017 is given in *Annex 4*. During the year, 11 Progress Review Seminars were held at the NSF to assess the progress of ongoing projects. One on-site progress review was held at the Institute of Post-harvest Technology, Anuradhapura on 30<sup>th</sup> June, 2017. This review was attended by the Working Committee on Agriculture and Food Science together with the NSF Scientific Officers.



*On-site Progress Review held at the Institute of Post-harvest Technology, Anuradhapura*

A total of 181 publications were resulted from the projects funded by the NSF in 2017. Out of those there were 32 publications in foreign journals and 17 in local journals (*Figure 18*). In addition, two patents were originated from a grant awarded in the field of Engineering, Architecture and Information Communication Technology.



**Figure 18:** Publications arising from ongoing grants in 2017

## Research Grant Outputs

**Grant No** : RG/2014/BT/03

**Investigators** : **Dr Charitha Lakshini Goonasekara**, Faculty of Medicine, General Sir John Kotelawala Defence University, Kandawala Estate, Rathmalana

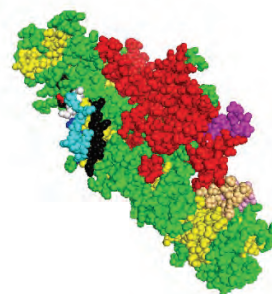
**Dr Prasad Premaratne**, Faculty of Medicine, General Sir John Kotelawala Defence University

**Prof. Roshan Perera**, Director, KDU-CARE, General Sir John Kotelawala Defence University

**Project Title** : Development of a vaccine candidate with a broadly reactive neutralizing immune response against dengue

This study proposed an alternative strategy to the commonly used tetravalent-type vaccine design strategy to focus on conserved epitopes and therefore, aimed to identify a conserved DENV protein epitope that elicit broadly cross-reactive and neutralizing antibodies during natural dengue infections.

The findings of this study have practical applications. The identified broadly immunogenic neutralizing epitopes appear as promising candidates for an epitope based vaccine. The characterization of this vaccine candidate with animal testing, clinical trials and GMP standards will lead to establish a novel vaccine for dengue. This will contribute to uplift the pharmaceutical capacity of the country. At the same time serotype specific peptides identified during this study could be applied as an ELISA based diagnostic marker for identifying the dengue serotype of infection that can be used as a user-friendly low cost method in diagnostic laboratories.



*The locations of the broadly immunogenic neutralizing E protein epitopes on DENV E protein (PDB 3J2P)*

**Grant No** : RG/2012/BT/02

**Investigators** : **Prof. W S S Wijesundara**, Department of Biochemistry & Molecular Biology, Faculty of Medicine, University of Colombo

**Dr N V Chandrasekharan**, Department of Chemistry

**Prof. R L C Wijesundera**, Department of Plant Sciences, Faculty of Science, University of Colombo

**Project Title** : Cloning and expression of cellulase and xylanase genes of *Trichoderma* in a yeast system to develop synergistic saccharification and direct fermentation of cellulosic biomass to ethanol

Ethanol production using cellulose and hemicelluloses such as endoxylanases, the major component of plant biomass has been selected as a key area for R&D in many countries. This study was carried out with the objective to express the cellulase and xylanase genes in yeast to develop a recombinant yeast system, harbouring cellulase and xylanase genes, capable of direct ethanol production from lignocellulosic biomass.

The findings of the project can lead to both industrial scale ethanol production and cellulase and xylanase enzyme production. This can be applied in various other industries such as textile, brewery, food and feed and agriculture.

**Grant No** : RG/2014/BT/01

**Investigators** : **Dr Dharshani Bandupriya**, Tissue Culture Division

**Dr Vijitha Vidhanaarachchi**, Tissue Culture Division

**Dr S A C N Perera**, Genetics & Plant Breeding Division, Coconut Research Institute, Lunuwila

**Project Title** : Studies on cryopreservation of embryogenic callus from unfertilized ovaries using the encapsulation - dehydration technique and post thaw plant regeneration in coconut (*Cocos nucifera* L.)

Coconut seed does not have a dormancy period thus limiting the conventional storage. This study was carried out with the objective to develop a reliable cryopreservation technique, which is the only viable option available for the long-term conservation of germplasm for coconut using unfertilized ovary derived embryogenic callus.

The findings of the present study showed the feasibility of using coconut embryogenic calli for the purpose of cryopreservation. This is the first report on using coconut embryogenic calli for the long-term storage of coconut germplasm. The research findings will support developing a new *in-vitro* conservation method for coconut and this will enable conserving precious germplasm for future use.

**Grant No** : RG/2011/BT/08

**Investigators** : Dr C D Wijayarathna, Department of Chemistry

Dr N V Chandrasekharan, Department of Chemistry, Faculty of Science,  
University of Colombo

**Project Title** : Molecular characterization of bacteria involved in bioremediation of heavy metals and elucidation of possible bioremediation mechanism

Toxic effect of heavy metal contamination has become a major threat to public health and environment. Bioremediation is the process of using microorganisms to remove pollutants. This research was conducted with the aim of characterizing bacterial strains involved in bioremediation from effluent samples collected from textile dyeing industry and study of possible mechanism of metal tolerance.

The findings of this research will help to find the mechanism behind the metal tolerance of bacterial strains. The data obtained in this study will benefit further studies in metal resistance genes which have not studied in detail. The identified bacterial strains showed significant metal tolerance and resistance to metal ions and also have shown metal uptake from the medium with time. As such, this can be used as a potential tool for heavy metal bioremediation after studying pathogenicity and other virulence factors.

**Grant No** : RG/2011/AG/07

**Investigators** : Dr Ilmi Hewajulige, Industrial Technology Institute

Dr Jaanaki Gooneratne, Industrial Technology Institute (till June 2013)

Prof. Jennifer Perera, Faculty of Medicine, University of Colombo

Ms D M W D Divisekara

Ms A B C G J De Silva

Ms T M D A Jayawardena

Industrial Technology Institute

**Project Title** : Formulation of therapeutic probiotic foods as an alternative treatment for *Helicobacter pylori* infection conditions

More than 50% of the world's population is infected with *Helicobacter pylori*, the main causative organism for gastric and peptic ulcers, gastric cancers or mucosa associated lymphoid tissue (MALT) lymphoma. Currently, this infection is treated with antibiotics along with proton pump inhibitors which lead to several side effects. This research was conducted to isolate and characterize probiotic bacteria with anti *Helicobacter pylori* activity, from selected food sources to develop a functionally active food (beverage) that can be used as an alternative treatment of *H. pylori* induced gastric ulcers.

Rice varieties such as *Suwadhel*, *Madathawalu*, *Sudukekulu*, *Rathukekulu*, *Basmathi*, *barley* and *coconut milk* were used as the source to isolate probiotic bacteria. *Pediococcus pentosaceus* which is isolated from *Madathawalu* rice was the most potential probiotic candidate with anti *H. pylori* activity based on joint FAO/WHO Working Group Guidelines. This is an initiation to develop therapeutic food using locally isolated strains and local raw material.

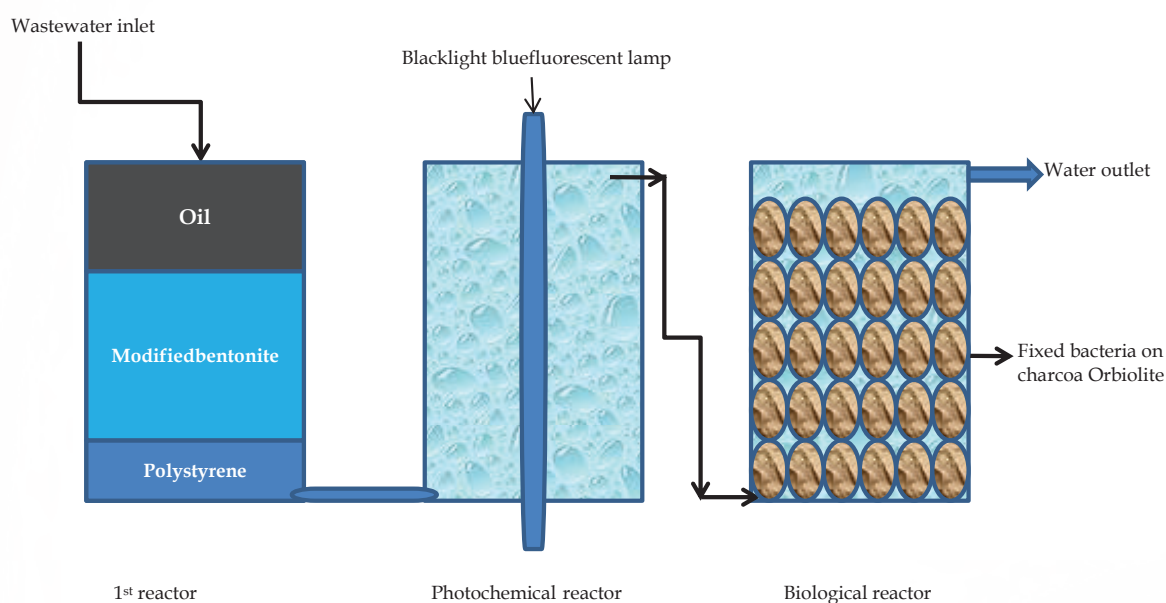
**Grant No** : RG/2012/ESA/01

**Investigators** : Prof. Jayasundera Bandara, National Institute of Fundamental Studies, Hantana Road, Kandy

**Project Title** : Design of Biological and Advanced Oxidation Technology (AOT) hybrid reactor system for oil wastewater treatment

Automobile service station wastewater has been a heavy environment pollutant and a major topic of environment science fields. The service station wastewater pollutes surface water sources as well as ground water sources. Water treatment and purification was accomplished through a variety of chemical and physical separation techniques. However, it is well known that in Sri Lanka, most of the industries and especially service stations do not have proper waste water treatment plants owing to high operational cost. Hence, considering the environmental impact, introduction of on-site, cheap water treatment plant for the small-scale industries is very timely.

As the outputs of this study, laboratory scale affordable reactor that has preliminary physical adsorption reactor, a chemical reactor and a biological reactor was developed for the purification of oily waste water from service stations. The filters that have been developed are cheap and easy to handle, while it could effectively separate water from the different oil-water mixtures. The findings of this research have impacts on socio-economic development of the country, as treatment of oily waste-water makes it possible to recycle the water, reducing the cost of water requirement in the industry. The research findings also improve well-being of the people through controlling water pollution which threaten the biodiversity and healthy living.



*Schematic diagram of a full running coupled reactor*

**Grant No** : RG/2011/HS/14

**Investigators** : Prof. Pujitha Wickramasinghe, Department of Paediatrics, Faculty of Medicine, University of Colombo

**Dr Tharanga Thoradeniya**, Department of Biochemistry & Molecular Biology, Faculty of Medicine, University of Colombo

**Dr Carukshi Arambepola**, Department of Community Medicine, Faculty of Medicine, University of Colombo

**Project Title** : Vitamin A and iron status among pregnant mothers and their offspring in an urban area of Sri Lanka

Anaemia is the most common nutritional problem in pregnant mothers. Iron deficiency is a major cause of anaemia during pregnancy and recent evidence suggests that it can be a cause for poor cognitive performance and development in infants. This study was conducted to assess and compare the status of anaemia, iron and vitamin A in women before and after micronutrient supplementation during pregnancy, as per the national maternal health programme of Sri Lanka and to assess the effect of postpartum vitamin A mega dose supplementation among pregnant mothers and their offspring.

The results indicate that more than 50% of pregnant mothers begin their pregnancy with iron deficiency and are undiagnosed in antenatal screening. The findings of this study help to evaluate the current national maternal health programme and modification of the micronutrient supplementation in pregnant women. The Ministry of Health has also agreed in principal to use serum ferritin instead of haemoglobin in national screening programmes for anaemia based on the study results. The research outcomes will help improve the health of pregnant women and their offspring which will ultimately improve the health and well-being of the society.

## Collaborative Research Programme between Pakistan Science Foundation (PSF) and National Science Foundation (NSF)

Pakistan Science Foundation and the National Science Foundation established bilateral scientific cooperation. Research proposals were called for joint research & development initiative under the following focused areas of mutual interest addressing national priorities; Food and Agriculture, Health, Natural Products Development, Marine Resources/Sciences, Material Sciences and Biotechnology.

In response to the above Call, seventy eight (78) applications were received and 11 proposals were selected by Sri Lanka after scrutiny. The recommendations of both parties were discussed at a Joint Committee Meeting on Bilateral Scientific Cooperation between NSF and PSF on 15<sup>th</sup> September, 2017 at PSF, Islamabad, Pakistan. Subsequently, 06 projects were approved for funding. Details of the projects are given in *Annex 5*.



*Second Joint Committee Meeting on Bilateral Scientific Cooperation between NSF and PSF at Pakistan Science Foundation, Islamabad, Pakistan*

## National Thematic Research Programme (NTRP)

The NSF initiated the contract research programme to address immediate national needs for socio-economic development of the country under four themes; Food security, Climate Change & Natural Disaster, Water security & Energy in 2010. The work on three themes; Food security, Climate Change & Natural Disaster and Water Security were initiated subsequently.

### NTRP - Food Security

The Thematic Research Programme on Food Security was initiated to address major issues related to the theme through research, and with an attempt to ensure food security of the nation. Nine projects were awarded under this programme and were completed by 31<sup>st</sup> December, 2017. The details of the 09 projects are given in *Annex 6*.

These projects were monitored very closely by the Research Division with the guidance of the Steering Committee on Food Security. Four (04) Steering Committee meetings were held in order to finalize the Interim Final Report and to discuss the conclusion of the Food Security Programme and the way forward.

The stakeholder workshop on “Lessons Sharing & Policy Consultation” organized by Prof. Udith Jayasinghe Mudalige of Wayamba University of Sri Lanka and his team, (Project NTRP/2012/FS/PG-04/P-01), was held on 28<sup>th</sup> April, 2017 at the NSF, supporting the Food Security Programme.



*Stakeholder Workshop on “Lessons Sharing & Policy Consultation”*

### NTRP - Climate Change and Natural Disaster

The Thematic Research Programme on Climate Change & Natural Disaster (NTRP on CC & ND) was implemented to address major issues through research, with a view to minimizing hazards of Climate Change & Natural Disasters through mitigation and adaptation.

Expressions of Interest on fourteen project themes (as identified in the theme paper) were called in 2016. After screening at two levels and with the recommendations of the Steering Committee,

11 selected applicants presented their proposals at the 1<sup>st</sup> planning workshop held on 24<sup>th</sup> and 26<sup>th</sup> January, 2017. Subsequently, 04 shortlisted applicants presented their project proposals at the 1<sup>st</sup> Research Coordination Meeting (RCM) held on 31<sup>st</sup> August, 2017 and finalized the proposed research projects according to the mandate of NTRP on CC & ND. Accordingly, 04 grants were awarded in 2017. Details of the grants awarded are given in *Annex 6*.

## Research Equipment Grants Scheme and Spare-Parts Grants Scheme

Laboratories with modern infrastructure facilities are needed to take the standards of local research to the standards of global S & T research. The two schemes intend to assist acquisition of equipment and spare-parts for research equipment, that is in general too costly to be purchased by the Research Institutions and Universities. Further, these schemes facilitate and support infrastructure development of research laboratories maintaining research flow without interruption and creating a sustainable research culture. In 2017, funds amounting to Rs. 44.81 Mn were transferred for 15 Equipment grants (commitment brought forward from 2016). Further, another 06 Equipment grants worth of Rs. 5.35 Mn and 01 Spare-parts grant worth of Rs. 0.32 Mn were also awarded in 2017. Fund transfers were pending for these 07 grants due to financial constraints. The details of these grants are given in *Annex 7*.

In addition, few more requests under these two schemes were considered and 11 Equipment grants and 04 Spare-parts grants were recommended to the NSF Board for approvals.

## Technology Grant Schemes

The two technology support grant schemes; (i) "Support for technology development", and (ii) "Support for start-up business based on novel technologies", launched in 2011, continuously supported the researchers, scientists, SMEs and individual inventors to develop new technologies beyond laboratory scales and to initiate startup businesses since the schemes were launched.

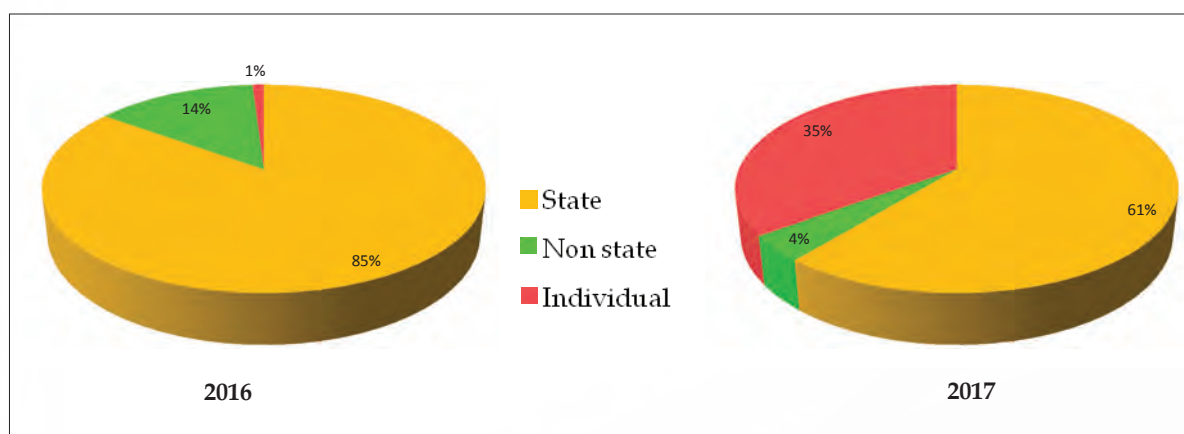
Accordingly, Expressions of Interest (EoIs) were called from prospective applicants in January. In addition to the public call, EoIs were entertained throughout the year in order to open the path for more technology developments. Total number of EoIs received during 2017 reached 44 and this number is less than the total number of detailed applications received in 2016, which accounted for 49. EoIs were evaluated with the help of the Technology Working Committee and approval who obtained for eight technology projects worth of Rs. 28.24 Mn for funding in 2017. These projects were catering to support the industrial sectors as expressed in *Table 03* below. Amount of funds released under technology grant schemes is given in *Table 04*.

**Table 3:** Technology grant applications/ EoIs received and awarded: a comparison

	Year	
	2016	2017
Total number of applications/ EoIs received	49	44
Total number of grants awarded	08	08
Monetary value of projects approved ( NSF contribution) - Rs.	36,087,904/-	28,239,213/-
Industrial Sectors supported	Health and Allied health (IT based applications) Automobile industry, Agriculture, Food Industry, Mineral resources, Print industry,	Health and Allied Health, Automobile industry, Agriculture, Food Industry, Boat and shipping industry, Manufacturing industry,

**Table 4:** Amounts of funds released under technology grant schemes

Sector	2016		2017	
	Amount (Rs. Mn)	%	Amount (Rs. Mn)	%
State	30.0	85	17.4	61
Non state	5.0	14	1.0	4
Individual	2.0	1	9.9	35
Total Released	35.2	100	28.3	100



**Figure 19:** Distribution of funds among the Sectors

Funds were allocated to all approved new and ongoing projects throughout the year as demarked at continuous progress reviews. Twenty five (25) technology projects were in operation at the beginning of the year 2017. The details are given in *Annexers 8, 9, & 10*. Out of the total allocation, (Rs 20 Mn for technology projects for 2017), Rs 16 Mn was disbursed. Accordingly, 80% of the allocated funds were utilized and funds worth of Rs 6 Mn were left as committed by the end of 2017. In addition, the activities described in *Table 05* were conducted facilitating better outputs from technology grant support.

**Table 5:** Activities conducted in relation to technology grants

Activity	Number
Proposal writing programmes	02
Grant Orientation seminars	02
Progress Review Meetings	07
Project Monitoring visits	23
Publicity through newspaper articles for Technology grant products in "Sunday Times news paper"	published 03 articles

Industry sectors benefitted through supporting technology development projects.

- Medical diagnostics
- Food & Agriculture
- Coir Industry
- Transport
- Power & Energy
- Polythene recycling
- Marine industry

## Significant Outputs Arising from Technology Projects

### Locally developed DNA extraction kits



Communicable and non-communicable diseases such as tuberculosis, malaria, HIV, hepatitis B & C, dengue, thalassaemia, different leukemia types and tumors take a significant toll on the population and it is a huge burden to the economy. Misdiagnosis and wrong treatment not only increases cost of treatment but also lead to increased morbidity and mortality. Molecular diagnosis is an effective tool which can be used for accurate diagnosis of the said diseases. However, use of molecular diagnostic techniques has limitations due to high cost of imported test kits and reagents. National Science Foundation provided financial support to Ceygen Biotech (Pvt) Ltd., a Sri Lankan Start-up company in the

field of Biotechnology to manufacture genomic DNA extraction kits, viral RNA extraction kits and recombinant enzymes locally with a five-fold cost reduction in products than importing the test kits, thus enabling patients to access to effective diagnostic techniques at an affordable cost.

The Ceygen Biotech products have now reached the market as viable substitutes for imports. It has been forecasted by the company that the total estimated saving to the country within next five years will be Rs 75 Mn.

### Wireless pad-based vehicle weighing system

Wireless pad-based vehicle weighing system is a low cost, portable and minimum space consuming alternative for conventional weigh bridges used across Sri Lanka which are expensive, immobile and needs lots of space. The new system can be set up at an ad-hoc location to load the vehicle on to the pads. The number of pads can be increased to suit with the number of wheels the vehicle have. All the weigh pads are connected to central display unit wirelessly in which the total weight of the vehicle is displayed.

The outcome of the project is a prototype of the above described system which can be used to measure the weight of four wheeled vehicles. The developed system would be greatly beneficial to industrial and commercial users who need accurate weight of vehicles and goods they carry. The potential customer base includes; plantation sector (tea estates), good transporters (in ports), commercial dry goods collectors and distributors, authorities to enforce weigh limits of loaded vehicles (Road Development Authority, Sri Lanka Police Department).

### Biological control of cabbage pests



Safe food for consumption and unpolluted environment are very important factors of human life. Crop cultivations with indiscriminate use of synthetic insecticides results in unsafe food, high cost of production, environment pollution, persistence and building up of insect resistance to insecticides. Among vegetables, cabbage crop is being sprayed with chemical insecticides, over and above the recommended rate and time of application for insect pest management, pose a severe threat to human life and environment.

Biological insect pest management is a safe and sound alternative method for insect pest management and for Cabbage, crop insect pest management was successfully carried out by using parasitoid *Cotesia plutellae*. Parasitoids were reared at Plant Quarantine Unit laboratory of Department of Agriculture at Gannoruwa, Peradeniya. More than 150 field releases for open field cultivations, poly-tunnels and organic farms were carried out for about 50 ha in the three districts; Kandy, Nuwara Eliya and Anuradhapura. The financial benefit to the farmer through use of biological pest management for cabbage using parasitoid, *Cotesia plutellae*, is calculated as Rs. 103,555.00/ha/crop cycle. Technology transfer programmes are planned to disseminate and transfer the technology to local farmers and industry.

## Eco-friendly helmet

Eco-friendly helmet is manufactured by naturally available materials; different coir types and natural rubber latex as binding agent. The product is introduced as a solution to plastic helmets to give bouncing effect as impacts and it provides comfort to wearer. This helmet is categorized as “Class C- hard helmet” and recommended to be used in civil works at construction sites.



This project output will enable coir industry to find a way for a new value added product and thereby to gain economic returns from waste material. In addition, eco-friendly helmet can be introduced to the market as a competitive product against traditional plastic helmets. The eco- friendly helmet can be marketed at its basic form at a price of Rs.300/- and there is a great potential to increase the price with added features on customer demand.

## Smart device for power restoration

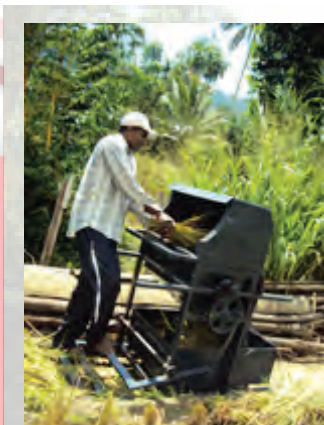


A system for fault detection, isolation and restoration using a multiagent-based distribution was developed to overcome the issues pertaining to sudden power interruptions in the distribution network. A multi-layered agent based smart power device system will be a suitable alternative to address the issues of the conventional smart grid and introduce extra level of data process and reliability. This system reduces service restoration time for a permanent fault contingency of distribution feeders which raises the quality for a higher status comparing the existing system.

The online current and power monitoring system is useful to the distribution company to monitor the real-time data.

Department of Electrical Engineering, University of Moratuwa is planning to sign an MOU with LECO for implementation of Microgrid Pilot Project and Smart Grid Laboratory, considering the success of this project.

## Improved paddle thresher



Paddle threshers are being used in Rice Research Institutes to thresh paddy during variety based research trials. Rice processing with the existing paddle threshers is strenuous, hard and paddy is not properly threshed. Further, it is difficult to maintain variety wise quality seed collection. The improved machine consists following features,

1. A drawer to collect threshed paddy and the outer cover for the machine to avoid spreading of paddy all over the ground supporting variety-wise collection without mixing.

2. Operation is convenient where the operator can lean on the machine and feed the reaped paddy while paddling.
3. Specially designed hooks will help to avoid breaking of panicles into small branches improving threshing quality.
4. Easy to clean by opening the covering lid.
5. Lighter in weight and portable

Other Rice Research Stations and small scale terrace paddy farmers will be benefitted with the newly designed paddle thresher.

### Coconut de-husking machine

An efficient semi-automated coconut de-husking machine was developed under this project. Coconut can be loaded from the top of the machine and de-husked coconut can be collected from the bottom part of the machine. This machine has capability of de-husking a coconut within 10- 15 seconds.

Coconut and coconut related industry is having a problem of labour shortage for de-husking coconut. The industry cannot cater to the demand due to this limitation. Coconut industry will enable to enhance output with this new machine mitigating the said limitation.



### Design and construction of remotely operated under water vehicles (ROV)

A functional prototype of Remotely Operated underwater Vehicle (ROV) was developed under the project. ROVs are used for a variety of underwater operations particularly in situations when it is not practically possible or when it is unsafe for a person to go and perform a task personally.

The grantees are working jointly with the R&D Division of the Sri Lanka Navy for further improvement. Accordingly, this project will pave the way forward in Sri Lanka for development of affordable ROV as an import substitute which can be used for under water research and marine industry.



## Polythene drying and pelletizing machine

Moisture retention in half-dried waste polythene is a major problem faced during the recycling process of polythene. As pellet cannot be made from half-dried waste, it has to be dried twice using a drying machine which requires a higher amount of electricity. A machine was fabricated for complete removal of moisture from used and washed polythene and make pellets to manufacture recycled polythene. The moisture removal unit has the capacity of loading 100-150 kg of polythene and the pelletizing unit gives an output of 100-150 kg of pellets per batch. It is estimated that 1 kg of recycled polythene manufactured using imported pellets accounts for Rs 280.00 whereas same can be produced with pellets made locally fabricated machine can be made available at a price of Rs. 160.00 bringing an economic contribution to the country.



## Facilitating IP Protection & Management

Support services for researchers, inventors were extended throughout the year for patent information searching, drafting and filing patent applications locally and under PCT (Patent Cooperation Treaty). The NSF - TISC (Technology & Innovation Support Centre) continued its functions in 2017 supporting the inventors.

Two inventors were supported financially for filing their patent applications under PCT.

The NSF became party to the WIPO EIE (Enabling Intellectual Property Environment) project and the NSF-TISC staff participated in capacity building programmes conducted by the WIPO in collaboration with the NIPO (National Intellectual Property Office) and COSTI (Coordinating Secretariat for S T & Innovation).



NSF - TISC

## Facilitating technology transfer and University - Institute - Industry partnerships

Formulation of the policy enabling better University- Institute – Industry partnership was in progress during the year 2017. German International Corporation (GIZ) continuously extended its support to obtain expertise from the consultant, Prof. Frank Ebinger, to formulate the policy. Two consultative workshops with groups of experts and the GIZ consultant were held in March and May, 2017. The first draft with policy statements and strategies was finalized.

A three-member committee comprised of local experts was appointed to further refine the policy statements and strategies. Six meetings were held at the NSF, National Science & Technology Commission (NASTEC) being a partner. The policy was at the final draft stage at the end of 2017.

## NSF Awards - 2017

### NSF Research Awards

The NSF Research Awards are given annually to researchers who have made outstanding contributions for the advancement of science through NSF funded research projects. In addition, the NSF Research Awards are made to bestow on researchers the recognition they deserve for helping to achieve one of the main objectives of the National Science Foundation by contributing to S & T advancements. 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.

The Awards for 2016 were made at the ceremony held on 31<sup>st</sup> January, 2017 at the BMICH with 215 participants under the following schemes of the NSF.

- Support Scheme for Supervision of Research Degrees (SUSRED) - 24 supervisory teams were successful in securing Awards for 15 PhD and 09 MPhil degrees completed during 2014 and 2015
- Third World Academy of Sciences (TWAS)/ NSF Young Scientist Award - 02 Awards were made
- Technology Awards and Certificate of Commendation - 01 Award and 01 commendation were made



NSF Research Awards 2017 were under consideration and Prof. J J Wijetunge of Department of Civil Engineering, University of Peradeniya is selected as a recipient for his successful completion of the project titled “Disaster risk assessment and mitigation strategy for tropical cyclone induced storm surge hazard in Sri Lanka”. The project addresses one of the long outstanding research gaps in Sri Lanka. It was noted that the findings of this project can be used by the Disaster Management Centre and Coast Conservation Department and Prof. Wijetunge has already taken measures to disseminate the research results to these Institutions.



NSF Winners 2017

**Support Scheme for Supervision of Research Degrees (SUSRED)**

The awards for the Support Scheme for Supervision of Research Degrees (SUSRED) was implemented 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 encourages universities and research institutions to promote and facilitate postgraduate research training.

Forty five (45) supervisory teams were presented SUSRED awards in 2017 for completing 22 PhD and 23 MPhil degrees during 2015 and 2016. The details of the award winners are given in Annex 11.

Principal Supervisors of SUSRED Awards 2017 come out of 08 local universities (U) and 01 research institute (I) (Figure 20).

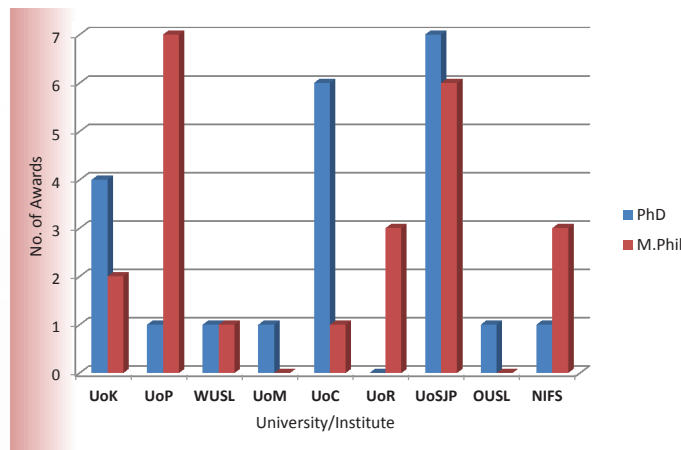


Figure 20: Distribution of SUSRED Awards-2017

## ***NSF Technology Awards***

The NSF Technology Awards are made to bestow on grantees the recognition they deserve for contribution they have made on enhancing innovative S & T activities and to motivate them to conscientiously maintain high standards of partnerships with the public and private sectors.

Technology projects completed during June, 2016 - June, 2017 were considered for NSF Technology Awards 2017. Out of 12 completed projects, only 05 projects met criteria for NSF Technology Awards. The final reports of the five projects were under consideration at a special technical review to identify the suitability for the Awards.

## ***Annual TWAS/NSF Prize for Young Scientist***

The NSF in concord with the Third World Academy of Sciences (TWAS) has instituted a scheme of 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. Prof. Rangika Umesh Halwathura, Professor of University of Moratuwa won the TWAS/NSF Prize for Young Scientist 2017 award in the field of Physics.

## ***National Awards for Science and Technology Achievements (NASTA) - 2018***

Against the very low number of NASTA applications received in 2016 for consideration for National Awards, 80 applications were received in 2017 under 13 categories for NASTA 2018. Application closing date fell on 29<sup>th</sup> December, and processing of applications commend.

## **Support for the publication of research in reputed international high impact journals**

Research publications enable sharing of findings, so that the scientific community can benefit from the new knowledge generated. It also gives the opportunity for research findings to be critically evaluated and reproduced, thus gaining validity.

The National Science Foundation initiated supporting publication of research results in November 2016. Under this scheme, the page charges of publications of Sri Lankan Scientists whose papers have been accepted by reputed journals are reimbursed. The publications in journals indexed in the Science Citation Index, Science Citation Index expanded or Social Science Citation Index are considered. Accordingly, page charges for 04 scientific publications were reimbursed in 2017 and details are given in *Annex 12*.

## **Adding value**

Number of workshops were conducted with the engagement of local and foreign resource persons to add valuable ideas/ suggestions to main R&D activities supported by the NSF.

## Workshop on “Scientific Research:Facilitating Research” at University of Jaffna in collaboration with the General Research Committee of the SLAAS

The General Research Committee (GRC) of SLAAS and NSF jointly organized a workshop to promote and make scientists/ students aware of the grant schemes, application procedures, review process, scholarships and awards available at the NSF and the role of GRC of SLAAS in promoting research.

The workshop was held on 3<sup>rd</sup> March, 2017 at the Jaffna University with the participation of 3 Resource Persons and NSF officials.



*Workshop on Scientific Research at University of Jaffna*

## Interactive workshop on "Converting a draft manuscript to a 'Ready to Publish' manuscript"

The Working Committee on Biotechnology of the NSF organized an interactive workshop on “Converting a draft manuscript to a ‘Ready to Publish’ manuscript” in collaboration with Research Promotion and Facilitation Centre (RPFC), Faculty of Medicine, University of Colombo from 1<sup>st</sup>-4<sup>th</sup> August, 2017, at the National Science Foundation. The chief resource person was Prof. Barbara Gastel of Texas A&M University, USA. The workshop supported 29 graduate Research Students of NSF grants in the 2<sup>nd</sup> and 3<sup>rd</sup> year of their grant period and young academics to develop scientific research writing skills with the view to finalizing manuscripts and getting ready for publication.



*Interactive Workshop on "Converting a draft manuscript to a 'Ready to Publish' manuscript"*

## Research Management Workshop

The National Science Foundation (NSF) and the Ministry of Business, Innovation and Employment, New Zealand co-organized the Asia Pacific Regional Meeting of the Global Research Council (GRC) held in Colombo, Sri Lanka from 29<sup>th</sup>-30<sup>th</sup> November, 2017. In conjunction with this meeting, a workshop on Research Management was held on 28<sup>th</sup> November, 2017, at Hotel Galadari, Colombo with the contribution of the Resource Persons from the GRC. The objectives of the workshop was to make the scientific community aware of the best practices in research management, in order to improve the current practices and subsequently enhance the capabilities of the scientific community in science and research management aspects.

The workshop was successfully concluded after conducting two sessions followed by a panel discussion on identification of priority areas of interest. There were 28 foreign participants from New Zealand, Canada, UK, Brazil, Russia, Japan, China, Singapore, Iran, Germany, Indonesia, Australia and Solomon Islands and 82 local participants at the workshop.



*Research Management Workshop, 28<sup>th</sup> November, 2017, Hotel Galadari, Colombo*

## Workshop on "Research Proposal Writing for NSF - NSFC Joint call for Proposals 2017"

Focusing on strengthened bilateral scientific cooperation, NSF and National Natural Science Foundation, China (NSFC) called for proposals on joint research and development from research groups of the two countries.

The National Science Foundation organized a Workshop on "Research Proposal Writing for NSF - NSFC Joint call for Proposals 2017". This workshop was held on 08<sup>th</sup> December, 2017 in the Auditorium, of the National Science Foundation with the objective of training prospective applicants on submitting properly formulated, quality research proposals.

Thirty one (31) prospective applicants participated and areas such as formulating a comprehensive research proposal, preparation of research budgets and evaluators' expectations were discussed during the workshop with the support of two Resource persons.

### **ICGEB - CRP Proposal Writing Workshop**

Awareness workshop on "ICGEB grant schemes and proposal writing for ICGEB - CRP" was held on 7<sup>th</sup> November, 2017 in Colombo. The two ICGEB high officials, Prof. Lawrence Banks, Group Leader and Scientific Coordinator of the ICGEB and Dr Vittorio Venturi, Group Leader were the resource persons. The workshop was well-attended by over 60 participants. The resource persons briefed about the ICGEB and the various grant schemes offered by ICGEB. They presented the CRP programme, review process and the selection criteria of CRP grants. A practical session was arranged in the afternoon to discuss about the draft proposals, drawbacks, improvement of proposals as well as to determined the expectation of the ICGEB on the proposals.

## **Sustainable Utilization of Natural Resources - The Man and the Biosphere (MAB) Programme**

The Man and the Biosphere (MAB) Programme is an Intergovernmental Scientific Programme aimed at setting a scientific basis for the improvement of the relationships between people and their environment globally. The programme was initiated in early 1970s. It proposes an interdisciplinary research agenda and capacity building that target the ecological, social and economic dimensions of biodiversity loss and the reduction of this loss. The MAB Programme develops the basis within the natural and social sciences for the rational and sustainable use and conservation of the resources of the biosphere and for the improvement of the overall relationship between people and their environment. It predicts the consequences of today's actions on tomorrow's world and thereby increases people's ability 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 2017 are mentioned below.

### **Special Discussions**

#### **○ Meeting with the Director General/ Department of Wildlife Conservation**

The discussion held on 31<sup>st</sup> January focused on follow-up of the recommendations of the workshop on human - monkey conflict and Usangoda geo-park nomination.

#### **○ Discussion with the National Chamber of Commerce**

The discussion held on 21<sup>st</sup> April was searched the possibility of funding for a programme for the Community Based Organizations (CBOs) in International Biosphere Reserves (IBRs).

### **Follow-up activities of periodic review**

#### **○ Discussion with the District Secretariat / Hambantota**

The discussion held on the 9<sup>th</sup> August was focused on taking immediate measures to restore the infrastructure facilities of Bundala International Biosphere Reserve (IBR) viz, the Visitor's Centre facilities and also putting up display name boards for greater visibility and

awareness of the significance of the IBR. Organizing a programme to raise awareness and to identify remedial measures to resolve the problems of the community surrounding the IBR were the other discussion points.

In relation to the expansion of the Core Zone of Hurulu IBR, a special discussion took place on the 11<sup>th</sup> August with the participation of Conservator General of Forests and the relevant officers of Forest Department. The process of expansion of the Core Zone of Hurulu IBR was completed by the end of November, 2017.

## Ussangoda Geo-park nomination

A discussion was held with the Hon. Minister of Science, Technology and Research with the participation of the Chairperson/ NSF and the members of the Committee on the 13<sup>th</sup> September, 2017. A joint Cabinet Memorandum was submitted in December, 2017 requesting approval of Cabinet Ministers for the establishment of the Ussangoda Geo-park under the provisions of UNESCO Global Geo-parks Network programme and to manage the area to be administered by the Department of Wildlife Conservation supported by a Committee comprising of the Geological Survey & Mines Bureau, Coast Conservation and Coastal Resources Management Department, Department of Archaeology, Forest Department, District Secretary/Hambantota and Sri Lanka Tourism Development Authority.

## 29<sup>th</sup> Session of the International Coordinating Council (ICC) of the MAB

Mrs H.A.U. Amarasinghe, Secretary/ MAB Programme and Dr J.D.S. Dela, Member/ MAB Committee participated at the 29<sup>th</sup> Session of the ICC held in Paris from 12-15 June representing Sri Lanka MAB Programme.

## Publication on “Natural Resources of Sri Lanka: Conditions, Trends and Prospects”

The publication consisting of the following chapters written by the eminent scientists in the country was finalized for printing.

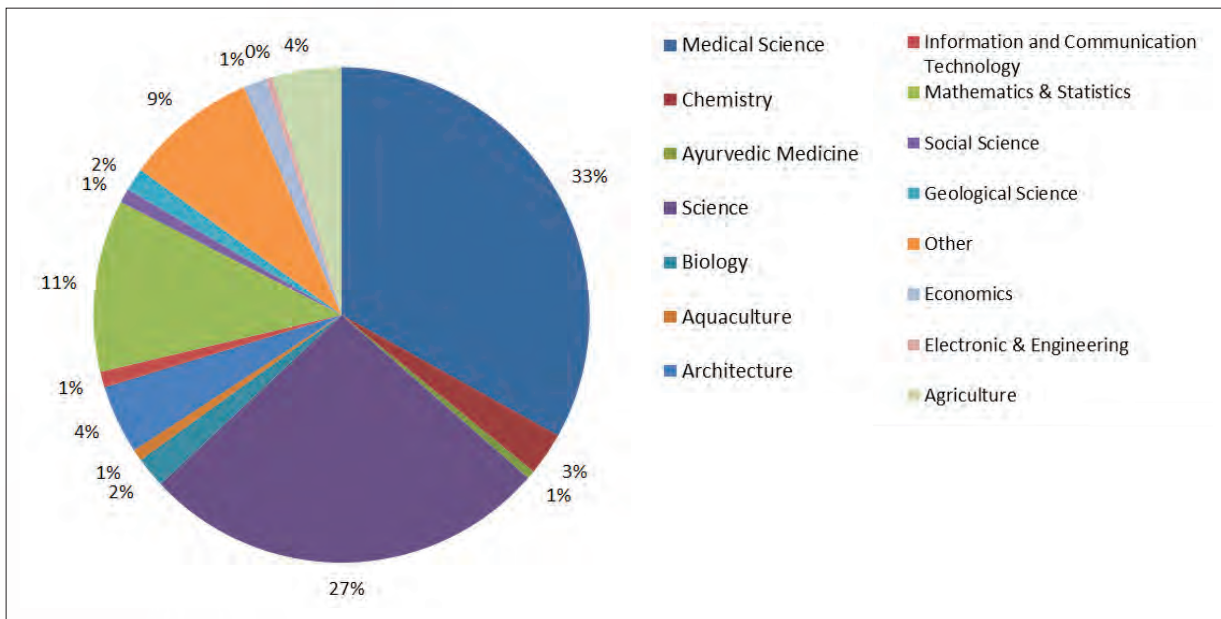
Chapter	Author/ co-author(s)
Natural and Cultural Environment of Sri Lanka	Mr M A T De Silva
Human Resources	Dr A T P L Abeykoon
Economic Growth and Development	Prof. N E H Sanderatne
Land Resources	Prof. C M Madduma Bandara and Mr B A Jayananda
Water Resources	Dr Herath Manthithilake
Mineral Resources	Prof. C B Dissanayake Dr O K Dissanayake Ms Deepani Fernando
Potential for Petroleum and Gas Resources	Mr Saliya Wickramasuriya

Energy Resources	Prof. K.K.Y.W. Perera Mr Upali Daranagama and Eng. Harsha Wickramasinghe
Biological Diversity	Dr J.D.S. Dela
Forest Resources	Mr Anura Sathurusinghe Prof. I.A.U.N. Gunatilleke and Prof. Savithri Gunatilleke
Wildlife Resources	Prof. S.W. Kotagama and Dr Nishanthi Perera
Agricultural Genetic Resources	Prof. D.K.N.G. Pushpakumara and Prof. G.L.L.P. Silva
Natural Resources in Indigenous Medicine	Dr Danister Perera
Coastal and Marine Resources	Mr Lesley Joseph
Inland Aquatic Resources	Prof. J.M.P.K. Jayasinghe and Prof. Upali Amarasinghe
Invasive Alien Species and Their Impacts on Natural Resources	Dr Siril Wijesundara
Environmental Pollution	Dr A.M. Mubarak and Prof. O.A. Illeperuma
Legal Framework for Natural Resource Management	Ms Mihiri Gunewardene

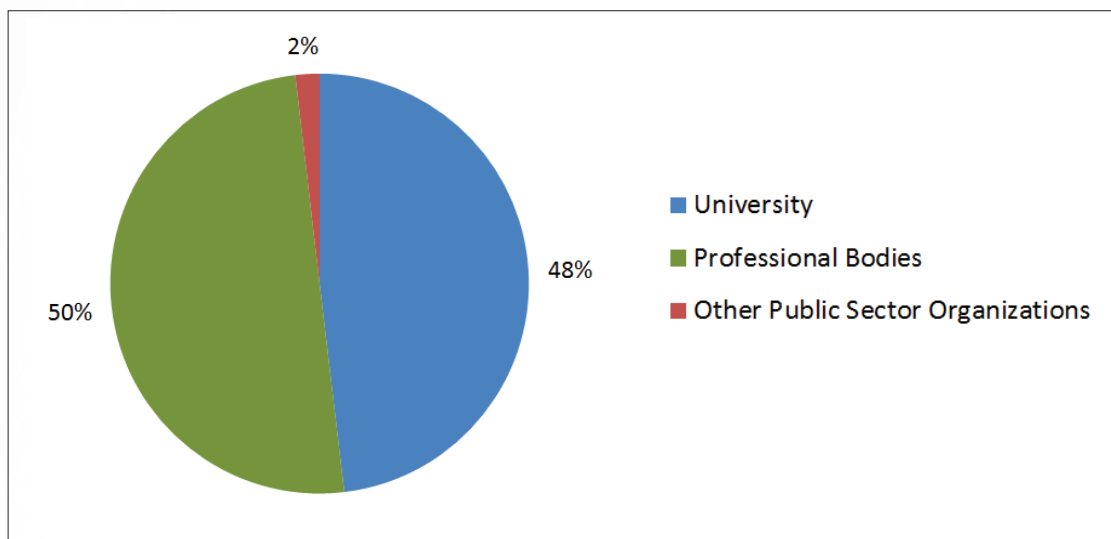
## Support Scheme for Scientific Meetings and Events (SSSME)

Scientific research can be improved and expanded for better results through communication and exposing research work and results at scientific meetings, research symposia and conferences. Through communication, scientists can exchange and share the latest insights relevant to their research. These events work best when attended by participants from all levels of academia/research students. However, the scientists and researchers as well as professional scientific associations do not have adequate means to organize large scientific meetings with wider participation by relevant personnel in the field. In order to assist the scientists and researchers to organize large Scientific gatherings, the "Support Scheme for Scientific Meetings and Events" was established at the NSF. Financial support is provided to the research scientists and academia to organize relevant events or create platforms for effective communication of their research work and results through this scheme.

In 2017, 31 institutes and professional bodies (summing up to 37 events) were supported under this scheme with total funds worth of Rs. 26.73 Mn to hold scientific meetings and events. This has facilitated around 6500 individuals to participate in the scientific events and share & improve their knowledge. Further, nearly 2000 authors have been able to publish their research findings which ultimately resulted in communication of new knowledge to the S & T community. Out of the 37 events the NSF has contributed to co-organize 18 events, identifying the timely importance of the themes.



**Figure 21:** Fund disbursement under different fields under SSSME



**Figure 22:** Fund disbursement according to sectors under SSSME



## Programme 2

Maintaining a current register of scientific and technical personnel, conduct surveys for determination of current and projected needs of S & T resources and provide a source of S, T & I information



***Being the apex body to provide information on the S & T sector to the stakeholders, and to be updated and resourceful, the NSF continued with all the activities under this programme. Accordingly, the NSF conducted its regular R & D survey and other activities as explained below.***

The main focus was made in the following directions:

1. Undertaking science, technology and innovation (STI) policy research in the areas of importance to make recommendations for policy formulation.
2. Developing improving databases relevant to all sectors of STI that will be useful for decision making.
3. Conducting public awareness programmes and public discourses on nationally important issues related to the areas of STI.
4. Investigating, collecting, securing and further researching Indigenous Knowledge (IK) that existed in ancient Sri Lanka and some still being in practice.
5. Fostering capacity building of human resources, especially in the areas of Social Sciences and Indigenous Knowledge.

## **Science, Technology and Innovation (STI) Policy Research**

### **National Research Development and Innovation (RDI) Survey**

NSF has been conducting a regular National Research, Development and Innovation (RDI) Surveys once in every two years since 2004. This Survey measures and reports the status of science and technology sector in the country in terms of investment on Research & Development and Innovation (RDI), engagement of Human Resources in the Science, Technology and Innovation (STI) sector, and the outputs of the STI sector in spears 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 Cooperation and Development (OECD). The scope of the Survey encompasses higher education sector, S&T institutions, R&D institutions, industrial sector and the local and foreign non-governmental organizations (NGOs).

The following activities were conducted in 2017 under the R&D Survey.

- Publication of Sri Lanka Science and Technology Statistical Handbook 2014 and distributed to about 140 relevant institutes.
- Completion of data collection from both public and private sector for RDI Survey 2015 and started data analysis.
- Commenced the RDI Survey 2016 with data collection from public sector.

## Impact Assessment of NSF Research Grants

A study to assess the impact of Research Grants awarded since the inception of the NSF [formerly known as National Science Council (NSC)] was initiated. National Science Foundation had awarded 2,472 grants under the Competitive Research Grant Scheme since its inception. Interviews and a questionnaire-based survey was planned to capture the output, outcome and impact of the grants on national development and wellbeing of the people.

## Use of Big Data on Evidence Based Policy Formulation

The NSF took an initiative to urge Sri Lankan Scientists to use big data available in various forms and formats with the government as well as other business sector institutions in their research programmes. As a first step, an introductory programme on the theme “Trends and Prospects of Big Data in National Policies” was conducted with the participation of 200 scientists and professionals. The main objective of conducting this programme was to create a dialogue among scientists, policy makers and professionals on use of big data for research, the opportunities available for obtaining big data, policy interventions needed for better application of big data and using of them in formulating evidence-based policies. Subsequently, a few more other workshops/ seminars were conducted to enhance awareness.

- As stakeholder meeting was conducted on 3<sup>rd</sup> March, 2017 with 100 stakeholders who had the potential for using big data for policy formulation. Hands-on-experience was given to develop project proposals based on big data research themes in the areas on health sciences, disaster management, transport, education and social sciences.
- A progress review meeting was conducted on 07<sup>th</sup> June, 2017 to discuss several projects relating to the health sector, disaster and transport as a follow-up event to the said meeting.
- A progress review meeting was conducted on 20<sup>th</sup> June, 2017 with 40 participants to discuss and review the project proposals and ideas arisen in the area of social sciences.

### *Directory of Social Scientists*

A programme was instigated to prepare a directory of social scientists in the country. The main purpose of preparing this Directory was to keep records on social scientists working in different areas of social sciences with a view to obtaining their services and technical expertise for various programmes conducted nationally and internationally. At the end of 2017, 268 social scientists with diverse expertise had provided information for the Directory.

## Developing / Improving Databases

### *National Science and Technology Management Information System (STMIS)*

Science, Technology and Management Information System (STMIS) is a computerized information system developed and maintained by the NSF since 2004. The online searches and registration is available in the website: <http://mis.nsf.gov.lk/>. The STMIS database contains information on: S & T related institutions, S & T personnel, technical personnel, advanced scientific equipment available in the institutions, ongoing research activities, technologies developed and transferred by the institutions, services and training programmes offered by

the S & T institutions for the general public and research publications done by the individual scientists and S & T Institution. The STMIS database is updated regularly and the database contained information on more than 6,470 S & T personnel by the end of December, 2017. Steps were taken to upgrading and expanding the system with modern facilities and new software in order to widen the usage of the database.

## Public Awareness Programmes and Public Discourses on Nationally Important Issues Related To STI

A series of workshops/seminars / policy dialogues and panel discussions were conducted on various nationally important issues to identify policy needed, gaps in existing policies, and constraints in implementation of policies. Accordingly, following programmes were conducted during 2017:

- A Panel Discussion 'Managing Social and Economic Changes towards Sustainable Development Goals (SDGs) proposed by the UN in 2015 was held on 21<sup>st</sup> February, 2017 with fifty participants. It was identified that socio-economic transformation could be achieved by addressing these SDGs. Therefore, ways and means of identifying national targets, defining processes and measuring outcomes were discussed and debated during the discussion.



- A public lecture on 'Impact of Social Media on Society' was held on 27<sup>th</sup> February, 2017 with sixty participants at different level such as undergraduates, academics, professional and general public. The social concerns in miss-use of social and electronic media were discussed and remedial solutions were proposed. It was also highlighted how people can use such modern technologies for improvements in their lifestyle, and education *etc.* on positive way.



- A panel discussion on 'Social and Public Health Implications of Solid Waste Management in Sri Lanka' was held on 15<sup>th</sup> June, 2017 with the participation of thirty officials and researchers who were directly involved in waste management and implementation of national policies. Since, management of solid waste has become an increasingly complex issue in recent years due to diverse reasons it has been identified as an area of national priority. The solid waste management encompasses social, economical, educational and legal aspects. Therefore, without addressing these issues, it was stated that it is rather difficult to achieve a complete solution for the problem.



- A Panel Discussion on ‘Social Implications of Recent Demographic Shifts in Sri Lanka’ was held on 12<sup>th</sup> September, 2017 with around forty participants from relevant government, private sector and non government sector institutions. During the discussion it was highlighted that Sri Lanka is now experiencing a demographic bonus condition and experts in the field should take immediate actions to reap the maximum benefits out of this. The necessary policy initiatives that should be taken for purpose was discussed in detail.



- Policy Dialogue on ‘Labour Market Issues in Sri Lanka’ was held on 27<sup>th</sup> October, 2017 with around 40 participants. The objective of conducting this policy dialogue was to bring together available experts and authorities to present their views on labour issues in Sri Lanka and to open a discussion on the outcomes and future plans in order to meet the future challenges. The issues relating to increasing women labour, increasing unemployment rate among educated youth, increasing formal employments and increasing skilled labour migration, possibilities of increasing the retirement age and entering of un-official foreign labours into the local labour market were discussed. Policy recommendations and new research projects to be done to get further information for policy formulation were proposed during the discourse.



## Activities Associating Indigenous Knowledge (IK) & Social Science

The sustainable development of a country should closely interlink with biodiversity and indigenous knowledge of the country. The indigenous knowledge systems of the peoples of the world constitute the reservoir of knowledge of diverse areas such as species of plant, animal, life on earth and beyond. Recognizing the importance of this, 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 indicating 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, the NSF Working Committee on Indigenous Knowledge worked towards identifying, collecting and protecting indigenous knowledge existing in the country for more than five thousand years.

The following programmes were conducted addressing main areas of indigenous knowledge.

### ○ Brain storming session on "Indigenous Architecture and Construction Technology"

A seminar was conducted on 10<sup>th</sup> November, 2017 in the NSF Auditorium with the participation of over 50 representatives from government and private sector institutions and relevant university departments working in architecture and construction fields.

Different aspects of construction and architecture technologies in ancient Sri Lanka and the possible applications of those in modern context were discussed. It was highlighted that how ancient Sri Lankans used environmentally friendly raw material with sophisticated technologies giving special attention to sustainability of the environment and eco-system.



### ○ Intellectual Property Rights (IPR) on Indigenous Knowledge (IK)

A series of meetings were conducted to discuss how to protect intellectual property rights relating to indigenous knowledge. Legal experts in IPR with IK attended these meetings.

A draft report on 'How to protect Indigenous Knowledge using existing and extended Intellectual Property Rights' was prepared with policy recommendations to develop suitable IPR policy in the country.



### ○ Study on factors affecting social science research

The survey initiated to investigate the factors affecting social science research in Sri Lanka was continued during 2017 with the purpose to study the cause for less research in social Sciences and their poor quality. The recommendations yielded in the survey will be used to develop programmes to uplift social science research in the country and to create a culture leading to developing national policies based on evidence. A non-respondent survey and data entry were completed during 2017.

### ○ Establishment of Young Social Scientists Forum (YSSF)

Preliminary steps were taken to establish the “Young Social Scientists” Forum of the NSF to provide a common platform for young Social Scientists to discuss and take initiatives to improve their performance and also to take part in national development activities. The forum will act as an incubator which provides the opportunity to develop research ideas into fruitful research projects under the guidance of renowned senior scientists in the country. The ultimate intention is to increase the scholarly research base and the capacity for research of Young Social Scientists in the country.

### ○ Seminar on "Indigenous Scientific Phylosophy on Ancient Technologies and Their Current Usage"

A seminar was conducted on 24<sup>th</sup> January in the NSF to explore indigenous knowledge pertaining to different technologies (භාරම්පරික ශිල්ප ශ්‍රේණියේ විද්‍යාත්මක දර්ශනය හා වර්තමාන උපයෝගීතාවය). Around 70 participants representing government institutions, discussed and highlighted the following important matters

- ❖ ancient technologies pertaining to making musical instruments.
- ❖ ancient gold and mineral extraction methodologies.
- ❖ ancient paint & colour technology.
- ❖ ancient plastering technology.
- ❖ raw material used, availability of those at present and alternatives for current use.

The participants further highlighted the need to popularize these technologies while protecting intellectual property rights.



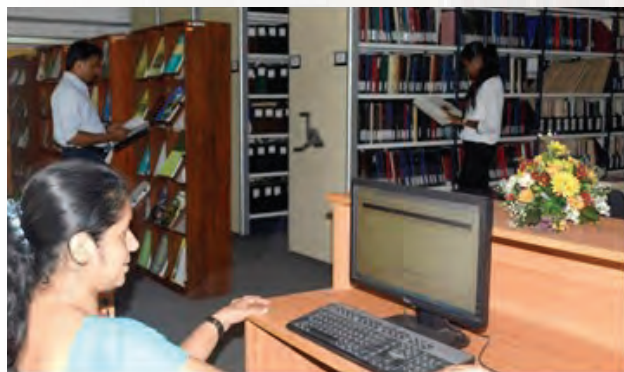
## Programme 3

Fostering interchange of scientific information among scientists in Sri Lanka and abroad and promote the publication of one or more journals at the national level



***Fostering interchange of scientific information is one of the key functions of the NSF. Empowered by the S&T Development Act No. 11 of 1994, the NSF provides access to scientific and technological literature and related information to all the stakeholders, being the key gateway in the country for providing S&T information.***

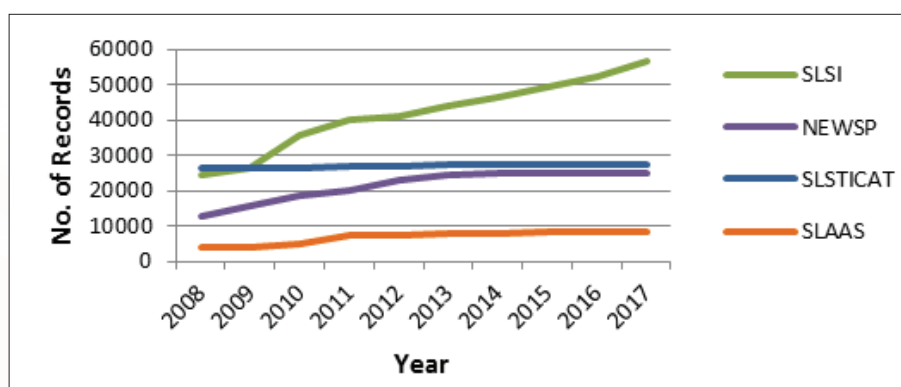
The National Science Library and Resource Center (NSLRC) of the NSF continued to provide with an efficient information dissemination service to the scientific community using modern information communication technologies. Strengthening of linkages and networks were done by carrying out necessary programmes to foster the interchange of scientific information among scientists in Sri Lanka and foreign countries. NSLRC has become the National Repository of Science & Technology Literature and National Focal Point for Science and Technology Information Services by providing technical assistance, training of library professionals, facilitating and delivering efficient service to scientific community. The following activities were conducted in 2017 to meet the requirements of the scientist & researchers for accessing S&T information.



## Strengthening Resource Base

### National Level Databases available at NSLRC

The NSLRC 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 in Figure 23.



**Figure 23:** Growth of Databases of the National Science Library & Resource Centre (2008-2017)

In 2015, transferring data from WINISIS databases in to new integrated system developed using open source software, JISIS was commenced and this process was continued during 2017. All the databases are now stored in JISIS system and they are made available online through Viduketha database *viduketha.nsf.ac.lk*. The information on the publications was first recorded in JISIS system which is operated within the intranet of the NSF & they were later transferred monthly to Viduketha online database.

➤ **Sri Lanka Science Index Databas (SLSI)**

SLSI database currently accommodates 56,677 documents of which online access is provided to the full text over 66% of the items. SLSI database has shown a significant progress during the year 2017 with an addition of 4,451 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 full text field was expedited as a corrective measure to rectify this issue and the path of the full text file was edited in 8,000 records. Title field of the records on Sinhala publications which were previously entered in transliterated form were edited using UNICODE system enabling to display/search them in Sinhala.

➤ **Research Grants Database (RGRA)**

The database was updated with the incorporation of information on 28 final reports and post graduate theses resulting from NSF funded projects, received by the NSLRC during the year. The full text & abstract fields were edited in 800 records of the database as the full text & the abstract of the above research reports were not accessible due to the replacement of the server in which the relevant files were stored.

➤ **SLASS Database**

The SLAAS database includes complete references and abstracts of all papers presented at SLAAS annual sessions during the period 1976 -2016. The database has shown a growth of 105 records with the inclusion of information on the abstracts published in the proceedings of the SLAAS, 2016. The database can be searched and abstracts can be downloaded/printed online.

➤ **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 national e-repository was 104. The total number of items recorded in the National e-Repository as at 31<sup>st</sup> December, 2017 was 14,348. National e-Repository has recorded 481,090 article views during the year under review. <http://dl.nsf.ac.lk/>



## Developments of Collections

### Acquisition of new books & journals

30 new books were purchased and added to the collection to cater to the reference requirement of the scholarly community. The centre continued to receive copies of new issues (35 titles) of scholarly journals published within the country and copies of new issues (25 titles) of foreign journals. Number of foreign journal titles subscribed was 8.

### Strengthening access to global literature

During the year 2017 access to the following subscribed international databases, a prime requirement of the research community was enabled within the NSF premises. The databases were utilized by academic and researches for literature searches and for citation information on their publications.

- **SCOPUS Citation & Abstracting Database:** SCOPUS is a comprehensive information source for literature searches covering peer-reviewed literature in over 21,950 journals from over 5,000 publishers with smart tools that track, analyze and visualize research. It is an ideal source to conduct literature searches.
- **TEEAL (The Essential Agricultural Library) :** TEEAL is a digital collection of research journals for agriculture and related sciences. It provides access to the full text articles in over 450 international peer-reviewed journals from more than 80 major publishers from 1993 to 2015.
- **HINARI (Access to Research in Health) full text journal Database :** HINARI together with major publishers provides online access to 13,000 journals and 56,000 e-books in the fields of biomedical and related social sciences.
- **AGORA (Access to Global Online Research in Agriculture) :** The AGORA program, 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 8,200 key journals and 21,000 books.
- **ARDI (Access to Research & Development Information) Database :** ARDI is a database of scholarly literature which provides free online access to Sri Lanka from diverse fields of Science & Technology. It provides access to 7,800 Journals, 21,000 e-Books and 25 other Information Resources.
- **OARE (Online Access to Research in the Environment) :** OARE is led by the United Nations Environment Programme (UNEP) in partnership with major publishers. It provides access to one of the world's largest collections of environmental science research including 10,000 journals, 22,000 e-books and 55 other information resources.

## Maintenance and Upgradation of Library Software

Re-designing of the NSLRC website was commenced using Joomla content management system. A template was selected for developing NSLRC website. A Google form for requesting information & twitter page were incorporated into the homepage of the website. The newly designed NSLRC website was transferred to the server and the designing work was being in progress.

The databases SLSI, RGRA and NSLRC catalogue were transferred from WINISIS to JISIS software for data entry as there was no compatibility issue of JISIS software with a trial version of advance windows server (2016) shown. The searching interface of JISIS was modified in order to query multiple terms.

2015 update of TEEAL database was successfully installed enabling its' accessibility from the NSF network.

## National Digitization Project (NDP)



The objective of the National Digitization Project is to digitize local S&T literature available in research & academic libraries in the country to facilitate easy & quick online access to the full text through a national network of Institutional Repositories. Phase I and Phase II of the National Digitization Project were completed successfully covering 17 institutions in 2013 & 2015 respectively. Phase III of the project that commenced in 2016 was continued in 2017. Digitization of 1,500,000 pages covering the institutional collections of fifteen institutions was awarded to a leading private company in digitization through a tender procedure. The agreements were signed between the NSF and 12 participating organizations (POs) prior to the digitization process. Institutional collections of eight institutions namely Wayamba University of Sri Lanka, National Aquatic Resources Research & Development Agency (NARA), National Building Research Organization (NBRO), Postgraduate Institute of Medicine (PGIM), Sabaragamuwa

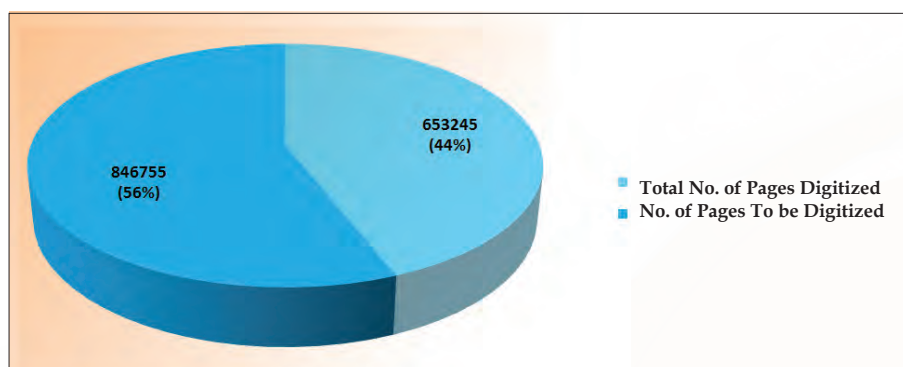
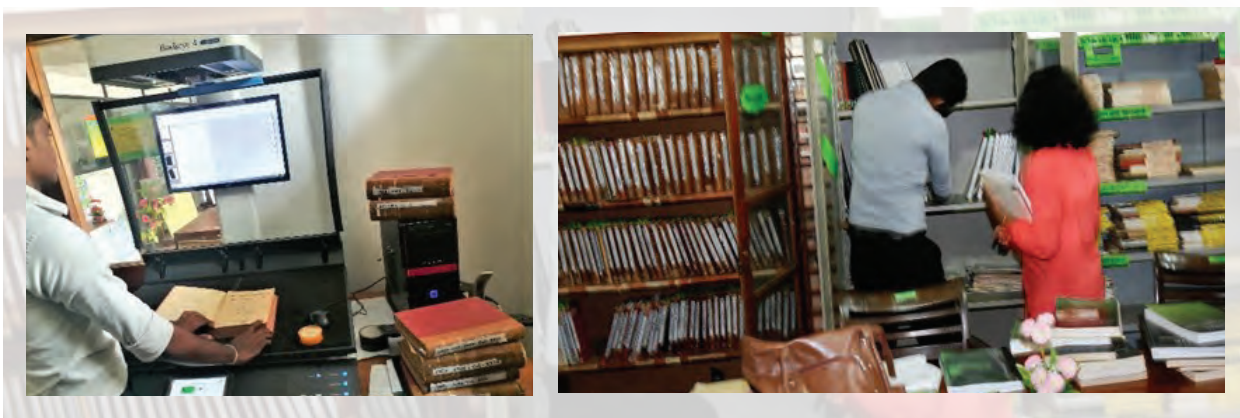


Figure 24: NDP Phase III Progress of Digitization

University of Sri Lanka, Institution of Engineers, Department of Census & Statistics & Central Environmental Authority were successfully digitized through the above outsourcing company.

A digital repository was successfully established for Department of Census & Statistics in their own server. Databases based on WINISIS software were created for Wayamba University (WUSL), Sabaragamuwa University (SUSL), Postgraduate Institute of Medicine (PGIM) & Central Environmental Authority(CEA). Recording data in these databases was commenced with the aim of batch transferring of these data into DSpace repositories. Once the repositories are setup 420, 600, 300 & 845 records were added to WINISIS databases of IESL, CEA, PGIM & WUSL respectively during the year under review.



## Sri Lanka Journals Online (SLJOL) - Online platform for Publishing Scholarly Sri Lankan Journals

The Sri Lanka Journals Online (SLJOL) project is the Sri Lanka component of the Journals Online (JOL) project managed by the International Network for the Availability of Scientific Publications (INASP), UK. <https://www.sljol.info/>

SLJOL operated by the NSLRC, in collaboration with the INASP and Ubiquity Press, UK provides greater visibility to the contents of Sri Lankan journals, covering the full range of academic disciplines. Since its inception, SLJOL has matured considerably and currently covers 1005 issues of 75 Sri Lankan scholarly journals hosting 9056 articles.

In 2017, four new journals were setup and 158 journal issues were published on SLJOL. Each article of the 158 journal issues was offered a Digital Object Identifier by submitting required metadata to crossref.org. 165,438 (68.2%) new visitors and 77,234 (31.8%) returning visitors have been recorded in 2017. 78,774 full text articles covered by the SLJOL have been downloaded globally.

The growth of SLJOL in terms of its usage is depicted in *Figures 25 & 26*.

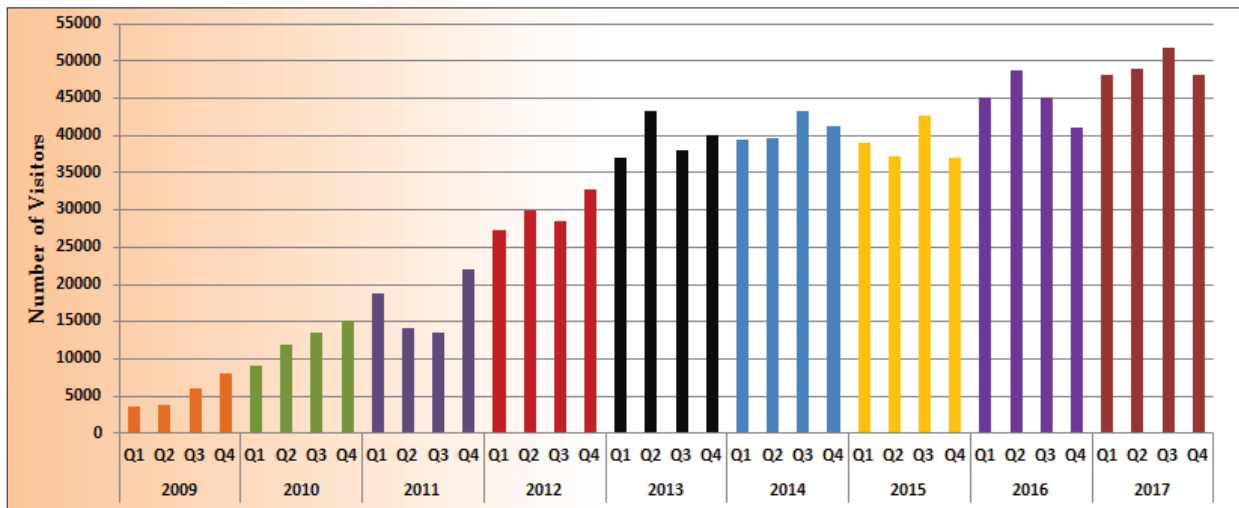


Figure 25: Number of visitors to SLJOL

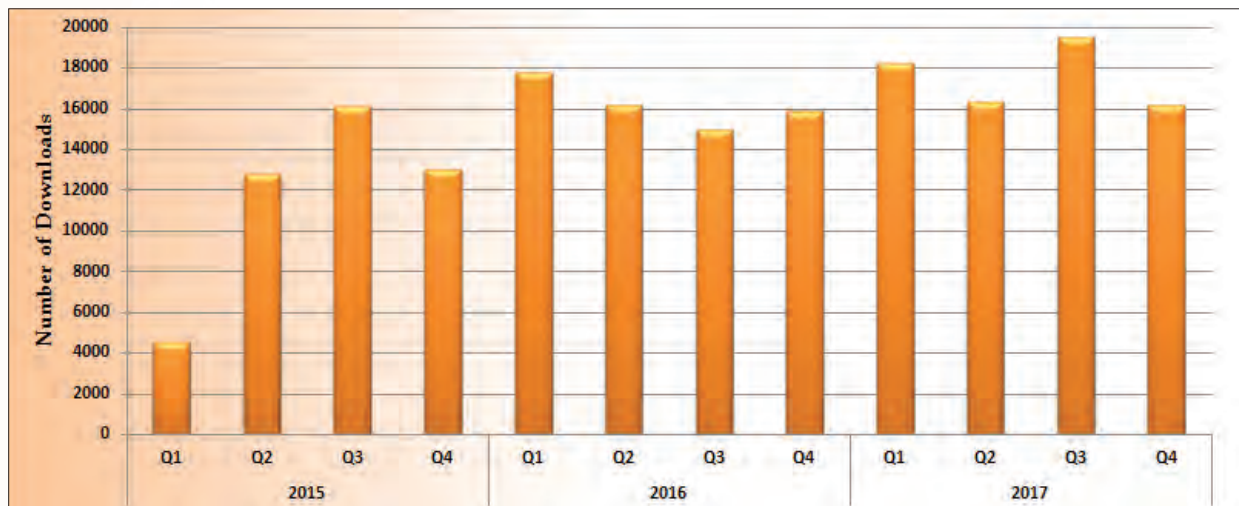


Figure 26: Number of downloads of SLJOL

The Journal Publishing Practices and Standards (JPPS) framework which contains internationally recognized high standards of publishing and editorial best practices was introduced to the journals in SLJOL. The JPPS process is intended to provide researchers a greater feeling of trust that quality publications are locally available to submit their research output. The journal editors whose journals in SLJOL were provided clear and comprehensive guidance through demonstrations and descriptive emails to improve the publishing quality of their journals based on the criteria provided by the JPPS. All the journals covered by SLJOL were assessed by the INASP against a detailed and transparent set of JPPS criteria and ranked them to six (06) categories. Six months to a year after initial assessment journals were allowed to apply for re-assessment by providing verifiable evidence to show eligibility in obtaining a higher JPPS rank. Accordingly, thirty eight (38) editors were encouraged to obtain a suitable copyright license provided by Creative Commons Attribution 4.0 International Public License to their journals and incorporate the relevant statement to each article in order to indicate how its content can be

used by readers. Requests were also made to SLJOL editors to inform their authors to obtain a free ORCID IDs since it should be displayed on the PDFs of their articles to ensure that their works are correctly attributed. With the support and guidance of Ms. S. Cumming, Program Manager INASP forty three (43) trouble shooting sessions were attended and the content of 36 journal home pages were made more informative by including details of new editorial boards, editorial policies, ethical responsibilities of research, peer reviewed process, author guidelines and CC license during the year.

The Promotional tools of the SLJOL were distributed among the research and academic community in forty two (42) departments in thirteen (13) state universities and twelve (12) research institutions in order to publicize the SLJOL among them.

Two research communications covered under SLJOL were published in international media such as Newslocker, Parallelstte, Follownews, Check the science and Longroom through the link of Alpha Galileo, a business-to-business science news service created by the UK government.

Two NSLRC members attended the Third (3<sup>rd</sup>) International Journal Online Management meeting which was held in Kathmandu, Nepal from 04<sup>th</sup> 07<sup>th</sup> September 2017. The management process of SLJOL including the overall 03<sup>rd</sup> annual progress towards the selected priorities, planned and actual achievements, percentage of completion (PoC) through a comparative analysis from 2015 to 2017 and communication strategies implemented to promote SLJOL were well presented. The INASP management was highly impressed with the progress made by the SLJOL in terms of total coverage obtained through promotional activities, increase of global visibility which can be measured through viewing and downloading figures in Google analytics and milestones achieved in improving the quality of Sri Lankan scholarly journals.



## Information Services

NSLRC continued to cater to the information needs of the scholarly community with literature searches, document supply and reference services responding requests received from the stakeholders.

Infometrics usage of Scopus Citation & Abstracting databases was 5,043 and total number of abstracts downloaded from Scopus was 5,192. The total number of searches made on local databases



maintained by the NSLRC was 135. The total number of searches made on international full text databases namely (HINARI, TEEAL, AGORA, BioMed Central and ARDI *etc.*) was 356 and number of full text articles provided to users was 1,168. 137 users who visited NSLRC were successfully catered during the year. In addition, 158 inquiries made over the phone and through e-mails were fulfilled.

## Capacity Building of Library Professionals in Other S&T Libraries for Effective Dissemination of Information Services

Provision of technical support for IT based services in other libraries and training library professionals are two responsibilities vested on the NSLRC. During the year under review the following services were provided to the other libraries/library professionals in the country.

Technical assistance was provided at 55 occasions to the libraries of the participating institutions of NDP and the libraries which use WINISIS, JISIS & DSpace as the software for library automation & establishment of digital repositories.

### Training Programme

- A two day workshop on “DSpace Software for Institutional Repositories” was conducted on the 24<sup>th</sup> & 25<sup>th</sup> May, 2017 at the NSF for library professionals of the participating libraries covered in phase III of the National Digitization Project. The workshop was attended by a total of 16 participants representing each Participating Organization of phase III.
- An in-house training was provided to two undergraduates of University of Kelaniya on NSLRC activities and services.

### Awareness Programmes

- An awareness programme on “Activities and Services of the NSLRC” was conducted for 30 undergraduates of University of Kelaniya.
- An awareness programme on Right to Information Act was conducted for the NSF staff on the 19<sup>th</sup> July, 2017.



## Journal of the National Science Foundation of Sri Lanka (JNSF)

The Journal of the National Science Foundation of Sri Lanka (JNSF) publishes 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 & Biological Abstracts, BIOSIS Previews, Zoological Records, SCOPUS, TEEAL, Ulrich's, AGRICOLA and EBSCOhost. The journal is published both online and in print form. 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.

During 2017, all four (04) issues of JNSF volume 45 (issues 1, 2, 3, 4) were published on time.



The number of submissions for the journal has increased in 2017 (34%) when compared with the previous year.

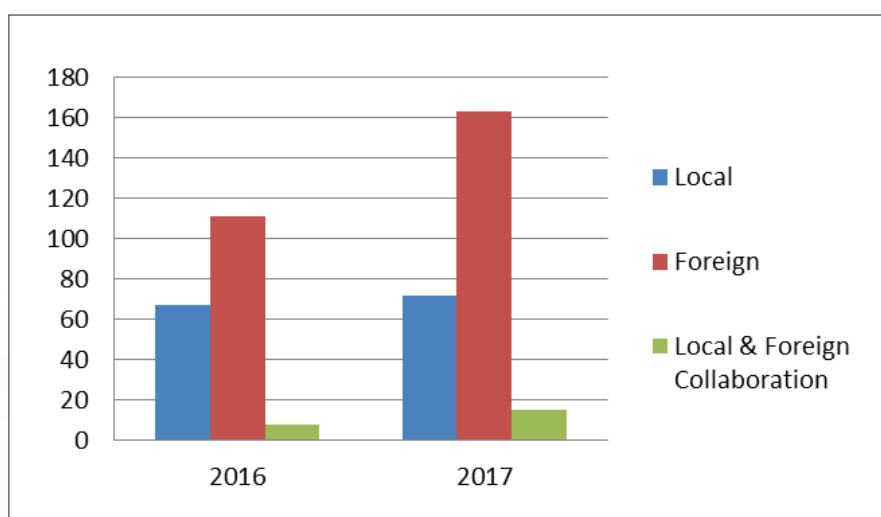


Figure 27: Number of submissions by origin: a comparison

The submissions to JNSF during 2017 cover a wide range of disciplines in Science and Technology.

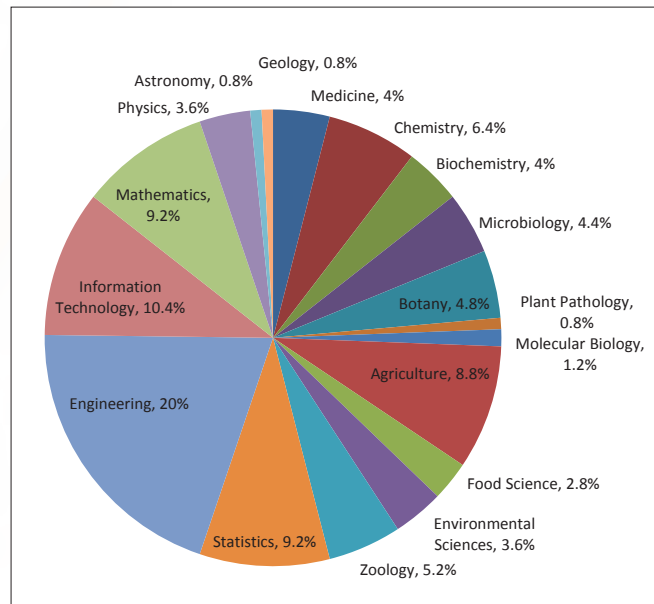


Figure 28: Submissions by discipline - JNSF

JNSF Impact Factor showed significant increase in 2017 when compared to the previous year.

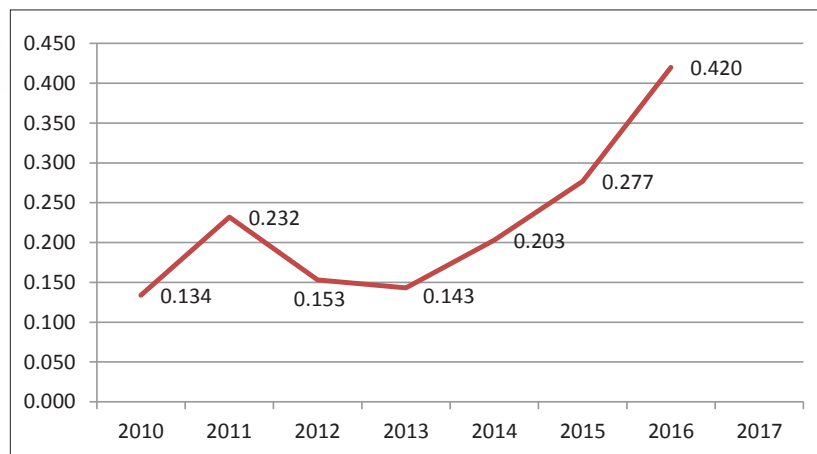


Figure 29: JNSF Impact Factor increase from 2010 - 2016

## 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, focusing on Sri Lanka and other South Asian countries. All papers are peer-reviewed. The full texts of the Journal articles are accessible through the Sri Lanka Journals Online (SLJOL) website <https://sljss.sljol.info/>. The journal is currently indexed in SCOPUS.



Sri Lanka Journal of Social Sciences (SLJSS) published its 40<sup>th</sup> Volume (Issues 1 & 2) in 2017 on time.

The number of submissions for the journal has shown a spike in 2017 when compared with the previous year. It is mainly due to the increase in foreign submissions.

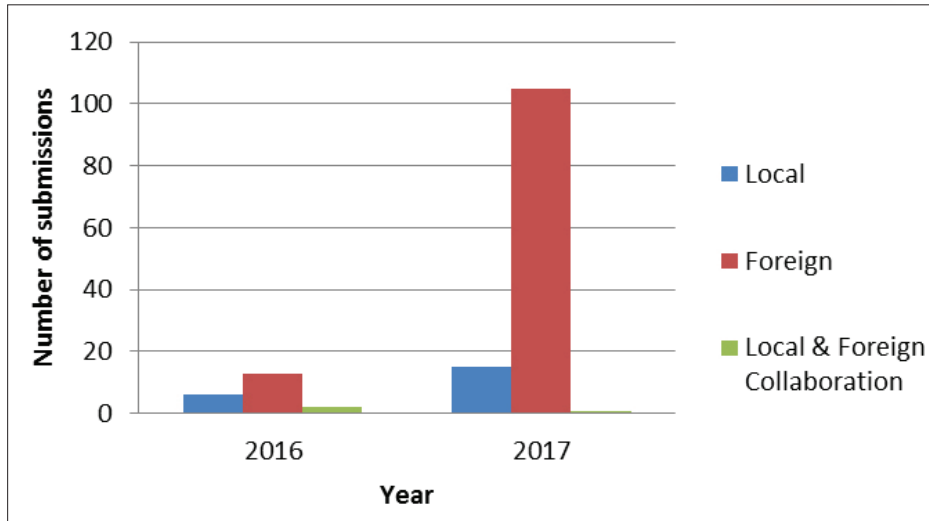


Figure 30: Number of submission by origin: a comparison

The submissions of 2017 covered a wide array of within the discipline as shown below.

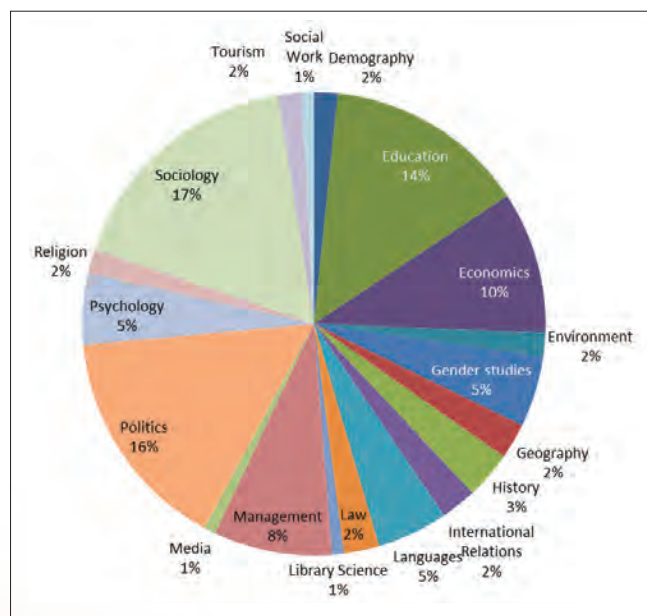


Figure 31: Submissions by discipline - SLJSS





# Programme 4

Popularizing Science amongst  
School Children and General Public



*Science Popularization is one of the key mandates assigned to the NSF by the Science & Technology Development Act no 11 of 1994. Accordingly, the NSF planned to conduct science popularizing activities targeting all sectors including general public. There were many activities conducted in 2017 specifically focusing on school children.*

## Science Popularization by way of publications

### Publishing "Vidurava" Science Magazine

The "Vidurava" Science Magazine, which is published as a Science Bulletin since 1978 is one of the oldest Science Magazines of the NSF. The Magazine has been published 39 years up to 2017. Three issues of the Magazine in three languages (Sinhala, Tamil and English) were published in January, June and November each carrying a specific theme. The one published in November was a special issue.

The following issues of volume 34 were published in Sinhala, Tamil & English languages and distributed among the schools registered with the NSF, "Vidatha" Centres, University Science Libraries, Provincial Science Coordinators, and also among the Zonal Science Directors free of charge.

- Issue No 1. - Theme : Science in Sports
- Issue No 2. - Theme : Science behind mind

Volume 34; No 03 under the theme "Dengue" was in progress. In addition, the work on the issues of Volume 35; Nos 1 & 2 was in progress.



At the request of the Ministry of Science, Technology & Research, 5000 copies of issue of "Vidurava" magazine titled "Emerging Technologies" were re-printed and distributed among the Master trainers identified by the Ministry of Education at three Provincial Science Symposia held in July.

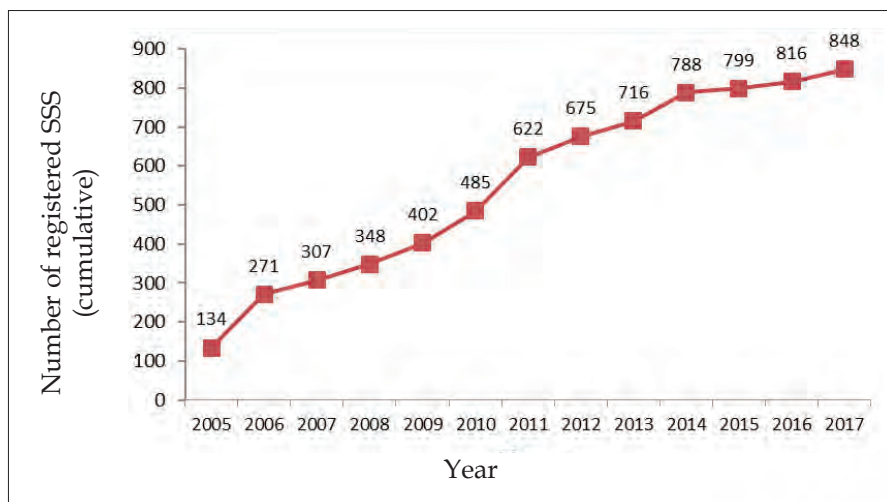
## Science booklets and books

Publishing and distributing science booklets and books aiming at improving readership & knowledge on scientific concepts among school children were continued during the year. The publications are done in simple language and printed in both Sinhala & Tamil languages for easy understanding. Booklets are distributed among the students of underprivileged schools. Accordingly, 5,000 copies of the printed book titled “Biotechnology” authored by Dr Suneth S Sooriyapathirana and Mr Mohomad Ishan and 4,297 copies of “Aruma Puduma Gaswal” authored by Dr Sudhira M W Ranwala were distributed among underprivileged schools and School Science Societies registered with the NSF.

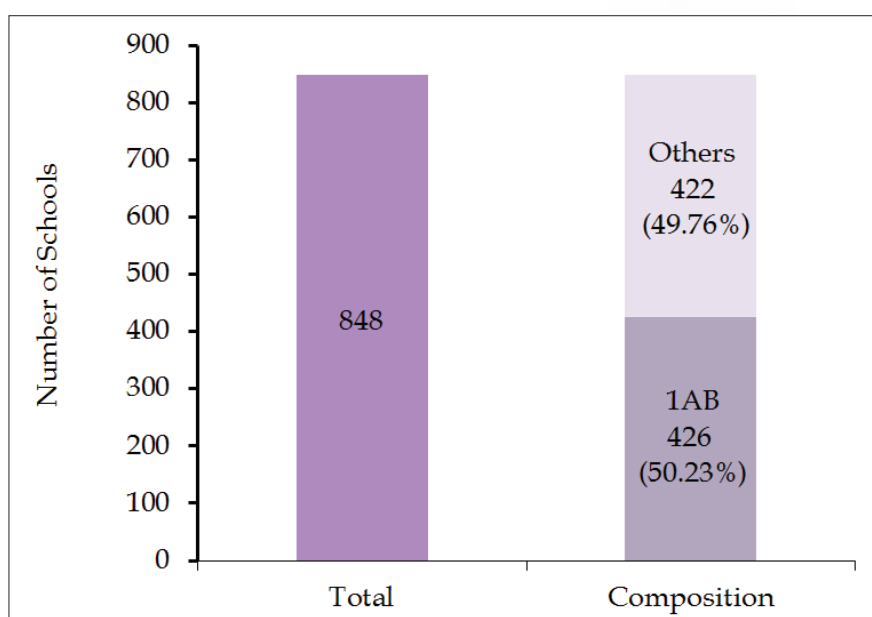
## Establishing a National Platform for Science Popularization Through Secondary and Higher Education Systems

### School Science Society Programme (SSSP)

The SSSP was started in 2005 with the objective of fostering school children to acquire knowledge on latest developments in various fields of Science and Technology, and to make them aware of the application of scientific knowledge in day-to-day activities. School Science Societies of 1AB, 1C and type 2 school categories and private schools registered with the Ministry of Higher Education are registered with the NSF. There are 426 1AB Schools registered with the NSF at present. Thirty two (32) new school science societies were registered in 2017, increasing the total number of school science societies registered with NSF up to 848 (Figures 32 & 33).



**Figure 32:** Number of schools registered with the NSF from 2005 - 2017



**Figure 33:** 1 AB School representation under the NSF School Science Society Programme

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

The NSF facilitates with providing resource persons for the schools to deliver guest lectures on different themes at School Science Days organized by the schools. In 2017, four School Science Societies were facilitated with resource persons as described in *Table 6*.

**Table 6:** Supporting School Science Societies

School	Date	Resource person's name and affiliation
1. Delta Gemunupura Maha Vidyalaya Kothmale	16 <sup>th</sup> February, 2017	Dr Jayantha Wattavidanage Director Centre for Education Technology & Media The Open University of Sri Lanka
2. Yasodara Devi Balika Maha Vidyalaya Gampaha	17 <sup>th</sup> February, 2017	Dr Ajith Jayaweera Senior Lecturer Department of Livestock & Avian Sciences Wayamba University of Sri Lanka
3. Weera Parakrama Secondary School Yatawatta, Mathale	23 <sup>rd</sup> February, 2017	Dr Yaminda Jayarathna District Hospital-Eye Unit, Mathale
4. Lakdasa de Mel College Kurunegala	27 <sup>th</sup> October, 2017	Prof. H M D Namal Priyantha Director Postgraduate Institute of Science University of Peradeniya

## Training Workshop on "Short Science Drama"

Science Drama has been identified as an effective tool in science communication. A two-day residential training workshop on "Short Science Drama" was organized at the Community Education Centre, Talahena on 30<sup>th</sup> and 31<sup>st</sup> October, 2017 with the participation of 47 science and drama teachers representing 27 schools. These schools had applied to participate in the Drama Competition under the programme "Inter School Science Society Competition 2017". The workshop was conducted with the objective of improving the competencies in science script writing and science drama production since the scripts submitted for competitions organized in the previous years were not up to the standard. The participants rated the workshop as highly effective. The impact of the workshop was reflected by higher acceptance rate of the drama scripts (22) submitted by the schools at the recall for applications.



## Inter School Science Society Competition 2017

Applications for the Inter School Science Society Competition (ISSSC) were called for six competitions: Short Science Drama, Role Play, "Viridu", Science Essay, Manual Posters and Digital Story Telling from all School Science Societies registered with the NSF. In addition, applications for other two competitions; "Star Ratings" for the best functioning School Science Society and "Teachers Award" for promoting Science among the school children were also called. A large number of applications were received for consideration under these three different competitions.

Four (4) Regional Competitions were planned for Drama, Role Play and "Viridu" Competitions to be held during February and March 2018. The Final competition was planned for March 2018 with the participation of the winners from each regional competition. It is also planned to felicitate the winners of all competitions at the event "Science Day" to be held on 4<sup>th</sup> May, 2018 marking the NSF Golden Jubilee.

## Science Walk

The World Science Day Schools Programme which was an annual activity held in November each year was changed by a policy decision and was brought forward to be held in May every year. "National Science Walk" was organized instead, to mark the World Science Day 2017 by the Ministry of Science, Technology and Research (MoSTR). With the participation of all institutes come under the purview of the Ministry, the National Science Walk was held on 11<sup>th</sup> November. The NSF arranged an attractive float vehicle demonstrating the NSF services and activities. The Chairperson, Director General and NSF staff members participated in the walk.



## Inculcating a Research Culture Amongst School Children

### Science Research Projects Competition (SRPC)

The National Science Foundation (NSF) organizes 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 and the students from Grade 9-12 are eligible to participate at this competition.

655 applications had been received for consideration under SRPC. Three introductory workshops were conducted in Colombo, Kandy and Batticaloa on 15<sup>th</sup>, 22<sup>nd</sup> & 28<sup>th</sup> of June to make aware the School Children and Teachers about the SRPC Competition, proposal writing and participation. The number of participants were substantially high at all these workshops reaching 654.

After the introductory workshops project proposals were called. Out of 118 science research project proposals, 42 were selected for consideration at the SRPC 2017 which was commenced on 01<sup>st</sup> August, 2017. The SRPC 2017 was in progress from 01<sup>st</sup> August – 29<sup>th</sup> December, 2017. Two Progress Review Workshops were conducted during this period on 10<sup>th</sup> October and 12<sup>th</sup> December. The final evaluation was scheduled for January, 2018. One Principal Supervisor for each Project was appointed to improve the standard of science research projects.

## Junior Science Conference (JSC)

Junior Science Conference (JSC) takes place as the final step of the evaluation of shortlisted projects under Science Research Projects Competition (SRPC). JSC was held on 17-19 January, 2017 at the Subodhi Institute of Integral Education with the participation of 59 school contenders and 14 teachers-in-charge as a three-day residential programme.

On the first day after the inauguration, two presentations were made; one on “Personality Development” by Dr Saman Weerawansa of the Sri Lanka Foundation with some practical activities. The second presentation was made by Dr Jayantha Wattavidanage of the Open University of Sri Lanka on “Power of Power Point (Scientific writing & presentation)”.

On the second day, the students briefly presented their research achievements using power point applications. The second day was concluded with a campfire conducted by scouts under the guidance of Dr D M Suratissa. Hon. Susil Premajayantha, Minister of Science, Technology and Research delivered certificates to the participants on the third day of the programme. The third day programme ended with group activities organized by the NSF staff to inspire team spirit in enhancing scientific knowledge. The sessions on the 2<sup>nd</sup> and 3<sup>rd</sup> days began with physical exercise and yoga conducted by Sensei Rohan Perera, Psychology Counsellor and Trainer of Karate Yoga Institute.

Ten best research projects were selected out of the 27 projects presented. The selected 10 projects scored up to the standard to take part in the Sri Lanka Science and Engineering Fair (SLSEF) together with the top 10 projects of the Junior Inventor of the Year (JIY) Competition conducted by the Institution of Engineers Sri Lanka. The details of the best 10 projects that were selected from the SRPC are given in *Annex I3*.

The winner of SLSEF became eligible to represent Sri Lanka at the International Science and Engineering Fair (Intel ISEF) held in United States of America.



## Sri Lanka Science and Engineering Fair (SLSEF) - 2017

Sri Lanka Science & Engineering Fair 2017 was conducted on 09<sup>th</sup> February, 2017 at the Institution of Engineers Sri Lanka (IESL) with participation of the candidates of the best 10 science projects selected at the SRPC 2016 and the best ten inventions from the Junior Inventor of the Year (JIY) 2016 organized by IESL. Three National Winning Projects viz, two students at the JIY and one group of students at the SRPC 2016, were selected.

The group project titled “Micro and Nano engineering for wastewater: magnetized biochar and nanoparticle composite for toxic Cr (VI) removal” conducted by the two students; Shehan Kavishka and Sankalpa Perera of S. De S. Jayasinghe Maha Vidyalaya, Dehiwala at the SRPC 2016 was placed Second at the SLSEF 2017. Dr Meththika Vithanage was the Principal Supervisor of the Project.



## Intel International Science and Engineering Fair (Intel ISEF)

The winners of the SLSEF 2017 (three national winning projects under SLSEF - 2017) participated at the Intel International Science & Engineering Fair (Intel ISEF) 2017, held in Pittsburgh, Pennsylvania, USA from 13 - 18 May, 2017. The group project titled “Micro and Nano engineering for wastewater: magnetized biochar and nanoparticle composite for toxic Cr (VI) removal” presented by the two students, Shehan Kavishka and Sankalpa Perera of S. De S. Jayasinghe Maha Vidyalaya, Dehiwala, trained under the SRPC 2016 was presented with the Grand Award (fourth place with a cash prize of USD 500/=) under the category, “Earth and Environmental Sciences” at the Intel ISEF 2017. This was the first time a Grand Award was won at the Intel ISEF for a science project monitored under the SRPC. The two students also won a Special Award (Mawhiba’s Special Award) with a cash prize of 1,000 USD at the Special Award Ceremony of the Intel ISEF 2017.



The two students represented JIY at the Intel ISEF 2017 were, G K N Wishvajith Gangodawila of Mayurapada Central College, Narammala, and W S Udantha Abeyawickrama at Darmasoka College, Ambalangoda.

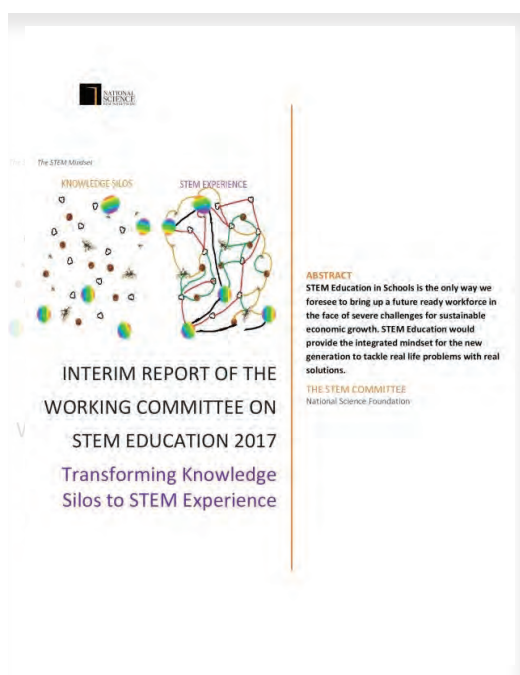


*Two students, Sankalpa Perera (Left) & Shehan Kavishka (Right) are being felicitated by the Honorable Minister of ST & R*

## STEM Education Programme

As per the suggestion made by the Ministry of Education (MoE/Science Branch), a programme was planned to train 450 Master Trainers selected by the MoE to work on the STEM Education Programme. A Brainstorming session with the participation of relevant stakeholders was conducted to prepare the STEM Action Plan. Based on the inputs of the workshop, the Action Plan was prepared and submitted to the Ministry of Science, Technology and Research.

Subsequently, a workshop was organized to develop STEM framework. In addition, another workshop was organized with NIE staff to develop a pilot lesson for STEM. Interim report on STEM Education was developed and submitted to the Board of Management, Ministry of Education and other relevant stakeholders.



## Grant Schemes to Promote Science Among Students

### Science Education and Popularization Programme (SEPP)

The SEPP scheme is designed to financially assist science education and popularization programmes in schools and universities. The School Science Societies and University Science Societies registered with the NSF are considered for support under this scheme. Financial support to conduct scientific activities and programmes enhancing scientific knowledge of students are considered under two major categories; Science Education and Science Popularization.

Accordingly, Science Societies of the following Schools and universities were supported under this scheme in 2017.

- Yasodara Devi College Gampaha for the science magic show and quiz competition.
- Yasodara Devi College, Gampaha for purchasing equipment for two projects titled "Minilabs for grade 6 students" and "Estimate weather by collecting and analyzing meteorological data".

- Chemical Society of University of Colombo for “SAHAS” Community Project
- T/Kan/Peramaduwa Vidyalaya, Kanthale for upgrading the school science laboratory

## Overseas Science Education Programme (OSEP)

Eleven (11) grants worth of Rs. 2.16 Mn were approved for four groups of Sri Lankan students to take part at four International Competitions under the OSEP Grant Scheme (*Annex 14*) in 2017. Students who participated at the International Olympiad Competitions in 2017 using these grants won several medals as described below.

International Competition/ Event	Institute	Achievements
48 <sup>th</sup> International Physics Olympiad held in Indonesia	Institute of Physics	- Two Bronze medals - Honorable mention
International Biology Olympiad (IBO), University of Warwick, UK	Institute of Biology	- Bronze medal - The video was selected as the best five videos at the video competition in IBO 2017
International Earth Science Olympiad (IESO) at Cote d'Azur, France	Geology Society of Sri Lanka	- Bronze Medal for the individual performance - Two Gold Medals - Silver Medal
Fifth Annual International Conference of Sustainable Development at Columbia University, USA	University of Colombo	The research was selected to be published as a printed book

## Use of Mass Communication Media to Reach Diverse Target Groups

A programme was arranged to connect expatriate Sri Lankan scientists with the people in Sri Lanka in collaboration with Independent Television Network (ITN). Manager (Public Relations), ITN made a visit to USA and collected information on contributions made by Sri Lankan scientists who live in the USA to science. Their achievements were telecast in a series of programmes, “Doramadalawa”, starting from 19<sup>th</sup> June and “Atapattama” during June and July, 2017.

The Chairperson and the Actg. Director General participated at two media interviews conducted by Lake House for preparation of the tabloid "Vidya", a newspaper supplement describing S & T activities conducted by the S & T institutions under the Ministry of Science, Technology & Research. Tabloid “Vidya” was published with the information on S & T activities of the NSF in November, 2017 in all three languages.

Work was in progress to establish a Media Unit and a Social Media Platform at NSF.

## NSF Participation at “Vidya 2017” Exhibition

University of Kelaniya celebrated its 50<sup>th</sup> Anniversary. An exhibition, “Vidya 2017” was organized from 02<sup>nd</sup>-09<sup>th</sup> October, 2017 as an activity under this event. The stall was organized demonstrating all the NSF activities and services provided to different stakeholders at University of Kelaniya "Vidya 2017" Exhibition from 02<sup>nd</sup>-09<sup>th</sup> October.



## Programme 5

Promote and enhance capacity building through liaising with individuals, associations or institutions locally and internationally and facilitate return of Sri Lankan scientists and technologists of distinction for S & T development

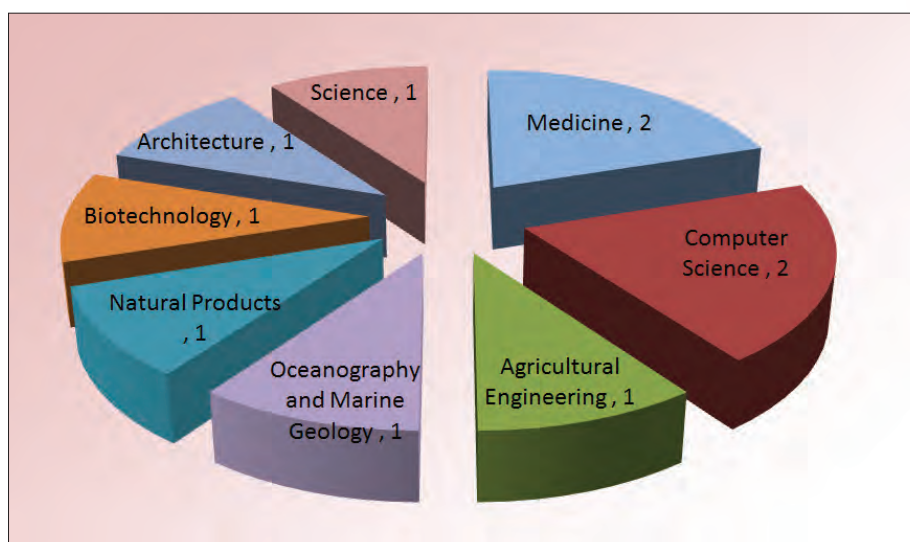


*Besides fostering RDI initiatives, the NSF has been continuously engaged in multifaceted tasks supporting S&T capacity building in the country and building & strengthening partnerships with the globe for S & T development in the country.*

## Research Scholarships

It is considered that the output of postgraduate research degrees by the Sri Lankan universities is very low at present. As such, it is important to attract and encourage science/engineering graduates to conduct fulltime research, leading to research degrees. This programme, "Research Scholarships", provides the financial support to science and engineering graduates to conduct fulltime research (within Sri Lanka) leading to MPhils and PhDs.

Ten (10) new Research Scholarships were awarded in the year 2017 as given in *Annex 15* for Research Students to pursue their higher studies in multidisciplinary areas (*Figure 34*). Twenty four (24) ongoing Research Scholarships were monitored and five scholarships were completed in 2017. The details are given in *Annexures 16 & 17*.



**Figure 34:** Research Scholarships awarded in 2017 - Distribution among different study disciplines

## Postdoctoral Research Scientists Grants

Postdoctoral Research Scientist grants are awarded to scientists/ engineers with good research record and recent doctoral degree holders to carryout fulltime research in the country up to two years in all fields of Science & Technology. This scheme is operational with the objective of attracting postdoctoral scientists / engineers to support postdoctoral research locally.

One grant was awarded in March 2017 to Dr H C S Perera to work on a project on “Synthesis of colloidal Quantum Dots for Infra-Red photo detection and solar cells” at Department of Physics, University of Peradeniya. This project has produced Quantum Dot Solar Cells with enhanced capacity generating results for commercialization.

## Grant Support for Sharing Knowledge

### The NSF International Travel Grants

The objective of awarding travel grants is to provide an opportunity to Sri Lankan scientists and technologists to present their research findings at International fora and to acquire scientific knowledge on new discoveries, achievements, and developments and to experience global moves.

Under this scheme, the grantees get the opportunity to participate at international conferences and share their research findings, upgrade knowledge and establish linkages with the scientists working in similar areas across the globe for future collaborative S & T efforts.

In 2017, the NSF awarded sixty one (61) Travel Grants. The award of travel Grants based on type of presentation, Subject field and affiliation of the applicant are given in Figures 35-37. The Grant details are given in Annex 18.

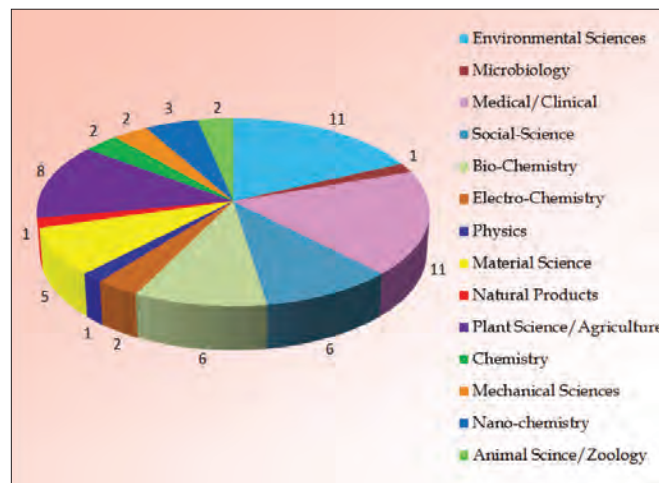


Figure 35: Travel support under subject fields

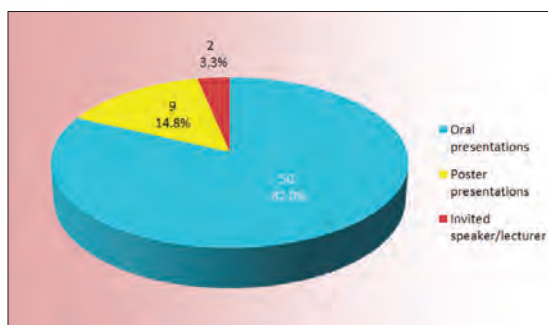


Figure 36: Type of presentation

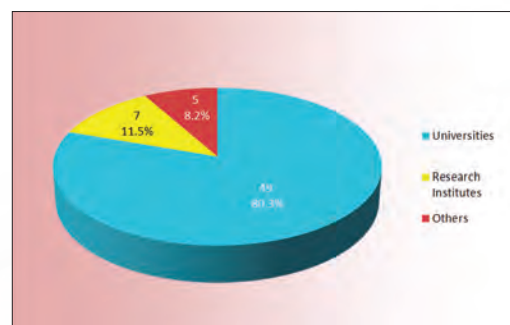


Figure 37: Affiliation of the applicant

## Overseas Special Training Programme (OSTP)

Scientists & researchers are provided with OSTP grants to undergo training at centers of excellence abroad. The objective of this scheme is to build S&T expertise in scarcely available fields locally.

Under the OSTP, scientific and technical personnel such as full time research students, science administrators, science educators, S & T policy makers & science communicators are financially supported to acquire overseas training up to a period of 12 months. They are provided the opportunity to obtain advanced laboratory & research skills, industrial & technical experience and science communication & teaching skills that are not available in Sri Lanka in the foreseeable future.

In 2017, the NSF awarded forty (40) OSTP Grants and the details of these grants are given in Annex 19.

The OSTP grants based on the type, subject field and the affiliation of the applicant are graphically presented in Figures 38-40.

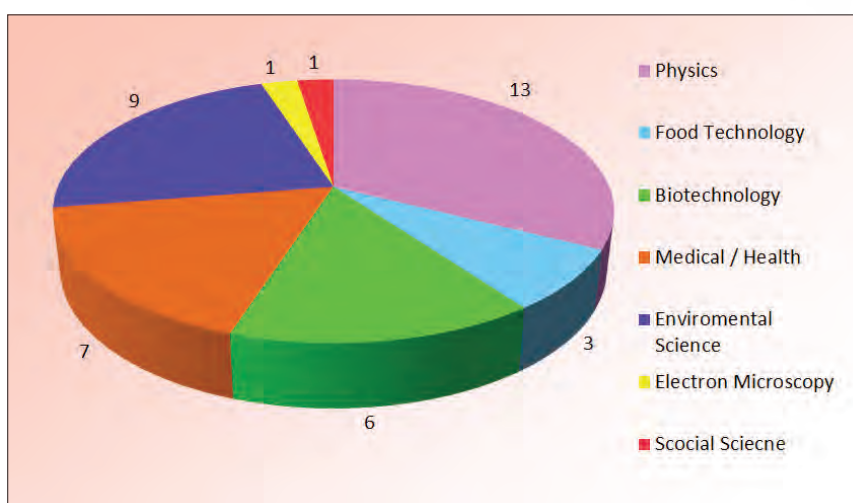


Figure 38: Area of the training

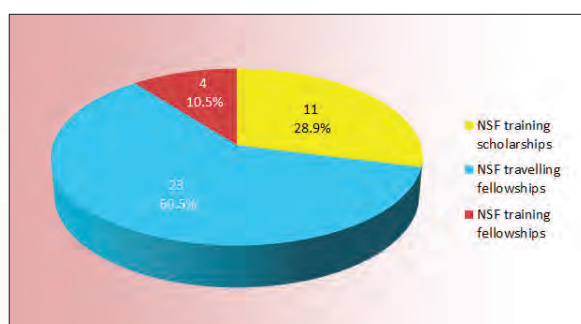


Figure 39: Type of the grant

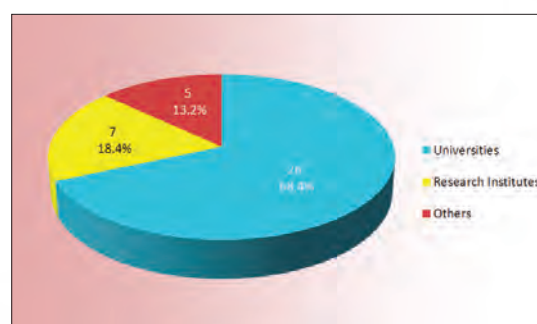


Figure 40: Affiliation of the applicant

## International Partnerships for Science and Technology (IPSAT)

The International Partnerships for Science and Technology (IPSAT) is a scheme set out to obtain services of high caliber scientists and technologists working abroad. It is directed at promoting international research collaborations, technology transfer, and obtaining expertise towards developing a globally-engaged community of scientists and technologists in Sri Lanka. This programme was initiated in year 2012. Eleven (11) IPSAT grants were awarded in the year 2017 to different universities, research institution and associations (*Annex 20*). The scientists' names and specialized fields are given are *Table 07*.

**Table 07:** IPSAT grants awarded in 2017

Resource Person/s and Affiliation	Specialized Academic Discipline
<b>Prof. Malik Peiris</b> University of Hong Kong, Hong Kong	Virology, Infectious disease
<b>Prof. K M Venkat Narayan</b> Emory Global Diabetes Research Centre, USA	Clinical Medicine (Epidemiology & Global health; Diabetes & Obesity prevention)
<b>Prof. Adam H Balen</b> The Leeds Centre for Reproductive Medicine, UK	Obstetrics and Gynaecology (Reproductive medicine)
<b>Prof. Catherine Williamson</b> King's College, London	Obstetric medicine
<b>Prof. Shervanthi Homer-Vanniasinkam</b> University College, London	Surgery (Vascular surgery)
<b>Associate prof. Praveen Karanth</b> Centre for Ecological Sciences, India	Molecular phylogenetics and Biogeography
<b>Prof. Vd Kartar Singh Dhiman</b> Central Council for Research in Ayurvedic Sciences, India	Ayurveda - Shalakya (Ophthalmology, ENT and Dentistry)
<b>Prof. D Perahia</b> Clemson University, USA	Physics and chemistry of polymers (Cleanenergy, Nano organic electronics, Energy controlled interfaces, Neutron and Simulations study)
<b>Prof. S E John Bell</b> Queen's University, UK	Physical chemistry Sub fields: Optical spectroscopy, Raman spectroscopy, Nanomaterials
<b>Prof. F D Blum</b> Oklahoma State University, USA	Polymeric materials, Material science, Nanomaterials, Surface activity materials, Nuclear magnetic resonance spectroscopy, Colloid science and Surfactants

Resource Person/s and Affiliation	Specialized Academic Discipline
<p><b>Dr Gary S Grest</b> Sandia National Laboratories, USA</p> <p><b>Prof. Bill Jones</b> University of Cambridge, UK</p>	<p>Polymers and Soft materials, Computational materials science</p> <p>Material chemistry</p>
<p><b>Prof. Paul Sanders</b> School of Design, Australia</p> <p><b>Prof. Anu Rammohan</b> University of Western Australia, Australia</p> <p><b>Mr Zachary A Lomo</b> York University, Canada</p> <p><b>Dr Madhav B Karki</b> University of Southern Denmark, Denmark</p> <p><b>Associate Prof. Sagadevan Mundree</b> Institute for Future Environments, Australia</p>	<p>Urban morphology, Architectural design, Regional modernism</p> <p>Health research, Development economics, Demography</p> <p>International law and International human rights</p> <p>Forestry and Natural resource management</p> <p>Biochemistry and Cell biology, Agricultural biotechnology, Industrial biotechnology</p>
<p><b>Dr J B Phillips</b> University College London, London</p>	<p>Biomedical engineering Sub-fields: Biomaterials &amp; Tissue engineering</p>
<p><b>Dr Sudha Ram</b> University of Arizona, USA</p> <p><b>Prof. Morihiko Maeda</b> Okayama University, Japan</p> <p><b>Mr Kandiah Sivayogaiswaran</b> Jaguar Land Rover, UK</p>	<p>Management information systems/ Computer science, Big data analytics, Data mining, Prediction models</p> <p>Soil science and Environmental engineering</p> <p>Automotive industry, Manufacturing</p>
<p><b>Dr Roland J Buresh</b> Rice Research Institute, China</p> <p><b>Dr Samuel Thevasagayam</b> Bill &amp; Melinda Gates Foundation, USA</p>	<p>Management of rice-based production systems, Nutrient management, Soil fertility and nutrient cycling, Crop residue management, Long-term experiments, Decision tools for crop and resource management, Mobile phone applications for farmers, Agroforestry</p> <p>Veterinarian, Scientist and a leader with unique blend of international</p>

Resource Person/s and Affiliation	Specialized Academic Discipline
<p><b>Prof. Emmanuel Frossard</b> Swiss Federal Institute of Technology, Switzerland</p> <p><b>Prof. Naresh Thevathasan</b> The University of Guelph - SES, Canada</p> <p><b>Dr Alistair Gracie</b> University of Tasmania, Australia</p>	<p>experience in Clinical veterinary practice, Teaching, Academic research, Public-private-partnerships, Philanthropy and Pharmaceutical industry (Veterinary &amp; Human)</p> <p>Plant nutrition</p> <p>Agronomy, Environmental biology and Agroforestry</p> <p>Horticultural science</p>
<p><b>Prof. Yoshinori Fujimoto</b> School of Agriculture, Japan</p> <p><b>Prof. A K Azad Khan</b> Hamdard University, Bangladesh</p> <p><b>Prof. Biswapati Mukherjee</b> National Institute of Pharmaceutical Education and Research, India</p>	<p>Natural product chemistry</p> <p>Gastroenterology, Diabetic medicine</p> <p>Medicinal plants, Marine natural products, Diabetes, Wound healing, Ayurvedic metal preparations</p>
<p><b>Dr Saman Seneweera</b> University of Southern Queensland, Australia</p> <p><b>Dr Shamila Weerakoon Abeynayake</b> La Trobe University, Australia</p> <p><b>Prof. Kithsiri Bandara Dassanayake</b> University of Melbourne, Australia</p>	<p>Crop science, Plant physiology, Biology and Agronomy</p> <p>Biotechnology, Bioinformatics, Nanotechnology, Agricultural sciences</p> <p>Climate change, Irrigation</p>

## Bilateral Scientific Cooperation

### German Research Foundation (GRF)

A Meeting on the future scientific cooperation between the German Research Foundation (GRF) and the National Science Foundation of Sri Lanka was held on 23<sup>rd</sup> January, 2017 in Colombo at the National Science Foundation. This meeting was followed by visits of the GRF delegates to some research institutes of Sri Lanka such as Sri Lanka Institute of Nanotechnology (SLINTEC) and the National Institute of Fundamental Studies (NIFS).

## German Academic Exchange Service (DAAD)

A Meeting was held with Prof. Joybrato Mukharjee, the Vice President of the German Academic Exchange Service (DAAD) on 25<sup>th</sup> April at NSF on S&T cooperation between NSF and DAAD.

A follow up meeting was held subsequently between the representatives from the German Academic Exchange Service (DAAD) and the NSF on 23<sup>rd</sup> October, 2017 on the proposed MoU between DAAD and the NSF and future S&T collaborations.



## National Natural Science Foundation, China (NSFC)

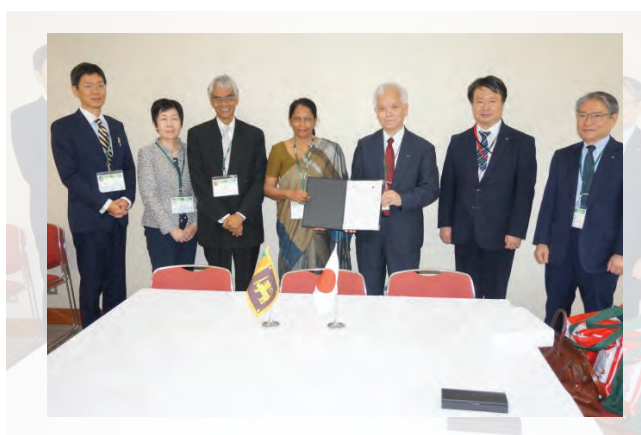
The 1<sup>st</sup> Joint Workshop was organized by the NSF and the NSFC from 4<sup>th</sup> to 7<sup>th</sup> July, 2017 in Beijing, China on the themes; CKDu & Health Science and Water & Environmental Sciences. This was the first implemetational step under the Memorandum of Understanding (MoU) between NSF and the NSFC signed in 2016.

The first Joint call for research project proposals under this MoU in the areas of Health Sciences and Water & Environmental Sciences was opened from 29<sup>th</sup> September, 2017 to 12<sup>th</sup> January, 2018.



## Memorandum of Cooperation with the Japan Science and Technology Agency (JST)

A Memorandum of Cooperation (MoC) on Bilateral Scientific Cooperation was signed with the Japan Science and Technology Agency (JST) on 02<sup>nd</sup> October, 2017 during the Annual event of 'STS Forum - Japan'. Prof. Sirimali Fernando, Chairperson/NSF and Prof. Michinari Hamaguchi, President/JST were the signatories from both parties.



## Pakistan Science Foundation (PSF)

The Second Joint Committee meeting on the MoU on bilateral scientific cooperation was held on 15<sup>th</sup> September in Islamabad, Pakistan with the participation of a delegation from NSF including Prof. Sirimali Fernando, Chairperson/NSF, Dr Geethika Yapa, Head/Research Division and Mr Wasantha Anuruddha, Head/International Liaison Division and the officials from the PSF. The two parties jointly selected 06 projects for joint funding under the call for Joint Research Proposals, in the areas of Health Sciences and Material Sciences.

## Science and Technology Policy Institute (STEPI)

A Meeting was held between the officials from NSF and some representatives from STEPI, South Korea on possibilities of future scientific cooperation on policy research on the 22<sup>nd</sup> of December, 2017.

## Multilateral Scientific Cooperation

### Meeting of the Global Research Council (GRC)

National Science Foundation, Sri Lanka (NSF) along with the New Zealand Ministry of Business, Innovation and Employment co-organized the Asia Pacific Regional Meeting of the Global Research Council (GRC) on 29<sup>th</sup> and 30<sup>th</sup> November, 2017 in Colombo. Forty-one (41) participants from nineteen (19) countries including Sri Lanka participated at this meeting. The two themes; 'Peer Review' and 'Science Diplomacy' were discussed extensively at the meeting. The participants came up with some common recommendations on both themes which are to be considered at



the next Annual Meeting of the GRC in 2018 in Moscow, Russia, in order to come up with joint statements of principals to be practiced by the granting agencies.



### **Awareness Programme for Sport Scientists, Administrators and Coaches**

An 'awareness programme for Sports Scientists, Administrators and Coaches' was held on 08<sup>th</sup> March, 2017 in the auditorium of the National Science Foundation with the participation of sport professionals, educators and administrators. The resource persons of this workshop were Dr Rob Cramb (Exercise Physiologist) and Prof. Emily J. Oliver (Sports Psychologist) from the Durham University, UK. This programme was initiated as a result of a collaboration established through an OSTP training provided to Dr K D C U Wijayasiri, Head of Sports and Exercise Medicine Unit, Colombo South Teaching Hospital, Kalubowila.

### **Programmes at the European Nuclear Research Organization (CERN)**

#### **○ CERN Summer Students Programme**

Out of the four University students selected for the CERN Summer Students Programme from Sri Lanka, 02 were funded by the NSF (Airfare and the cost of subsistence). They were Ms Thenmolie Gnanaguru (University of Jaffna) and Ms Chamini Shammi (University of Sri Jayawardenapura). This programme was held from 26<sup>th</sup> June to 18<sup>th</sup> August, 2017 in CERN, Geneva, Switzerland.

#### **○ Support for the Sri Lankan University Academics for understanding research at CERN**

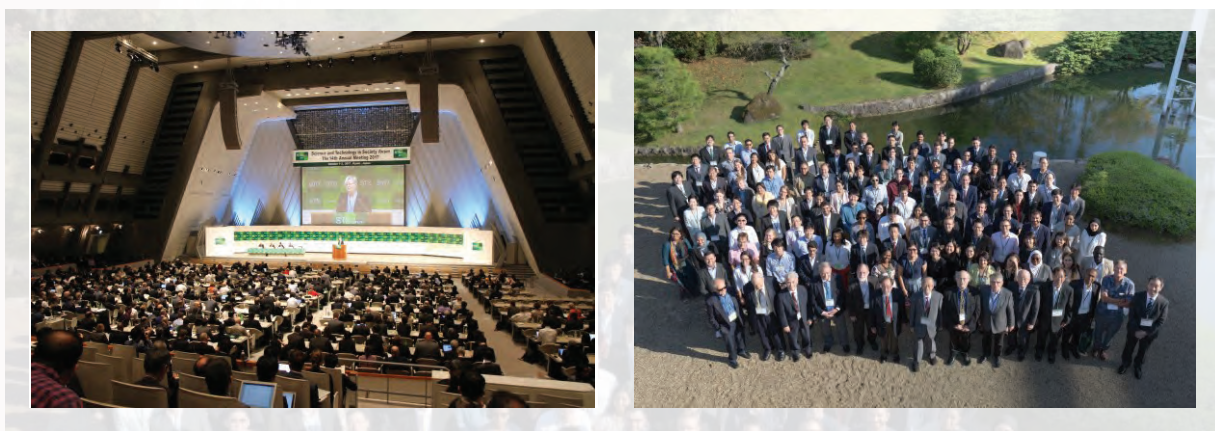
Dr N M Wickramage, Department of Physics, University of Ruhuna was fully provided financial support at CERN to conduct research on "Physics data and Monte-Carlo validation" from 26<sup>th</sup> June to 15<sup>th</sup> September, 2017.

## ○ Official visits to CERN

A ministerial delegation of Sri Lankan university academics comprised of Prof. W G D Dharmarathna (University of Ruhuna), Prof. Ravirajan (University of Jaffna), Prof. S R D Rosa and Prof. Upul J Sonnadara (University of Colombo) led by the Hon. Minister of Science, Technology and Research visited CERN, Geneva from 02<sup>nd</sup> to 07<sup>th</sup> May, 2017 to study and discuss about the future collaborative research.

## Science and Technology in Society Forum (STS) Kyoto, Japan

Prof. Rangika Umesh Halwathura participated at the “Future Leader Program” of the STS forum. He reported that he was able to meet 13 Nobel Laureates and had the opportunity to discuss about with them their life experiences as well as how they think of the future of the technological development in the world.



## ICGEB Regional Research Centre

Planning meetings and workshops for establishing an ICGEB Regional Research Centre (RRC) were held from 2<sup>nd</sup>-8<sup>th</sup> November, 2017 in Colombo with the participation of two Sri Lankan expatriates, two foreign scientists and 20 invited local experts.

Based on the meetings, brain storming sessions and discussions a dossier was prepared and handed over to the ICGEB high officials by the Hon. Minister of Science Technology and Research and the Deputy Minister of Finance.

### *ICEGEB Grants applications*

Five grant applications were submitted to the ICGEB; three for consideration under ICGEB Collaborative Research Programme and two for Early Career Return Grant Programme. The recommendations were made by the NSF Working Committee on Biotechnology. The application submitted by Prof. Shiroma Handunnetti was successful in securing a grant.

## 32<sup>nd</sup> International Council for Science (ICSU) General Assembly (GA)

The General Assembly for 2017 was held Taiwan from 23<sup>rd</sup>-24<sup>th</sup> October. Possible merge between ICSU and the International Council for Social Sciences (ISSC) was discussed. Ms Mahesha Nadugala, Coordinator of ICSU activities at NSF represented NSF at the GA.

## Council Meeting of the Global Research Alliance (GRA)

The Global Research Alliance was launched in December 2009 and now has 48-member countries from all regions of the world. The Alliance is focused on research, development and extension of technologies and practices that will help or deliver ways to grow more food (and more climate-resilient food systems) without increasing greenhouse gas emissions. The Alliance is founded on the voluntary, collaborative efforts of countries. Its membership and governance arrangements are underpinned by a Charter, signed by all participating countries.

The 7<sup>th</sup> GRA Council Meeting was held in Tsukuba, Japan from 29<sup>th</sup> August - 1<sup>st</sup> September, 2017. Sri Lanka is a member country to GRA since 2013.

Dr Thamara F Dias participated at this meeting on invitation by the GRA. A comprehensive report on the participation with recommendations was submitted to the Board.



## *Regional Networking Meeting for Developing improved Livestock GHG Emission Inventories in South/South-East Asia*

Prof. Thakshala Serasinghe as the contact Scientist of the livestock group of GRA participated at the above meeting held from 11<sup>th</sup>-14<sup>th</sup> September, 2017 in Bangkok, Thailand.





## Programme 6

Acquisition of capital assets and improve policies, processes and procedures of NSF together with managerial and technical competency of staff by international benchmarking, enhance infrastructure facilities and improve working environment to create a happy and contented workforce



***Core functions of the NSF under programmes 1-5 are supported by the programme 6 & keeping in line with the government AR & FR and PED Guidelines. Staff motivation and skills development were attended using all available opportunities across the sphere.***

## **Administrative support**

General administration, human resource development, assets management and attending to logistics requirements are the key functions of the Admin Division of the NSF. During the year under review the Admin Division had been continuously supporting the other Divisions of the NSF to carry out core functions of the NSF.

As per the Directive of the Ministry of Finance, cadre review was carried out and a report was submitted to the Ministry of Finance through the Ministry of Science, Technology & Research.

An employee day was conducted as directed by the Presidential Secretariat on 31<sup>st</sup> March, 2017.

Employees' matters/issues were discussed and the solutions were deployed wherever possible. The other matters were directed to the Ministry of Science, Technology & Research seeking solutions. Subsequently, the NSF participated at the Employee Day conducted by the Ministry of Science, Technology & Research and presented the employee grievances in detail.

## **Financial support**

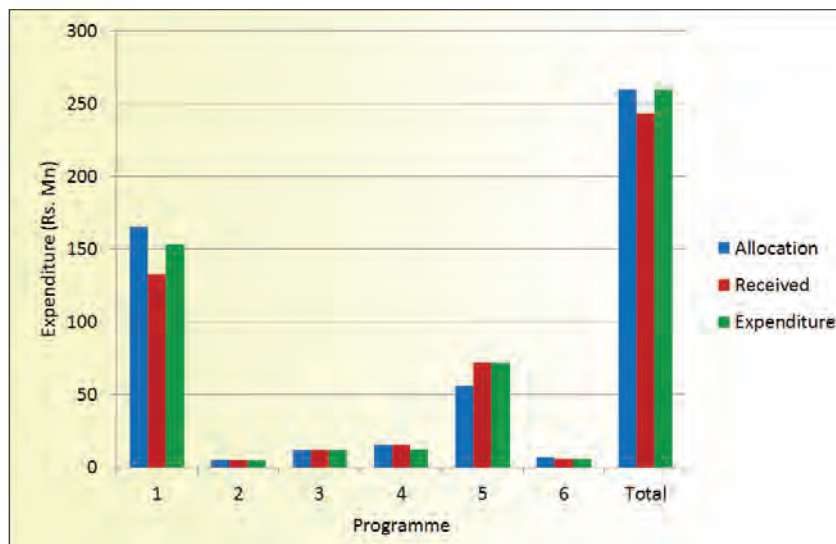
The Scheme of Recruitment and the Organizational Structure was revised and the Board approval was obtained for the revision.

The Finance Division manages all the financial activities in order to execute all planned and approved work under the specified schemes within the prevailing financial regulations approved by the Government Treasury. The following work was carried out during the year under review using up-to-date mechanisms and tools.

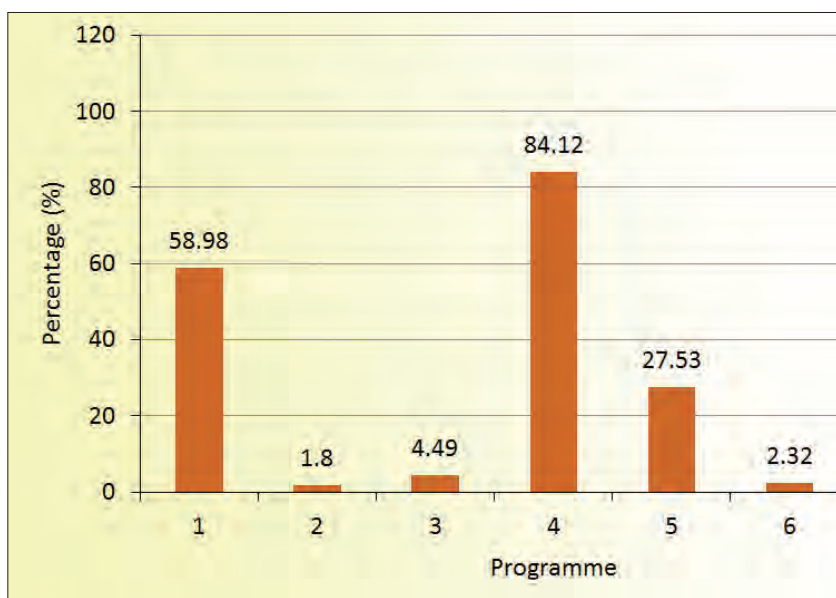
- Maintenance of Books of Accounts, Fixed Asset Register, General Ledger, Grants Ledger & Stock Books.
- Preparation of financial reports including annual financial statements.
- Preparation of financial forecasts and requirements for specific periods and submitting to relevant authorities for release of funds to carry out core functions of the NSF.

- Release of funds on approval to the relevant stakeholders for the activities conducted by the Divisions/Units
- Making general payments such as salaries, overtime *etc.*
- Maintenance of the Store with accessories required for smooth execution of work.

Financial performance for the year is depicted in *Figures 41 & 42.*



**Figure 41:** Financial performance under major programmes



**Figure 42:** Expenditure under major programmes as a percentage against the total allocation Rs. 260 Mn

## Information Technology support

The Information Technology Unit is responsible for the maintenance of the IT infrastructure of the institute and to provide the end-user IT support for smooth functioning of the entire institute with no interruption. Some work was in progress with regard to the replacement of the voice and telephone technology (PABX system) in order to provide a better platform for communication with enhanced facilities.

## Printing support

The Printing Unit was continuously engaged with the printing activities fulfilling the printing requirement of the Scientific Divisions. Accordingly, the following work was completed with quality outputs in order to attract the stakeholders to printed new scientific information. 22 different types of publications were printed during the period under review. The details are given in *Table 08*.

**Table 08:** Variety of publications printed

	Publication	Quantity
1.	Journal of NSF - December 2016	100
2.	Vidurava - June 2016 (Tamil)	700
3.	Vidurava Special Issue - November 2016 (Tamil)	700
4.	Journal of Social Science - December 2016	100
5.	Journal of NSF - March 2017	200
6.	Science Booklet / Bio Technology	5000
7.	Vidurava Special Issue - November 2016 (Sinhala reprint)	1500
8.	Vidurava Special Issue - November 2016 (English)	1000
9.	Vidurava - January 2017 (Sinhala)	1700
10.	Vidurava - January 2017 (English)	1350
11.	Journal of NSF - June 2017	200
12.	Journal of Social Science - June 2017	200
13.	Vidurava - June 2017 (Sinhala)	1700
14.	Policy Brief	30
15.	Vidurava - January 2017 (Tamil)	700
16.	Vidurava - June 2017 (English)	1300
17.	Journal of NSF - September 2017	200
18.	Annual Report 2015	65
19.	Statistical Hand book 2014	300
20.	Vidurava - June 2017 (Tamil)	700
21.	Journal of Social Science - December 2017	200
22.	Policy Brief - Sustainable Development Goals	80

In addition, the Printing Unit covered all other printing requirements of the NSF by attending to 65 other print jobs during the period under review. The details are given in *Annex 23*.

## Improving Processes & Procedures

According to the provisions of the Public Enterprise Circular No. PED 55 of 14<sup>th</sup> December, 2010, four Audit & Management Committee meetings were conducted during the year and the minutes of these meetings were submitted to the NSF Board of Management. All the work during the year was conducted in accordance with the Action Plan prepared and approved in December

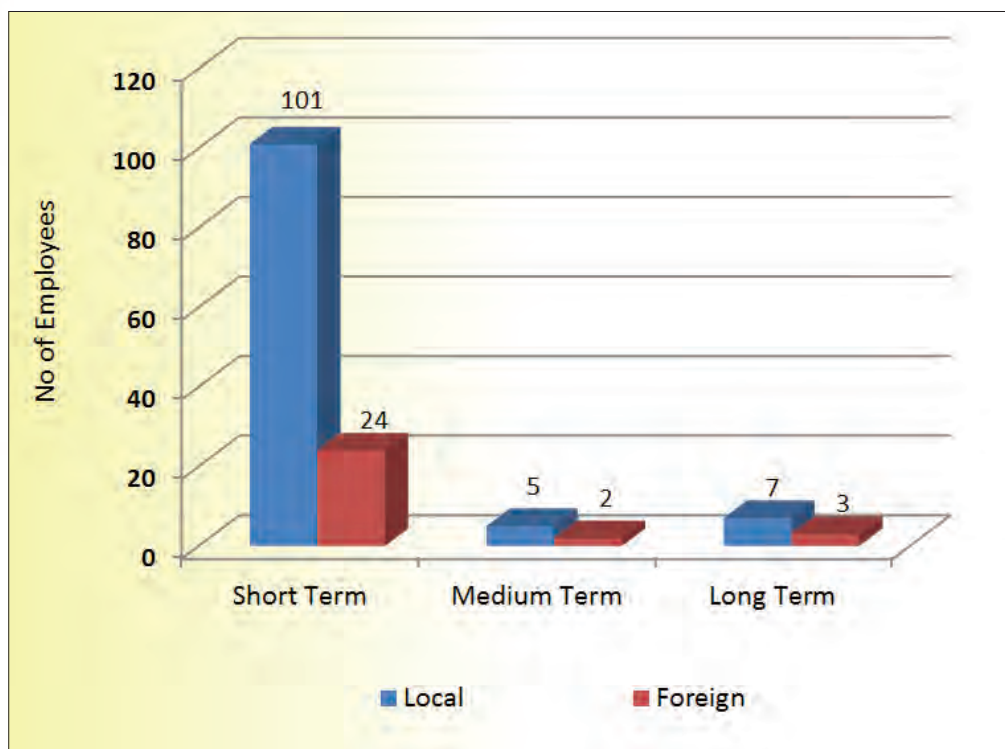
of the previous year. Mid-year revisions were taken place (3 revisions) to re-allocate the capital budget within the approved allocation based on the progress made under different mandatory activities. Financial and Physical Progress of the NSF was reported monthly, quarterly and mid yearly to the NSF Management and other relevant authorities. Scientific Operational Committee Meetings were organized each month to evaluate and regulate Scientific Work.

In keeping with the scope as per the Public Enterprise Guidelines for Good Governance, the Senior Management Committee (SMC) strived to provide the necessary guidance contributing to the productivity of the Institution. The SMC provided a regular platform facilitating decision making with regard to carrying out administrative functions and thereby paving the way for making timely recommendations by to Board of Management. Eight meetings of the SMC were held during the year under review.

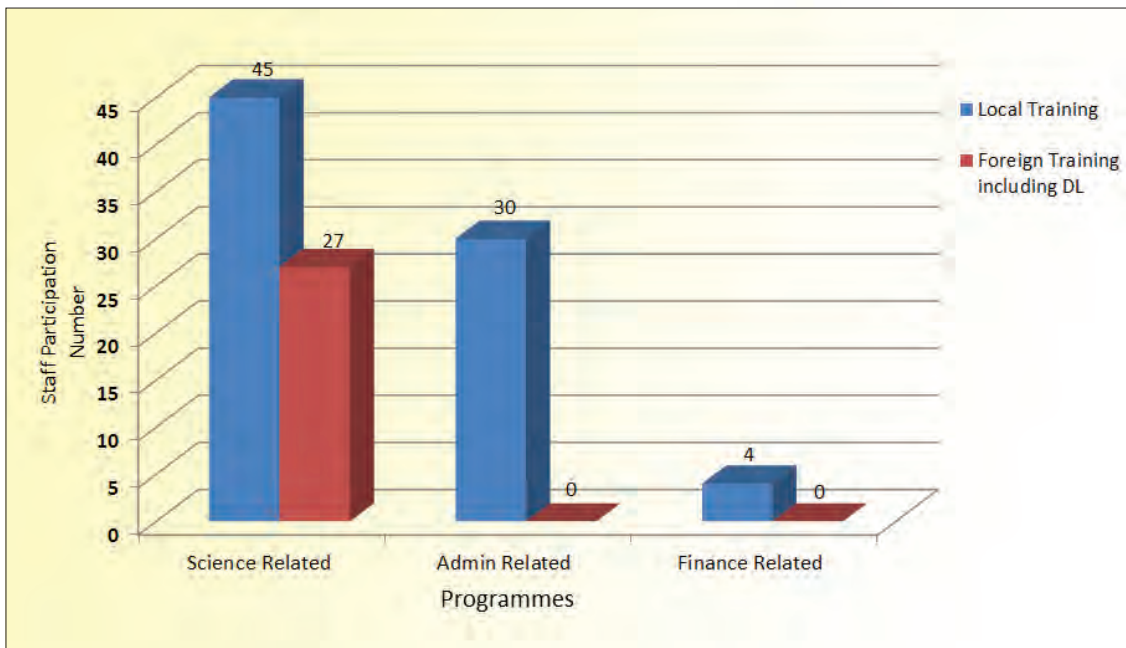
12 Regular Board meetings and 02 Special Board meetings were also held during the year.

## Improving Technical Competency of Staff

The NSF as in previous years, and recognizing the need for improving its resource base and technical capability of the staff, continued with providing useful and timely needed short, medium and long term training in order to enhance competency of the staff of the NSF. Further, the scientific staff attended scientific meetings, seminars, workshops and conferences held locally and abroad under different subject fields updating their knowledge and upgrading the capabilities throughout the year. The aim was to achieve excellence in providing the services to the scientific community. The NSF staff engagement in different activities outside the NSF enhancing their knowledge base and capabilities are graphically depicted in *Figures 43 & 44*. The details are given in *Annexures 21 & 22*.



**Figure 43:** Staff involvement in activities based on period



**Figure 44:** Staff participation in activities based on the subject field

A Productivity Improvement Programme organized by the Welfare Society of the NSF was held on the 28<sup>th</sup> October, 2017 at Hikka Tranz by Cinnamon, Hikkaduwa.

The training consisted of group activities, emphasizing Team Building concepts. Mr. Chaminda Malalasekara of Life Skill Academy conducted the training programme with interactive group activities/games and de-briefing sessions.



*"A successful team is a group of many hands but of one mind"*

Complying with the directive issued by the Presidential Secretariat, the NSF conducted a lecture covering health matters followed by a physical training session with the participation of the entire Staff of the NSF marking the "Health & Nutrition Week" in addition to once-a-week physical training session conducted throughout the year.



*"Pleasure in the job puts perfections in the work"*

The lecture was conducted by Dr Upendra Wijesiri, Head of Sports and Exercise Unit, Colombo South Teaching Hospital, Kalubowila. The practical session was conducted by Mr J M Priyankara, a personal physical trainer.

## 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 women's involvement in various activities of NSF.
2. To collaborate with the local government institutions and international organizations dealing with women's affairs in order to increase the awareness and participation of women in science in various activities
3. To establish NSF stand on Women in Science in Sri Lanka similar to other members of the Global Research Council.
4. To provide input to policy formulation on women in science

The initiative the NSF has taken on Women in Science adheres with the policy statements, "Statement of Principles and Actions Promoting the Equality and Status of Women in Research", of the Global Research Council of which the NSF is the national focal point. The NSF Group on Women in Science discussed and planned some activities in the direction to achieve the above mentioned objectives.

A collaborative workshop was organized in June, 2017 in collaboration with the Sri Lanka Academy of Young Scientists (SLAYS) on the theme "Women in Science" with the participation of Prof. Geraldine Richmond, University of Oregon as the chief resource person.



# Addressing Sustainable Development Goals





## Addressing Sustainable Development Goals

The Sustainable Development Goals (SDGs) which are officially known as “*Transforming our world: the 2030 Agenda for Sustainable Development*” were adopted by the 194 Member States of the United Nations (UN). The Government of Sri Lanka anticipates achieving the SDGs by 2030. Accordingly, the country is working towards providing the basic needs of the people, progressive alleviation of poverty, elimination of all forms of discrimination and inequalities, and establishing a society based on social justice and human security. The Economic Policy of the Government outlines the vision “*Setting the Stage for a Sustainable Development Journey*”. The Policy aims at developing an economy that will promote the development, provisions for a friendly and beneficial environment to all paving the way for sustainable development.

The United Nations 2030 Agenda recognizes 17 SDGs and 169 targets to realize its vision on sustainable development. These 17 SDGs fall within three (03) main domains.

1. Economic (growth, efficiency, and stability)
2. Social (equity, social cohesion, social mobility, participation and cultural identity)
3. Environmental (green environment, rational use of renewable resources, and conservation of non-renewable natural resources)

Abiding by the Mandate, the NSF carried out its activities in accordance with the SDGs and relevant targets. *Table 9* shows how some of the main activities of the NSF are aligned with the SDGs. The description of work done by the NSF in line with the SDGs among many of its activities is given further down the table.

**Table 09: SDG Grants and NSF activities**

SDG	Activity / Programme
<p><b>Goal 3:</b> Ensure healthy lives and promote well-being for all at all ages</p>	<p>Competitive Research Grant Scheme Research Programme on Health Science Facilitating Policy Development on Social Sciences</p>
<p><b>Goal 6:</b> Ensure availability and sustainable management of water and sanitation for all</p>	<p>NTRP – Water Security Facilitating Policy Development on Social Sciences</p>
<p><b>Goal 9:</b> Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p>	<p>Technology Grant Scheme Support Intellectual Property (IP) Protection</p>
<p><b>Goal 11:</b> Make cities and human settlements inclusive, safe, resilient and sustainable</p>	<p>Facilitating Policy Development – Indigenous Knowledge</p>
<p><b>Goal 13:</b> Take urgent action to combat climate change and its impacts</p>	<p>NTRP – Climate Change &amp; Natural Disaster</p>
<p><b>Goal 15:</b> Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p>	<p>MAB Programme in Sri Lanka</p>
<p><b>Goal 17:</b> Strengthen the means of implementation and revitalize the global partnership for sustainable development</p>	<p>Bilateral and Multilateral Cooperation</p>



### **National Thematic Research Programme (NTRP)**

Under the NTRP Food Security Programme, promoting and introducing Home Gardens to Northern region re-settled areas and North Central poverty stricken areas were done. Household surveys including a nutritional survey were done to gather information to come up with policy recommendations to ensure the food security of the country. To increase the efficiency of food production and to disseminate real time information among farmers, two software were developed.

The NTRP on Climate Change & Natural Disasters has been developed considering the national development priorities while being in line with the 13<sup>th</sup> SDG on "Take urgent action to combat climate change and its impacts". Four Grants were awarded in 2017 and outcome will be able to fulfill the main targets (13.1, 13.2, and 13.3) of the Goal.

The NTRP on "Water Security" is being developed in line with the 06<sup>th</sup> SDG and taking into consideration local, regional and global issues on Water Sector.



### **Competitive Research Grant Scheme**

In 2017, 02 Competitive Research Grants were awarded under the NSF Working Committee on Health Sciences which addresses the 03<sup>rd</sup> Goal (through targets 3.3 and 3.4). Further, Competitive Research Grants related to 3.3, 3.4, 3.8, 3.b have been completed during year 2017 (refer Annex 3).

The two ongoing grants under the NSF Working Committee on Oceanography & Marine Resources address the SDG goals given under 14.a. The two projects on constructing quaternary sea level curve for Sri Lanka and jellyfish resource in the coastal waters of Sri Lanka will add valuable new knowledge while developing research capacity including human resources and infrastructure.



### **Research Programme on Health Science (RPHS)**

16 ongoing research projects under the RPHS facilitate two targets of the 03<sup>rd</sup> Goal (3.4 and 3.b), which are in the fields of Cancer, Diabetes and CKDu. Expected outputs of these projects will be Early Warning Systems, Health Information Systems, Biomarker Identification, Biomarker Libraries, Epidemiological Data, Information on CKDu Aetiology, etc.



### **Facilitating Policy Development**

Several initiatives were taken to create a discourse among policy planners, policy authorities, professionals and academics on Sustainable Development Goals (SDGs) to come up with policy recommendations where necessary for implementation of the SDGs successfully in the country.

The NSF Working Committee on Indigenous Knowledge (WCIK) identified that indigenous knowledge based interventions (IK) could greatly accelerate achieving Sustainable Development Goals in Sri Lanka. The WCIK identified IK relevance to the 11<sup>th</sup> of the 17 goals. NSF Policy Brief (No.2) under the title “Sustainable Development Goals - A way forward through Indigenous Knowledge in 2017” was published as the first initiative.

Further, the NSF Working Committee on Social Sciences (WCSS) initiated several programmes covering the social and economic aspects of the SDGs. Accordingly, the NSF conducted a stakeholder meeting on “Managing Social and Economic Changes towards Sustainable Development Goals”. The WCSS also conducted a public discourse on “Social and Public Health Implications of Solid Waste Management in Sri Lanka” in October 2017 aligning with SDGs 3 & 6. A report on the theme was published (refer Pg 1-9 of the report).



### **Technology Grant Scheme**

The NSF Technology Grant Scheme, “Support for Technology Development” addresses 9<sup>th</sup> SDG goal (targets 9.3 and 9.b) as the scheme is destined to support domestic technology development, research and innovation through financial support to small-scale industries and other enterprises for product/process innovation which enables integrating into value chain and markets.

Accordingly, state sector, non-state sector and grantees under individual category were engaged in product/process development with financial support in line with SDGs 2, 3, 6, 7 & 9 in year 2017.

With the funding support of NSF, Plant Quarantine Unit of Department of Agriculture at Gannoruwa, Peradeniya was able to develop a biological insect pest management system using parasitoid *Cotesia plutellae* for cabbage cultivations (Goal 2; target 2.4).

In line with Goal 3; target 3.3, molecular diagnostic kits were developed for early diagnosis of communicable diseases. These kits are available for use at an affordable cost. A grant has been awarded to upgrade the manufacturing technology of the boat building industry in line with goal 9; target 9.5.



### **Support Intellectual Property (IP) Protection**

Intellectual property protection and commercial exploitation of patents is vital for fostering research, development and innovation. Addressing Goal 9; target 9.5, financial support was provided for two researchers to protect their IP under Patent Cooperation Treaty (PCT).



### **MAB Programme in Sri Lanka**

The Man and the Biosphere (MAB) Programme is an Intergovernmental Scientific Programme that provides a scientific basis for a healthy relationship between people and their environment. It combines natural and social sciences, economics and education, to improve human livelihoods and safeguard natural ecosystems, thus promoting innovative approaches to economic development that is socially and culturally appropriate and environmentally sustainable. The National MAB Committee which furthers the goals of this programme at the national level is hosted by the National Science Foundation of Sri Lanka.

The main objective of the National MAB Committee has been to contribute towards the development of a basis within the natural and social sciences for conservation and rational use of nature and natural resources in the biosphere, by focusing on areas that are of special importance in the Sri Lankan context, and taking into consideration the importance of the relationship between people and the environment. This thinking has so far driven the National MAB programme in Sri Lanka. The national MAB Programme has also been sensitive to environmental issues of current national and global importance such as deforestation, water pollution, export of threatened plants and animals, bio-piracy, *etc.* It has also assisted to promote sustainability in development initiatives.

The MAB programme has also contributed greatly to the furthering of knowledge in the sphere of biodiversity and taxonomy by its links with the project for revision of the Flora of Ceylon - which also gave opportunity for Sri Lankan Botanists for professional exchange with other reputed Taxonomists from overseas - and the publication of a multitude of checklists on both plants, animals and fungi. The MAB Programme has also been active in terms of training, education and communication through relevant programmes for disseminating environmental concepts.

The MAB Programme is in line with the 15<sup>th</sup> SDG on “Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt biodiversity loss” and furthers its activities in line with same in future.



## **Bilateral and Multilateral Cooperation**

National Science Foundation is the premier science funding body in Sri Lanka which acts to promote the international exposure of the local scientists by opening up avenues for them to interact with the scientists abroad, thereby utilizing the maximum potential towards the promotion of their scientific research and related activities.

To foster the interchange of scientific information among scientists in Sri Lanka and foreign countries the ILD executes several schemes namely; Travel Grants, Overseas Special Training Programme (OSTP), International Partnerships for Science and Technology (IPSAT), International Collaborative Research Programme (ICRP) *etc.*

In order to expand bilateral S & T cooperation with the funding bodies/ agencies of other countries, the NSF signed Memoranda of Understanding with the following institutes in 2017 and in the recent past.

- Pakistan Science Foundation (PSF)
- National Natural Science Foundation, China (NSFC)
- Japan Science and Technology Agency (JST)
- German Academic Exchange Service (DAAD)

NSF fosters the interchange of scientific information among scientists in Sri Lanka and foreign countries through multilateral activities as the Sri Lankan focal point of the following international organizations. There are established joint programmes with most of the institutes which are conducted annually.

- International Union of Biochemistry and Molecular Biology (IUBMB)
- Global Research Council (GRC)
- International Centre for Genetic engineering and biotechnology (ICGEB)
- Science and Technology Policy Asian Network (STEPAN)
- International Science Council (ISC)
- Federation of Asian Biotech Associations (FABA)
- European Organization for Nuclear Research (CERN)
- Science Council Asia (SCA)
- Global Research Alliance (GRA)

The bilateral and multilateral activities are in line with the 17<sup>th</sup> SDG on “Strengthen the means of implementation and revitalize the global partnership for sustainable development”, yet more specifically for the target 17.6.



# Financial Review





## Observations of the Accounting Officer on Performance 2017

NSF is a funding organization which is solely dependent on government funds. Amounts recommended by the Department of National Budget under "Recurrent" and "Capital" expenditure for NSF for the year 2017 were Rs. 121.612 Mn and Rs. 260 Mn respectively. Only Rs. 115.5 Mn and Rs. 243 Mn were released by the Department of Treasury Operations as "Recurrent" and "Capital" expenditure in installments during the year. The details of transfer are given in *Table 10*.

**Table 10:** Recurrent and Capital expenditure in 2017

Expenditure	Rs.'000	
	Estimate	Expenditure
<b>Recurrent Expenditure</b>		
Personal Emoluments	87,350	77,354
Other Recurrent	48,650	41,492
<b>Total</b>	<b>136,000</b>	<b>118,846</b>
<b>Capital Expenditure</b>	260,000	260,000

The details of Capital Expenditure for 2017 is given in *Table 11*.

**Table 11:** Details of Capital expenditure in 2017

	Description	Expenditure 2017 Rs.
1.	Strengthening scientific research potential	153,356,223.14
2.	Conducting science & technology policy research	4,688,667.14
3.	Creating national gateway to S&T information	11,670,788.34
4.	Science Popularization	12,617,686.23
5.	Capacity building and international cooperation	71,579,296.84
6.	Resource improvement and system administration	6,042,278.07
	<b>Total</b>	<b>259,954,939.76</b>

## **Management Issues**

Research Grants as was done in the past, were carried out under the supervision of the respective Heads of Departments of the respective Research Institutes and Universities. In spite of strong terms & conditions in force, it was noted that, timely implementation of projects was adversely affected by the procedures and systems applied by the grantees' institutions and universities. However, with appropriate management approaches in place the NSF achieved significant success by completing the activities as planned for the year.

## Statement of Financial Position as at 31<sup>st</sup> December, 2017

	2017	2016	Rs.'000 2015
<b>ASSETS</b>			
<b>Current Assets</b>			
Cash & Cash Equivalents	40,705	22,680	13,495
Receivables	6,080	5,905	9,703
Stocks	1,343	2,274	1,521
Pre Payments	1,331	1,492	4,726
Other Current Assets	3,407	3,408	3,408
<b>Total Current Assets</b>	<b>52,866</b>	<b>35,759</b>	<b>32,853</b>
<b>Non-Current Assets</b>			
Receivables	3,504	3,507	3,464
Property, plant & Equipment	440,806	450,800	446,993
Intangible Assets	357	-	-
Investments	748,129	698,129	560,975
<b>Total Non-current Assets</b>	<b>1,192,796</b>	<b>1,152,436</b>	<b>1,011,432</b>
<b>Total Assets</b>	<b>1,245,662</b>	<b>1,188,195</b>	<b>1,044,285</b>
<b>Liabilities</b>			
<b>Current Liabilities</b>			
Accrued Charges	6,909	6,091	4,443
Creditors	24,444	7,274	3,933
	<b>31,353</b>	<b>13,365</b>	<b>8,376</b>
<b>Non-Current Liabilities</b>			
Provision for Retiring Gratuity	29,969	25,405	22,533
Deffered Revenue	37,185	44,286	37,944
	<b>67,154</b>	<b>69,691</b>	<b>60,477</b>
<b>Total Liabilities</b>	<b>98,507</b>	<b>83,056</b>	<b>68,853</b>
<b>Net Assets</b>	<b>1,147,155</b>	<b>1,105,139</b>	<b>975,432</b>
<b>Equity and Reserves</b>			
Accumulated Fund	(21,823)	(13,839)	(8,092)
Revaluation Reserve	420,849	420,849	422,549
Government Grant	748,129	698,129	560,975
<b>Total Equity</b>	<b>1,147,155</b>	<b>1,105,139</b>	<b>975,432</b>

## Statement of Financial Position as at 31<sup>st</sup> December, 2017

As at 31.12.2016		Note	Rs.	Rs.
	<b>Assets</b>			
	<b>Current Assets</b>			
22,680,392.04	Cash & Cash Equivalents	14	40,704,860.86	
5,905,328.47	Receivables	15	6,080,330.30	
2,274,178.81	Stocks	16	1,342,959.78	
1,492,159.28	Pre Payments		1,330,851.20	
3,407,615.20	Other Current Assets	17	3,407,615.20	
35,759,673.80	<b>Total Current Assets</b>			52,866,617.34
	<b>Non-Current Assets</b>			
3,507,371.00	Receivables	15	3,504,629.00	
450,799,833.15	Property, plant & Equipment	18	440,806,120.74	
-	Intangible Assets	19	357,326.97	
698,128,852.00	Investments	20	748,128,852.00	
1,152,436,056.15	<b>Total Non-current Assets</b>			1,192,796,928.71
1,188,195,729.95	<b>Total Assets</b>			1,245,663,546.05
	<b>Liabilities</b>			
	<b>Current Liabilities</b>			
6,091,227.02	Accrued Expenses	21	6,909,619.43	
7,274,437.84	Creditors	22	24,444,676.34	
13,365,664.86				31,354,295.77
	<b>Non-Current Liabilities</b>			
25,405,162.00	Provision for Retiring Gratuity	23	29,968,923.70	
44,286,442.18	Deffered Revenue	24	37,185,596.06	
69,691,604.18				67,154,519.76
83,057,269.04	<b>Total Liabilities</b>			98,508,815.53
<b>1,105,138,460.91</b>	<b>Net Assest</b>			<b>1,147,154,730.52</b>
	<b>Equity and Reserves</b>			
	<b>Accumulated Fund</b>			
(10,908,068.11)	NSF Fund		(3,832,377.35)	
(2,931,058.62)	Add: Excess of Expenditure over Income		(17,990,479.77)	
(13,839,126.73)	<b>Total Accumulated Funds</b>			(21,822,857.12)
420,848,735.64	Revaluation Reserve			420,848,735.64
698,128,852.00	Government Grant			748,128,852.00
<b>1,105,138,460.91</b>	<b>Total Equity</b>			<b>1,147,154,730.52</b>

## Statement of Financial Performance for the Year Ended 31<sup>st</sup> December 2017

As at 31.12.2016		Rs.	Rs.	Rs.
113,249,500.00	<b>Grants from Treasury - Recurrent</b>			115,588,500.00
	<b><u>Income for the year</u></b>			
227,386.97	Interest received	367,574.82		
35,988.00	Sundry Income	1,640.00		
383,868.29	Net Profit/(Loss) Sale of Publications - <b>(Note 12.1)</b> <i>(Printed to disseminate Information)</i>	(112,510.04)		
3,478.00	Photocopy receipts	4,980.00		
1,125.00	NSLRC Income	2,250.00		
-	Profit/(Loss) Disposal of Fixed Assets	55,894.68		
94,211.07	Exchange Gain/(Loss)	-		
746,057.33	<b><u>Other</u></b>		319,829.46	
13,266,331.39	Deffered Income (assets)	13,219,369.19		
231,815,425.00	Deffered Income (Capital)	243,000,000.00		
87,399.42	Over Provision of Doubtfull Debtors	-		
5,280,000.00	Income form Projects	3,292,516.20		
1,436,573.03	Creditors write back	-		
1,700,000.00	Revaluation Reserve of Disposal Vehicles	-		
253,585,728.84			259,511,885.39	
254,331,786.17				259,831,714.85
<b>367,581,286.17</b>				<b>375,420,214.85</b>
	Less; Expenditure for the year			
	<b><u>Recurrent Expenditure</u></b>			
	<b><u>Office Expenditure</u></b>			
765,800.00	Traveling & Allowances for Board Members	577,500.00		
215,947.98	Refreshments for meetings	152,985.31		
-	Printing & Publications	-		
981,747.98	<b><u>Staff Emoluments</u></b>		730,485.31	
66,830,066.91	Salaries & Allowances	63,163,160.04		
7,771,411.39	Employees Provident Fund	8,363,549.38		
1,551,348.66	Employees Trust Fund	1,657,359.14		
5,774,458.00	Provision for Retiring Gratuity	6,349,007.70		
957,575.20	Overtime	1,160,542.33		
72,711.37	Holiday Payment	59,853.63		
304,251.88	Uniforms	354,833.40		
83,261,823.41	<b><u>Office Administration</u></b>		81,108,305.62	
2,250,561.15	Travelling - Office	3,673,394.23		
1,009,155.64	Stationery & Consumables	1,728,513.94		
4,029,938.72	Electricity	3,720,564.75		
2,366,926.90	Telephone/ Fax	2,485,860.48		
75,340.60	Postal charges	111,830.00		
160,000.00	Audit fees - Auditor General's Department	160,000.00		
67,140.00	Bank charges	78,105.00		
76,264.33	Medical Expenses	78,021.89		
191,883.25	Advertising	1,470,539.50		
3,272,977.97	Maintenance of Motor Vehicles	3,395,361.37		
1,191,339.64	Maintenance of Office Equipment & Furniture	2,227,205.49		
1,601,721.86	Maintenance of Building	1,670,224.71		

		Rs.	Rs.	Rs.
1,145,489.00	Maintenance of Land	134,262.50		
50,787.20	Entertainment	-		
816,383.34	Insurance	876,981.71		
356,958.05	Water Consumption charges	530,913.89		
1,700,653.44	Security Services	1,832,249.46		
15,801,870.71	Depreciation	15,689,354.59		
-	Amortisation of intangible assets	34,337.73		
243,292.35	Sundry Expenses	681,612.08		
872,655.40	Janitorial Services	1,173,891.74		
116,910.00	Translation charges	454,489.50		
1,150.00	Stamp duty	950.00		
9,800.00	Debtors Written off	-		
93,822.40	Stock of Magazines & Journals written off	289,354.53		
37,503,021.95			42,498,019.09	
	<b>Others</b>			
371,470.75	National Science Library & Resource Centre- <b>Note</b>	138,954.04		
980,906.64	Printing Division - <b>Note 12.3</b>	2,001,191.23		
1,590,940.18	Subscription to International Scientific Organization	1,223,932.67		
3,698,106.15	Subscription for Internet Services	5,754,866.90		
6,641,423.72			9,118,944.84	
	<b>Capital Expenditure</b>			
156,709,728.31	Mandate 01 - <b>Note 13.1</b>	153,356,223.14		
5,049,906.74	Mandate 02 - <b>Note 13.2</b>	4,688,667.14		
6,492,342.13	Mandate 03 - <b>Note 13.3</b>	11,670,788.34		
17,828,081.98	Mandate 04 - <b>Note 13.4</b>	12,617,686.23		
43,763,865.12	Mandate 05 - <b>Note 13.5</b>	71,579,296.84		
12,280,403.45	Mandate 06 - <b>Note 13.6</b>	6,042,278.07		
242,124,327.73			259,954,939.76	
370,512,344.79				393,410,694.62
<b>(2,931,058.62)</b>	Excess of Expenditure over income			<b>(17,990,479.77)</b>

## Statement of Financial Performance for the Year Ended 31<sup>st</sup> December, 2017

			Rs.000	
	2017		2016	
<b>Revenue</b>				
Government Grant	115,588		113,250	
<b>Other Income</b>				
Interest received	367		227	
Sundry Income	2		36	
Profit/(Loss) Sale of Publications	(112)		384	
Photocopy receipts	5		3	
NSLRC Income	2		1	
Profit/(Loss) Sale of Fixed Assets	56		-	
Exchange Gain/(Loss)	-		94	
Other Income	246,293		240,319	
Differed Revenue	13,219		13,266	
	<u>375,420</u>		<u>367,581</u>	
<b>Expenditure</b>				
<b>Personal Emoluments</b>				
Salaries & allowances	63,163		66,830	
Employees Provident Fund	8,363		7,771	
Employees Trust Fund	1,657		1,551	
Provision for retiring gratuity	6,349		5,774	
Overtime	1,161		958	
Holiday payment	60		73	
Uniforms	355		304	
	<u>81,108</u>		<u>83,261</u>	
Travelling	578		766	
Supplies	4,433		3,714	
Maintenance	4,588		3,361	
Contractual Service	10,732		10,219	
Others	16,327		12,925	
Depreciation	15,689		15,802	
Capital Expenditure	259,955		240,464	
	<u>312,302</u>	393,410	<u>287,251</u>	370,512
Surplus Deficit over the income before extraordinary items		(17,990)		(2,931)
Extraordinary items (Net Profit or loss)		-		-
<b>Net Surplus/ (Deficit) for the period</b>		<u>(17,990)</u>		<u>(2,931)</u>

## Statement of Changes in Equity

### Summery

Contributed Capital	Revaluation Reserve	Other Reserve	Other Capital Fund	NSF Fund	Total Accu .Fund	Total
-	420,848,735.64	748,128,852.00	-	(13,839,126.73)	(13,839,126.73)	1,155,138,460.91
-	-	-	-	-	-	-
-	-	-	-	10,006,749.38	10,006,749.38	10,006,749.38
-	420,848,735.64	748,128,852.00	-	(3,832,377.35)	(3,832,377.35)	1,165,145,210.29
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	243,000,000.00	243,000,000.00	243,000,000.00
-	-	-	-	115,588,500.00	115,588,500.00	115,588,500.00
-	-	-	-	16,831,714.85	16,831,714.85	16,831,714.85
-	-	-	-	(259,954,939.76)	(259,954,939.76)	(259,954,939.76)
-	-	-	-	(133,455,754.86)	(133,455,754.86)	(133,455,754.86)
-	-	-	-	(17,990,479.77)	(17,990,479.77)	(17,990,479.77)
-	420,848,735.64	748,128,852.00	-	(21,822,857.12)	(21,822,857.12)	1,147,154,730.52

## Statement of Cash Flow

	2017	2016	Rs'000
<b><u>Cash flows from operating Activities</u></b>			
Net excess of expenditure over income	(17,990)	(2,931)	
Add: NSF fund prior year adjustments	10,007	(2,816)	
	<u>(7,983)</u>	<u>(5,747)</u>	
<b><u>Adjustments for</u></b>			
Depreciation	15,689	15,801	
Amortisation of Intangible assets	34	-	
Gratuity paid during the year	(1,785)	(2,903)	
Provision for Gratuity	6,349	5,774	
Exchange Gain/(Loss)	-	(94)	
Disposal of Fixed Assets	(56)	-	
Over Provision of Doubtfull Debtors	-	87	
Revaluation Reserve of Disposal Vehicles	-	(1,700)	
Deffered Revenue	(13,219)	(13,266)	
Debtor Written off	-	10	
Operating profit/loss before working capital changes	<u>(971)</u>	<u>(2,038)</u>	
Net increase/ decrease in trade other receivables	(11)	6,988	
Net increase/ decrease in inventories	931	(752)	
Net decrease/ increase in trade payables	17,989	4,989	
Cash generated from operations	<u>18,909</u>	<u>11,225</u>	
Net cash from operating activities		<b>17,938</b>	<b>9,185</b>
<b><u>Cash flows from Investing Activities</u></b>			
Proceed of Disposal of Fixed Assets	87	-	
Purchase of assets	<u>(5,727)</u>	<u>(12,218)</u>	
Net cash used in investing activities		<b>(5,640)</b>	<b>(12,218)</b>
<b><u>Cash Flows from Financial Activities</u></b>			
Contribution from Government	5,727	12,218	
Foreign Aid	<u>-</u>	<u>-</u>	
	<b>5,727</b>	<b>12,218</b>	
Net cash from financing activities		18,025	9,185
Cash & cash equivalent at beginning period	<u>22,680</u>	<u>13,495</u>	
<b>Cash &amp; cash equivalent at end of period</b>	<b><u>40,705</u></b>	<b><u>22,680</u></b>	

## Notes on Accounting Policies for the Year Ended 31<sup>st</sup> December, 2017

### 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 Accounting 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. After completion of the project unutilized balance to be refunded to NSF. Hence we treat the funds transferred to the Institution as expenditure. At the end of the project a debtor is created for the unutilized funds.

### 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%

#### Intangible Assets

The Company measures intangible assets at cost less any accumulated amortisation and any impairment losses.

#### Amortisation

The depreciable amount of an intangible asset is amortised on a straight line basis over the estimated useful life and is recognized as an expense. Depreciation Rates as Follows

Computer Software	20%
-------------------	-----

#### **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 occasions publications have to be given free of charge to schools & other relevant various organisations specially as prizes/ awards for science related activities with the 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 15<sup>th</sup> 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 12<sup>th</sup> August, 2011.

The Cost of the Publications is treated as an expenditure to the relevant Division as per the decision of the Board of Management on 13<sup>th</sup> 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 deferred 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 related 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. 748,128,852 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 Gratuity

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

	Rs.	Cts
Amount paid for the year		<u>1,785,246.00</u>
Provision for the year		<u>6,349,007.70</u>

10 NSF owns 07 vehicles as at 31.12.2017

## 11 Funds Drawn from the Treasury during - 2017

		Rs.	
Consolidated Funds	Rs.	<u>243,000,000.00</u>	<b>Note A</b>
Recurrent Funds	Rs.	<u>115,588,500.00</u>	

### **Note A**

#### **Capital Funds Allocation to Relevant Mandates**

1	Mandate 01	133,000,000.00
2	Mandate 02	5,000,000.00
3	Mandate 03	12,000,000.00
4	Mandate 04	15,000,000.00
5	Mandate 05	72,000,000.00
6	Mandate 06	<u>6,000,000.00</u>
		<u><b>243,000,000.00</b></u>

#### **Funds drawn from the Treasury from 1968 to 2017**

		Rs.
Consolidated funds	Rs.	<u>1,998,636,126.45</u>
Foreign Aids	Rs.	<u>338,908,549.60</u>

## Note No 13

### 13.1 Mandate 01

To Support basic and applied research in order to strengthen the scientific research potential, develop natural resources and support & facilitate technology development and product commercialization in order to enrich welfare of people.

	2017	2016
	Rs.	Rs.
1 Research Grants	109,126,239.10	115,307,022.94
2 Technology Grants	17,444,908.03	26,913,239.22
3 International Liasion Division	403,624.57	152,500.00
4 Director's Office Vote	26,381,451.44	14,336,966.15
	<b>153,356,223.14</b>	<b>156,709,728.31</b>

### 13.2 Mandate 02

To maintain a current register of scientific and technical personner, conduct surveys for determination of current and projected needs of S & T resources and provide a source of S T & I informations.

	2017	2016
	Rs.	Rs.
1 Science & Technology Policy Research Division	4,688,667.14	5,049,906.74
	<b>4,688,667.14</b>	<b>5,049,906.74</b>

### 13.3 Mandate 03

To foster interchange of scientific information among scientists in Sri Lanka and abroad and promote the publication of one or more journals at the national level.

	2017	2016
	Rs.	Rs.
<b>National Library and Resource Center</b>		
1 SLJOL Databse	5,485,170.21	4,797,776.40
2 Library Books	27,745.00	6,450.00
3 National Digitization	4,755,225.61	672,220.49
4 Seminars & Workshops	35,450.00	(537,633.00)
5 National Repository S & T Literature	-	45,241.00
	<b>10,303,590.82</b>	<b>4,984,054.89</b>

### Journal Publication Unit

1 Journal of National Science Foundation - ( JNSF)	1,066,745.54	1,225,133.96
2 Sri Lanka Journal of Social Sciences - ( SLJSS)	300,451.98	283,153.28
	<u>1,367,197.52</u>	<u>1,508,287.24</u>
	<u><b>11,670,788.34</b></u>	<u><b>6,492,342.13</b></u>

### 13.4 Mandate 04

#### To Popularize science amongst schools and general public

	2017	2016
	Rs.	Rs.
1 Science Popularization Division	12,617,686.23	17,828,081.98
	<u><b>12,617,686.23</b></u>	<u><b>17,828,081.98</b></u>

### 13.5 Mandate 05

#### To Promote and enhance capacity building through liasing with individuals, associations or institutions locally and internationally and facilitate return of Sri Lankan scientists and technologists of distinction for S & T development.

1 Research Scholarship & Fellowships	14,956,002.00	5,902,257.16
2 International Contacts - Travel Grants	30,546,182.88	15,636,289.05
3 International Contacts - OSTP	14,649,877.26	12,343,163.80
4 International Contacts - IPSAT	4,220,893.85	4,830,004.82
5 International Liasion Division	3,439,427.31	4,422,937.79
6 Staff Development Local	1,252,852.16	629,212.50
Foreign	2,514,061.38	-
	<u><b>71,579,296.84</b></u>	<u><b>43,763,865.12</b></u>

### 13.6 Mandate 06

#### Acquisition of Capital Assets and improve policies, proceses and procedures of NSF together with managerial and technical competency of staff by international benchmarking, enhance infrastructure facilities and improve working environment to create a happy and contended workforce.

1 Office Equipment & Furniture	1,077,611.87	2,199,844.50
2 Motor Vehicles	-	142,500.00
3 Information Technology	4,931,767.20	9,927,207.59
4 Accessories & Miscellaneous	32,899.00	10,851.36
	<u><b>6,042,278.07</b></u>	<u><b>12,280,403.45</b></u>

## Note No 12

### 12.1 Net Profit/(Loss) Sale of Publications

2017

Rs.

1	Other Publications	2,430.00
2	Sri Lanka Journal of Social Sciences	800.00
3	Sri Lanka Journal of Social Sciences Vol No. 38	(4,700.00)
4	Sri Lanka Journal of Social Sciences Vol No. 39	4,247.06
5	Sri Lanka Journal of Social Sciences Vol No. 40	7,400.00
6	Vidurava	5,200.00
7	MAB Checklist - 25	(296.10)
8	Medicinal Plants used in Sri Lanka	99,725.00
9	Journal of National Science Foundation Vol No. 43	(4,800.00)
10	Journal of National Science Foundation Vol No. 44	16,200.00
11	Journal of National Science Foundation Vol No. 45	138,634.00
12	Vidurava Vol. 32-2 (T)	(21,500.00)
13	Vidurava Vol. 32 Special (E)	(2,050.00)
14	Vidurava Vol. 32 Special (S)	(54,450.00)
15	Vidurava Vol. 32 Special (T)	450.00
16	Vidurava Vol. 33-1 (E)	(11,000.00)
17	Vidurava Vol. 33-1 (S)	(800.00)
18	Vidurava Vol. 33-1 (T)	(43,200.00)
19	Vidurava Vol. 33-2 (E)	(125,800.00)
20	Vidurava Vol. 33-2 (S)	(156,600.00)
21	Vidurava Vol. 33-2 (T)	2,000.00
22	Vidurava Vol. 33 Special (E)	5,400.00
23	Vidurava Vol. 33 Special (S)	2,000.00
24	Vidurava Vol. 33 Special (T)	6,900.00
25	Vidurava Vol. 34-1 (E)	3,700.00
26	Vidurava Vol. 34-1 (S)	1,200.00
27	Vidurava Vol. 34-1 (T)	5,400.00
28	Vidurava Vol. 34-2 (E)	1,500.00
29	Vidurava Vol. 34-2 (S)	2,700.00
30	Vidurava Vol. 34-2 (T)	6,800.00

**(112,510.04)**

**12.2 National Science Library & Resource Centre**

	2017	2016
	Rs.	Rs.
1 Maintenance & Repairs	1,170.82	35,365.16
2 Periodicals Local & Foreign	75,933.92	302,848.59
3 Consumables	61,849.30	33,257.00
	<b>138,954.04</b>	<b>371,470.75</b>

**12.3 Printing Unit**

	2017	2016
	Rs.	Rs.
1 Consumables & Chemicals	1,695,144.42	927,871.45
2 Paper & Boards	79,076.12	(41,354.66)
3 Maintenance & Repairs	226,970.69	94,389.85
	<b>2,001,191.23</b>	<b>980,906.64</b>

**Note No 14 - Cash and Cash Equivalents**

		2017	2016
		Rs.	Rs.
<b>Bank Accounts</b>			
1 BOC - 0002323269	Note - A	29,668,486.15	10,466,195.60
2 BOC - 0002323270		68,867.41	2,084,869.10
3 BOC - 0002322471		104,141.37	2,910,025.37
4 BOC Savings - 80771519		9,547,115.46	-
5 Special cash imprest		50,000.00	50,000.00
6 Petty cash		5,000.00	5,000.00
7 Cash & Cheques in hand		1,261,250.47	7,164,301.97
		<b>40,704,860.86</b>	<b>22,680,392.04</b>

**Note A : Capital Cash Balance as at 31.12.2017**

Treasury Funds - Capital	5,223,819.81	3,246,162.76
Health Science Project	1,514,630.04	4,066,155.54
Cinemon Project	22,930,036.30	1,185,877.30
National Science Centre	-	1,968,000.00
	<b>29,668,486.15</b>	<b>10,466,195.60</b>

**Note No 15 - Receivables****Cash Advances**

1 Miscellaneous	Schedule - 1	1,086,781.33	3,446,192.33
2 Research	Schedule - 1	-	100,000.00
<b>3 Loans to Staff</b>			
i. Distress loan	Schedule - 2	5,204,019.00	5,062,875.00
ii. Combined loan	Schedule - 3	76,880.00	123,008.00
4 Festival Advance	Schedule - 4	12,500.00	22,500.00
5 Staff Debtors	Schedule - 5	151,705.41	73,921.83
6 Sundry Debtors	Schedule - 6	3,053,073.56	584,202.31
		<b>9,584,959.30</b>	<b>9,412,699.47</b>

**Note 15.1 - Staff Loan Paymer**

	Amount	With in one Year	After one year
Combined Loan	76,880.00	46,128.00	30,752.00
Distress Loan	5,204,019.00	1,730,142.00	3,473,877.00
	<b>5,280,899.00</b>	<b>1,776,270.00</b>	<b>3,504,629.00</b>

**Note No 16 - Stocks**

1 Stationery and Consumables	Schedule - 7	1,176,046.03	1,524,614.43
2 Publications	Schedule - 7	166,913.75	749,564.38
		<b>1,342,959.78</b>	<b>2,274,178.81</b>

**Note No 17 - Other Current Assets**

1 Treasury Deposit		3,298,965.20	3,298,965.20
2 Refundable Deposit	Schedule - 8	108,650.00	108,650.00
		<b>3,407,615.20</b>	<b>3,407,615.20</b>

2017

Rs.

2016

Rs.

**Note No 20 - Investments**

1 SLINTEC	Note - B	748,128,852.00	698,128,852.00
		<b>748,128,852.00</b>	<b>698,128,852.00</b>

**Note - B : Investments Breakup**

	No of Shares		
Ordinary Shares	30,481,454	258,848,126.00	258,848,126.00
Preference Shares	52,868,650	489,280,726.00	439,280,726.00
		<b>748,128,852.00</b>	<b>698,128,852.00</b>

### Note No 21 - Accrued Expenses

1 Accrued Expenses	Schedule - 9	6,909,619.43	6,091,227.02
		<b>6,909,619.43</b>	<b>6,091,227.02</b>

### Note No 22 - Creditors

Creditors amounting to Rs 24,444,676.34 represents monies held by NSF as given below,

1 Staff Creditors	10.00	54,405.00
2 National Science Centre	-	1,968,000.00
3 Health Science Project	1,514,630.04	4,066,155.54
4 Cinemon Project	22,930,036.30	1,185,877.30
	<b>24,444,676.34</b>	<b>7,274,437.84</b>

### Note No 23 - Provision for Retiring Gratuity

Balance as at 01.01.2017	25,405,162.00	22,533,284.50
(+) Provision for the year	6,349,007.70	5,774,458.00
	31,754,169.70	28,307,742.50
(-) Paid during the year	(1,785,246.00)	(2,902,580.50)
Balance as at 31.12.2017	<b>29,968,923.70</b>	<b>25,405,162.00</b>

### Note No 24 - Deffrede Revenue

1 Deffred Revenue - Assets	Note - C	37,185,596.06	44,078,213.07
		<b>37,185,596.06</b>	<b>44,078,213.07</b>

### Note C : Deffered Revenue - Assets

Balance as at 01.01.2017	44,286,442.18	37,943,804.12
(+) Assets Capitalized	6,118,523.07	19,608,969.45
	50,404,965.25	57,552,773.57
(-) Depreciation Deffered	(13,219,369.19)	(13,266,331.39)
Balance as at 31.12.2017	<b>37,185,596.06</b>	<b>44,286,442.18</b>

## Property Plant and Equipment as at 31<sup>st</sup> December, 2017

### Note No 18

Description	Balance as at 01.01.2017 ( Rs.)	Additions	Disposals	Balance as at 31.12.2017 ( Rs.)
<b>Assets - (Cost &amp; Revaluation)</b>				
Land	370,000,000.00	-	-	370,000,000.00
Building	57,653,800.00	-	-	57,653,800.00
Office Equipment & Furniture	92,528,024.57	5,666,214.37	61,838.70	98,132,400.24
Motor Vehicles	35,014,750.00	-	-	35,014,750.00
Accessories & Miscellaneous	1,300,673.55	32,899.00	-	1,333,572.55
Library Books	5,563,187.66	27,745.00	-	5,590,932.66
Documentation Equipment	16,098,661.85	-	-	16,098,661.85
	<b>578,159,097.63</b>	<b>5,726,858.37</b>	<b>61,838.70</b>	<b>583,824,117.30</b>
<b>Accumulated Depreciation</b>				
Building	16,272,402.01	2,882,690.00	-	19,155,092.01
Office Equipment & Furniture	68,003,646.51	8,738,509.76	30,622.51	76,711,533.76
Motor Vehicles	22,741,297.97	3,484,500.00	-	26,225,797.97
Accessories & Miscellaneous	1,231,223.70	35,701.92	-	1,266,925.62
Library Books	3,349,071.55	216,034.73	-	3,565,106.28
Documentation Equipment	15,761,622.74	331,918.18	-	16,093,540.92
	<b>127,359,264.48</b>	<b>15,689,354.59</b>	<b>30,622.51</b>	<b>143,017,996.56</b>
<b>Net Value</b>	<b>450,799,833.15</b>			<b>440,806,120.74</b>

### Note No 19 - Intangible Assets

	<u>2017</u>	<u>2016</u>
<u>Cost</u>	Rs.	Rs.
Balance at the beginning of the year	-	-
Additions	391,664.70	-
Transfers	-	-
<b>Balance as at the end of the year</b>	<b>391,664.70</b>	<b>-</b>
<b>Accumulated amortisation</b>		
Balance at the beginning of the year	-	-
Charge for the year	34,337.73	-
<b>Balance as at the end of the year</b>	<b>34,337.73</b>	<b>-</b>
<b>Carrying amount as at the end of the year</b>	<b>357,326.97</b>	<b>-</b>

\* Intangible assets include computer software and software licenses purchased.

*Schedule 1***Miscellaneous cash advances as at 31.12.2017**

<b>Date</b>	<b>V. No.</b>	<b>File No.</b>	<b>Name</b>	<b>Amount - Rs.</b>
24-02-2016	O - 168	AG - 96	SLIDA	106,781.33
19-09-2016	G - 1724	AG - 119	University of Sri Jayawardanapura	71,000.00
19-09-2016	G - 1723	AG - 119	PGIS	190,500.00
17-07-2017	G - 1280	RGB/GEN/112	Institute of Physics	418,500.00
17-11-2017	G - 2264	RGB/GEN/112	S.W.R.D Bandaranayaka Memorial Foundation	300,000.00
				<b>1,086,781.33</b>

**Schedules for Accounts for the Year Ended 31<sup>st</sup> December, 2017***Schedule - 9***Accrued Charges****Recurrent**

1 Audit Fees	470,000.00	
2 Advertiesments	75,146.75	
3 Overtime	119,018.66	
4 Electricity	285,621.09	
5 Salaries & Allowance	722,500.00	
6 Stationary & Consumables	230,755.18	
7 Office Travelling	147,865.65	
8 Sundry Expenses	62,802.70	
9 Medical Expenses	11,000.00	
10 Telephone	286,347.58	
11 Fuel	122,928.98	
12 Maintenance of Motor Vehicles	59,571.02	
13 Maintenance of Office Equipments	36,958.31	
14 Maintenance of Building	19,500.00	
15 Maintenance of Land	134,262.50	
16 Water	60,550.54	
17 Security Charges	598,030.59	
18 Janitorial Charges	140,554.70	
19 Translation Charges	213,112.50	
20 Consumables - Library	3,601.80	
21 Subscription for Internet Charges	872,734.32	4,672,862.87

<b>Capital</b>		
1 Building	6,001.15	
2 Directors Vote	136,975.00	
3 International Liasion Division	12,848.00	
4 Intergrated Software Programme	1,803,090.00	
5 Science & Technology Policy Research divition	86,419.35	
6 Popularisation of Science	47,419.36	
7 Technology Unit	22,000.00	
8 Staff Development - Local	23,175.16	
9 Office equipments & Furniture	74,635.00	
10 National Digitization Project	24,193.54	2,236,756.56

**Total**

**6,909,619.43**

*Schedule - 7*

	Rs.	Rs.
<b><u>Stocks</u></b>		
1 Stationary & Consumables - Stores	684,161.13	
- Printing	487,034.90	
- Building	4,850.00	
		1,176,046.03
2 Coral Reef Posters		14,920.00
3 Horton Plains Vedio Cassettes		8,043.75
<b><u>Books &amp; Periodicals</u></b>		
4 Sri lanka Journal of Social Science Vol No 39		1,650.00
5 Sri lanka Journal of Social Science Vol No 40		7,400.00
6 Vidurawa 33-2 (Tamil)		2,000.00
7 Vidurawa 33 Special (Sinhala)		4,800.00
8 Vidurawa 33 Special (English)		2,000.00
9 Vidurawa 33 Special (Tamil)		6,900.00
10 Vidurawa 34-1 (English)		3,400.00
11 Vidurawa 34-1 (Sinhala)		400.00
12 Vidurawa 34-1 (Tamil)		5,400.00
13 Vidurawa 34-2 (English)		1,300.00
14 Vidurawa 34-2 (Sinhala)		1,400.00
15 Vidurawa 34-2 (Tamil)		6,800.00
16 Journal of National Science Foundation Vol No. 44		18,000.00
17 Journal of National Science Foundation Vol No. 45		82,500.00
<b>Total</b>		<b>1,342,959.78</b>

Loan Balance as at 31.12.2017

Schedule - 2

**Distress Loan as at 31.12.2017**

	Rs.	Rs.
1 Mr.H.P.L. Caldera	30,396.00	
2 Mr.M.L. Cooray	121,106.00	
3 Mr.A.A. Dias	126,388.00	
4 Mr.R.P.D.T. Rajapakse	75,548.00	
5 Miss.N. Parana Vidana	36,162.00	
6 Mrs.V.R. Priyanganie	27,863.00	
7 Mrs.N.S. Liyanage	130,440.00	
8 Miss.N.S.S. Silva	92,163.00	
9 Mr.Saman Sujewa	85,770.00	
10 Mrs.G.G. Kusumalatha	6,148.00	
11 Mrs.Uppala Medhawi	82,836.00	
12 Mrs..M.J. Wijemanne	60,340.00	
13 Mr.K.A.D.P.N. Nanayakkara	190,728.00	
14 Mr.B.S. Cooray	79,620.00	
15 Mrs.D.M.R. Ippalawatte	161,351.00	
16 Mr.S.M.A. W.Anuruddha	3,183.00	
17 Mr.M.L. Gunapala	62,440.00	
18 Mrs..A.J.N. Silva	158,648.00	
19 Mrs.D.M.N. Prishanthi	81,954.00	
20 Mrs. M.D.V.N. Yasapalitha	20,248.00	
21 Mrs.S.V.P.M.Rukshani	62,075.00	
22 Miss.W.A.D.A. Perera	90,202.00	
23 Ms.K.N.R.H.D.Mahapitiya	50,140.00	
24 Ms. M.A.R.L. Millavithana	31,760.00	
25 Ms.T.D.P.P.Samaranayake	110,712.00	
26 Mr.M.M.Chandrasiri Perera	199,780.00	
27 Mr T.D.K.Gunasekera Soysa	150,700.00	
28 Mr P D Gunamuditha	29,820.00	
29 Ms W P S Sammani Weerasinghe	170,493.00	
30 Mr.K K Yohan Chandeeera	9,740.00	
31 Ms K Sewwandhi Haputhanthrige	199,302.00	
32 Ms J A C Gayani Samarasinghe	173,836.00	
33 Ms K D Nimali Keeragala	168,549.00	
34 Mr E M D C B Ekanayake	36,240.00	
35 Ms Pushpa Ellapallage	46,721.00	
36 Mrs. Priyanka Bamunendra	61,992.00	
37 Mrs.D.M.N.Sirangi	35,784.00	
38 Mrs.Champika Priyadarshani	68,700.00	
39 Mrs.Chani M De Silva	64,120.00	
40 Mr.Krishantha Thennakoon	63,616.00	
41 Mrs.R.M.M Jayajeewani	89,628.00	
42 Mr.Sanjaya Amarathunga	74,655.00	

43 Mrs.Isuri Wimalarathna	82,440.00
44 Mr.C.Shamal Fernando	84,045.00
45 Mrs.S.Udayangani	94,874.00
46 Mr.A.I.Ahangama	105,294.00
47 Mrs.A.N.L.Perera	99,502.00
48 Mrs.J.A.C.H Samarasinghe	116,732.00
49 Mr.Ranil Kumara de Silva	117,810.00
50 Mrs.H.U.S.Randima	128,800.00
51 Mr.Umeke Samaranayake	125,664.00
52 Mrs.P.H.Hasni	135,044.00
53 Mrs.D.W.M.Sadari Dematagolla	175,377.00
54 Mrs.K.A.T.K.G.Kadanamulla	153,560.00
55 Mr.S.A.Jayasinghe	162,980.00

**5,204,019.00**

*Schedule - 3*

Combined Loan as at 31.12.2017

	Rs.	Rs.
1 Mrs.H Siriwardene	76,880.00	

**76,880.00**

*Schedule - 4*

Festival Advance Balances as at 31.12.2017

Name	Rs.
1 Mr.C.A.B Wickramasingha	2,500.00
2 Mr.K.A.D.P.N. Nanayakkara	10,000.00
<b>Total</b>	<b><u>12,500.00</u></b>

*Schedule - 8*

**Prepayments**

	Rs.
1 Database	11,200.92
2 Insuarance	338,186.08
3 Maintenance of Motor Vehicles	15,592.30
4 Maintenance of Office Equipments	641,858.90
5 Postage	54,808.00
6 Uniforms	269,205.00
	<b><u>1,330,851.20</u></b>

## Deposits

	Rs.
1 Felix Perera & Sons	65,000.00
2 Director of Telecommunication	450.00
3 Telecom	5,000.00
4 Ceylon Electricity Board	10,000.00
5 Telecom - IDD facilities	5,000.00
6 Car Smile - Rent a car services	15,000.00
7 Laugh Holdings	8,200.00
	<u>108,650.00</u>

*Schedule - 5*

## Staff Debtors Schedule

1 Mr.Buddhika Wijayamunige	44,647.66
2 Mr.C.A.B Wickramasinghe	22,991.13
3 Ms.M.N.Thasneem	16,987.33
4 Ms.Dilani Jayaweera	0.75
5 Mrs.P.Samarasinghe	14,808.35
6 Mr.D.P.N Nanayakkara	9,915.80
7 Mrs.Kanchana Sewwandi	562.12
8 Mrs.K.D.N Keeragala	1,594.84
9 Mrs.D.M.N Sirangi	2,188.14
10 Mrs.B.V.I.D Vimalarathna	19,020.81
11 Mrs.P.H.Hasni	1,118.87
12 Mrs.T.M.G.K.Tennakoon	8,961.74
13 Mrs.P.L.L.Abeygunawardena	8,907.87
	<u>151,705.41</u>

**Sundry Debtors Balances as at 31/12/2017**

Date	V.No	Grant No.	Grantee	Amount	
				Rs.	cts.
29-12-2017	J/607		National Engineering Research & Dev. Centre	26,687.08	
29-12-2017	J/625		Crown Security	87,110.87	
29-12-2017	J/652	TG/2015/Tech D/02	Dr.U.K.Kapila Siri Udawela Deptment of Agriculture Peradeniya	511.40	
29-12-2017	J/652	TG/2014/Tech D/01	Dr.M.T.M.D.R.Perera Deptment of Agriculture Peradeniya	4,673.94	
29-12-2017	J/653	RG/2016/BS/03	Dr.Thusitha Nanda Etampawala Dept.of scince & Technology Uwa wellassa University Passara Road, Badulla	388,906.76	
29-12-2017	J/653	RG/2014/OMR/01	Dr.Pradeep Nalaka Ranasinghe Fac Of Fisheries and Marine Science & Technology University of Ruhuna	258,923.94	
29-12-2017	J/653	RG/2014/EB/02	Dr.Rupika S,Rajakaruna Faculty of Science University of Peradeniya	332,988.86	
29-12-2017	J/653	RG/2014/EB/01	Dr.I.R.M.Kottegoda ITI Colombo 07	18,805.50	
29-12-2017	J/653	RG/2014/BT/02	Dr.G.H.C.M.Hettiarachchi Faculty of Science University of Colombo	181,972.09	
29-12-2017	J/653	RG/2012/HS/02	Prof.Jennifer Perera Faculty of Medicine University of Colombo	27,841.48	
29-12-2017	J/653	RG/2012/HS/03	Dr.Varuni de Silva Faculty of Medicine University of Colombo	330,953.14	

29-12-2017	J/653	RG/2015/HS/09	Prof.Pujitha Wickramasinghe Faculty of Medicine University of Colombo	392,158.23
29-12-2017	J/655	RG/2011/AG/10	Dr.V.H.L Rodrigo RRI Agalawatta	23,883.56
29-12-2017	J/659	NTRP/2012/FS/PG 03/P 01	Dr.Sugath Pathirage Medical Research Institute Colombo 08.	251,626.12
29-12-2017	J/659	NTRP/2012/FS/PG 04/P 02	Dr.Athula Senaratne Institute of policy studies 100/20, Independence Avenue, Colombo 07.	523,207.05
29-12-2017	J/659	RG/2014/SS/03	Mrs.D.N.Koralagama Faculty of Agriculture University of Ruhuna Kamburupitiya	26,805.00
29-12-2017	J/659	RG/2016/SPR/06	Mr.K.Prashanthan Dept. of Physics University of Jaffna Jaffna	12,693.54
29-12-2017	J/659	RG/2016/SPR/03	Prof.N.A.K.P.J.Seneviratne Faculty of Science University of Kelaniya Kelaniya	650.00
29-12-2017	J/659	NSF/SCH/2013/04	Mr.Vijanathan Senthroon University of Moratuwa Sri Lanka	49,500.00
29-12-2017	J/659	RG/2016/EQ/03	Dean, Faculty of Science, University of Kelaniya, Kelaniya.	110,000.00
29-12-2017	J/659	RG/2015/EQ/15	Dean, Faculty of Applied Sciences, University of Sri Jayawardanapura, Gangodawila, Nugegoda.	3,175.00
				3,053,073.56

Schedule - 10

Capital Expenditure - Division Wise

As at 31.12.2017

	Research	Technology	ILD	SPD	STPRD	NSLRC	Admin	IT	DG	JPU	Total
Mandate - 01	109,126,239.10	17,444,908.03	403,624.57	-	-	-	-	-	26,381,451.44	-	153,356,223.14
Mandate - 02	-	-	-	-	4,688,667.14	-	-	-	-	-	4,688,667.14
Mandate - 03	-	-	-	-	-	10,303,590.82	-	-	-	1,367,197.52	11,670,788.34
Mandate - 04	-	-	-	12,617,686.23	-	-	-	-	-	-	12,617,686.23
Mandate - 05	14,956,002.00	-	56,623,294.84	-	-	-	-	-	-	-	71,579,296.84
Mandate - 06	-	-	-	-	-	-	1,110,510.87	4,931,767.20	-	-	6,042,278.07
	<b>124,082,241.10</b>	<b>17,444,908.03</b>	<b>57,026,919.41</b>	<b>12,617,686.23</b>	<b>4,688,667.14</b>	<b>10,303,590.82</b>	<b>1,110,510.87</b>	<b>4,931,767.20</b>	<b>26,381,451.44</b>	<b>1,367,197.52</b>	<b>259,954,939.76</b>

## Reconciliation of Financial Position

	Note	Audited Balance as at 31 December 2016	Adjustments	Adjusted Balance as at 31 December 2016
<b>ASSETS</b>				
<b>Current Assets</b>				
Cash & Cash Equivalents		22,680,392		22,680,392
Receivables		5,905,328		5,905,328
Stocks	C	2,216,729	57,450	2,274,179
Pre Payments		1,492,159		1,492,159
Other Current Assets		3,407,615		3,407,615
<b>Total Current Assets</b>		<b>35,702,224</b>	<b>57,450</b>	<b>35,759,674</b>
<b>Non-Current Assets</b>				
Receivables		3,507,371		3,507,371
Property, plant & Equipments	A	450,591,604	208,229	450,799,833
Investments	B	560,974,852	137,154,000	698,128,852
<b>Total Non-current Assets</b>		<b>1,015,073,827</b>	<b>137,362,229</b>	<b>1,152,436,056</b>
<b>Total Assets</b>		<b>1,050,776,051</b>	<b>137,419,679</b>	<b>1,188,195,730</b>
<b>Liabilities</b>				
<b>Current Liabilities</b>				
Accrued Charges		6,091,227		6,091,227
Creditors		7,274,438		7,274,438
		13,365,665	-	13,365,665
<b>Non-Current Liabilities</b>				
Provision for Retiring Gratuity		25,405,162		25,405,162
Deffered Revenue		44,078,213	208,229	44,286,442
		69,483,375	208,229	69,691,604
<b>Total Liabilities</b>		<b>82,849,040</b>	<b>208,229</b>	<b>83,057,269</b>
<b>Net Assets</b>		<b>967,927,011</b>	<b>137,211,450</b>	<b>1,105,138,461</b>
<b>Equity and Reserves</b>				
<b>Accumulated Funds</b>				
NSF Fund		(13,896,577)	57,450	(13,839,127)
Revaluation Reserve		420,848,736		420,848,736
Government Grant	B	560,974,852	137,154,000	698,128,852
<b>Total Equity</b>		<b>967,927,011</b>	<b>137,211,450</b>	<b>1,105,138,461</b>

## Notes to Financial Statements

### Note - A

Dell Note book computer cost of Rs. 219,410/- purchased for Health Science Project in year 2016 which was not accounted in 2016 was taken as an expenditure. It is Corrected as capital nature expenditure in year 2017 and accordingly comparative figures for 2016 is restated.

<u>Description</u>	<u>Cost</u>	<u>Depreciation</u>	<u>Net</u>
Dell Note book computer (2016/OE/Com/RPHS/90)	219,410.00	11,180.89	208,229.11

### Note - B SLINTEC Investment Adjustment

Ministry of Science Technology & Research has made capital contribution to the share of SLINTEC(Pvt)Ltd in the name of National Science Foundation, and this is taken to the accounts. accordingly 2016 Figures are reinstated.

### Note - C Stock Adjustments

Correction of under valued Stock Balance

<u>Publication Name</u>	<u>Stock Value</u>	<u>Actual Stock Value</u>	<u>Diffearance</u>
JNSF Volume 43	11,100.00	22,200.00	11,100.00
JNSF Volume 44	46,350.00	92,700.00	46,350.00
			<u>57,450.00</u>

### Note - D

From 2017 onwards expenditure reported according to the activities mandate by the science and technology Development act no 11 of 1994 and the previous year figures were restated accordingly.

Expenditure for Journal of NSF and SLJSS is reported under Mandate 3 - National Gateway of Science and Technology informations

Expenditure for Staff Development is reported under Mandate 05 - To Promote and enhance capacity building through liasing with individuals.

Expenditure for Aquisitions of Assets is reported under Mandate 06 - Acquisition of Capital Assets and improve policies, proceses and procedures.

**Reconciliation of Comprehensive Income**Year ended 31<sup>st</sup> December, 2016

	2016		Adjustments	2016	
<b>Revenue</b>					
Government Grant	113,249,500			113,249,500	
<b>Other Income</b>					
Interest received	227,387			227,387	
Sundry Income	35,988			35,988	
Sale of Publications	326,418		57,450	383,868	
Photocopy receipts	3,478			3,478	
NSLRC Income	1,125			1,125	
Profit/(Loss) Sale of Fixed Assets	-			-	
Exchange Gain/(Loss)	94,211			94,211	
Other	237,966,202		2,353,196	240,319,397	
Differed Revenue	13,255,151		11,181	13,266,331	
		365,159,459			367,581,286
<b>Expenditure</b>					
<b>Office Expenditure</b>					
Traveling & Allowances for Board Members	765,800			765,800	
Refreshments for meetings	215,948			215,948	
Printing & Publications	-	981,748		-	981,748
<b>Staff Emoluments</b>					
Salaries & Allowances	66,830,067			66,830,067	
Employees Provident Fund	7,771,411			7,771,411	
Employees Trust Fund	1,551,349			1,551,349	
Provision for Retiring Gratuity	5,774,458			5,774,458	
Overtime	957,575			957,575	
Holiday Payment	72,711			72,711	
Staff Training	629,213		(629,213)	-	
Uniforms	304,252			304,252	
		83,891,036			83,261,823
<b>Office Administration</b>					
Travelling - Office	2,250,561			2,250,561	
Stationary & Consumables	1,009,156			1,009,156	
Electricity	4,029,939			4,029,939	
Telephone/ Fax	2,366,927			2,366,927	
Postal charges	75,341			75,341	
Audit fees - Auditor General's Dept.	160,000			160,000	
Legal fees	-			-	
Bank charges	67,140			67,140	
Medical Expenses	76,264			76,264	
Advertising	191,883			191,883	
Maintenance of Motor Vehicles	3,272,978			3,272,978	
Maintenance of Office Equipment & Furniture	1,191,340			1,191,340	
Maintenance of Building	1,601,722			1,601,722	
Maintenance of Land	1,145,489			1,145,489	
Entertainment	50,787			50,787	
Insurance	816,383			816,383	
Water Consumption charges	356,958			356,958	
Security Services	1,700,653			1,700,653	
Depreciation	15,790,690		11,181	15,801,871	
Sundry Expenses	243,292			243,292	
Janitorial Services	872,655			872,655	
Translation charges	116,910			116,910	
Stamp duty	1,150			1,150	
Debtors Written off	9,800			9,800	
Stock of Magazines & Journals written off	93,822	37,491,841		93,822	37,503,022

<b><u>Others</u></b>					
National committees	451,905		(451,905)	-	
National Science Library & Resource Centre	371,471			371,471	
Printing Division	980,907			980,907	
Subscription to International Scientific Organizations	1,590,940			1,590,940	
Publications arising out of Research committee	1,208,882		(1,208,882)	-	
Subscription for Internet Services	3,698,106	8,302,211		3,698,106	6,641,424
<b><u>Capital Expenditure</u></b>					
Awards & Grants : Mandate 01	156,557,228		152,500	156,709,728	
Science & Tec Policy Research : Mandate 02	5,049,907			5,049,907	
National Gateway S & T Inframation : Mandate 03	4,984,055		1,508,287	6,492,342	
Science popularization programmes : Mandate 04	17,828,082			17,828,082	
International cooperation : Mandate 05	43,134,653		629,213	43,763,865	
Capital Assets, Maintenance & Admin : Mandate 06	9,927,208		2,353,196	12,280,403	
		237,481,132			242,124,328
<b>Excess of Income over expenditure</b>		<b>(2,988,509)</b>			<b>(2,931,059)</b>





# Auditor General's Report





# ජාතික විගණන කාර්යාලය

## தேசிய கணக்காய்வு அலுவலகம்

### NATIONAL AUDIT OFFICE



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எனது இல. }  
My No. }

TEC/B/NSF/1/17/36

ඔබේ අංකය  
உமது இல. }  
Your No. }

දිනය  
திகதி }  
Date }

16 October 2018

The Chairman,  
National Science Foundation

#### Report of the Auditor General on the Financial Statements of the National Science Foundation for the year ended 31 December 2017 in terms of Section 14(2)(c) of the Finance Act. No. 38 of 1971.

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

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

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

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### 1.3 Auditor's Responsibility

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My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards consistent with International Auditing Standards of Supreme Audit Institutions (ISSAI 1000-1810). Those Standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement 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

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### 2.1 Opinion

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In my opinion, the financial statements give a true and fair view of the financial position of the National Science Foundation as at 31 December 2017 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

### 2.2 Comments on Financial Statements

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#### 2.2.1 Accounts Receivable

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If there is a money saved from a research grant, the said money should be returned to the Foundation from the grantee within 30 days after the completion of the Project in terms of the Agreement. However, the saved money amounted to Rs.789,587 relating to 05 researches which had been spent between a period of 9 months to 14 months after the completion of the Project as at September 2018, had not been settled.

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

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A sum of Rs. 1,636,220 had been over paid in 16 instances in the year under review, according to the audit test check, due to in the payment of combined allowances for the foreign travels relating to the officers of the 2<sup>nd</sup> category, the combined allowances had been paid as the officers of the first category contrary to Section 4 (a) (1)(iii) of the Finance Circular No. 01/2015/01 dated 15 May 2015.



### 3. Financial Review

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#### 3.1 Financial Results

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According to the financial statements presented, the financial result of the Foundation for the year ended 31 December of the year under review had been a deficit of Rs17,990,480 as compared with the corresponding deficit of Rs.2,931,059 for the preceding year thus indicating an deterioration of Rs.15,059,421 in the financial result for the year under review as compared with the preceding year. Even though the recurrent receipts of the year under review had been increased by Rs.2,338,000 and the other income increased by Rs.5,974,000 , increase of the project expenses by Rs.19,491,000 and other expenses by Rs.3,402,000 had mainly attributed to the above deterioration.

In the analysis of the financial results in the year under review and 4 preceding years, a surplus in the financial result had been existed in the years 2013 and 2014 . However, a deficit had been existed from the year 2015 up to the year 2017. Even though , in the re-adjustment of employee emoluments and depreciation on non-current assets to the financial results, the contribution of the Foundation in the year 2013 amounted to Rs.77,199,333 had been increased up to Rs.78,807,181 by the year 2017, the contribution of the year 2017 had been decreased by Rs.17,325,454 as compared with the year 2016.

### 4. Operating Review

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#### 4.1 Performance

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##### 4.1.1 Performance and Review

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The following observations are made.

- (a) The Annual Report for the year under review prepared under 6 main activities should be performed relating to the objectives of the Foundation mentioned in Section 10 of the Improvement of Science and Technology Act, No.11 of 1994 and provisions amounting to Rs.260 million had been made for that purpose. However, the estimated provisions identified for the sub-activities relating to the said main activities had not been shown



separately and as a result of that failure to evaluate the financial progress of those sub-activities separately.

(b) One hundred and twelve Competitive Research Grants Projects which the grant value amounted to Rs.214.75 million during the period from the year 2013 to the year 2017 had been completed and the following observations are made in this connection.

(i) Only 5 projects valued at Rs.14,552,858 out of the above Research Projects had been identified as able to commercialization and only 3 Research Projects valued at Rs.8,068,692 had been referred to obtain patent.

(ii) According to the comments of the granters in relation to 31 Applied Science Research Projects which the grant value amounted to Rs.69,780,007 ,it had been shown that research outcome could be applied for the fields such as agriculture, health, bio technology environmental science and power. However, the Foundation had not conducted a post evaluation whether actually the outcome of researches applied for that fields , referred to compilation of policies , therefore how to contribute for economic and social development.

(c) National Thematic Research Programme- Food Security

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Nine Projects had been implemented on food security in the year 2012 with a view to apply the outcome of the researches for National Development and 7 Projects of grant value amounted to Rs.22,746,297 by the end of the year under review had been completed and the following observations are made in that connection.

(i) A network system for forecasting harvest through the web site which the research costing amounted to Rs.1,850,820 had been developed and handed over to the Ministry of Agriculture in September 2016 for the implementation .However, the Foundation had not made a follow up even by May 2018 whether the said network system operated successfully , the farmers gained benefits through the network system.

- (ii) A sum of Rs.5,545,484 had been spent for the creation of social network which the necessary information received in the necessary time and supply ability to the farmers for the fulfilment of changing food demand of the community through the better supervision and production management and it had been completed in October 2016. However, handing over to the suitable institute for the implementation of the relevant network system had not been carried out even by May 2018.
- (iii) A sum of Rs.5,588,453 had been spent for the research project for make food security through applying pre-harvest technology and development of the quality of the new productions by applying Potassium to the soil .Further, a sum of Rs.1,462,500 had been granted for the Institution which the above research conducted for a research project for the protection of the natural quality of Capsicum , pre and post harvests by using Silicon and rice husk under competitive research grants . However, those two projects had been completed in the year under review, the Foundation had not carried out a follow up action that in which areas followed this method, whether a proper methodology implemented for the introducing of this method and had identified an Institution the responsibility borne for that purpose, how much is it popular ,and what are the benefits gained .
- (iv) Two Research Projects of granting value amounted to Rs.3,470,640 had been completed in the year under review . Even though it was expected to be established a national system for the certification of microbiological food security from the said research projects and development of the modes of domestic food security for the poverty stricken areas of Sri Lanka , it could not have been fulfilled.
- (d) Even though in terms of Section 5.1 of the Agreement of granting research grants ,the final report should be furnished within 3 months of the completion of the project, a time delay from 3 months to 19 months had been existed in the furnishing of the final report for the 17 completed projects amounted to Rs.31,783,609.

- (e) Even though a period from 12 months to 20 months had been elapsed by September 2018 by granting a fund amounting to Rs.11,408,536 for 14 technical grants in the year under review , the physical examination of the performance of the said Projects had not been carried out whether the relevant grants are used to achieve the objectives efficiently and effectively.
- (f) Even though equipment should be purchased within 06 months of the receiving of provisions in terms of Guideline for granting equipment , purchase of equipment at a grant of Rs.2,100,000 on 20 December 2016 had not been carried out even by September 2018.As such, it was observed that the fund remained idle during the period of 1 year and 9 months in an another institution.

#### 4.2 **Operating Activities**

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The following observations are made.

- (a) Funds had not been granted even by May 2018 for the 7 Projects valued at Rs.22,198,794 out of 22 Research Projects granted in the year under review . Nevertheless, 6 grants of equipment valued at Rs.5,353,815 had been granted on 13 July 2017 , a period of 7 months had been elapsed up to 24 February 2018 to release the funds. It was observed at audit that as a result of delay of granting funds for the purchase of equipment for the Projects , decrease in the progress of Research Projects which are expected to carry out by using that funds and grants received in the following year could be limited
- (b) Grant of equipment amounting to Rs.2,553,000 had been received to a Research Project on 12 May 2017 and it had been informed on 23 February 2018 as the money return back due to the delay of purchasing. However, money had not been received even by August 2018.
- (c) A sum totalling Rs.1,156,131 up to 20 per cent to 100 per cent from the advances obtained in 93 instances had been saved due to the advances had not been granted by proper studying the necessity and the same amount had been re-settled .

- (d) Action had not been taken to dispose the 58 unserviceable stock items costing Rs.205,427 even from the year 2010 to August 2018.

## 5 Sustainable Development

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### 5.1 Achievement of Sustainable Development Goals

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Every Public Institution should act in terms of the Agenda 2030 on Sustainable Development of the United Nations and the National Science Foundation had aware how should be come into operation in relation to the Sustainable Development Goals come under the scope of the Foundation relating to the year under review.

## 6. Accountability and Good Governance

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### 6.1 Procurement

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The following observations are made.

- (a) In terms of Chapter 4:1:1(a) of the Government Procurement Guidelines ,efficient planning of the entire Procurement process is vital to ensure timely completion of the project. However, relating to 13 Procurements estimated cost amounted to Rs.71.52 million which was planned to be completed by November in the year under review had not been carried out even by 31 December 2017 due to non-availability of financial provisions and failure to determination of the occasion properly which the procurement required .
- (b) The Foundation had not prepared a detailed Procurement Plan in terms of 4: 2:1 (d) of the Government Procurement Guidelines.

- (c) The contract of applying paints on the buildings included in the Procurement Plan of the year under review , had been handed over to a contract company at a value of Rs.4,777,625 and bills amounting to Rs.2,208,160 had been submitted on 25 March 2018 to obtain payments for the work done. In the physical examination of the square feet relating to the work mentioned in the bill , difference was observed in the said value and the square feet mentioned in the bill. Accordingly, a sum of Rs.699,413 had been over stated in invoice.

## 7 Systems and Controls

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

Areas of Systems and Controls -----	Observations -----
(a) Maintenance of files	Failure to confirm the accuracy of the certificates included in personal files from the relevant institutions and instances of oath or convention and the medical report had not been available in files.
(b) Granting of Research Grants and Supervision	Delays were existed in obtaining of the saved money relating to the projects completed.
(c) Procurement	(i) Failure to review the progress on carrying out procurement and update the Procurement Plan.  (ii) Delays occurred in the entering of contract agreements
(d) Stock Control	(i) Non-maintenance of Inventory Registers in an updated manner.



- (ii) Differences were existed between the library books/publications and the books/documents existed physically.
- (iii) Failure to proper maintenance of the store.
- (iv) Action had not been taken to dispose the goods expired and to be disposed.
- (v) Assets existed which the identifying number had not been marked.
- (vi) Goods which is shown in the inventory registers to be transferred to the stores are existed physically.

(e) Advances Control

Instances of the financial advances had been settled and kept without utilizing in any activity were existed.

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

H.M Gamini Wijesinghe

Auditor General



# NSF feedback on the Auditor General's Report



This is related to the draft of the Auditor General's report according to the Clause 14 (2) C of the Finance Act, No. 38 of 1971 regarding the Financial Statement of National Science Foundation for the year ending on 31<sup>st</sup> December 2017. Following are the observations of the Institute regarding this.

## 2. Financial Statements

### 2.1 View

### 2.2 Commenting on Financial Statements

#### 2.2.1 Shortcomings in accounting

(a) The provisions for Special Foreign Training programs and Tours are 02 expenditures under the mandate no.05. The sum of Rs. 207,028.00 related to voucher no.'s 812 and 813 has been correctly categorized under Special Foreign Training Programs. In future, measures will be taken to establish an internal control system to ensure the correct accounting of these expenses. When preparing the Financial Statement for the year of 2018, the measures will be taken to indicate the balance expenditure under comparative values.

(b) This expenditure is applicable to the year in which the payments were made related to National Science Foundation and measures will be taken to present the policy decision related to this to the Management Board and to obtain the approval.

### 2.3 Accounts to be received

Rs 2.595 million i.e. 85% of the indebted balance of Rs. 3.053 million as at 31<sup>st</sup> December 2017 was recovered by August 2018 and reminders have been sent to recover the balance of Rs. 457,000.00 by 31.10.2018.

Also, in cases of providing finance for other grants for such institutions having indebted balances, it is planned to deduct those amounts and to send the balance.

### 2.4 Non-compliances to rules, regulations and management decisions

(a)

- As mentioned in the section of combined allowances related to the government circular no. 01/2015/01, except Ministers, Provincial Governors, Members of Parliaments, Ministers and Chairmen of Provincial Councils, Mayors of Municipal Councils and Chairmen of Urban Councils and Local governments, the Government Officers having a starting monthly salary of Rs. 36,755/- or above according to the government administration circular 6 - 2006 are included in the first category and accordingly, all payments have been made under the approval of the board of management.

However, in future, the payments will be made according to the relevant circular, having considered the facts pointed out in the audit.

- Even though this officer is a retired officer of the NSF, she acts in this committee of Man and Biosphere Program as a member as well as the secretary of the same. With the approval of the board of management, this officer was nominated to participate in this foreign conference on behalf of the committee of Man and Biosphere Program and the combined allowances were paid accordingly.

(b)

Even though there are difficulties of getting the attendance confirmed through fingerprint machines because of the fact that the drivers have to work in weekends as well as outside the institute measures will be taken to streamline the system of getting the driver's work time confirmed through fingerprint machines and the payments of overtime accordingly, in accordance with the government administrative circular no. 09/2009, as pointed out in the audit.

### 3. Financial Review

#### 3.1 Financial Results

### 4. Operational Review

#### 4.1 Performance

##### 4.1.2 Activity and Review

(a) i& ii

Aims and objectives of the Competitive Research Grants awarded by the Research Division are;

- Promoting Research and Development activities for the National Development
- By facilitating the fundamental and applied researchers related to all scientific fields, generating a sustainable research culture that gives benefits to the scientists in universities and technical institutions
- Properly controlling a National Research Methodology for fulfilling the national requirements
- Developing the capacity of Science and Technology.

According to it, 112 projects completed from 2013 to 2017 had achieved the above aims and objectives. (e.g.: annex 01 (i) - (v))

The National Science Foundation has been authorized to fund both fundamental and applied researches by the Science and Technology Development Act no. 11 of 1994. Every research grant that is categorized under fundamental and applied research group is not qualified for applying for patent or for commercialization. Those fundamental research

projects, even though they haven't produced a particular product, proceed to increase the knowledge and capacity of young scientists by conveying valuable knowledge to the society.

However, from the fundamental and applied research awards funded by National Science Foundation, the researches which are having final outcomes that have the capacity to obtain patent or to be commercialization will be encouraged to develop further under "Development" category by directing the interested researchers to technical section for commercialization and for obtaining patents.

Accordingly, out of the 112 projects that were completed from 2013 – 2017, 03 projects had been directed to obtain patents and 05 projects had been directed for commercialization.

iii. For taking follow-up actions, all research grantees are requested to present a summary of 2 pages including the structural outputs of the project. According to the structure of the final report (part 04), data are collected related to the results that lead to scientific advancement, distributing knowledge and obtaining applications. (Annex 01)

(vi) According to the data obtained, the researches with technological trend are directed to the technological section of the National Science Foundation.

The final reports are assessed by two independent observers and the relevant report is graded by the Working Committee. The final report that is assessed and accepted so is informed to awardees and the format mentioned in the annex 02 is sent to the awardee and thereby the follow-up of the research result can be reported and a completed format is mentioned in annex 02(i).

The research section expects to launch a methodology to annually follow up the application of thus collected results of the researches in various fields. For this purpose, a strategy has been started to be formulated to maintain a continuous relationship with the research grantees.

iii. Even though the modern knowledge, acquisition of knowledge and capacity building (post degrees – MPhil, PhD) are identified as the contributions of these research projects to the socio economic development it will acquire long term benefits through the knowledge and through the fields of science, technology and new inventions by using the knowledge.

iv. More than 500 local and foreign publications have been made based on the projects finished from 2013 – 2017 and even though the researches were finished during the period of 2013 – 2017 publications based on those can be made in forthcoming years as well.

The research section used the information presented along with the final report by the researchers in order to report regarding the research publications. Moreover, an extra time period after finishing the project is required for making local or foreign publications of some researches.

Even though the research publications based on following projects had not been made by the time of producing the final report such publications have been done by now. A research publication of RG/2012/AG/02 has been made and the results of the research have been

presented in 05 scientific conferences. A research publication of RG/2014/AG/03 has also been made.

Accordingly, it is mentioned in the final report that the research publications of following research grants were being prepared by the time of presenting the final report.

RG/2014/HS/01, RG / 2015 / HS / 06, RG/2008/EB/03, RG/2011/NANO/03, RG/2007/BT/04

Also, in the researches conducted for some degrees of Doctor of Medicine (MD), other publications in addition to the dissertation presented to the graduate institute were not reported. The knowledge obtained by them is used in the relevant field of medicine.

According to that, following research grants have suppressed the results of researches by presenting the dissertations to relevant graduate institutions.

RG/2011/HS/10, RG/2011/HS/03, RG/2011/HS/15, RG/2011/HS/04, RG/2012/HS/04

The research publications of only two research grants were not reported (RG/2011/AG/11, RG/2008/BT/01).

(b) i. NTRP/2012/FS/PG 01/P-01

The Ministry of Agriculture took actions to implement the network system for forecasting the harvest and the software developments required for this purpose as well as supplying computers are also done. For the present, this has been implemented at the Elugoda Agrarian Service Center by Agriculture Department under the supervision of the Ministry of Agriculture. This has been confirmed through the discussions held with the team leader from time to time.

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

- The evaluation process of the final report has been completed on 17.06.2017 and the Action committee has accepted this report.
- Even though the discussion were held with companies of HARTI, CIC and Cargills for the purpose of assignment of work it was not successful. There was a delay in continuing the project due to the sudden death of Prof. Gihan Wickramasinghe who was the first grantee. However, the National Science Foundation paved the way for obtaining the support of Agriculture Department after the discussion held with UGC on 31.08.2018 and the discussions between the two parties were held at National Science Foundation on 13.09.2018. Agriculture Department agreed to promote the social network system among the farmers (only one crop will be tried out first) and the National Science Foundation agreed to provide the Social Networking System to the Department of Agriculture. The National Science Foundation will continue to function as the facilitator of this process further.

iii. NTRP/2013/FS/PG 02/P-02

The National Science Foundation is currently in the process of follow-up, and for that, instructions are given to the group leader. National Science Foundation has informed several successful projects to prepare and present results-based project advertising plans and several project advertising plans have already been received. Further discussions are underway for providing grants.

iv. NTRP/2012/FS/PG 03/P-01, NTRP/2012/FS/PG 05/P-01

At the beginning, even though one project was continued successfully the project grantee left the project due to lack of information and objection of one project member to provide information and (within 6 months) establishing a database is the only thing that the Ministry of Health was able to do.

In the other project, due to lack of team collaboration and due to the difficulties in identifying the families suffering from poverty and difficulties in getting the participation of such families, about 05 households had been selected.

One of the main objectives of the fundamental research program initiated by the National Science Foundation is to gift successful projects to the country through collaboration between various institutions and universities.

However, it was somewhat difficult to achieve this objective due to some personal conflicts and conflicts between institutions. The National Science Foundation is making arrangements to minimize this situation in the future.

(c) The budgetary allocations have been made under 06 main functions only, because of the facts that funds are not received in the same way when approving the basically prepared budget for the National Science Foundation and the verbally approved funds in budget meetings vary when receiving money.

(d)

- Although the production activities of the “Mihimadala” program had been completed, it was difficult to find a suitable television channel for the broadcasting of those programs. Several TV channels made inquiries about this, and the National Science Foundation could not advertise in the television in 2017 due to difficulty in finding a suitable channel to provide a parallel broadcast in three languages within the cost estimated by the National science Foundation.

However, by the end of September 2018, 10 programs out of the 15 “Mihimadala” programs, have been telecasted in all three languages on television channels connected to the National Rupavahini Corporation.

- By 10<sup>th</sup> November, on which the World Science day was scheduled, the Mihimadala program had not been telecasted on television channels even once. Copying and distribution of these video programs had to be done after telecasting these programs

on television. Hence, the distribution of the video copies of Mihimadala programs among schools wasn't done.

In addition, in 2017, the Management Board of the National Science Foundation had taken a policy decision to organize the Science Day School program in May from the year 2018 onwards and not to hold that school program on November due to the school examinations that are conducted in the month of November in which the Global Science Day school program was scheduled. Therefore, Global Science Day School Program was not organized in 2017. Steps are taken to update the annual action plan according to the changes taken place in the plan depending on such policy decisions.

- (e) There was a delay of a few months due to the difficulties that had to be faced in obtaining data of the Industrial Sector for the survey of 2015 (data collection was started in April 2016). The statistic book of 2015 was being assessed after finishing it by 2017 and the online publications were done in March 2018. It was printed and published in May 2018.

#### 4.2 Management Activities

- a)i. According to the special service agreement (SSA) signed with the NSF Research Fellows, item 07, Submitting reports on physical, technical and financial progress quarterly on the assigned themes to the NSF BoM.

To fulfill the above requirement following actions were taken,

- Request Progress reports from Research Team Leaders after three months of the release of funds and in every six months thereafter. Contractual Agreement, section 05:Schedule D & E)
- Visit laboratories and research sites to inspect the work carried out and for fact-finding purposes (Report of a Field visit).
- Progress review presentations by the Research Teams (Report of a Progress review presentation).
- Summary of progress reviews presented to the RPHS Steering Committee for recommendations.
- Monthly progress reports were submitted to the NSF BoM based on the telephone conversations and communications via emails with the Grantees.
- Half yearly progress reports of the RPHS were submitted to the NSF BoM.
- Quarterly reports were submitted to the Ministry of Science, Technology & Research, Skill Development & Vocational Training and Kandyan Heritage.
- Quarterly reports were submitted to the National Treasury.

Based on the progress reports received from the Grantees, field visits were planned. If there is a notable low progress among projects, such sites were given priority for visits. 18 sites were visited during 2017.

Other 04 projects which were not visited physically were evaluated by the presentations made by the Grantees at the NSF. Out of these 04 grants, 02 were either a survey based or ICT related projects which were not necessary to visit for evaluation and for other 02 projects visits were planned in 2018.

ii. This proposal was just came from the working group of RPHS on its meeting held on 09.12.2016, not the BoM decision. Further it was discussed to identify and fill the gaps while progressing the ongoing 22 projects.

iii. In funding, in order to confirm the accuracy of the transactions and the existence of the assets, steps have been taken to obtain descriptive reports on purchasing of equipments (Schedule F) and an interim financial report for the assurance of the accuracy of transactions in every 06 months from the head of finance of the institutes where the projects are underway, through the agreement with the heads of the institutes, as there is no any participation of the National Science Foundation in the process of purchasing.

Also, these assets have been physically inspected in the field visits made by the National Science Foundation.

Descriptive information (Break Ups) about the equipments which are related to the purchases indicated by the interim financial reports have been attached herewith. (Annex 03(i)-(vi))

b) Following final reports have been delayed due to the difficulties that had to be faced by the grantees. The financial limitations that cannot be pre-determined, procurement problems in institutions and also some technical problems were also among these. Without funds, some grantees requested extensions for researches even after the due date for presenting the final report. According to the rules and regulations of the National Science foundation, this request couldn't be approved and it was informed to the grantees. After that, they have completed and presented the final reports and the reports have been accepted after the evaluations by now.

RG/2011/AG/03,      RG/2011/AG/06,      RG/2011/AG/07,      RG/2011/AG/09,  
RG/2011/AG/10,      RG/2011/AG/11,      RG/2012/AG/04,      RG/2012/AG/06,  
RG/2012/AG/07,      RG/2012/AG/08,      RG/2011/BS/05,      RG/2012/CSIT/01,  
RG/2012/ESA/01, RG/2011/NRB/06, RG/2012/NRB/02, RG/2011/NRB/01

However, reminders were sent by the National Science Foundation properly in order to obtain the final reports. Currently, a new methodology (Annex 04) for minimizing the delays in presenting final reports is being implemented by the National Science Foundation.

c) Physical inspections were performed as far as possible to evaluate the progress of the technical grants during the reviewed year. Some projects were finished successfully within the stipulated time, according to the project plan. In accordance with the guidelines for technical grants, actions will be taken earnestly to physically observe the progress (Close progress monitoring) further. Relevant officers were made aware to update the main files

including the relevant reports to it. The Technology Division is always working to ensure the outputs of the technical grants are completed efficiently and effectively.

d) Under the approval of the board of management, the time permitted for the procurement process was extended by one month, considering the procurement process for the grant of equipments. Accordingly, from 10.11.2016, a total time of 06 month were given for the process of purchasing equipments.

Equipment Grant	Reasons for the delay of purchasing
<b>RG/2016/EQ/11</b>	<p>These equipments had to be directly purchased from a foreign supplier. This delay occurred due to the facts that a separate approval had to be obtained as the total cost (US \$ 15,230) exceeded the T/T value of US \$ 10,000 which was allowed for the institute and approvals had to be taken from the institutions like SL Custom, Telecommunication Regulation Commission and Ministry of Defense to get the equipment released and also the equipment was not released until those approvals were obtained.</p> <p>Accordingly, the delay of purchasing was occurred totally out of the control of the research grantee. However, the National Science foundation, as the institute which grants the funds has always followed up the information regarding the progress of the purchases.</p>
<b>RG/2016/EQ/12</b>	<p>Even though the approved amount was granted on 03.04.2017 the value of the equipment had been increased according to the rate of the dollar because of the changes of the foreign exchange rates that were taken place by then.</p> <p>Therefore an extra amount of Rs. 2,230,385/- was requested to buy alternative equipment instead of the previously requested equipment. But the board of management didn't approve this request on 26.09.2017 because the approved equipment grant was increased by 100%.</p> <p>A request was made to change the equipment without supplying funds again. Accordingly, the board of management granted the permission for this request on 05.12.2017 considering the facts that were put forward and the time line for procurement process was also extended up to 28.03.2018.</p> <p>Meanwhile, on 07.09.2018, the grantee informed that the equipment award was withdrawn since the procurement process was further delayed due to the trade union activities that prevailed in universities. A management board paper is to be presented in order to obtain the approval from the board of the management for this withdrawal.</p>
<b>RG/2016/EQ-HS/06</b>	<p>Funds for above equipment awards were granted on 16.05.2017. Accordingly, 06 months were completed on 16.11.2017. After purchasing, the equipment was installed on 16.02.2018. The actual delay occurred here is 03 months. The documents pertaining to purchase and installation were received to the National Science Foundation further 02 months later because of the trade union activities of the non-academic staff.</p>
<b>RG/2016/EQ-HS/07</b>	

However, attention has been paid towards granting the funds immediately after the approval and consequently it is expected to minimize the fluctuation of the price of the equipment, purchasing the equipment within the period in which it is required, supporting the project to be continued without delay and also utilizing the funds for the tasks effectively.

#### 4.3 Operational Activities

(a) & (b) Even though 22 research grants and 06 equipment grants were awarded by National Science Foundation 07 research grants and 06 equipment grants out of them were not able to be funded because ample funds were not received from the treasury within the required period. Even though requests were made several times the amount granted by the treasury was lesser than the requested amount for researches and this was also a reason for the above situation.

(c) An amount of Rs. 866,910/- for the equipment grant RG/2016/EQ-HS/05 has been received on 07.09.2018 and reminders have been sent for obtaining the amount of Rs. 2,553,000/- which is for the equipment grant RG/2016/EQ/20 and steps are taken to obtain it before 31.10.2018.

(d) An amount of Rs. 4000/- (incidental) per one day field visit is carried in programs outside the institution and in field visits in cases of fuel for the vehicle used, accidents and illnesses. This is used only when it is required and hence the estimated amount has not been spent by 100%.

In the same way, the advances obtained for the honorary allowances and providing refreshments allocated for committee members / reviewers who supposed to attend to committee meetings / progress reviewing seminars had been left without spending as estimated due to the absence of some members who confirmed their presence previously, because of their urgent programs and meetings.

(e) Steps will be taken to complete the removal work before October 31, 2018.

#### 5. Achieving Sustainable Development Objectives

The National Science Foundation implemented following programs in 2017 in accordance with their scope in order to fulfill the need of achieving the sustainable development goals (SDG's) / aims. Even though these sustainable development goals (SDG's) / aims formulated by UNESCO cannot be directly applied to the scope of the National Science Foundation, it is specially mentioned that these activities have been eagerly carried out far as possible. Further details regarding this are given in.

In order to achieve the Sustainable Development Goals, the National Science Foundation had implemented following programs in 2017 with regard to the sustainable development goals pertaining to its scope.

Goals	Programs
3	Competitive Research Grant Scheme Research Programme on Health Science Facilitating Policy Development on Social Sciences
6	NTRP - Water Security Facilitating Policy Development on Social Sciences
9	Technology Grant Scheme Support Intellectual Property (IP) Protection
11	Facilitating Policy Development - Indigenous Knowledge
13	NTRP - Climate Change & Natural Disaster
15	15 MAB Programme in Sri Lanka
17	Bilateral and Multilateral Cooperation

## 6. Accountability and good governance

### 6.1 Procurement Plan

- a) It was unable to fulfill the procurements as planned due to lack of money for making purchases according to procurement plans and since the prices had to be called again as they were not received when requested. After updating the procurement plans according to the conditions existing from 2018, approval will be taken from the board of management.
- b) The need of a descriptive procurement plan has been identified and the formulation of it will be done from the last quarter of 2018 under the supervision of the procurement committee.
- c) As per the contract award letter, 90% of the procurement activities had been fulfilled within 21 days but another several weeks were taken to complete the remaining 10%. But, the tasks of modification of the intercom system according to the requirements of the institution, rectifying the identified faults and training the staff on operating the new system were not fulfilled till 11<sup>th</sup> of August. However, all of these tasks have been completed now. The performance bond was not extended as the installation of the new telephone system was completed by 20<sup>th</sup> November 2017.

The signing of the contract agreement was delayed because the two parties didn't agree with some clauses contained in it. But, it is informed that, in future, all work will be commenced after signing the agreements.

- d) By 30<sup>th</sup> July 2018, the Digitization of 14 institutions out of 15 which were to be digitized under the 3<sup>rd</sup> stage of the National Digitization Project was completed and around 5200 pages of the other institute were remaining to be digitized. Meanwhile, a proposal of digitizing the management board papers of our institute was also received. Approval of the management board for accomplishing the above task

under the same stage was received in August 2018. As it takes 02 months, the expired performance bond of the contractor has been extended up to 30<sup>th</sup> November 2018.

- e) The contractor had completed 60% of the total work by 25<sup>th</sup> March 2018 and only a part payment was made for continuing his work. However, before making this payment, measurements were taken by a Quantity Surveyor and it was certified by a Chartered Engineer. Since above officers were not present in the technical assessment committee their recommendations were not obtained. Similarly, before making the final payment, steps are taken to make the payment under the recommendation of the technical committee after getting the measurements measured again and certified by a chartered quantity surveyor.

## 7. Systems and Controls

- a) Actions will be taken to make sure the accuracy of the certificates of the employees recruited in 2018, through the relevant organizations. Similarly, oath or pledge and the medical certificate of the new recruits will be obtained. Obtaining these documents from the rest of the employees will be expedited.
- b) The balance amount after deducting the due amounts will be sent to the institutions having such outstanding balances in funding other grants.
- c) (i) In the applications for the foreign grants, through a budget, it is informed to indicate the amount requested by the applicant from the National science Foundation. (Item 20 of travel grant application form)

Also, the application will be signed by the head of the institute of the applicant (Vice Chancellor for an applicant from a university and the Director General for an applicant from a research institute) certifying all grants requested by the National Science Foundation including the budget. (Item 28 of travel grant application form) Considering the facts shown by the audit, steps will be taken to put a special note at the place where the head of the institute signs and a copy of the letter that is sent to inform the approved grants will be provided to the head of the relevant institution.

- ii) Granting funds relevant to foreign conferences and seminars is determined after careful consideration of the rules and regulations of the Grant Schemes and all the facts mentioned in the invitation letter received by the applicant from the organizers of the program. Accordingly, the relevant invitations and other documents are in the files. (Item 6 & 7 of N.B. in travel grant application form)
- d) Updating of the procurement plan after the procurement progress review will be continued properly.
- e) Paying more attention to the sectors shown, it is planned to streamline the stock control and to remove the removable items before 31<sup>st</sup> Oct 2018.

- f) Action will be taken to provide advances only depending on the requirement by paying more attention to estimations in granting cash advances.
- g) Individual transport facilities are provided for the officers who are entitled for group transport facilities only when working after 6.00 pm for official works and when the other officers of the group are absent.
- h) A new transport policy has been introduced by the board of the management for correct management of the transport facilities provided by the institution. Consequently, provision of individual transport facilities will be confined to necessary situations only.

Chairman  
National Science Foundation



# Financial highlights in the preceding 5 years

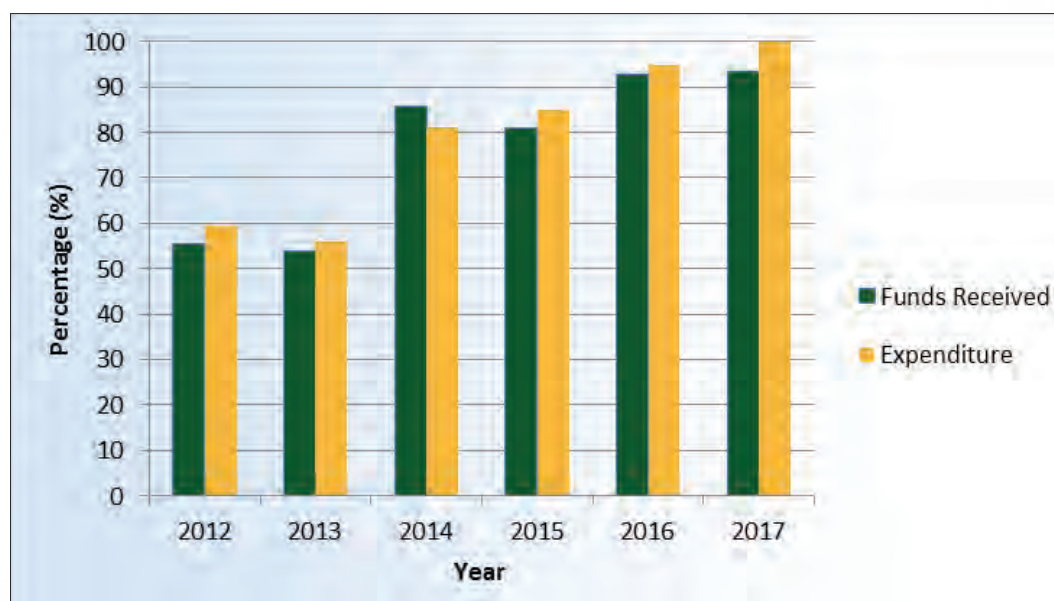


The NSF keeps records of all performance and review frequently for better investment in the priority areas for Science Technology & Innovation development, thus, reminding to be Know Your Customer (KYC) norms compliance. This analysis together with the information given in page 118, provides current and future financial health at the NSF.

The investments for the preceding five years are given in *Table 12* and depicted in *Figures 45, 46 & 47*.

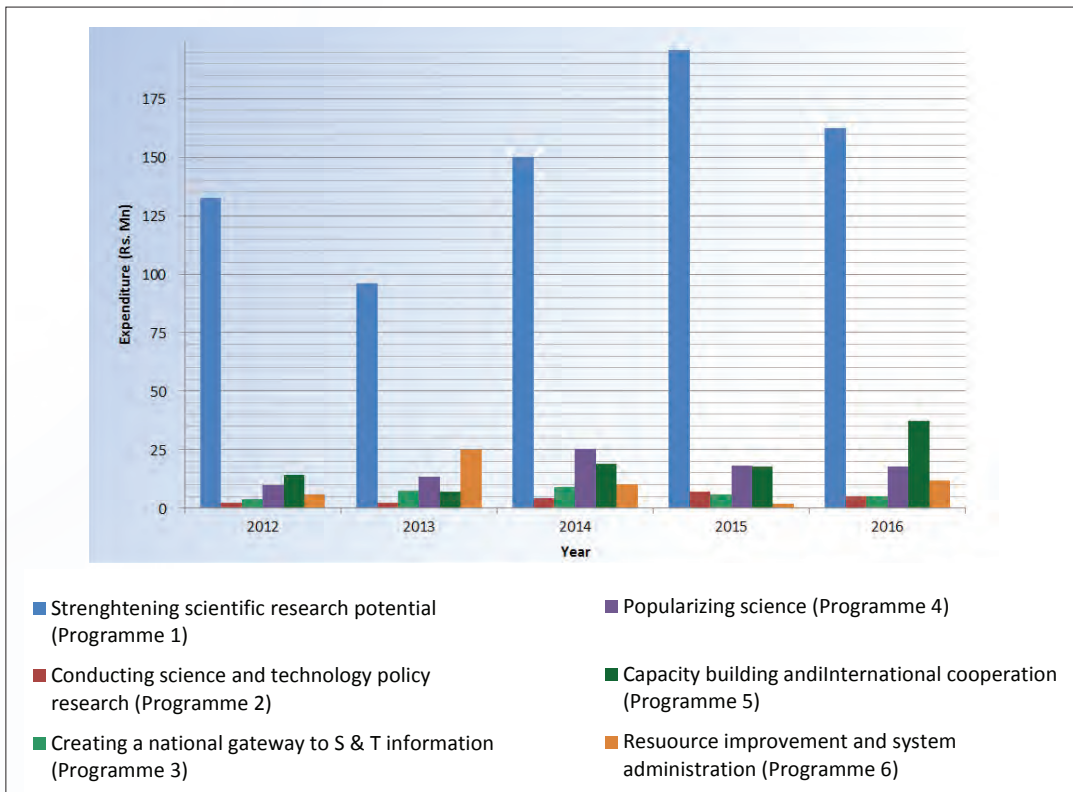
**Table 12:** Financial review for the preceding five years

Year	Financial Details (Rs. Mn)		
	Allocation	Funds Received	Expenditure
2012	283	157	168
2013	250	135	140
2014	260	223	211
2015	290	235	246
2016	250	232	237
2017	260	243	259.97

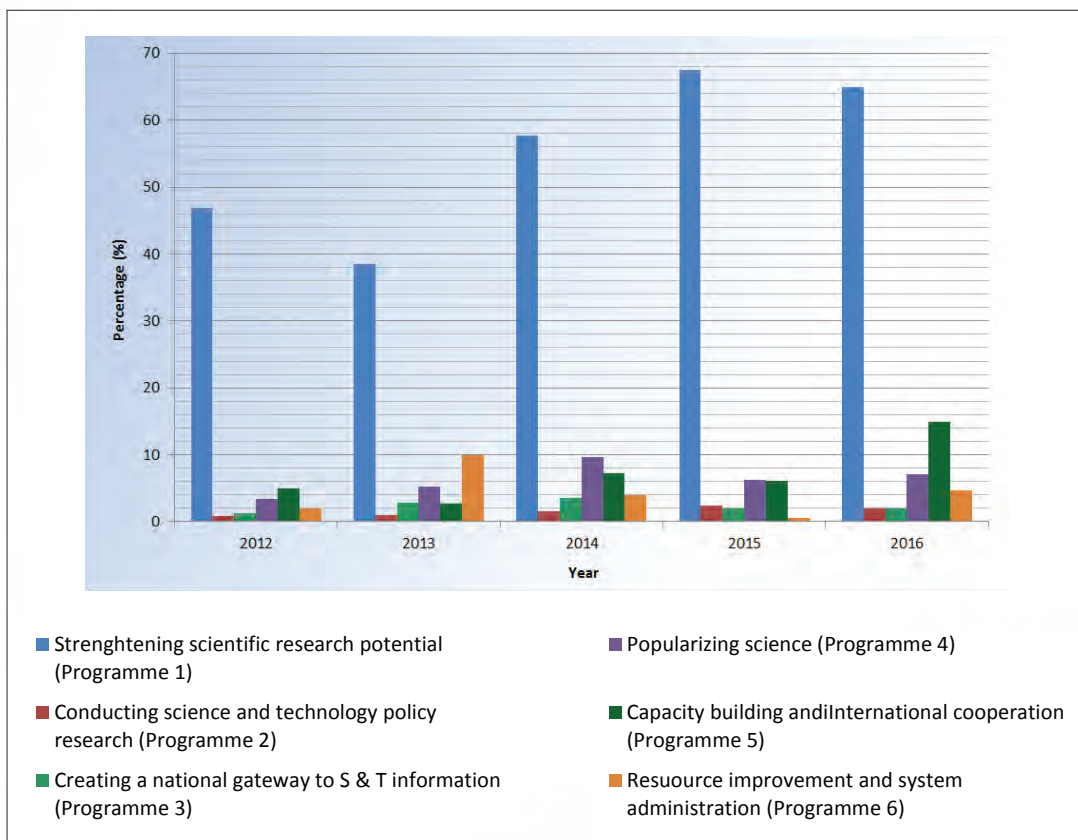


**Figure 45:** Financial performance for 2012 - 2016: % against allocation

*Note:* For comparison, the figures for 2017 is also included in the graph.



**Figure 46:** Expenditure under major programmes



**Figure 47:** Expenditure under major programmes as a % against the total allocation

*Note:* The figures for 2017 are given in page 118



# Annexures



## Research Programme on Health Science (RPHS)

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs. Mn)
1.	RPHS/2016/DTM 01	Dr Prasad Katulanda University of Colombo	Establishment of a center of excellence and a research hub on diabetes and Non-Communicable Diseases (NCD) epidemiology and a national research programme on diabetes and NCD epidemiology 03 - 04 Years	10.00
2.	RPHS/2016/DTM 02	Dr Anjula De Silva University of Moratuwa	Development of tools for screening and treating Diabetes and related foot complications through biomedical engineering innovations 03 - 04 Years	12.00
3.	RPHS/2016/DTM 01	Dr Hasitha Tissera Epidemiology Unit Ministry of Health	Innovative tools and strategies for surveillance and control of dengue: 2017 - 2020 01 - 02 Years	3.047
4.	RPHS/2016/D 02	Dr Noble Surendran University of Jaffna	Development of an early warning system, a risk map and a prediction model for dengue and establishment of roles of asymptomatic carriers and brackish water derived mosquitoes in dengue transmission in Jaffna district 03 Years	6.00
5.	RPHS/2016/D 03	Dr Menaka Hapugoda University of Kelaniya	Study of risk factors affecting transmission of dengue in the district of Gampaha 02 - 03 Years	3.00
6.	RPHS/2016/D 04	Dr Ajith de Silva Nagahawatta University of Ruhuna	Developing an effective epidemiological surveillance system for dengue in Southern province of Sri Lanka 03 - 04 Years	4.04
7.	RPHS/2016/D 05	Dr S S N Perera University of Colombo	Proactive Dengue Management System (ProDMS) 03 - 04 Years	6.00
8.	RPHS/2016/D 06	Prof. Neelika Malavige University of Sri Jayewardenapura	Identification of the true burden and associated complications of dengue and related viral infections in Sri Lanka and finding long lasting solutions, through in depth understanding of the pathogenesis for development of therapeutic targets 03 - 04 Years	20.00
9.	RPHS/2016/C 01	Dr A Pubudu De Silva National Intensive Care Surveillance of the MoH	Development of web-based live update of cancer patient information system 01 - 02 Years	2.00

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs. Mn)
10.	RPHS/2016/C 02	<b>Prof. Vajira Dissanayake</b> University of Colombo	Strengthening the Cancer Information Systems in the Ministry of Health [Hospital Information System (HIS); electronic Morbidity and Mortality System (eIMMR); National Cancer Registry (NCR)] 03 - 04 Years	8.00
11.	RPHS/2016/C 03	<b>Prof. Vajira Dissanayake</b> University of Colombo	Sri Lankan Inherited Cancer Biobank (SLICB) & Sri Lankan Inherited Cancer Genetic Variation Database (SLICGVDdb) 03 - 04 Years	5.00
12.	RPHS/2016/C 04	<b>Dr Hemali Goonasekera</b> University of Colombo	Biomarker discovery in haematology - myelodysplastic syndromes 03 Years	4.00
13.	RPHS/2016/C 05	<b>Dr Eranga H Siriweera</b> University of Peradeniya	Novel biomarkers of breast cancer in pre and post menopausal women predictive of therapeutic and prognostic value 03 Years	4.00
14.	RPHS/2016/C 06	<b>Dr Chathura Ratnayake</b> University of Peradeniya	Establish novel molecular biomarkers based detection tools for early screening of Human Papilloma Virus (HPV) infection and association of hpv in pathophysiology of cervical cancer in sri lankan women 03 Years	5.00
15.	RPHS/2016/C 07	<b>Prof. Kamani H Tennekoon</b> University of Colombo	Identification of new cancer biomarkers and validating existing biomarkers for the Sri Lankan setting and identification and development of anti-cancer compound libraries 03 - 04 Years	8.00
16.	RPHS/2016/CKDu 01	<b>Dr Eranga Wijewickrama</b> University of Colombo	Nationwide surveillance, quantify burden of NCDs, development of case definition and biomarkers for CKDu libraries 03 - 04 Years	5.00
17.	RPHS/2016/CKDu 02	<b>Dr A Pubudu De Silva</b> National Intensive Care Surveillance of the Ministry of Health	The burden from CKD/CKDu on dialysis units in Sri Lanka 01 - 02 Years	2.00
18.	RPHS/2016/CKDu 03	<b>Dr Sameera Gunawardena</b> University of Colombo	An exploratory study on environmental, genetic and dietary determinants of chronic kidney disease of uncertain aetiology based on postmortem tissue analysis 03 - 04 Years	5.00

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs. Mn)
19.	RPHS/2016/CKDu 04	<b>Dr S H N P Gunawickrama</b> General Sir John Kotelawala Defence University (KDU)	Immunomodulation associated with CKDu progression of Sri Lanka 03 Years	2.00
20.	RPHS/2016/CKDu 05	<b>Dr Channa Jayasumana</b> Rajarata University of Sri Lanka	Efficacy of different water purification technologies available at CKDu endemic regions with special emphasis to reverse osmosis technology 01 - 02 Years	3.00
21.	RPHS/2016/CKDu 06	<b>Prof. R L Rohana Chandrajith</b> University of Peradeniya	To identify the natural history, clinical manifestation, mortality and morbidity of CKDu patients with two controlled groups 03 - 04 Years	7.00
22.	RPHS/2016/CKDu 07	<b>Dr Paba Palihawadana</b> <b>Dr Thilangan Ruwanpathirana</b> Ministry of Health Nutrition and Indigenous Medicine	CKDu epidemiology, disease burden, case definition & national survey of CKD/CKDu - ( <i>Epid. Unit/WHO/NSF Collaborative Study under RPHS</i> ) 02 Years	10.00

## Research Grant Awarded - 2017

### Working Committee on Agriculture & Food Science

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2017/AG/01	<p><b>Dr K V V S Kudaligama</b> Rubber Research Institute Agalawatta</p> <p><b>Dr T H P S Fernando</b> <b>Dr V H L Rodrigo</b> <b>Dr P Senevirathne</b> Rubber Research Institute Agalawatta</p> <p><b>Prof. K M E P Fernando</b> Department of Botany University of Sri Jayawardenepura</p> <p><i>Collaborators</i></p> <p><b>Mr H P P S Somasiri</b> Industrial Technology Institute Colombo 07</p> <p><b>Ms A P Attanayaka</b> Rubber Research Institute Agalawatta</p>	<p>Development of in-country ethephon formulations to promote low cost harvesting systems for rubber plantations in Sri Lanka</p> <p>03 Years</p>	2,895,000/-
2.	RG/2017/AG/02	<p><b>Prof. C V L Jayasinghe</b> Department of Food Science &amp; Technology Wayamba University of Sri Lanka</p> <p><b>Prof. D Chamara K Illeperuma</b> Department of Food Science &amp; Technology Faculty of Agriculture University of Peradeniya</p> <p><b>Prof. A N Navaratne</b> Department of Chemistry Faculty of Science University of Peradeniya</p> <p><i>Collaborator</i></p> <p><b>Ms S Sukirtha</b> Department of Food Science &amp; Technology Wayamba University of SL</p>	<p>Industrial fruit waste derived ingredients for commercial food production</p> <p>02 Years</p>	2,111,000/-
3.	RG/2017/AG/03	<p><b>Dr L J P A P Jayasooriya</b> Department of Veterinary Basic Sciences Faculty of Veterinary Medicine &amp; Animal Science University of Peradeniya</p>	<p>Enrichment of egg yolk lipids with anti-cancer Conjugated Linoleic Acid (CLA) by feeding seed fat of bitter melon (<i>Momordica charantia</i>) to layer chickens</p> <p>01 Year</p>	1,432,700/-

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
4.		<p><b>Prof. R P V J Rajapakse</b> Department of Veterinary Pathobiology Faculty of Veterinary Medicine &amp; Animal Science University of Peradeniya</p> <p><b>Prof. S P Gunarathne</b> <b>Dr D A Satharasinghe</b> <b>Dr W M A P Wanigasekera</b> Department of Farm Animal Production &amp; Health Faculty of Veterinary Medicine &amp; Animal Science University of Peradeniya</p> <p><i>Collaborators</i></p> <p><b>Dr Gamika Prathapasinghe</b> Department of Livestock &amp; Avian Sciences Wayamba University of Sri Lanka</p>		
5.	RG/2017/AG/04	<p><b>Dr W M P B Weerasinghe</b> Veterinary Research Institute Peradeniya</p> <p><b>Dr Ariyanthilaka Manawadu</b> Department of Animal Science Faculty of Agriculture University of Ruhuna</p> <p><b>Dr Kumara Mahipala</b> Department of Animal Science Faculty of Agriculture University of Peradeniya</p>	<p><i>In vitro</i> and <i>in vivo</i> screening of newly introduced forages for sustainable intensification of dairy production in the context of climate change</p> <p>03 Years</p>	3,286,323/-

### Working Committee on Basic Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2017/BS/01	<p><b>Dr Dinara S Gunasekera</b> <b>Prof. Veranja Karunathne</b> <b>Dr Dhanushi Welideniya</b> Sri Lanka Institute of Nanotechnology (SLINTEC) Nanotechnology &amp; Science Park Homagama</p>	<p>Design and synthesis of novel pullulan and chitosan based nano-polyplexes for gene therapy</p> <p>02 Years</p>	1,528,099/-
2.	RG/2017/BS/02	<p><b>Dr G A K S Perera</b> <b>Prof. K P Vidanapathirana</b> Department of Electronics Faculty of Applied Sciences Wayamba University of Sri Lanka</p>	<p>Synthesis and characterization of ionic liquid based gel polymer electrolytes to be used for rechargeable cells and supercapacitors</p> <p>02 Years</p>	2,381,600/-

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
3.	RG/2017/BS/03	<b>Prof. R M G Rajapakse</b> Department of Chemistry Faculty of Science University of Peradeniya  <b>Prof. R P V J Rajapakse</b> Department of Veterinary Pathobiology Faculty of Veterinary Medicine & Animal Science University of Peradeniya  <b>Dr H M T U Herath</b> Department of Medical Laboratory Science Faculty of Allied Health Sciences University of Peradeniya	<i>In vitro</i> evaluation of biocompatibility and antimicrobial properties of hydroxyapatite nanoparticles and their composites derived from naturally occurring Sri Lankan minerals for biomedical and water purification applications  02 Years	2,940,000/-
4.	RG/2017/BS/04	<b>Dr Sutharsini Ubenthiran</b> Department of Physics University of Jaffna	Fundamental Studies on Y-TZP ceramics and mechanisms for enhancing the hydrothermal ageing resistance  02 Years	1,490,000/-
5.	RG/2017/BS/05	<b>Dr M T Napagoda</b> Department of Biochemistry Faculty of Medicine University of Ruhuna	Development of effective sunscreen formulations from Sri Lankan medicinal plants  02 ½ Years	3,890,656/-
6.	RG/2017/BS/06	<b>Prof. U L B Jayasinghe</b> <b>Prof. N S Kumar</b> National Institute of Fundamental Studies Kandy	Chemistry and bioactivity of endophytic fungi from four popular condiment plants <i>Curcuma longa</i> , <i>Myristica fragrans</i> , <i>Syzygium aromaticum</i> and <i>Zingiber officinale</i> used in indigenous system of medicine in Sri Lanka: possible applications in health and agriculture  03 Years	2,646,300/-

### Working Committee on Engineering, Architecture & ICT

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2017/ EA&ICT/01	<b>Dr H M I Prasanna</b> <b>Dr M D E K Gunathilaka</b> <b>Dr D R Welikanna</b> Department of Surveying & Geodesy Faculty of Geomatics Sabaragamuwa University of Sri Lanka	Development of a unified vertical reference framework for land & hydrographic surveying in Sri Lanka  02 Years	1,653,280/-
2.	RG/2017/ EA &ICT/02	<b>Prof. Umesh Halwathura</b> Department of Civil Engineering Faculty of Engineering University of Moratuwa	Investigation of alternative stabilizer for soil and develop low cost, eco-friendly load bearing walling material  03 Years	3,625,015/-

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
3.	RG/2017/EA & ICT/03	<p><b>Dr L W P R Udayanga</b> Department of Electronic and Telecommunication Engineering Faculty of Engineering University of Moratuwa</p> <p><b>Dr Y A A Kumarayapa</b> Department of Electronics Faculty of Applied Sciences Wayamba University of Sri Lanka</p> <p><i>Collaborator</i> <b>Mr Hasitha Seneviratne</b> Dialog Axiata Plc No. 475, Union Place Colombo 02</p>	<p>Optical injection locking and characterization for direct modulation in optical communication</p> <p>03 Years</p>	4,026,750/-

### Working Committee on Environment & Biodiversity

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2017/EB/01	<p><b>Dr Chandima D Dangalle</b> Department of Zoology Faculty of Science University of Colombo</p> <p><b>Mr Yashas W Mallawarachchi</b> Sri Lanka Institute of Information Technology, Malabe</p>	<p>Diversity, distribution and habitat type of arboreal tiger beetles (<i>Coleoptera cicindelidae</i>) of Sri Lanka</p> <p>03 Years</p>	3,697,505/-
2.	RG/2017/EB/02	<p><b>Prof (Mrs) L D Amarasinghe</b> Department of Zoology Faculty of Science University of Kelaniya</p>	<p>Micro-fauna and micro-flora diversity in mosquito breeding habitats and their effects on mosquito larvae</p> <p>02 Years</p>	2,064,030/-
3.	RG/2017/EB/03	<p><b>Prof. M D Amarasinghe</b> Department of Botany Faculty of Science University of Kelaniya</p> <p><b>Dr R M C S Ratnayake</b> Department of Botany Faculty of Science University of Kelaniya</p>	<p>Studies on ecology of <i>Typha angustifolia</i>, its current and potential uses to develop a community-based management strategy to control its invasion in the Man &amp; Biosphere (MAB) wetland reserve at Bundala</p> <p>02 Years</p>	3,846,500/-
4.	RG/2017/EB/04	<p><b>Dr Maheshi Danthurebandara</b> Department of Chemical &amp; Process Engineering Faculty of Engineering University of Peradeniya</p>	<p>Environmental and economic assessment of rehabilitation of waste dumpsite at Biyagama export processing zone</p> <p>01 Year</p>	995,000/-
5.	RG/2017/EB/05	<p><b>Dr N P S Kumburegama</b> Department of Zoology Faculty of Science University of Peradeniya</p> <p><b>Prof. K B Ranawana</b> Department of Zoology Faculty of Science University of Peradeniya</p>	<p>Distribution of terrestrial gastropod pests, their seasonal abundance and degree of damage to crops in agricultural lands in Nuwara-Eliya</p> <p>02 Years</p>	2,181,100/-

## Working Committee on Health Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2017/HS/01	<p><b>Prof. P R Jayasooriya</b> Department of Oral Pathology Faculty of Dental Sciences University of Peradeniya</p> <p><b>Dr R P Illeperuma</b> Department of Medical Laboratory Sciences Faculty of Allied Health Sciences University of Peradeniya</p> <p><i>Collaborators</i></p> <p><b>Prof. W M Tilakaratne</b> <b>Dr W A M U L Abeysinghe</b> <b>Mr W M K M Bandara</b> Department of Oral Pathology Faculty of Dental Sciences University of Peradeniya</p>	<p>Evaluation of “senescence associated secretory phenotype” and the role of senescent fibroblasts in oral submucous fibrosis</p> <p style="text-align: right;">02 Years</p>	2,963,070/-
2.	RG/2017/HS/02	<p><b>Prof. Renu Wickremasinghe</b> Department of Parasitology Faculty of Medical Sciences University of Sri Jayewardenepura</p> <p><b>Dr Dulani Samaranayake</b> Department of Community Medicine Faculty of Medicine University of Colombo</p> <p><i>Collaborators</i></p> <p><b>Dr Dushyanthi Alagiyawanna</b> Faculty of Medicine University of Colombo</p> <p><b>Dr Risintha Premaratne</b> Former Director of Anti Malaria Campaign</p>	<p>Evaluation of a community based intervention to re-orient parasitological screening for malaria during prevention of re-introduction phase</p> <p style="text-align: right;">01 Year</p>	1,593,093/-
3.	RG/2017/HS/03	<p><b>Dr Prasanna Galhena</b> <b>Dr Yasanandana Supunsiri</b> <b>Wijayasinghe</b> Department of Biochemistry &amp; Clinical Chemistry Faculty of Medicine University of Kelaniya</p> <p><i>Collaborators</i></p> <p><b>Prof. Kamani Tennakoon</b> Institute of Biochemistry, Molecular Biology and Biotechnology University of Colombo</p> <p><b>Dr W A L Chandrasiri Waliwita</b> Gampaha Wickramarachchi Ayurveda Institute Yakkala</p>	<p><i>In vitro</i> assessment of insulin sensitization and anti-adipogenic effects of selected antidiabetic plant extracts</p> <p style="text-align: right;">02 Years</p>	2,366,500/-

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
4.	RG/2017/HS/04	<p><b>Dr Shaluka Francis Jayamanne</b> Department of Medicine Faculty of Medicine University of Kelaniya</p> <p><b>Dr Abdul Cader Mohamed Fahim</b> Department of Pharmacy Faculty of Allied Health Sciences University of Peradeniya</p>	<p>A study to evaluate the effect of clinical interventions on management outcomes in chronic kidney disease of uncertain etiology patients undergoing hemodialysis in Sri Lanka</p> <p style="text-align: right;">02 Years</p>	3,233,750/-

#### Working Committee on Indigenous Knowledge

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2017/IK/01	<p><b>Prof. Raj Somadeva</b> Postgraduate Institute of Archaeology No 407, Bauddhaloka Mawatha Colombo 07</p> <p><b>Dr T R Prematilleke</b> Senior Lecturer in Paleo-Botany Postgraduate Institute of Archaeology</p> <p><b>Dr Gamini Piyadasa</b> Sri Lanka Institute of Nanotechnology (SLINTEC) Nanotechnology &amp; Science Park Homagama</p>	<p>Human adaptations in the middle holocene in Sri Lanka and further techno-cultural development towards formative historical period</p> <p style="text-align: right;">02 Years</p>	3,770,172/-

## Research Grants Completed - 2017

### Working Committee on Agriculture & Food Science

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2011/AG/03	<b>Prof. Nelum Deshappriya</b> Department of Botany Faculty of Science University of Kelaniya Kelaniya	Damping off disease of big onions in Sri Lanka and its biological control using <i>Trichoderma</i> sp  03 Years	2,429,571/-
2.	RG/2011/AG/06	<b>Dr C M Nanayakkara</b> Department of Plant Sciences Faculty of Science University of Colombo  <b>Dr H A Sumanasena</b> <b>Dr D N Samaraweera</b> Department of Export Agriculture Thihagoda	Development of phosphate bio-fertilizer for some selected export agricultural crops  03 Years	1,914,250/-
3.	RG/2011/AG/07	<b>Dr Jaanaki Gooneratne</b> Industrial Technology Institute Colombo 07  <b>Prof. Jeniffer Perera</b> Department of Microbiology Faculty of Medicine University of Colombo	Formulation of therapeutic probiotic foods as an alternative treatment for <i>H. pylori</i> infection  03 Years	1,360,000/-
4.	RG/2011/AG/09	<b>Dr Ruvini Liyanage</b> Institute of Fundamental Studies Kandy  <b>Dr Janak K Vidanarachchi</b> <b>Dr Baran Jayawardana</b> Department of Animal Science Faculty of Agriculture University of Peradeniya	Investigating anti-obesity effect of commonly consumed cowpea varieties in Sri Lanka using animal experimental model  01 Year	923,737/-
5.	RG/2011/AG/08	<b>Dr S M W Ranwala</b> Department of Plant Sciences Faculty of Science University of Colombo  <b>Dr S S N Perera</b> Department of Mathematics Faculty of Science University of Colombo	Forecasting growth and yield performance of Sri Lankan grown Sesame/Thala ( <i>Sesamum indicum</i> L.) and its wild relatives to water deficit conditions: a mathematical modelling approach  02 Years	829,000/-
6.	RG/2011/AG/10	<b>Dr V H L Rodrigo</b> Department of Biochemistry & Physiology Rubber Research Institute Agalawatta  <b>Dr S M M Iqbal</b> Rubber Research Institute	Addressing the needs of rubber ( <i>Hevea brasiliensis</i> ) grown in drier regions of Sri Lanka through the assessments on physiological parameters and the quality of raw rubber produced  03 Years	2,893,900/-

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
7.	RG/2011/AG/11	<b>Dr Priyantha Weerasinghe</b> Division of Chemistry HORDI  <b>Dr Sujitha Weerasinghe</b> Agriculture Research Station Department of Agriculture	Assessment of potassium availability in banana growing soils and fitting potassium management to enhance the productivity under annual planting system  02 ½ Years	1,801,500/-
8.	RG/2012/AG/02	<b>Dr Nimsha Sevwandika Weerakkody</b> Department of Agricultural & Plantation Engineering The Open University of Sri Lanka  <b>Dr Mayuri Thanmitiyagodage</b> Medical Research Institute Colombo 08	Antimicrobial, antibiofilm activity of Sri Lankan grown Galangal ( <i>Alpinia galanga</i> ) or Mahaaraththa against <i>Staphylococcus aureus</i> and its safety evaluations  02 Years	1,000,032/-
9.	RG/2012/AG/04	<b>Dr H L D Weerawewa</b> Department of Botany Faculty of Natural Sciences The Open University of Sri Lanka  <b>Mrs M D J Saparamadu</b> Department of Chemistry Faculty of Natural Sciences Open University of Sri Lanka	Determination of the effect of silicon on natural defense system against anthracnose disease and some pre and post harvest qualities in <i>Capsicum annum</i> (Malumiris) and investigating the possibility of using rice hull as a low cost silicon source  03 Years	1,462,500/-
10.	RG/2012/AG/06	<b>Dr A M W K Seneviratne</b> Rubber Research Institute Agalawatta  <b>Dr P Seneviratne</b> Rubber Research Institute	The overall impact of different bark consumption rates associated with additional days of latex harvesting on growth, yield and financial implication of rubber ( <i>Hevea brasiliensis</i> Muell.Arg) plantations  03 Years	2,262,592/-
11.	RG/2012/AG/07	<b>Dr W A U Vitharana</b> Department of Soil Science Faculty of Agriculture University of Peradeniya	Use of electromagnetic induction based soil apparent electrical conductivity (Eca) measurements to support site specific soil management of paddy cultivation in the intermediate zone  02 Years	1,742,960/-
12.	RG/2012/AG/08	<b>Dr D M S Munasinghe</b> <b>Dr L J P A Jayasooriya</b> Department of Basic Veterinary Sciences Faculty of Veterinary Medicine & Animal Science University of Peradeniya	The effect of lipid peroxidation of keeping quality of Tilapia ( <i>Oreochromis niloticus</i> ) preserved using different methods in Sri Lanka  02 Years	1,850,000/-
13.	RG/2014/AG/03	<b>Prof. J P Eeswara</b> Department of Crop Science Faculty of Agriculture University of Peradeniya  <b>Dr Shellomi Krishnarajah</b> Royal Botanic Garden Peradeniya	Regulation of growth and flowering of Heenbovitiya ( <i>Osbeckia octandra</i> ) to develop as flowering ornamental plant  02 Years	2,020,000/-

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
14.	RG/2014/AG/04	<p><b>Mr K D P P Gunathilake</b> Department of Food Science &amp; Technology Faculty of Livestock, Fisheries and Nutrition Wayamba University of Sri Lanka</p> <p><b>Dr O D A N Perera</b> Department of Food Science &amp; Technology Faculty of Livestock, Fisheries and Nutrition Wayamba University of Sri Lanka</p>	<p>Screening of antioxidant activity in some edible leafy vegetables popular in Sri Lanka</p> <p style="text-align: right;">02 Years</p>	1,374,000/-

### Working Committee on Basic Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2011/BS/05	<p><b>Prof. K M S Wimalasiri</b> Department of Food Science &amp; Technology Faculty of Agriculture University of Peradeniya</p> <p><b>Prof. Namal Priyantha</b> Department of Chemistry Faculty of Science University of Peradeniya</p>	<p>Assessment of occurrence and risks associated with potentially toxic elements (PTEs) in aquaculture systems in Sri Lanka</p> <p style="text-align: right;">03 ½ Years</p>	2,300,095/-
2.	RG/2012/BS/02	<p><b>Prof. Namal Priyantha</b> Department of Chemistry Faculty of Science University of Peradeniya</p>	<p>Kinetics and equilibrium aspects of interaction of heavy metal ions and peat in natural and modified forms</p> <p style="text-align: right;">03 Years</p>	2,619,400/-
3.	RG/2012/BS/03	<p><b>Dr B S Dassanayake</b> Department of Physics Faculty of Science University of Peradeniya</p> <p><b>Dr C P Jayalath</b> <b>Dr V A Seneviratne</b> Department of Physics Faculty of Science University of Peradeniya</p>	<p>Synthesis and characterization of thin films based on Group II and VI elemental compounds for fabricating solar cells</p> <p style="text-align: right;">04 Years</p>	1,366,000/-
4.	RG/2014/BS/01	<p><b>Prof. K P Vidanapathirana</b> Department of Electronics Faculty of Applied Sciences Wayamba University of Sri Lanka</p> <p><b>Dr G A K S Perera</b> Department of Electronics Faculty of Applied Sciences Wayamba University of Sri Lanka</p>	<p>Development of energy storing device using conducting polymers</p> <p style="text-align: right;">03 Years</p>	2,440,000/-

## Working Committee on Biotechnology

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2011/BT/04	<b>Dr S N Surendran</b> Department of Zoology University of Jaffna	Development of DNA based techniques to differentiate <i>Anopheles culicifacies</i> species B from species E and <i>An. subpictus</i> from <i>An. sundaicus</i>  03 Years	3,780,020/-
2.	RG/2011/BT/08	<b>Dr C D Wijayarathna</b> Department of Chemistry Faculty of Science University of Colombo  <b>Dr N V Chandrasekharan</b> Department of Chemistry Faculty of Science University of Colombo	Molecular characterization of bacteria involved in bioremediation of heavy metals and elucidation of possible bioremediation mechanism  03 Years	1,899,500/-
3.	RG/2011/BT/09	<b>Dr P N Dassanayaka</b> Department of Botany Faculty of Applied Sciences University of Sri Jayawardenepura  <b>Dr S A C N Perera</b> Coconut Research Institute Lunuwila	Assessment of the genetic diversity among finger millet ( <i>Eleusine coracana</i> (L.) Gaertn.) accessions of Sri Lanka using morphological and molecular markers  02 ½ Years	2,001,500/-
4.	RG/2012/BT/02	<b>Prof. W S S Wijesundara</b> Department of Biochemistry & Molecular Biology Faculty of Medicine University of Colombo  <b>Dr N V Chandrasekharan</b> Department of Chemistry  <b>Prof. R L C Wijesundera</b> Department of Plant Sciences Faculty of Science University of Colombo	Cloning and expression of cellulase and xylanase genes of <i>Trichoderma</i> in a yeast system to develop synergistic saccharification and direct fermentation of cellulosic biomass to ethanol  03 Years	3,950,370/-
5.	RG/2012/BT/03	<b>Prof. B G D N K De Silva</b> Department of Zoology Faculty of Science University of Sri Jayawardenepura	Detection of dengue viruses in <i>Aedes</i> mosquitoes and their population genetic structure in Colombo, Sri Lanka  03 Years	3,274,250/-
6.	RG/2014/BT/01	<b>Dr Dharshani Bandupriya</b> Tissue Culture Division Coconut Research Institute Lunuwila  <b>Dr Vijitha Vidhanaarachchi</b> Tissue Culture Division Coconut Research Institute  <b>Dr S A C N Perera</b> Genetics & Plant Breeding Division Coconut Research Institute	Studies on cryopreservation of embryogenic callus from unfertilized ovaries using the encapsulation - dehydration technique and post thaw plant regeneration in coconut ( <i>Cocos nucifera</i> L.)  02 Years	1,662,000/-

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
7.	RG/2014/BT/03	<p><b>Dr Charitha Lakshini Goonasekara</b> Faculty of Medicine General Sir John Kotelawala Defense University</p> <p><b>Dr Prasad Premaratne</b> Faculty of Medicine General Sir John Kotelawala Defense University</p> <p><b>Prof. Roshan Perera</b> Director, KDU-CARE General Sir John Kotelawala Defense University</p>	<p>Development of a vaccine candidate with a broadly reactive neutralizing immune response against dengue</p> <p>03 Years</p>	
8.	RG/2014/BT/04	<p><b>Dr W Sumadee De Silva</b> Institute of Biochemistry, Molecular Biology and Biotechnology No. 90, Cumaratunga Munidasa Mawatha Colombo 03</p> <p><b>Dr D M A S Dissanayake</b> National Cancer Research Maharagama</p> <p><b>Dr Kanishka De Silva</b> National Cancer Research Maharagama</p> <p><b>Prof. Kamini H Tennakoon</b> Institute of Biochemistry, Molecular Biology and Biotechnology No. 90, Cumaratunga Munidasa Mawatha, Colombo 03</p>	<p>Analysis of mutations and polymorphisms in Exon 11 of BRCA 2 Gene in Sri Lankan young breast cancer patients</p> <p>02 Years</p>	

#### Working Committee on Engineering Sciences, Architecture & ICT

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2012/ESA/01	<b>Prof. Jayasundara Bandara</b> National Institute of Fundamental Studies, Kandy	<p>Design of biological and advanced oxidation technology (AOD) hybrid reactor system for oil wastewater treatment</p> <p>03 Years</p>	3,388,000/-
2.	RG/2012/CSIT/01	<b>Dr Ranga Rodrigo</b> <b>Dr J G Samarawickrama</b> Department of Electronic and Telecommunication Engineering Faculty of Engineering University of Moratuwa	<p>Visual surveillance based system for efficient metropolis management</p> <p>03 Years</p>	2,320,000/-

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
3.	RG/2014/ EA&ICT/01	<b>Prof. J B Ekanayake</b> <b>Dr J V Wijayakulasooriya</b> Department of Electrical and Electronic Engineering Faculty of Engineering University of Peradeniya  <b>Dr J V Wijayakulasooriya</b> Department of Electrical and Electronic Engineering Faculty of Engineering University of Peradeniya	Dynamic rating of power distribution lines  02 Years	2,012,800/-

### Working Committee on Environment & Biodiversity

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2011/ES/02	<b>Prof. M M Pathmalal</b> Department of Zoology Faculty of Applied Science University of Sri Jayawardenepura	Effect of catchment's characteristics, anthropogenic activities and industrial discharges on ground water quality in Kelani river basin  03 Years	4,116,880/-
2.	RG/2011/ NRB/06	<b>Ms S P Senanayake</b> Department of Molecular Biology & Biotechnology Faculty of Science University of Peradeniya  <b>Dr M Jayatilleke</b> <b>Dr R G S C Rajapakse</b> Department of Molecular Biology & Biotechnology Faculty of Science University of Peradeniya	Exploring biological and chemical diversity of genera <i>Flueggea</i> and <i>Tephrosia</i> (vern:Pila) and to develop effective propagation system  03 Years	1,277,329/-
3.	RG/2012/ NRB/02	<b>Dr Chandima Dangalle</b> Department of Zoology Faculty of Science University of Colombo  <b>Prof. Nimal K Dangalle</b> Department of Geography University of Kelaniya	Habitat specificity and habitat types of tiger beetles ( <i>Coleoptera Cicindelidae</i> ) of Sri Lanka  03 Years	1,091,875/-
4.	RG/2012/ NRB/03	<b>Dr N D Subasinghe</b> Institute of Fundamental Studies Kandy  <b>Prof. C B Dissanayake</b> National Institute of Fundamental Studies, Kandy	Estimate subsurface extension of Eppawala apatite deposit and its parent rock using geophysical techniques  03 Years	2,160,063/-
5.	RG/2011/ NRB/01	<b>Dr W A Inoka P Karunaratne</b> Department of Zoology Faculty of Science University of Peradeniya	Impact of tropical forest fragmentation of figs and their wasp-pollinator interaction  02 ½ Years	763,800/-

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
		<b>Dr A M Thilanka A Gunaratne</b> Department of Zoology Faculty of Science University of Peradeniya		
6.	RG/2011/ES/04	<b>Dr P Vinobaba</b> Department Zoology Faculty of Science Eastern University  <b>Mrs Sangeetha Ashan</b> Department of Zoology Faculty of Science Eastern University	Check list preparation of finfish, shellfish and plankton population of the Batticaloa lagoon along with study on water quality parameters  02 ½ Years	999,700/-

### Working Committee on Health Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2011/HS/22	<b>Prof. Neelika Malavige</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayawardenepura  <b>Dr Vathsala Jayasuriya</b> Department of Community Medicine Faculty of Medical Sciences University of Sri Jayawardenepura  <b>Prof. Krishan Deharagoda</b> Department of Geography Faculty of Humanities & Social Sciences University of Sri Jayawardenepura	Defining protective immune responses to the dengue virus  03 Years	5,277,598/-
2.	RG/2012/HS/01	<b>Dr Godwin R Constantine</b> <b>Dr Prasad Katulanda</b> Department of Clinical Medicine Faculty of Medicine University of Colombo  <b>Dr M A Ranil Jayawardena</b> Diabetes Research Unit Faculty of Medicine University of Colombo	Effects of the zinc supplementation on pre-diabetes: a double-blind, randomized, placebo-controlled trial  02 Years	1,426,394/-
3.	RG/2011/HS/10	<b>Dr Pushpa Ranjan Wijesinghe</b> Consultant Epidemiologist Epidemiology Unit Ministry of Health, Colombo 10  <b>Dr Aindralal Balasuriya</b> Consultant Community Physician, Faculty of Medicine General sir John Kothalawala Defence University	Adverse events following immunization (AEFI) in infants attending general hospitals in Kaluthara district: Epidemiology and potential spatial accessibility to clinical management services  01 Year	1,000,000/-

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
4.	RG/2014/HS/02	<p><b>Dr Neelika Malavige</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayawardenepura</p> <p><b>Dr Ajantha Shyamali</b> Department of Medicine Faculty of Medical Sciences University of Sri Jayawardenapura</p>	<p>Investigation of factors that lead to vascular leak in dengue infection</p> <p>02 Years</p>	4,010,000/-
5.	RG/2011/HS/14	<p><b>Dr Pujitha Wickramasinghe</b> Department of Paediatrics Faculty of Medicine University of Colombo</p> <p><b>Dr Tharanga Thoradeniya</b> Department of Biochemistry &amp; Molecular Biology Faculty of Medicine University of Colombo</p> <p><b>Dr Carukshi Arambepola</b> Department of Community Medicine Faculty of Medicine University of Colombo</p>	<p>Vitamin A and iron status among pregnant mothers and their offspring in an urban area of Sri Lanka</p> <p>02 ½ Years</p>	3,300,313/-
6.	RG/2014/HS/01	<p><b>Dr Aruna Dharshan De Silva</b> Genetech Research Institute 54, Kitulwatte Road Colombo 08</p> <p><b>Prof. Sunil Premawansa</b> Department of Zoology Faculty of Science University of Colombo</p> <p><b>Dr Gayani Premawansa</b> North Colombo Teaching Hospital, Ragama</p>	<p>Sequencing of currently circulating dengue viruses in Sri Lanka and co-relating them with the specific dengue epitopes with T cell responses from dengue patients</p> <p>02 Years</p>	1,217,180/-
7.	RG/2011/HS/18	<p><b>Prof. Sagarika Ekanayake</b> Department of Biochemistry Faculty of Medical Sciences University of Sri Jayawardenapura</p> <p><b>Dr Anura Kapuruge</b> Cardio-Thoracic Unit Sri Jayawardenapura General Hospital</p> <p><b>Dr C S Wanigatunge</b> Department of Pharmacy Faculty of Medical Sciences University of Sri Jayawardenapura</p>	<p>Determination of association of risk factors for development of coronary artery disease and nutritional status &amp; immune status on the recovery following Coronary Artery Bypass Surgery (CABS)</p> <p>03 Years</p>	2,589,500/-

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
8.	RG/2015/HS/06	<p><b>Dr A P de Silva</b> National Intensive Care Surveillance Quality Secretariat Building Castle Street Hospital for Women Colombo 08</p> <p><b>Dr Roshan Hannifa</b> National Intensive Care Surveillance Quality Secretariat Building Castle Street Hospital for Women Colombo 08</p> <p><b>Prof. Wasantha Gunathunga</b> Department of Community Medicine Faculty of Medicine University of Colombo</p>	<p>Association of social determinants on the disease-outcome, financial burden and quality of life after a critical illness due to chronic non communicable diseases, among patients treated at government hospitals in the Western Province of Sri Lanka</p> <p style="text-align: right;">01 Year</p>	570,000/-

## Summary of Research Grants Scheme - 2017

		Agriculture & Food Science	Basic Sciences	Biotechnology & Bioethics	Environment & Biodiversity	Engineering, Architecture & ICT	Health Sciences	Indigenous Knowledge	Social Sciences	Science Education	S & T Policy Studies	Oceanography & Marine Sciences	Total
01	Total no. of ongoing grants as at 31.12.2017	11	14	10	15	06	23	01	-	-	-	02	82
02	Applications received in 2016 for awarding grants in 2017	07	09	-	08	03	09	01	-	-	-	-	37
03	Applications received in 2017	03	08	06	02	02	07	-	01	-	01	-	30
04	Grants awarded	04	06	-	05	03	04	01	-	-	-	-	23
05	Grants completed	13	07	08	06	03	08	-	-	-	-	-	42
06	Grants withdrawn	-	-	-	-	-	-	-	-	-	-	-	-
07	Grants terminated	-	-	-	-	-	-	-	-	-	-	-	-
08	RSs appointed/to be appointed	02	07	01	04	-	01	02	03	-	-	01	20
09	RSs registered for post graduate degree/to be registered for post graduate degree	01	06	02	03	03	01	02	03	-	-	-	21
10	TAs appointed/to be appointed	01	01	-	03	01	04	-	-	-	-	-	10
11	Post graduate degrees obtained	-	-	-	-	-	-	-	01	-	-	-	01
	PhD	-	-	-	-	-	-	-	01	-	-	-	01
	MPhil	-	01	-	-	-	-	-	02	-	-	-	03
	MSc	-	-	-	-	-	-	-	-	-	-	-	-
	MD	-	-	-	-	-	-	-	-	-	-	-	-
12	No. of publications arising from grants (Foreign)	01	15	-	06	02	08	-	-	-	-	-	32
13	No. of publications arising from grants (Local)	03	-	03	10	-	01	-	-	-	-	-	17
14	Communications	40	34	07	22	09	14	-	03	-	-	03	132
15	Patents	-	-	-	-	02	-	-	-	-	-	-	02

\* - Being Processed.

## NSF-PSF Collaborative Research Grants Awarded in 2017

### Working Committee on Engineering, Architecture & ICT

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	NSF-PSF/ICRP/2017/EA & ICT/01	<b>Dr Kandasamy Vignarooban</b> <b>Mr Senthuran Sivasubramaniam</b> <b>Mr Prashanthan Karunanantharajah</b> Department of Physics Faculty of Science University of Jaffna	Novel materials for secondary sodium ion batteries and proton exchange membrane fuel cells  03 Years	3,255,000/-
2.	NSF-PSF/ICRP/2017/EA & ICT/02	<b>Prof. L B D R P Wijesundera</b> <b>Prof. W P Siripala</b> <b>Dr K M D C Jayathilaka</b> <b>Dr W T M A P K Wanninayake</b> Department of Physics Faculty of Science University of Kelaniya	Optimization of donor and acceptor materials for fabrication of efficient organic solar cell  02 Years	2,898,500/-
3.	NSF-PSF/ICRP/2017/EA & ICT/03	<b>Dr Nanda Gunawardhana</b> International Research Centre University of Peradeniya  <b>Dr Buddhika S Dassanayake</b> Department of Physics Faculty of Science University of Peradeniya	Novel electrode material based on layer by layer assembly of metal oxide nanoparticle / graphene composite for lithium ion batteries and solar cells  02 Years	3,069,000/-
4.	NSF-PSF/ICRP/2017/EA & ICT/04	<b>Prof. M A K L Dissanayake</b> <b>Dr G K R Senadeera</b> National Institute of Fundamental Studies, Kandy	Development of carbon based nonomaterial for counter electrodes in dye sensitized solar cells  03 Years	3,100,000/-

### Working Committee on Health Science

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	NSF-PSF/ICRP/2017/HS/01	<b>Dr Dhammika N Magana-Arachchi</b> Senior Research Fellow National Institute of Fundamental Studies (NIFS), Kandy  <b>Dr Dushantha Madegedara</b> Consultant Respiratory Physician Teaching Hospital & Respiratory Disease Unit William Gopallawa Mw, Kandy	Genetic characterization of drug resistant <i>Mycobacterium tuberculosis</i> isolation from Sri Lankan and Pakistani TB patients and identification of associated biomarkers  03 Years	3,056,650/-

2.	NSF-PSF/ICRP/2017/ HS/02	<p><b>Prof. G M Kamal B Gunaherath</b> Deputy Vice Chancellor The Open University of Sri Lanka Nawala, Nugegoda</p> <p><b>Dr K Hector Jayawardena</b> Department of Zoology The Open University of Sri Lanka</p> <p><b>Dr Chandani Ranasinghe</b> Department of Chemistry The Open University of Sri Lanka</p>	<p>Preparation of cost effective synthetic skin grafts for the treatment of burns and chronic ulcer wounds: bioactivity directed investigation of angiogenic and cell-migration potentials of plant extracts</p> <p style="text-align: right;">03 Years</p>	3,040,000/-
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## Completed Projects of National Thematic Research Programme on Food Security - 2017

Programme	Grant No.	Project Leader	Title
Programme 1	NTRP/2012/FS/PG-01/P-01	<b>Dr R M Herath</b> Department of Agriculture Peradeniya	Development of web based crop forecasting system in Sri Lanka
	NTRP/2012/FS/PG-01/P-02	<b>Prof. G N Wikramanayake</b> School of Computing University of Colombo	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
Programme 2	NTRP/2013/FS/PG-02/P-01	<b>Prof. K K D S Ranaweera</b> Department of Food Science and Technology Faculty of Applied Science University of Sri Jayawradhenepura	Application of novel techniques to minimize post harvest losses of five selected fruit and vegetable varieties
	NTRP/2013/FS/PG-02/P-02	<b>Dr H L D Weerahewa</b> Department of Botany Faculty of Natural Sciences The 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
Programme 3	NTRP/2012/FS/PG-03/P-01	<b>Dr T B Ananda Jayalal</b> Ministry of Health	Establishing a national system for ensuring microbiological food safety
Programme 4	NTRP/2012/FS/PG-04/P-02	<b>Dr Athula Senarathna</b> Institute of Policy Studies of Sri Lanka 100/20, Independence Avenue Colombo 07	A study of supply and price behavior relating to selected crops and livestock products in Sri Lanka
	NTRP/2012/FS/PG-04/P-01	<b>Prof. Udith K Jayasinghe-Mudalige</b> Department of Agribusiness Management Faculty of Agriculture & Plantation Management Wayamba University of Sri Lanka	Assessing internal and external trade policies and practices affecting food security in Sri Lanka and identifying areas for improvement
Programme 5	NTRP/2012/FS/PG-05/P-01	<b>Dr S Pathmarajah</b> Department of Agricultural 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	<b>Prof. G Mikunthan</b> Department of Agricultural 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

## New grants awarded in National Thematic Research Programme on Climate Change & Natural Disasters - 2017

No	Grant No.	Project Leader/Institution	Title
1.	NTRP/2017/CC&ND/ TA-02/P-02/01	<b>Prof. Jagath Chaminda Edirisinghe</b> Department of Agribusiness Management Faculty of Agriculture and Plantation Management Wayamba University of Sri Lanka	Assessment of spatial impacts of climate change on geographic, economic and social vulnerability on the plantation sector in Sri Lanka
2.	NTRP/2017/CC&ND/ TA-04/P-01/01	<b>Prof. W A J M De Costa</b> Department of Crop Science Faculty of Agriculture University of Peradeniya	Quantification of the response of tropical rain forests of Sri Lanka to varying atmospheric temperature for prediction of the impact of future climate change on their carbon balance and biodiversity
3.	NTRP/2017/CC&ND/ TA-04/P-02/01	<b>Prof. G L L Pradeepa Silva</b> Department of Animal Science Faculty of Agriculture University of Peradeniya	Comparative analysis of climate-resilient biodiversity of homegarden ecosystems in different agro-ecological regions of Sri Lanka
4.	NTRP/2017/CC&ND/ TA-05/P-01/01	<b>Dr Pradeep Nalaka Ranasinghe</b> Department of Oceanography and Marine Geology Faculty of Fisheries and Marine Sciences & Technology University of Ruhuna	Understanding the long term influence of Indian Ocean warm pool and Indian Ocean dipole on the monsoon variability of Sri Lanka

## Research Equipment Grants - Awarded - 2017

No	Grant No.	Grantee/Designation & Institute	Responsible Officer for the Equipment	Equipment	Approved Amount (Rs.)
1.	RG/2017/EQ/01	Dean College of Chemical Sciences Institute of Chemistry Ceylon, Rajagiriya	Prof. P A Paranagama College of Chemical Sciences Institute of Chemistry Ceylon Rajagiriya	Freeze Dryer	3,377,090/-
2.	RG/2017/EQ/02	Dean Faculty of Agriculture University of Ruhuna	Mr S Wijethunga Department of Agricultural Engineering Faculty of Agriculture University of Ruhuna Kamburupitiya	BOD Incubator	588,300/-
3.	RG/2017/EQ/03	Dean Faculty of Agriculture University of Ruhuna	Mr S Wijethunga Department of Agricultural Engineering Faculty of Agriculture University of Ruhuna	Jar - Test Apparatus Model No : FLOC - 6	647,130/-
4.	RG/2017/EQ/04	Dean Faculty of Medicine University of Colombo	Dr Kithmini Siridewa Department of Biochemistry & Molecular Biology Faculty of Medicine University of Colombo	UV - VIS Spectrophotometer	1,000,000/-
5.	RG/2017/EQ/05	Dean Faculty of Medicine University of Colombo	Dr Kithmini Siridewa Department of Biochemistry & Molecular Biology Faculty of Medicine University of Colombo	Analytical Balance	140,000/-
6.	RG/2017/EQ/06	Dean Faculty of Medical Sciences University of Sri Jayawardenepura	Prof. Sagarika Ekanayake Department of Biochemistry Faculty of Medical Sciences University of Sri Jayawardenepura	Autoclave	1,289,840/-

### Spare parts for research equipment grants – awarded 2017

No	Grant No.	Grantee/Designation & Institute	Responsible Officer for the Equipment	Equipment	Approved Amount (Rs.)
1.	RG/2017/SPR/01	Dr K Gajapathy Department of Zoology Faculty of Science University of Jaffna	Optikam Pro HDMI - 4083.13 Microscopic digital camera attachment  (Spare part for the Microscope)	Freeze Dryer	320,000/-

## Technology Grants Awarded - 2017

No	Grant No./ Category	Grantee	Project Title & Duration	Total Budget (Rs.)
1.	TG/2017/Tech-D/01 Non-State Sector	Mr Ajith Indikadulla	e-Health KIOSK 09 months	1,427,585/-
2.	TG/2017/Tech-D/02 State Sector	Dr Udayanga Galappaththi University of Ruhuna	Technology transfer: vacuum assisted resin transfer moulding process for Sri Lanka boat building sector 18 months	4,510,340/-
3.	TG/2017/Tech-D/03 State Sector	Prof. N M M G S B Navaratne University of Sri Jayewardenepura	Development of a fermentation chamber to improve porous-crumby structure of rice related-leavened food products prepared from composite flour 24 months	3,417,232/-
4.	TG/2017/Tech-D/04 State Sector	Dr Gayan Yasantha Piyasena	Miniature low powered and low cost workstation with embedded Patient Management Software (PMS) for specialized clinics - Eg. Central Leprosy Clinic at National Hospital of Sri Lanka 12 months	1,114,100/-
5.	TG/2017/Tech-D/05 Individual	Mr G G N Gunawardhana	Fabrication of low cost polyethylene water treatment plant capacity (150-250m <sup>3</sup> /day) 18 months	10,764,225/-
6.	TG/2017/Tech-D/06 State Sector	Prof. Jayasundera Bandara National Institute of Fundamental Studies	Fabrication and scaling up of a industrial reactor for the purification of waste oil-water of the service stations 36 months	8,323,000/-
7.	TG/2017/Tech-D/07 Individual	Mr M Susantha Priyadarshana	Fabrication of conical screw conveyor mixer (branded as MSP) and manufacturing of cementitious modified polymer coating 12 months	2,189,250/-
8.	TG/2017/Tech-D/08 Individual	Mr Nilan Mihindukulasooriya	System for driving behavior analysis 13 months	1,354,000/-

## Technology Grants Completed in 2017

No	Grant No./ Category	Grantee	Project Title/Duration
1.	TG/2012/Tech-D/06 Non-State Sector	Prof. Ranil Dassanayake	Further development, quality up gradation of nucleic acid extraction kits (Viral RNA and Human Genomic DNA) and recombinant enzymes for commercialization 36 months
2.	TG/2013/Tech-D/08 Individuals	Mr Nalin Karunasinghe	Wireless Pad-based vehicle weigh system 12 months
3.	TG/2014/Tech-D/01 State Sector	Dr M T M D R Perera	Mass rearing of parasitoids and parasites of insect pests of cabbage for commercialization in Sri Lanka 24 months
4.	TG/2014/Tech-D/03 Non-State Sector	Soil Tech (Pvt) Ltd.	Production of a safety helmet using coir fibers 06 months
5.	TG/2014/Tech-D/05 State Sector	Dr K T M U Hemapala	Fault detection, isolation and restoration using a multiagent-based distribution automation system 12 months
6.	TG/2015/Tech-D/02 State Sector	Dr U A Kapila Siri Udawela	An improvement of available paddle thresher 12 months
7.	TG/2015/Tech-D/06 Individuals	Mr K M S Bandara	Development of an efficient coconut de-husking machine for industry 06 months
8.	TG/2015/Tech-D/07 Individuals	Mr P G Tharange De Alwis	Design and construction of Remotely Operated underwater Vehicle (ROV) project 09 months
9.	TG/2015/Tech-D/09 Individuals	Mr Damith Nishantha	Collecting, washing and recycling of waste polythene to be reused 09 months
10.	TG/2014/Tech-D/06 Individuals	SAP Enterprise (Pvt) Ltd.	Capsule formulation and development of spirulina blue green algae 12 months

## Ongoing Technology Grants - 2017 status

No	Grant No.	Grantee/Affiliation	Duration	Total Budget (Rs.)
1.	TG/2013/Tech-D/02	<b>Dr K P Hewagamage</b> University of Colombo School of Computing	03 years	2,090,000/-
2.	TG/2013/Tech-D/03	<b>Dr Jayathu Samarawickrama</b> University of Moratuwa	03 years	4,145,540/-
3.	TG/2013/Tech-D/11	<b>Dr Nuwan Dayananda</b> University of Moratuwa	03 years	3,950,000/-
4.	TG/2014/Tech-D/02	<b>Prof. R G N Meegama</b> Department of Statistics & Computer Science University of Sri Jayewardenepura	03 years	2,559,000/-
5.	TG/2014/Tech-D/04	<b>Prof. R M G Rajapaksha</b> Department of Chemistry University of Peradeniya	03 years	7,201,000/-
6.	TG/2014/Tech-D/07	<b>Prof. R M C P Rajapaksha</b> Department of Soil Science, Faculty of Agriculture University of Peradeniya	01 year	1,500,000/-
7.	TG/2015/Tech-D/01	<b>Dr Maduka de Lanerolle</b> Department of Biochemistry & Molecular Biology Faculty of Medicine University of Colombo	20 months	511,787/-
8.	TG/2015/Tech-D/03	<b>Dr W S Botheju</b> Tea Research Institute	02 years	6,409,284/-
9.	TG/2015/Tech-D/04	<b>Prof. Kanthi K A S Yapa</b> Faculty of Science University of Ruhuna	02 years	1,192,000/-
10.	TG/2015/Tech-D/05	<b>Dr Neelika Malavige</b> Faculty of Medical Sciences University of Sri Jayewardenepura	18 months	4,770,000/-
11.	TG/2015/Tech-D/08	<b>Samson Compounds (Pvt) Ltd.</b>	02 years	3,964,500/-
12.	TG/2015/Tech-D/10	<b>Mr S P C Ashok Kumara</b> Maththegoda	10 months	3,458,350/-
13.	TG/2016/Tech-D/01	<b>Mr Isuru Rajakaruna</b> Thalavitiya, Parakaduwa	12 months	7,174,325/-
14.	TG/2016/Tech-D/02	<b>Dr D G G P Karunaratne</b> Department of Chemical Engineering University of Peradeniya	03 years	20,019,355/-
15.	TG/2016/Tech-D/03	<b>Dr Dinesh Ramoo</b> Colombo Institute of Research and Psychology	12 months	956,490/-
16.	TG/2016/Tech-D/04	<b>Mr S K Seneviratne</b> Suriyagoda, Kiribathkumbura	12 months	1,940,000/-

No	Grant No.	Grantee/Affiliation	Duration	Total Budget (Rs.)
17.	TG/2016/Tech-D/05	<b>Dr Prashan Francis</b> Gem and Jewellery Research & Training Inst.	36 months	8,975,088/-
18.	TG/2016/Tech-D/06	<b>Mr Sunil Rodrigo</b> Lili Cheese (Pvt) Ltd.	18 months	3,742,000/-
19.	TG/2016/Tech-D/07	<b>Mr Shantha Kumara</b>	09 months	188,720.00/-
20.	TG/2016/Tech-D/08	<b>Mr T M Nihal Dharmasiri</b>	06 months	972,300.00/-

## SUSRED Awards - 2017

### - PhD -

No	Names and Affiliations of Supervisory Team	Title of the Thesis	Student & Awarding University
1.	<b>Dr S S N Perera</b> <b>Dr S K Boralugoda</b> Department of Mathematics Faculty of Science University of Colombo	Developing and validating a mathematical model to quantify air quality in Colombo	<b>Dr I T S Piyatilake</b> University of Colombo
2.	<b>Dr S S N Perera</b> Department of Mathematics Faculty of Science University of Colombo	Developing a mathematical model to study dynamics of dengue epidemics and controllability of transmission of dengue in Colombo	<b>Dr W P T M Wickramaarachchi</b> University of Colombo
3.	<b>Prof. Krishanthi Abeywickrama</b> <b>Dr Sagarika Kannangara</b> Department of Botany  <b>Prof. Bimali Jayawardena</b> Dean Faculty of Science University of Kelaniya	Improvement of the post harvest storage life of banana (Embul - <i>Musa acuminata</i> , AAB) and (Cavendish - <i>Musa acuminata</i> , AAA) using novel crown rot disease control strategies	<b>Dr S S D H L S Siriwardana</b> University of Kelaniya
4.	<b>Prof. S S N Fernando</b> <b>Dr M M Weerasekera</b> <b>Dr T D C P Gunasekara</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayewardenepura	Serology and molecular markers of leptospirosis: a case study in selected hospitals in Western and Southern provinces in Sri Lanka	<b>Dr A W M K K Bandara</b> University of Sri Jayewardenepura
5.	<b>Prof. G A K S Perera</b> <b>Prof. K P Vidanapathirana</b> Department of Electronics Faculty of Applied Sciences Wayamba University of Sri Lanka  <b>Dr L R A K Bandara</b> Department of Physics Faculty of Science University of Peradeniya	Investigation of gel polymer electrolytes as cation and anion conductors to be used for possible applications	<b>Dr Y M C D Jayathilake</b> Wayamba University of Sri Lanka
6.	<b>Prof. Laleen Karunanayake</b> Department of Chemistry Faculty of Applied Sciences University of Sri Jayewardenepura  <b>Dr Shantha Amarasinghe</b> Department of Material Science and Engineering Faculty of Engineering University of Moratuwa  <b>Prof. Veranja Karunaratne</b> Sri Lanka Institute of Nanotechnology (SLINTEC)  <b>Dr Masilamani Koneswaran</b> Department of Chemistry Faculty of Science Eastern University of Sri Lanka	Physical and photo properties of 4,4'-methylenebis (phenyl isocyanate) and polytetrahydrofuran based polyurethanes	<b>Dr M A S Rani Senevirathna</b> University of Sri Jayewardenepura

No	Names and Affiliations of Supervisory Team	Title of the Thesis	Student & Awarding University
7.	<b>Dr M A J Wansapala</b> Department of Food Science & Technology Faculty of Applied Sciences University of Sri Jayewardenepura  <b>Prof. D M Anil Gunaratne</b> Department of Livestock Production Faculty of Agricultural Sciences Sabaragamuwa University of Sri Lanka	Occurrence of heavy metal contamination and <i>in vitro</i> bioaccessibility of heavy metals in selected green leafy vegetables (GLV) obtained from Colombo district	<b>Dr T C Kananke</b> University of Sri Jayewardenepura
8.	<b>Prof. Asoka Pathiratne</b> Department of Zoology and Environmental Management Faculty of Science University of Kelaniya	Cyto-genotoxicity assessment of selected industrial effluents and wastewaters discharged into Kelani river, Sri Lanka, using plant and fish based bioassays	<b>Dr C K Hemachandra</b> University of Kelaniya
9.	<b>Prof. N A K P J Seneviratne</b> <b>Prof. B Jayawardena</b> Department of Chemistry Faculty of Science University of Kelaniya	Improvement of the nutritional quality and shelf life of selected food systems by coconut-based natural antioxidants	<b>Dr W C Prasadani</b> University of Kelaniya
10.	<b>Prof. E Dilip de Silva</b> <b>Dr C D Wijayarathna</b> Department of Chemistry  <b>Prof. R L C Wijesundera</b> Department of Plant Sciences Faculty of Science University of Colombo	Antimicrobial secondary metabolites produced in culture by endophytic fungi of Sri Lankan flora	<b>Dr D M R K Dissanayake</b> University of Colombo
11.	<b>Prof. M A K L Dissanayake</b> <b>Dr G K R Senadeera</b> National Institute of Fundamental Studies, Kandy	Development of electrochemical devices based on TiO <sub>2</sub> and novel quasi solid (gel) polymer electrolytes	<b>Ms H N M Sarangika</b> University of Peradeniya
12.	<b>Dr Sagarika Kannangara</b> <b>Prof. D M Sirisena</b> Department of Botany Faculty of Science University of Kelaniya	Characterization and biological prospecting of phyllosphere microorganisms of selected plant species capable of aromatic hydrocarbon degradation	<b>Dr L J S Undugoda</b> University of Kelaniya
13.	<b>Dr Indira Wickramasinghe</b> Department of Food Science & Technology Faculty of Applied Sciences University of Sri Jayewardenepura  <b>Dr K H Sarananda</b> Faculty of Agriculture & Plantation Management Wayamba University of Sri Lanka	Identification and characterization of physico-chemical properties of Kithul ( <i>Caryota urens</i> ) flour for widening its applications in food industry	<b>Dr J A A C Wijesinghe</b> University of Sri Jayewardenepura
14.	<b>Dr Srimathie Indraratne</b> University of Winnipeg Canada  <b>Dr Warshi Shamila Dandeniya</b> Department of Soil Science Faculty of Agriculture University of Peradeniya  <b>Dr Darshani Kumaragamage</b> University of Winnipeg, Canada	Improving soil fertility through site specific beneficial management practices for maize ( <i>Zea mays</i> )	<b>Dr J A S Chathurika</b> University of Peradeniya

No	Names and Affiliations of Supervisory Team	Title of the Thesis	Student & Awarding University
15.	<b>Prof. P V Udagama</b> <b>Prof. D D Wickramasinghe</b> <b>Prof. W D Ratnasooriya</b> Department of Zoology & Environment Sciences Faculty of Science University of Colombo	Toxic effects of selected heavy metals, as xenobiotics on <i>Euphlyctis hexadactylus</i> (Indian green frog) in a polluted urban wetland, Bellanwila Attidiya sanctuary in Sri Lanka	<b>Dr U A Jayawardena</b> University of Colombo
16.	<b>Prof. L D J U Senarath</b> Department of Community Medicine Faculty of Medicine University of Colombo  <b>Rev. Sister Dr J Joseph</b> Department of Supplementary Health Sciences Faculty of Health-Care Sciences Eastern University, Sri Lanka	The effectiveness of a nutrition counseling intervention for mothers or care givers of preschool children aged 6 to 36 months, in the Eastern province of Sri Lanka	<b>Dr S Sujendran</b> University of Colombo
17.	<b>Prof. P P M Jayaweera</b> Department of Chemistry Faculty of Applied Sciences  <b>Prof. U G Chandrika</b> Department of Biochemistry Faculty of Medical Sciences  <b>Dr D R Ratnaweera</b> Department of Chemistry Faculty of Applied Sciences University of Sri Jayewardenepura	Spectroscopic and photochemical properties of lycopene, $\beta$ -carotene bixin, norbixin and their radical intermediates	<b>Dr D D D H Alwis</b> University of Sri Jayewardenepura
18.	<b>Dr R U Halwatura</b> Department of Civil Engineering Faculty of Engineering University of Moratuwa	Developing a roof slab insulation system for tropical climatic conditions	<b>Dr M P K C Nandapala</b> University of Moratuwa
19.	<b>Prof. Neelika Malavige</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayewardenepura  <b>Prof. Graham Ogg</b> Weatherall Institute of Molecular Medicine, Oxford	Defining protective immunity to dengue virus	<b>Dr J M K C Jeewandara</b> University of Sri Jayewardenepura
20.	<b>Prof. Neelika Malavige</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayewardenepura  <b>Prof. Graham Ogg</b> Weatherall Institute of Molecular Medicine, Oxford	Investigation of innate immune responses to the dengue virus	<b>Dr Achala Kamaladasa</b> University of Sri Jayewardenepura
21.	<b>Prof. R L C Wijesundera</b> Department of Plant Sciences Faculty of Science  <b>Prof. S S S B D Preethi Soysa</b> Department of Molecular Biology and Biochemistry Faculty of Medicine	Investigating metabolites of selected macrofungi for anticancer activity: induction of apoptosis and isolation of active compounds	<b>Dr M D M Fernando</b> University of Colombo

No	Names and Affiliations of Supervisory Team	Title of the Thesis	Student & Awarding University
	<b>Dr C M Nanayakkara</b> Department of Plant Sciences Faculty of Science  <b>Prof. Dilip de Silva</b> IBMBB, University of Colombo		
22.	<b>Prof. W L Sumathipala</b> Emeritus Professor The Open University of Sri Lanka  <b>Dr Senaka Basnayake</b> Asian Disaster Preparedness Centre, Thailand	Impacts of intra-seasonal (30-60 day) oscillation on weather and climate of Sri Lanka	<b>Dr I M Shiromi</b> <b>Priyanthika Jayawardena</b> The Open University of Sri Lanka

- MPhil -

No	Names and Affiliations of Supervisory Team	Title of the Thesis	Student & Awarding University
1.	<b>Prof. S R D Rosa</b> Department of Physics Faculty of Science University of Colombo  <b>Dr I R M Kottegoda</b> Industrial Technology Institute Colombo 07	Synthesis of graphene and graphene composites from natural graphite for gas sensing and other applications	<b>Mr M T V P Jayaweera</b> University of Colombo
2.	<b>Prof. S S N Fernando</b> <b>Dr M M Weerasekera</b> Department of Microbiology  <b>Prof. D D Weerasekera</b> Department of Surgery Faculty of Medical Sciences University of Sri Jayewardenapura	Detection of clarithromycin resistant genes in <i>Helicobacter pylori</i> and histological assessment of gastric biopsies of patients with dyspepsia	<b>Ms D L N L Ubhayawardana</b> University of Sri Jayewardenapura
3.	<b>Dr Meththika Vithanage</b> National Institute of Fundamental Studies, Kandy  <b>Prof. S P Indraratne</b> University of Winnipeg, Canada	Mobilization of metals and organics and its neutralization in serpentine soils under influence of perchlorate and chlorate	<b>Mr S M P R Kumarathilaka</b> University of Peradeniya
4.	<b>Dr Meththika Vithanage</b> National Institute of Fundamental Studies, Kandy  <b>Dr A Karunarathna</b> Department of Agricultural Engineering Faculty of Agriculture University of Peradeniya	Possible use of biochar derived from rice husk and tea waste for remediation of carbofuran in environment	<b>Ms S S Mayakaduwege</b> University of Peradeniya
5.	<b>Dr Chayanika Padumadasa</b> <b>Prof. A M Abeysekera</b> Department of Chemistry Faculty of Applied Sciences University of Sri Jayewardenapura  <b>Dr M G Thammitiyagodage</b> Animal Centre Medical Research Institute Colombo 08	Chemistry and biological activities of the proanthocyanidins of the inflorescence of <i>Cocos nucifera</i> L., an ayurvedic drug in the treatment of gynaecological disorders	<b>Ms H D K Dharmadana</b> University of Sri Jayewardenapura

No	Names and Affiliations of Supervisory Team	Title of the Thesis	Student & Awarding University
6.	<b>Dr N D K Dayawansa</b> <b>Prof. E R N Gunawardena</b> Department of Agricultural Engineering Faculty of Agriculture University of Peradeniya	Impacts of land use/land cover changes on ecosystem and food security in Hakwatuna Oya watershed in Deduru Oya basin	<b>Ms I P S K Pelpitiya</b> University of Peradeniya
7.	<b>Prof. E R N Gunawardena</b> Department of Agricultural Engineering Faculty of Agriculture University of Peradeniya  <b>Dr B V R Punyawardena</b> Natural Resources Management Centre Department of Agriculture Peradeniya	Impact of climate variability on water availability and paddy productivity in the Hakwatuna Oya irrigation scheme in Sri Lanka	<b>Ms A C S Perera</b> University of Peradeniya
8.	<b>Prof. Sagarika Ekanayake</b> Department of Biochemistry Faculty of Medical Sciences University of Sri Jayewardenepura  <b>Dr Aruna Kapuruge</b> Cardio-Thoracic Unit Sri Jayewardneपुरa General Hospital  <b>Prof. C S Wanigatunge</b> Department of Pharmacology Faculty of Medical Sciences University of Sri Jayewardenepura	Association of risk factors for development of coronary artery disease and nutritional and immune status on the recovery following coronary artery bypass surgery	<b>Mr E M S Bandara</b> University of Sri Jayewardenepura
9.	<b>Dr C N Wijekoon</b> Department of Pharmacology Faculty of Medical Sciences University of Sri Jayewardenepura  <b>Dr S F Jayamanne</b> Department of Medicine Faculty of Medicine University of Kelaniya  <b>Ms Judith Coombs</b> School of Pharmacy Faculty of Health and Behavioural Sciences University of Queensland	Impact of a ward-based clinical pharmacist on the quality use of medicines in a Sri Lankan teaching hospital	<b>Ms L G T Shanika</b> University of Kelaniya
10.	<b>Prof. K A S Pathiratne</b> <b>Dr D S M De Silva</b> Department of Chemistry Faculty of Science University of Kelaniya	Use of electrodeposition technique for growing n-type CdS and p-type CdTe semiconductor thin films for fabrication of solar cells with improved performances	<b>Ms K D M S P K Kumarasinghe</b> University of Kelaniya
11.	<b>Dr Indira Wickramasinghe</b> <b>Prof. K K D S Ranaweera</b> Department of Food Science and Technology Faculty of Applied Sciences University of Sri Jayewardenepura	Development of ISO 22000 based food safety assurance system for Sri Lankan orthodox black tea industry	<b>Mr C V K Lokunarangodage</b> University of Sri Jayewardenepura

No	Names and Affiliations of Supervisory Team	Title of the Thesis	Student & Awarding University
12.	<b>Prof. P B R Dissanayake</b> <b>Dr L C Kurukulasuriya</b> Department of Civil Engineering Faculty of Engineering University of Peradeniya	Damage detection and performance evaluation of ballast in rail tracks	<b>Mr D M A G B Dissanayaka</b> University of Peradeniya
13.	<b>Prof. U L B Jayasinghe</b> <b>Prof. N S Kumar</b> National Institute of Fundamental Studies, Kandy	Chemistry and bioactivity of the secondary metabolites produced by the endophytic fungi isolated from <i>Coccinia grandis</i> and <i>Artocarpus altilis</i>	<b>Dharushana Thanabalasingam</b> University of Peradeniya
14.	<b>Dr I V N Rathnayake</b> Department of Microbiology  <b>Prof. Asoka Pathiratne</b> Department of Zoology and Environmental Management Faculty of Science University of Kelaniya	Development of an optical whole cell microalgal-cyanobacterial array biosensor to assess bioavailability of selected heavy metal pollutants in aquatic systems	<b>Ms M D Thilini</b> University of Kelaniya
15.	<b>Dr D G G P Karunaratne</b> Department of Chemical and Process Engineering Faculty of Engineering University of Peradeniya  <b>Dr H W M A C Wijayasinghe</b> National Institute of Fundamental Studies, Kandy  <b>Dr K G N Nanayakkara</b> Department of Civil Engineering Faculty of Engineering University of Peradeniya	Development and optimization of an anode material for oxidation of chlorpyrifos	<b>Ms G C Pathiraja</b> University of Peradeniya
16.	<b>Prof. Neelika Malavige</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayewardenepura	Determining the functionality of T cell responses to acute dengue infection	<b>Ms A M T N Adikari</b> University of Sri Jayewardenepura
17.	<b>Prof. M I M Mowjood</b> Department of Agricultural Engineering Faculty of Agriculture University of Peradeniya  <b>Prof. L W Galagedara</b> Grenfell Campus Memorial University of Newfoundland, Canada	Identification and assessment of technical and socio-economic aspects in cultivating Other Field Crops (OFC) in Bayawa minor irrigation system	<b>Mr G M Pradeep Kumara</b> University of Peradeniya
18.	<b>Prof. M I M Mowjood</b> Department of Agricultural Engineering Faculty of Agriculture University of Peradeniya  <b>Prof. L W Galagedara</b> Grenfell Campus Memorial University of Newfoundland, Canada	Impact of rainfall variability on soil organic matter and nitrogen in lowland paddy field: a case study in Bayawa minor irrigation system	<b>Ms Thusyanthi Sellathurai</b> University of Peradeniya
19.	<b>Prof. Rupika Rajakaruna</b> Department of Zoology Faculty of Science University of Peradeniya	Life history, seasonal dynamics, infectious agents and control of spinose ear tick <i>Octobius megnini</i> associated with horse otoacariasis in Sri Lanka	<b>Mr G C P Diyes</b> University of Peradeniya

No	Names and Affiliations of Supervisory Team	Title of the Thesis	Student & Awarding University
20.	<b>Prof. D A L Leelamanie</b> <b>Prof. S D Wanniarachchi</b> Department of Soil Science Faculty of Agriculture University of Ruhuna	Effect of hydrophobicity of organic amendments on hydrophysical properties, carbon stabilization and nutrient dynamics in a tropical ultisol	<b>Ms T D P Liyanage</b> University of Ruhuna
21.	<b>Dr Sudarshanee Geekiyanage</b> Department of Agricultural Biology Faculty of Agriculture University of Ruhuna	An attempt on genetic improvement of Anthurium ( <i>Anthurium andraeanum</i> Linden ex Andre)	<b>Ms N V T Jayaprada</b> University of Ruhuna
22.	<b>Dr Sudarshanee Geekiyanage</b> <b>Prof. Gamini Senanayake</b> Department of Agricultural Biology Faculty of Agriculture University of Ruhuna	Evaluation of flowering time variation in <i>Oryza sativa</i> 'Ma vee'	<b>Ms W H D U Pushpakumari</b> University of Ruhuna
23.	<b>Prof. N S Kottearachchi</b> Department of Biotechnology Faculty of Agriculture and Plantation Management Wayamba University of Sri Lanka  <b>Dr W L G Samarasinghe</b> Plant Genetic Resources Centre Peradeniya	Molecular mapping of quantitative trait loci associate with salinity tolerance using a RIL population of rice	<b>Ms B A Dahanayake</b> Wayamba University of Sri Lanka

## NSF Scheme on Funding Page Charges - 2017

No	Name of the Applicant/ Institution	Title of the Manuscript/ Date Published	Name of the Journal	Indexed in (Source: Thompson Reuters Master List)	Page Charge/ Date of Payment
1.	<b>Dr Romain Perera</b> Department of Allied Sciences Faculty of Medicine University of Colombo	Single nucleotide variants of candidate genes in aggrecan metabolic pathway are associated with lumbar disc degeneration and modic changes  Jan 2017	PLOS ONE	SCI expanded	<b>Rs.75,870/-</b>  (500 USD)  06.01.2017
2.	<b>Dr Renuka Attanayake</b> Department of Botany Faculty of Science University of Kelaniya	First report of white mold caused by <i>Sclerotinia</i> <i>sclerotiorum</i> on cabbage in Sri Lanka  Jan 2017	Plant Disease	SCI SCI expanded	<b>Rs.52,697.10/-</b>  (350 USD)  24.10.2016
3.	<b>Prof. Sharmini Gunawardena</b> Department of Parasitology Faculty of Medicine University of Colombo	Prevalence of G6PD deficiency in selected populations from two previously high malaria endemic areas of Sri Lanka  Feb 2017	PLOS ONE	SCI expanded	<b>Rs.76,120/-</b>  (500 USD)  26.01.2017
4.	<b>Dr Lalith Perera</b> Genetics and Plant Breeding Division Coconut Research Institute, Lunuwila	Cultivar by environment interaction of coconut under different water and heat regimes at their early stage of growth  Apr 2017	Pakistan Journal of Botany	SCI expanded	<b>Rs.68,467.50/-</b>  (450 USD)  17.02.2017

## Ten Best Projects Selected from the SRPC

No	Name	School	Project Title
1.	<b>R Randiv Wickramarathne</b>	Nalanda College Colombo 10	Deposition of air pollutants on pollen grains and occurrence of respiratory allergies among humans
2.	<b>Chamikara Samarasekara</b>	Rahula College, Matara	Cyber Security
3.	<b>Samashi Vihanga Munaweera</b>	Sirimavo Bandaranaike Vidyalaya, Colombo 07	Development of a natural anti-cancer formulation which can target triple negative breast cancer stem cells
4.	<b>R Sahara Gamage</b>	Rahula College, Matara	Effect of some botanical powders against rice weevil, <i>Sitophilus oryzae</i> L. (Coleoptera: Curculionidae)
5.	<b>M Imhath</b>	St. Michael's College Batticaloa	Low-cost microbial fuel cell from waste materials
6.	<b>K Hiruni Adikari K G Sachintha Sarindi P M D Dulakshini Chandrathilaka</b>	Yasodara Devi Balika Maha Vidyalaya, Gampaha	Water filter based on nano technology
7.	<b>N M Dilas</b>	AK/ Addalaichenai Central College, Addalaichenai	Portable cell viewer
8.	<b>Ravindu Sankalpa Shehan Kavishka</b>	S De S Jayasingha Central College, Dehiwala	Micro and nano engineering for wastewater: magnetized biochar and nanoparticle composite for toxic Cr (VI) removal
9.	<b>W A I Minduni Karunaratne</b>	Sirimavo Bandaranaike vidyalaya, Colombo 07	Evaluation of <i>in vitro</i> antibacterial activity of some Sri Lankan medicinal plants used in the preliminary treatment of bacterial conjunctivitis
10.	<b>A A Mohamed Asri M M Mahaz</b>	S De S Jayasingha Central College, Dehiwala	Waste to wealth: reclamation of saline soil using bio amendments

## Grants Awarded under Overseas Science Education Programme (OSEP) in 2017

No	Grant No.	Name of the Participants	Institute	Event	Approved Amount (Rs.)
1.	OSEP/2017/05	Participation group (Five student and two team leader)	Institute of Physics	Sri Lanka Physics Olympiad	459,000/-
2.	OSEP/2017/06	Mr R G N Punsara Rahula College, Mathara	Institute of Biology	Sri Lanka Biology Olympiad	180,433.33/-
		Ms A S Kottahachchi Devi Balika Vidyalaya Colombo			180,433.33/-
		Ms S M Hettiarachch Mahamaya Vidyalaya, Kandy			180,433.33/-
		Mr I D Weerasinghe St. Peter's College, Colombo			90,216.67/-
3.	OSEP/2017/07	Mr W A Dithira Yasasvin Wellappuli Rahula College, Mathara	Geology Society of Sri Lanaka	Sri Lanka Earth Science Olympiad	170,000/-
		Mr Abdul Azeez Umar Azad St. Anthony's College Kattugastota			170,000/-
		Mr R P Kavindu Surinda Richmond College, Galle			170,000/-
		Ms B K Ranaweera Hillwood College, Kandy			85,000/-
		Ms S N Galagoda (Teacher) Hillwood College, Kandy			85,000/-
4.	OSEP/2017/08	E N O B Silva Faculty of Medicine University of Colombo	University of Colombo	International Conference	176,000/-
5.	OSEP/2017/09	Herath Pathirannahalage Savindu University of Moratuwa	University of Moratuwa	International Conference	211,300/-
<b>Total</b>					<b>2,157,816.66/-</b>

## Research Scholarships Awarded - 2017

No	Grant No. & Duration	Scholar and Institution	Supervisors	Title
1.	NSF/SCH/2017/01 03 years	<b>Ms M V M Divarathna</b> Department of Microbiology Faculty of Medicine University of Peradeniya	<b>Dr F Noordeen</b> Department of Microbiology Faculty of Medicine University of Peradeniya  <b>Dr A J Morel</b> 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
2.	NSF/SCH/2017/02 01 year and 04 months	<b>Dr Thavarajah Vijayakumar</b> Department of Biochemistry Faculty of Medicine University of Jaffna	<b>Dr S Balakumar</b> Department of Biochemistry Faculty of Medicine University of Jaffna  <b>Dr T Thayalini</b> Unit of Siddha Medicine University of Jaffna	Safety evaluation of hepato, nephro, neuro and hemato; and antioxidant activity of Sinna Sivappu Maathirai a siddha herbo mineral drug
3.	NSF/SCH/2017/03 03 years	<b>Mr Saminda Chandika Premaratne</b> School of Computing University of Colombo	<b>Dr Lakshman Jayaratne</b> School of Computing University of Colombo	Entity Resolution in Multimedia Databases
4.	NSF/SCH/2017/04 02 years	<b>Mrs Fathima Sabrina Nazeer</b> Department of Building Economics Faculty of Architecture University of Moratuwa	<b>Dr Sachie Gunatilake</b> Department of Building Economics Faculty of Architecture University of Moratuwa  <b>Dr Thanuja Ramachandra</b> Department of Building Economics Faculty of Architecture University of Moratuwa	Developing a capability framework to integrate sustainability in Facilities Management (FM) practice
5.	NSF/SCH/2017/05 01 year	<b>Ms N G L Nadee Nanayakkara</b> Department of Oceanography and Marine Geology Faculty of Fishers and Marine Sciences and Technology University of Ruhuna	<b>Dr Nalaka Ranasinghe</b> Department of Oceanography and Marine Geology Faculty of Fishers and Marine Sciences and Technology University of Ruhuna  <b>Prof. K R Ranjith Mahanama</b> Faculty of Science University of Colombo  <b>Prof. Tilak Hewawasam</b> Department of Geography Faculty of Arts University of Peradeniya	Reconstruction of the quaternary climate variability in Sri Lanka using marine proxies
6.	NSF/SCH/2017/06 02 years	<b>Ms G D Liyanaarachchi</b> Herbal Technology Section Industrial Technology Institute	<b>Dr Radhika Samarasekara</b> Industrial Technology Institute  <b>Prof. K R Ranjith Mahanama</b> Faculty of Science University of Colombo	Antioxidant and enzyme inhibitory phytochemicals for cosmetic application

No	Grant No. & Duration	Scholar and Institution	Supervisors	Title
7.	NSF/SCH/2017/07 01 year and 06 months	<b>Mrs R Y Baragamaarachchi</b> IBMBB University of Colombo	<b>Dr Radhika Samarasekara</b> Industrial Technology Institute  <b>Dr Jagath Weerasena</b> IBMBB University of Colombo	Molecular and biochemical characterization of <i>Bacillus thuringiensis</i> isolates with insecticidal activity in Sri Lanka
8.	NSF/SCH/2017/09 03 years	<b>Ms S W G R T K Ariyawansa</b> Department of Agricultural Engineering Faculty of Agriculture University of Peradeniya	<b>Prof. B F A Basnayake</b> Department of Agricultural Engineering Faculty of Agriculture University of Peradeniya  <b>Dr A K Karunaratna</b> Department of Agricultural Engineering Faculty of Agriculture University of Peradeniya	Development of interactive mathematical expressions for biochemical transformation kinetics
9.	NSF/SCH/2017/10 01 year	<b>Mrs M Dhanusha Nirmani</b> Department of Zoology and Environment Sciences Faculty of Science University of Colombo	<b>Dr Gayani Galhena</b> Department of Zoology and Environment Sciences Faculty of Science University of Colombo	Dengue infection rates in vector mosquitoes <i>Aedes aegypti</i> and <i>Aedes albopictus</i> and their role in current dengue outbreaks in Sri Lanka
10.	NSF/SCH/2017/11 03 years	<b>Ms S Arudchutha</b> Department of Computer Engineering Faculty of Engineering University of Peradeniya	<b>Dr R G Ragel</b> Department of Computer Engineering Faculty of Engineering University of Peradeniya  <b>Dr I B Nawinne</b> Department of Computer Engineering Faculty of Engineering University of Peradeniya	Hardware accelerated coherence aware cache design space exploration in MPSoCs

## Grants Awarded Under Support Scheme for Scientific Meetings and Events - 2017

No	Grant	Organization	Category	Date of the Event	Amount (Rs.)
1.	29 <sup>th</sup> Annual Congress of the Post Graduate Institute of Agriculture	Post Graduate Institute of Agriculture	Agriculture	16 <sup>th</sup> -17 <sup>th</sup> November, 2017	1,200,000/-
2.	23 <sup>rd</sup> Annual Scientific Sessions of the Sri Lanka Association for Fisheries (SLAFAR)	Sri Lanka Association for Fisheries and Aquatic Resources	Aquaculture	26 <sup>th</sup> May, 2017	200,000/-
3.	International Conference on Cities, People and Places (ICCP - 2017)	University of Moratuwa	Architecture	20 <sup>th</sup> -21 <sup>st</sup> October, 2017	1,200,000/-
4.	SALAKYA SANDIPANI - 2017 Recent Advances in Salakya Tantra International Conference on Salakya Tantra 2017	Gampaha Wickramarachchi Ayurveda Institute	Ayurvedic Medicine	15 <sup>th</sup> -17 <sup>th</sup> September, 2017	142,500/-
5.	Undergraduate Research Symposium on Zoology and Environmental Management (URS ZEM 2017)	University of Kelaniya	Biology	1 <sup>st</sup> March, 2017	59,300/-
6.	37 <sup>th</sup> Annual Sessions of the Institute of Biology	Institute of Biology Sri Lanka	Biology	29 <sup>th</sup> September, 2017	150,000/-
7.	2 <sup>nd</sup> International Mini Symposium and Handson Training Workshop-Cyanotoxin and Public Health	University of Sri Jayewardenepura	Biology	16 <sup>th</sup> -18 <sup>th</sup> January, 2018	330,000/-
8.	3 <sup>rd</sup> International Symposium on Polymer Science and Technology 2017 in collaboration with Industry, institutions and universities	University of Sri Jayewardenepura	Chemistry	13 <sup>th</sup> -15 <sup>th</sup> July, 2017	750,000/-
9.	3 <sup>rd</sup> Annual Symposium on Research and Industrial Training of Department of Electronics	Wayamba University of Sri Lanka	Electronic & Engineering	3 <sup>rd</sup> March, 2017	120,000/-
10.	Sri Lanka Economic Research Conference: 6 <sup>th</sup> International Conference of the Sri Lanka Forum of University Economists (SLFUE)	Rajarata University of Sri Lanka	Economics	23 <sup>rd</sup> -24 <sup>th</sup> November, 2017	400,000/-
11.	33 <sup>rd</sup> Annual Sessions of the Geological Society	Geological Society of Sri Lanka	Geological Science	24 <sup>th</sup> February, 2017	400,000/-
12.	17 <sup>th</sup> International Conference on Advances in ICT for Emerging Regions (ICTer 2017)	University of Colombo School of Computing	Information and Communication Technology	6 <sup>th</sup> -9 <sup>th</sup> September, 2017	274,995/-
13.	International Conference on Computational Modeling and Simulation 2017	University of Colombo	Mathematics & Statistics	17 <sup>th</sup> -19 <sup>th</sup> May, 2017	2,000,000/-

No	Grant	Organization	Category	Date of the Event	Amount (Rs.)
14.	International Statistics Conference - 2017	Institute of Applied Statistics Sri Lanka (IASSL)	Mathematics & Statistics	28 <sup>th</sup> -29 <sup>th</sup> December, 2017	1,000,000/-
15.	130 <sup>th</sup> Anniversary International Medical Conference 2017	Sri Lanka Medical Association	Medical Science	13 <sup>th</sup> -17 <sup>th</sup> July, 2017	1,432,655/-
16.	6 <sup>th</sup> International Conference on Renal, Respiratory Pathology and Thyroid, Pulmonary Cytology	College of Pathologists of Sri Lanka	Medical Science	24 <sup>th</sup> -26 <sup>th</sup> August, 2017	400,000/-
17.	2 <sup>nd</sup> South Asian Melioidosis Congress	Sri Lanka College of Microbiologists	Medical Science	29 <sup>th</sup> -30 <sup>th</sup> August, 2017	1,771,900/-
18.	Colombo Conference on Medical Education	College of Medical Educationists	Medical Science	10 <sup>th</sup> -11 <sup>th</sup> November, 2017	1,500,000/-
19.	Annual Scientific Sessions of Pharmaceutical Society of Sri Lanka	Pharmaceutical Society of Sri Lanka	Medical Science	24 <sup>th</sup> June, 2017	227,250/-
20.	Annual Academic Sessions of the Sri Lanka Association on Clinical Pharmacology and Therapeutics (SLACPT) - 2017	Sri Lanka Association of Clinical Pharmacology and Therapeutics	Medical Science	13 <sup>th</sup> -14 <sup>th</sup> October, 2017	775,000/-
21.	1 <sup>st</sup> International Primary Care Respiratory Group South Asian Scientific Conference	Primary Care Respiratory Group of Sri Lanka	Medical Science	3 <sup>rd</sup> August, 2017	1,258,750/-
22.	46 <sup>th</sup> Annual Academic Sessions of the College of Surgeons of Sri Lanka and joint International Conference with the Royal College of Surgeons of Edinburgh and SAARC Surgical Care Society	The College of Surgeons of Sri Lanka	Medical Science	17 <sup>th</sup> -19 <sup>th</sup> August, 2017	400,000/-
23.	2 <sup>nd</sup> Clinical Nutrition Annual Academic Sessions - 2017 of Sri Lanka Medical Nutrition Association	Sri Lanka Medical Nutrition Association	Medical Science	2 <sup>nd</sup> December, 2017	400,000/-
24.	Annual Scientific Sessions of Perinatal Society of Sri Lanka	Perinatal Society of Sri Lanka	Medical Science	23 <sup>rd</sup> -24 <sup>th</sup> August, 2017	685,000/-
25.	Workshop on Scientific Research : facilitating research	SLAAS	Other		74,250/-
26.	National Award Ceremony	Ministry of Science Technology and Research	Other	21 <sup>st</sup> March, 2017	496,864/-
27.	Leadership and Career Development' for Women in Science, Technology and Research	National Academy of Sciences of Sri Lanka (NASSL)	Other	23 <sup>rd</sup> May, 2017	331,471/-
28.	The International Conference on Multi-Disciplinary Approaches 2017	University of Sri Jayewardenepura	Other	20 <sup>th</sup> -22 <sup>th</sup> September, 2017	1,400,000/-

No	Grant	Organization	Category	Date of the Event	Amount (Rs.)
29.	The 6 <sup>th</sup> International Conference of Sabaragamuwa University of Sri Lanka 2017 (6 <sup>th</sup> ICSUSL 2017)	Sabaragamuwa University of Sri Lanka	Science	3 <sup>rd</sup> -5 <sup>th</sup> May, 2017	400,000/-
30.	Virology Day	Sri Lankan Society for Microbiology	Science	27 <sup>th</sup> May, 2017	0/-
31.	28 <sup>th</sup> International Symposium on Transport Phenomena	University of Peradeniya	Science	22 <sup>nd</sup> -24 <sup>th</sup> September, 2017	2,000,000/-
32.	73 <sup>rd</sup> Annual Sessions o Sri Lanka Association for the Advancement of Science	SLAAS	Science	4 <sup>th</sup> -8 <sup>th</sup> December, 2017	2,000,000/-
33.	International Research Conference - Kothelawala Defense University and Pre Conference Workshop	General Sir John Kotelawala Defense University	Science	3 <sup>rd</sup> -4 <sup>th</sup> August, 2017	2,000,000/-
34.	Vavuniya Campus International Research Symposium (VCIRS)	University of Jaffna	Science	9 <sup>th</sup> August, 2017	88,900/-
35.	International Research Symposium on Pure and Applied Sciences - 2017	University of Kelaniya	Science	20 <sup>th</sup> October, 2017	497,067/-
36.	Debate on Genetic Modification of Organisms	SLAAS	Science	1 <sup>st</sup> November, 2017	120,000/-
37.	1 <sup>st</sup> Research Congress of the Post Grdaduate Institute of Humanities and Social Sciences (PGIHS-RC-2017)	Postgraduate Institute of Humanities and Social Sciences - University of Peradeniya	Social Science	31 <sup>st</sup> March, 2017	250,000/-

## Research Scholarships Completed - 2017

No	Grant No. & Duration	Scholar and Institution	Supervisor/s	Title	Postgraduate Degree Obtained
1.	NSF/ SCH/2012/06  03 years	<b>Mrs Gamage Bimalka Sajeewi Perera</b> Department of Mechanical Engineering Faculty of Engineering University of Moratuwa	<b>Dr A G T Sugathapala</b> Department of Mechanical Engineering Faculty of Engineering University of Moratuwa	Investigating the atmospheric degradation of Volatile organic Compounds (VoCs) emitting from an urban airshed in Colombo	PhD
2.	NSF/ SCH/2013/02  02 years	<b>Mr Kanishka Weranga Palihakkara</b> Department of Physics Faculty of Science University of Colombo	<b>Prof. D U J Sonnadara</b> <b>Prof. Asiri Nanayakkara</b> Department of Physics Faculty of Science University of Colombo	Investigation of distribution of zeros of wave functions and spontaneous breaking down of PT symmetry in Non-Hermitian Hamiltonian systems	MPhil
3.	NSF/ SCH/2013/04  01 year	<b>Mr V Senthoooran</b> Department of Information Technology Faculty of Information Technology University of Moratuwa	<b>Dr Lochandaka Ranathunga</b> Department of Information Technology Faculty of Information Technology University of Moratuwa  <b>Dr Wong Kok Sheik</b> Department of Computer System and Technology University of Malaysia	Adaptable Algorithms for Image Steganography	MPhil
4.	NSF/ SCH/2015/03  03 years	<b>Mr H Krishantha Sameera De Zoysa</b> Faculty of Applied Sciences Rajarata University of Sri Lanka	<b>Dr E M R K Edirisinghe</b> <b>Dr T V Sundarabharathy</b> Faculty of Applied Science Rajarata University of Sri Lanka	Investigation of the role of fatty acid profile of food on the colonisation success of selected freshwater fish species in Sri Lanka	MPhil
5.	NSF/ SCH/2015/05  01 year	<b>Mr Jalaldeen Mohamed Harris</b> Department of Zoology Faculty of Science Eastern University of Sri Lanka	<b>Prof. P Vinobaba</b> Department of Zoology Faculty of Science Eastern University of Sri Lanka	Influences of gender on levels of Pb, Cd and As in the tissues of selected species of edible estuarine fish species in the Batticaloa lagoon during dry weather conditions	PhD

## Travel Grants Awarded - 2017

### Oral Presentations

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
1.	<b>Ms H G Madhushika</b> Mphil Candidate Department of Chemical & Processing Engineering University of Moratuwa Moratuwa	Enhanced decolourization and biodegradation on textile azo and xanthene dyes by using bacterial isolates	ICWWTP 2017: 19 <sup>th</sup> International Conference on Water and Wastewater Treatment Plants  Outram Road, Singapore 08 <sup>th</sup> -09 <sup>th</sup> January, 2017
2.	<b>Dr E D Wickramanayake</b> Chairperson/ Technical Lead Environmental Foundation (Guarantee) Ltd 146/34, Havelok Rd Colombo 05	Integrated spatial planning for piroratising biodiversity conservation Sri Lanka	23 <sup>rd</sup> Annual Conference on International Society for Tropical Fosters  Yale University, New Haven, USA 27 <sup>th</sup> -28 <sup>th</sup> January, 2017
3.	<b>Ms T M A U Gunathilake</b> Postgraduate Research Student Faculty of Engineering Technology Open University of Sri Lanka Nawala	Identification of the student's learning behavior for education personalization	International Conference on I-SMAC (IoT in Social, Mobile, Analytic and Cloud) (I-SMAC 2017)  Institute of Technology at Coimbatore, India 10 <sup>th</sup> -11 <sup>th</sup> February, 2017
4.	<b>Dr K G A P Attanayake</b> Senior Lecturer in Biochemistry Faculty of Medicine University of Ruhuna, Galle	Comparison of $\beta$ -cell regenerative potentials of selected Sri Lankan medicinal plant extracts in alloxan induced diabetic rats	19 <sup>th</sup> International Conference on Natural Products and Drug Discovery  Kuala Lumpur, Malaysia 12 <sup>th</sup> -13 <sup>th</sup> February, 2017
5.	<b>Ms D M W D Divisekera</b> Research Scientist Food Technology Section Industrial Technology Institute No 363, Baudhaloka Mw Colombo 07	<i>Pediococcus acidilactisi</i> isolated from Sri Lankan finger millet probiotic attributes and <i>in vitro</i> antimicrobial activity	World Congress on Engineering, Science and Technology  Bangkok, Thailand 25 <sup>th</sup> -26 <sup>th</sup> February, 2017
6.	<b>Mrs W A M K P Wickramarachchi</b> Instructor Department of Chemical and Process Engineering University of Moratuwa Moratuwa	Effect of climate change on wind power generation in North of Sri Lanka	6 <sup>th</sup> Annual International Conference on Sustainable Energy and Environmental Sciences (SEES 2017)  Singapore 06 <sup>th</sup> -07 <sup>th</sup> March, 2017
7.	<b>Prof. B F A Basnayake</b> Senior Professor Department of Agricultural Engineering University of Peradeniya Peradeniya	A concerted initiative for planned management of municipal solid waste in target provinces in Sri Lanka	4 <sup>th</sup> 3R International Scientific Conference on Material Cycles and Waste Management (4 <sup>th</sup> 3RINC)  New Delhi, India 08 <sup>th</sup> -10 <sup>th</sup> March, 2017
8.	<b>Ms G C Pathiraja</b> Lecturer (Probationary) Department of Engineering Technology Faculty of Technology University of Ruhuna, Galle	Ti/IrO <sub>2</sub> /SnO <sub>2</sub> anode forelectrochemical degradation of chlorpyrifos in water: optimization and degradation performances	The 7 <sup>th</sup> International Conference on Key Engineering Materials  Penang, Malaysia 11 <sup>th</sup> -13 <sup>th</sup> March, 2017

## Oral Presentations

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
9.	<b>Ms N V T Jayaprada</b> Research Assistant Department of Agricultural Biology Faculty of Agriculture University of Ruhuna Matara	Determination of the morphological and physiological aspects of the flowers of selected Sri Lankan underutilized blue flower species	National Conference on Enhancing Nutritional Security through Climate Smart Farming Practices  West Bengal, India 17 <sup>th</sup> -18 <sup>th</sup> March, 2017
10.	<b>Ms H M A D K Herath</b> Assistant Director (Research and Planning) Tertiary & Vocational Education Commission "Nipunatha Piyasa" Colombo 05	TVET qualifications line up with labour market aspects	International Conference on Humanities, Social Sciences and Education (HSSE'17)  London, UK 20 <sup>th</sup> -23 <sup>rd</sup> March, 2017
11.	<b>Dr E P S K Ediriweera</b> Senior Lecturer Faculty of Science & Technology Uva Wellassa University Badulla	Automatic feature extraction from satellite images using lvq neural network	Association for Tropical Biology and Conservation (ATBC) Asia - Pacific Chapter Meeting 2017  Xishuangbanna, China 25 <sup>th</sup> -28 <sup>th</sup> March 2017
12.	<b>Prof. N M S B Navaratne</b> Professor/ Department of Food Science & Technology University of Sri Jayawardenapura Gangodawila, Nugegoda	Identification of major causes and strategies adapted by chauffeurs to combat micro - sleepiness	4 <sup>th</sup> International Conference on Chemical and Food Engineering  Osaka, Japan 28 <sup>th</sup> -30 <sup>th</sup> March, 2017
13.	<b>Dr I L A N Dharshana</b> Lecturer (Probationary) Department of Community Medicine University of Ruhuna, Galle	Community attachment program; does assessment marks reflect student's view regarding current assessment process?	12 <sup>th</sup> International Medical Education Conference 2017  Kuala Lumpur, Malaysia 07 <sup>th</sup> -09 <sup>th</sup> April, 2017
14.	<b>Dr Umesh Jayarajah</b> Resident House Office Department of Urology National Hospital of Sri Lanka, Colombo 10	A clinicopathological study of non-urothelial bladder cancers in a cohort of patients from a tertiary care urology unit in Sri Lanka with review of literature	Urofair 2017  Singapore 20 <sup>th</sup> -22 <sup>nd</sup> April, 2017
15.	<b>Ms W H D U Pushpakumari</b> MPhil Candidate Board of Study in Agriculture Faculty of Graduate Studies University of Ruhuna, Matara	The effect of days to flowering on yield components of Sri Lankan rice <i>Oryza Sativa</i> L.	178 <sup>th</sup> International Conference on Environmental and Natural Sciences (ICENS)  Bangkok, Thailand 05 <sup>th</sup> -06 <sup>th</sup> May, 2017
16.	<b>Ms V M Pathiraja</b> Postgraduate Research Student South Asian Clinical Toxicology Research Collaboration University of Peradeniya Peradeniya	Palatability in tablets and capsule forms of n-acetylcysteine and methionine and associated adverse events with in Sri Lankan healthy volunteers	37 <sup>th</sup> Congress of the European Association of Poisons Centers and Clinical Toxicologists (EAPCCT)  Basel, Switzerland 16 <sup>th</sup> -19 <sup>th</sup> May, 2017
17.	<b>Dr R A N Ranathunga</b> Medical Officer Base Hospital Kuliyapitiya	Effects of indoor air pollution due to solid fuel combustion on physical growth of children under 5	19 <sup>th</sup> International Conference on Air Polluting and Control  London, UK 25 <sup>th</sup> -26 <sup>th</sup> May, 2017

## Oral Presentations

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
18.	<b>Ms W M K M Ratnayake</b> Research Assistant Department of Biochemistry Faculty of Medical Science, University of Sri Jayawardenapura Nugegoda	Anti-inflammatory activity of <i>Psychotria sarmentosa</i> leaves	64 <sup>th</sup> Annual Meeting of Japanese Association for Laboratory Animal (JALAS)  Fukushima, Japan 25 <sup>th</sup> -27 <sup>th</sup> May, 2017
19.	<b>Dr P A N Punyasiri</b> Post Doctoral Research Fellow Institute of Biochemistry Molecular Biology and Biotechnology University of Colombo Colombo 03	Genotypic variation in biochemical compounds of the Sri Lankan Tea ( <i>Camellia sinensis</i> L.) accessions and their relationships to quality and biotic stresses	11 <sup>th</sup> World Congress on Polyphenol Applications  University of Vienna, Austria 20 <sup>th</sup> -21 <sup>st</sup> June, 2017
20.	<b>Ms S M Vidanagamachchi</b> Lecturer (Probationary) Department of Computer Science University of Peradeniya Peradeniya	Analyzing relationships among clinical factors of cancer patients by regression analysis	Galaxy Community Conference 2017  Montpellier, France 26 <sup>th</sup> -30 <sup>th</sup> June, 2017
21.	<b>Ms W M M D K Gunarathna</b> Business Manager Group M Media Pvt Ltd. 14/14A, Vajira Rd Colombo 04	Millennial involvement in cause related marketing in Sri Lanka	Oxford Business and Economics Conference 2017  Said Business School, Oxford, UK 01 <sup>st</sup> -02 <sup>nd</sup> July, 2017
22.	<b>Ms Y M R de Silva</b> Research Assistant Department of Chemistry University of Sri Jayawardenapura Nugegoda	Urea-Hydroxyapatite Nanohybrids	14 <sup>th</sup> International Conference on Nano Sciences and Nanotechnologies (NN 17)  Thessaloniki, Greece 04 <sup>th</sup> -07 <sup>th</sup> July, 2017
23.	<b>Mr S S M Peramunagama</b> Post Graduate Student Faculty of Agriculture University of Ruhuna Wellamadama, Matara	Dissent on fisheries development; use of destructive fishing practices in Northern Sri Lanka	MARE Conference 2017: People and the Sea IX : Dealing with Maritime Mobilities  Amsterdam, Netherland 05 <sup>th</sup> -07 <sup>th</sup> July, 2017
24.	<b>Prof. H A H Jayasena</b> Department of Geology University of Peradeniya Peradeniya	Hydrogeology of springs in a tropical humid terrain in Sri Lanka - A study on water supply alternative	IAHS 2017- Scientific Programme  Port Elizabeth, South Africa 10 <sup>th</sup> -14 <sup>th</sup> July, 2017
25.	<b>Mr R A M Abayasiri</b> Research Student Department of Mechanical Engineering University of Moratuwa Moratuwa	MoBio: A 5DOF trans-humeral robotics prosthesis	15 <sup>th</sup> IEEE Conference on Rehabilitation Robotics (ICORR 2017)  London, UK 17 <sup>th</sup> -20 <sup>th</sup> July, 2017
26.	<b>Prof. K D Gunawardena</b> Senior Professor Faculty of Management Studies and Commerce University of Sri Jayawardenapura Nugegoda	Effective information communication technology education in rural schools of Sri Lanka	11 <sup>th</sup> International Conference on E Learning 2017  Lisbon, Portugal 20 <sup>th</sup> -22 <sup>nd</sup> July, 2017

## Oral Presentations

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
27.	<b>Prof. W K Mampearachchi</b> Professor in Civil Engineering University of Moratwa Moratuwa	Development of expanded clay as an internally curing concrete aggregate	10 <sup>th</sup> International Conference on Road and Airfield Pavement Technology (10 <sup>th</sup> ICPT 2017)  Hong Kong 08 <sup>th</sup> -10 <sup>th</sup> August, 2017
28.	<b>Mr W A D S S Weerasinghe</b> Postgraduate Student Department of Electronics Wayamba University of Sri Lanka, Kuliyaipitiya	Zn rechargeable cell with POLY3-4Ethylendioxythiophene Cathode	6 <sup>th</sup> International Conference on Functional Materials and Devices (ICFMD 2017)  Melaka, Malaysia 15 <sup>th</sup> -18 <sup>th</sup> August, 2017
29.	<b>Ms I S Illeperua Arachchi</b> Research Assistant National Institute of Fundamental Studies Hantana Rd, Kandy	Unravelling the phylogeny of two closely related crab spider (Araneae : Thomisidae) General in Sri Lanka	30 <sup>th</sup> European Congress on Archnology  Nottingham, UK 20 <sup>th</sup> -25 <sup>th</sup> August, 2017
30.	<b>Ms N Kanesharatnam</b> Research Assistant Ecology and Environmental Biology Project National Institute of Fundamental Studies Hantana Rd, Kandy	Molecular and morphological data reveals a cryptic radiation of shiny South Asian jumping spiders (Araneae: Salticidae)	30 <sup>th</sup> European Congress on Archnology  Nottingham, UK 20 <sup>th</sup> -25 <sup>th</sup> August, 2017
31.	<b>Ms R P S K Rajapaksha</b> Research Assistant Bioenergy and Soil Ecosystems Division National Institute of Fundamental Studies Hantana Rd, Kandy	Estimation and mapping the spatial distribution of soil carbon stores: A study from Tropical Forest Reserve in Sri Lanka	6 <sup>th</sup> International Symposium on Soil Organic Matter  Harpenden, UK 03 <sup>rd</sup> -07 <sup>th</sup> September, 2017
32.	<b>Dr D T D Warnakulasuriya</b> Lecturer (Probationary) Department of Physiology University of Kelaniya Ragama	High background radiation near a mineral sand processing factory in Sri Lanka	4 <sup>th</sup> International Conference on Radioecology and Environmental Radioactivity (ICRER)  Berlin, Germany 03 <sup>rd</sup> -08 <sup>th</sup> September, 2017
33.	<b>Prof. J K D S Jayanetti</b> Senior Professor / Dean Faculty of Technology University of Colombo Colombo 03	Morphological effects of electrodeposited Cu <sub>2</sub> O thin films on enhancement of glucose sensing	The 78 <sup>th</sup> Japan Society of Applied Physics (JSAP) Autumn Meeting 2017  Fukuoka, Japan 05 <sup>th</sup> -08 <sup>th</sup> September, 2017
34.	<b>Ms L G T Shanika</b> Lecturer (Probationary) B.Pharm Degree Programme Department of Allied Health Sciences University of Sri Jayawardenapura Nugegoda	Does clinical pharmacy service improves quality use of medicines in patients with chronic non communicable diseases? Evidence from a controlled trial in Sri Lanka	77 <sup>th</sup> FIP World Congress of Pharmacy and Pharmaceutical Sciences 2017  Seoul, South Korea 10 <sup>th</sup> -14 <sup>th</sup> September, 2017

## Oral Presentations

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
35.	<b>Mr H A R T Wijesekara</b> Temporary Instructor Department of Electronic and Telecommunication Engineering University of Moratuwa Moratuwa	A low-complexity 2-D spatially-interpolated FIR trapezoidal filter for enhancing broadband spatio-temporal plane waves.	10 <sup>th</sup> International Conference on Multidimensional Systems (nDS 2017)  University of Zielona Gora, Poland 13 <sup>th</sup> -15 <sup>th</sup> September, 2017
36.	<b>Mr W S U Perera</b> Lecturer (on Contract Basis) Department of Civil Engineering University of Moratuwa Mortuwa	Friction tests on clay soils for fast and bouncy cricket pitches in Sri Lanka	6 <sup>th</sup> International Young Geotechnical Engineer's Conference (iYGEC6)  Seoul, Korea 16 <sup>th</sup> -17 <sup>th</sup> September, 2017
37.	<b>Ms E U U Rathnathunga</b> PhD Candidate Board of Study in Agriculture Faculty of Graduate Studies University of Ruhuna, Matara	Evaluation of variation in days to flowering among Sri Lankan traditional rice in response	The International Society for Ecological Global Conference 2017  Jeju Island, South Korea 17 <sup>th</sup> -21 <sup>st</sup> September, 2017
38.	<b>Ms M N L Fernando</b> Research Assistant Department of Physics University of Colombo Colombo 03	Stability of nano-hydroxyapatite thin films on gold surface for sensor applications: a study through nano gravimetry	EMRS 2017 Fall Meeting  Warsaw University of Technology, Poland 18 <sup>th</sup> -21 <sup>st</sup> September, 2017
39.	<b>Ms W J Nimanthika</b> Assistant Director (Research) National Plant Quarantine Service Department of Agriculture Peradeniya	Managing entry of noxious alien weeds in to Sri Lanka: Can DNA barcoding be an effective identification tool ?	The 26 <sup>th</sup> Asian - Pacific Weed Science Society Conference  Kyoto, Japan 19 <sup>th</sup> -22 <sup>nd</sup> September, 2017
40.	<b>Ms R D N Debarawatta</b> Lecturer (Probationary) Department of Horticulture and Landscape Gardening Wayamba University Makandura, Gonawila	Genetic and morphological diversity of <i>Ludwigia sedioides</i> in Sri Lanka: A potential invasive aquatic plant	26 <sup>th</sup> Asian Pacific Weed Science Society Conference  Koyota, Japan 19 <sup>th</sup> -22 <sup>nd</sup> September, 2017
41.	<b>Prof. R M G Rajapakse</b> Senior Professor Department of Chemistry University of Peradeniya Peradeniya	Research into greener transportation	7 <sup>th</sup> International Conference on Advances in Applied Science and Environmental Technology - ASET 2017  Bangkok, Thailand 23 <sup>rd</sup> -24 <sup>th</sup> September, 2017
42.	<b>Mr S P Dunuweera</b> Temporary Demonstrator Department of Chemistry University of Peradeniya Peradeniya	Cisplatin encapsulated in vaterite nanoparticles for targeted delivery and slow release	7 <sup>th</sup> International Conference on Advances in Applied Science and Environmental Technology - ASET 2017  Bangkok, Thailand 23 <sup>rd</sup> -24 <sup>th</sup> September, 2017
43.	<b>Ms E M D V Ekanayake</b> Lecturer (Temporary) Department of Zoology Faculty of Science University of Ruhuna, Matara	Occupational herbicide exposure may induce Kidney injury molecule I (KIM I) and Neutrophil Gelatinase-Associated Lipocalin (NGAL) levels in sugarcane farmers in rural Sri Lanka	29 <sup>th</sup> Annual Scientific Conference of the International Society of the International Society of Environmental Epidemiology (ISSE 2017)  The University of Sydney, Australia 24 <sup>th</sup> -28 <sup>th</sup> September, 2017

## Oral Presentations

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
44.	<b>Mr M A V J Muthugala</b> PhD Student Department of Electrical Engineering University of Moratuwa Moratuwa	Interpreting uncertain information related to relative references for improved navigational command understanding of service robots	2017 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)  Vancouver, Canada 24 <sup>th</sup> -28 <sup>th</sup> September, 2017
45.	<b>Ms U A V L Kumari</b> Research Assistant (PhD Student) Department of Zoology & Environmental Science University of Colombo Colombo 03	Selected herbal extracts as potential stimulants for human mesenchyme stem cell proliferation	2 <sup>nd</sup> International Conference on Stem Cells  Rhodes Island, Greece 27 <sup>th</sup> September - 02 <sup>nd</sup> October, 2017
46.	<b>Prof. L D J U Senarath</b> Professor in Community Medicine Faculty of Medicine University of Colombo Kynsey Rd, Colombo 08	Use of mobile phones for infant and young child feeding counselling in Sri Lankan tea estates: a feasible option for health system strengthening	IUNS 21 <sup>st</sup> International Congress of Nutrition (ICN)  Buenos Aires, Argentina 15 <sup>th</sup> -20 <sup>th</sup> October, 2017
47.	<b>Ms T K R Shashikumar</b> Post Graduate Research Student Department of Biochemistry & Molecular Biology University of Colombo Colombo 08	Validity of waist to height ratio in predicting dyslipidaemia among Sri Lankan children aged 8-9 years	IUNS 21 <sup>st</sup> International Congress of Nutrition (ICN)  Buenos Aires, Argentina 15 <sup>th</sup> -20 <sup>th</sup> October, 2017
48.	<b>Ms H A R K Jayawardana</b> Research Officer Soil and Plant Nutrition Department Rubber Research Institute of Sri Lanka Dartonfield, Agalawatte	Recycling paddy husk for improving plant growth yield and disease resistance	6 <sup>th</sup> International Conference on Recycling  Las Vega, Nevada, USA 06 <sup>th</sup> -08 <sup>th</sup> November, 2017
49.	<b>Ms N B W I Udeshika</b> Postgraduate Student Department of Mathematics University of Moratuwa Moratuwa	Temporal patterns analysis of paddy production in Sri Lanka	The 5 <sup>th</sup> Joint International Conference on New Challenges for Statistical Software: The use of R in Official Statistics (UROS 2017)  Langkawi Island, Malaysia 07 <sup>th</sup> -08 <sup>th</sup> November, 2017
50.	<b>Dr G S Y De Silva</b> Head, Department of Civil and Environmental Engineering University of Ruhuna Hapugala, Galle	Assessment method for seismic vulnerability of Old Masonry Buildings in Sri Lanka	7 <sup>th</sup> International Conference on Building Resilience Using scientific knowledge to inform policy and practice in disaster risk reduction  Bangkok, Thailand 27 <sup>th</sup> -29 <sup>th</sup> November, 2017

## Poster Presentations

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
1.	<b>Mr K D P P Gunathilake</b> Senior Lecturer Department of Food Science & Technology Wayamba University Kuliyapitiya	<i>In vitro</i> bio-accessibility and antioxidant activity of four edible green leaves	FFC's 21 <sup>st</sup> International Conference and Expo on functional foods - functional foods and bioactive compounds in health and disease: Science and practice  San Diego, CA, USA 25 <sup>th</sup> -26 <sup>th</sup> March, 2017
2.	<b>Prof. M Y U Ganehenege</b> Professor in Chemistry Department of Chemistry University of Peradeniya Peradeniya	Carbon dioxide activation and environmental bio-waste utilization for the production of industrial chemicals and biofuels	ISACS: Challenges in Inorganic Chemistry  University of Manchester, UK 10 <sup>th</sup> -13 <sup>th</sup> April, 2017
3.	<b>Ms S Y D Sarathkumara</b> MPhil Candidate Department of Microbiology Faculty of Medicine University of Peradeniya Peradeniya	Seroprevalence of leptospirosis and hantavirus infection in Girandurukotte, Sri Lanka : Chronic Kidney Disease of unknown aetiology (CKDu) patients vs Non- CKDu individuals	27 <sup>th</sup> European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) 2017  Vienna, Austria 22 <sup>nd</sup> -25 <sup>th</sup> April, 2017
4.	<b>Mr H P B K D Ramyasoma</b> Research Assistant Molecular Medicine Unit Faculty of Medicine University of Kelaniya Thalagolla Rd, Ragama	CRISPR/Cas9 mediated targeting of Dengue viral RNA to block transmission in <i>Aedes aegypti</i> mosquitoes - <i>In-silico</i> approach	Third FAO-IAEA International Conference on Area-wide Management of Insect Pests: Integrating the Sterile Insect and Related Nuclear and Other Techniques  Vienna, Austria 22 <sup>nd</sup> -26 <sup>th</sup> May, 2017
5.	<b>Ms T Sundaralingam</b> Mphil/PhD Student Institute of Biochemistry Molecular Biology and Biotechnology University of Colombo Colombo 03	Pathogenic and possibly pathogenic genetic alterations of the GH1 and GHRHR genes detected in a cohort of IGHD children in Sri Lanka	European Human Genetics Conference  Copenhagen, Denmark 27 <sup>th</sup> -30 <sup>th</sup> May, 2017
6.	<b>Mr T M M Marso</b> Research Assistant Postgraduate Institute of Science University of Peradeniya Peradeniya	Utilization of microalgae: <i>Chlorella</i> Sp. For water purification and biodiesel production; in laboratory scale	The 7 <sup>th</sup> International Conference on Algal Biomass, Biofuels and Bioproducts  Hyatt Regency, Miami, USA 20 <sup>th</sup> -21 <sup>st</sup> June, 2017
7.	<b>Dr I N Harischandra</b> Post Doctoral Fellow Centre for Biotechnology Department of Zoology University of Sri Jayawardenapura Nugegoda	Barrier to gene flow of Anopheles culicifacies sibling E for two spatially distributed clusters detected in Sri Lanka	Molecular and population biology of mosquitos and other disease vectors: vector and disease control  Kolymbari, Greece 24 <sup>th</sup> -28 <sup>th</sup> July, 2017
8.	<b>Ms K Y P D Gamage</b> Department of Biochemistry & Molecular Biology Faculty of Medicine University of Colombo	Higher rate of lipolysis in deep subcutaneous adipose tissue than in visceral adipose tissue in normal- and over-weight pregnant women: observations from a preliminary study	Consortium of Biological Sciences 2017 (ConBio 2017)  Kobe, Japan 06 <sup>th</sup> -09 <sup>th</sup> December, 2017

## Invited Lecturer

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
1.	<b>Dr R H M K Rathnayake</b> Senior Lecturer Department of Horticulture & Landscape Gardening Wayamba University of Sri Lanka Makandura, Gonawila	Sri Lanka's floriculture industry: achievements and challenges	Interantional Workshop on Diversification and Value Addition of Floriculture University of Agriculture  Pakistan 01 <sup>st</sup> -02 <sup>nd</sup> March, 2017

## Chairman of a session, Poster Presentation and Speaker & Moderator

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
1.	<b>Prof. Vijaya Kumar</b> Professor Emeritus Faculty of Science University of Peradeniya Peradeniya	Eco-environmental studies and ecological engineering  <i>Chairman of a session</i>	17 <sup>th</sup> Conference of the Science Council of Asia  Manila, Philippines 14 <sup>th</sup> -16 <sup>th</sup> June, 2017
2.	<b>Dr K M K Somaratne</b> Consultant Surgeon District Base Hospital Rikillagaskada	1. Fistulectomy and primary closure for low anal fistulae-walapone method: Offers healing with primary intention  <i>Poster Presentation</i>  2. Conservative management of appendicitis: A successful case series  <i>Poster Presentation</i>  3. Standardization of military surgical education- the role for APIMSF  <i>Speaker &amp; Moderator</i>	47 <sup>th</sup> World Congress of Surgery Basel,  Switzerland 13 <sup>th</sup> -17 <sup>th</sup> August, 2017

## OSTP Grants Awarded - 2017

No	Name & Address	Category (i.e. NSF Training Fellowship, NSF Travelling Fellowship, and NSF Training Scholarship)	Title of the Training Programme, Venue and Dates	Award Amount
1.	<b>OSTP/2017/01</b> <b>Mr M D R Perera</b> Professor Department of Botany University of Peradeniya Peradeniya	NSF Travelling Fellowship	Course in Botanical Nomenclature, Botanical Survey of India at Indian Institute of Science, Education and Research (IISER), Pune, India  09 <sup>th</sup> -12 <sup>th</sup> February, 2017	USD 757
2.	<b>OSTP/2017/02</b> <b>Dr R P Hewawasam</b> Senior Lecturer Department of Biochemistry Faculty of Medicine University of Ruhuna Karapitiya, Galle	NSF Travelling Fellowship	International Centre for Genetic Engineering and Biotechnology (ICGEB) Course on 'Mouse Genetics; model for human diseases', International Centre for Genetic Engineering and Biotechnology (ICGEB) Trieste, Italy  06 <sup>th</sup> -09 <sup>th</sup> March, 2017	USD 700
3.	<b>OSTP/2017/03</b> <b>Mr B D R Perera</b> Research Assistant Department of Biochemistry and Molecular Biology Faculty of Medicine University of Colombo	NSF Training Scholarship	Bone marrow derived mesenchymal stem cell transformation into hepatocytes, Dr Panjwani Center for Molecular Medicine and Drug Research, International Center for Chemical and Biological Sciences University of Karachi, Karachi, Pakistan  15 <sup>th</sup> February - 15 <sup>th</sup> April, 2017	USD 2,005
4.	<b>OSTP/2017/04</b> <b>Ms Dilini Bopitiya</b> Lecturer (Probationary) Division of Applied Sciences University College of Ratmalana University of Vocational Technology, Ratmalana	NSF Training Scholarship	Professional Workshop on Plastic Packaging and Shelf Life National University of Singapore, Singapore  17 <sup>th</sup> -18 <sup>th</sup> April, 2017	USD 1,721
5.	<b>OSTP/2017/05</b> <b>Dr N H Manamperi</b> Lecturer (Probationary) Department of Parasitology Faculty of Medicine University of Kelaniya P O Box 06, Thalagolla Road Ragama	NSF Training Scholarship	Proteome profiling of cutaneous leishmaniasis lesions and identifying differentially expressed proteins in sodium stibogluconate sensitive and poor responsive patients by matrix-assisted laser desorption/ionization time of flight mass spectrometry Wexner Medical Center, The Ohio State University, Ohio USA  1 <sup>st</sup> May - 30 <sup>th</sup> June, 2017	USD 3,392.50
6.	<b>OSTP/2017/06</b> <b>Prof M A K Lakshman Dissanayake</b> Research Professor National Institute of Fundamental Studies, Kandy	NSF Travelling Fellowship	The official visit as a member of the Ministerial delegation with the Hon Minister to China  23 <sup>rd</sup> -28 <sup>th</sup> July, 2017	USD 4,186

No	Name & Address	Category (i.e. NSF Training Fellowship, NSF Travelling Fellowship, and NSF Training Scholarship)	Title of the Training Programme, Venue and Dates	Award Amount
7.	<b>OSTP/2017/07</b> <b>Ms Anuga Liyanage</b> Lecturer Department of Agricultural Biology Faculty of Agriculture University of Ruhuna	NSF Training Scholarship	Greenhouse gas analysis laboratory training: establishment and operation of a greenhouse gas analysis laboratory to analyse greenhouse gas emission using novel technologies currently used in Australia Queensland University of Technology, Brisbane, Australia  20 <sup>th</sup> March - 16 <sup>th</sup> June, 2017	USD 4,371
8.	<b>OSTP/2017/09</b> <b>Dr R G Udeni Jayalal</b> Lecturer (Probationary) Department of Natural Resources Faculty of Applied Sciences Sabaragamuwa University of Sri Lanka, Belihuloya	NSF Travelling Fellowship	Natural Environment Research Council (NERC) short course on Taxonomic Principles and Tools in Botanical Research (Lichens), Natural History Museum, London, United Kingdom  06 <sup>th</sup> -10 <sup>th</sup> March, 2017	USD 528
9.	<b>OSTP/2017/10</b> <b>Dr Gamini Piyadasa</b> Senior Research Scientist Sri Lanka Institute of Nanotechnology (SLINTEC) Mahenwatte, Pitipana Homagama	NSF Training Fellowship	45 <sup>th</sup> International Exhibition of Inventions - Geneva; Study Visit to CERN, The Swiss Federal Government The State and City of Geneva, CERN, Switzerland  29 <sup>th</sup> March - 2 <sup>nd</sup> April, 2017	USD 4,534
10.	<b>OSTP/2017/13</b> <b>Ms W R L H Jansz</b> Deputy Director Central Environment Authority, 104 Denzil Kobbekaduwa Mawatha, Battaramulla	NSF Training Fellowship	Training on the Air Dispersion Models - AERMOD Air dispersion Modeling Tool Lakes Environmental Inc., London UK  03 <sup>rd</sup> -06 <sup>th</sup> April, 2017	USD 2,022.40
11.	<b>OSTP/2017/14</b> <b>Prof Suresh P Benjamin</b> Senior Lecturer Head of Department Ecology Evolution and Biodiversity National Institute of Fundamental Studies (NIFS) Hantana Road, Kandy Sri Lanka	NSF Training Fellowship	Humboldt Research Fellowship - Advanced Training in Electron Microscopy, Molecular Cloning Techniques and Next Generation Sequencing Zoological Research Museum Alexander Konenig, Bonn Adenauer Allee 160, Germany  01 <sup>st</sup> May - 30 <sup>th</sup> July, 2017	USD 556
12.	<b>OSTP/2017/15</b> <b>Ms P G D S Amarasena</b> Research Officer Entomology and Nematology Division Tea Research Institute Talawakele	NSF Training Scholarship	Determination of Impacts of Soil Temperature Regimes on Population Dynamics of <i>Pratylenchus loosi</i> in Tea Plantations of Sri Lanka State Agricultural Biotechnology Centre (SABC), Murdoch University, Perth, Australia  01 <sup>st</sup> June - 30 <sup>th</sup> September, 2017	USD 4,479

No	Name & Address	Category (i.e. NSF Training Fellowship, NSF Travelling Fellowship, and NSF Training Scholarship)	Title of the Training Programme, Venue and Dates	Award Amount
13.	<b>OSTP/2017/18</b> <b>Ms Cinthuja Pathmanathan</b> Lecturer (Probationary) Department of Allied Health Sciences Faculty of Medicine University of Colombo	NSF Training Scholarship	Human Movement Analysis VU Amsterdam Summer School, Amsterdam, The Netherlands  22 <sup>nd</sup> July - 05 <sup>th</sup> August, 2017	USD 3,587
14.	<b>OSTP/2017/19</b> <b>Mr Sandun Illangasinghe</b> Research Officer (Geologist), Regional Office Gem and Jewellery Research and Training Institute Hidellana, Ratnapura	NSF Training Scholarship	Training on Mineral Processing and Beneficiation MINTEK, Randburg, Johannesburg, South Africa  15 <sup>th</sup> May - 04 <sup>th</sup> August, 2017	USD 1,000.07
15.	<b>OSTP/2017/20</b> <b>Prof W D G Dharmarathne</b> Senior Professor of Physics Faculty of Technology University of Ruhuna Welimadama, Matara	NSF Travelling Fellowship	The Official Visit to the European Organization for Nuclear Research (CERN) Switzerland as a Member of the Official Ministerial Delegation to Switzerland  02 <sup>nd</sup> -07 <sup>th</sup> May, 2017	USD 3,180
16.	<b>OSTP/2017/21</b> <b>Prof P Ravirajan</b> Professor of Physics Department of Physics Faculty of Science University of Jaffna, Jaffna	NSF Travelling Fellowship	The Official Visit to the European Organization for Nuclear Research (CERN) Switzerland as a Member of the Official Ministerial Delegation to Switzerland  02 <sup>nd</sup> -07 <sup>th</sup> May, 2017	USD 3,180
17.	<b>OSTP/2017/22</b> <b>Prof S R D Rosa</b> Professor of Physics Department of Physics Faculty of Science University of Colombo Colombo	NSF Travelling Fellowship	The Official Visit to the European Organization for Nuclear Research (CERN) Switzerland as a Member of the Official Ministerial Delegation to Switzerland  02 <sup>nd</sup> -07 <sup>th</sup> May, 2017	USD 3,180
18.	<b>OSTP/2017/23</b> <b>Prof Upul J Sonnadara</b> Senior Professor of Physics Department of Physics Faculty of Science University of Colombo Colombo	NSF Travelling Fellowship	The Official Visit to the European Organization for Nuclear Research (CERN) Switzerland as a Member of the Official Ministerial Delegation to Switzerland  02 <sup>nd</sup> -07 <sup>th</sup> May, 2017	USD 3,180
19.	<b>OSTP/2017/24</b> <b>Dr U M Aruna Kumara</b> Lecturer (Probationary) University College of Anuradhapura University of Vocational Technology, Sri Lanka No. 328, Vidyala Mawatha Anuradhapura	NSF Training Fellowship	Postharvest Technology Short Course Postharvest Technology Centre, University of California, Davis, California, USA  19 <sup>th</sup> -30 <sup>th</sup> June, 2017	

No	Name & Address	Category (i.e. NSF Training Fellowship, NSF Travelling Fellowship, and NSF Training Scholarship)	Title of the Training Programme, Venue and Dates	Award Amount
20.	<b>OSTP/2017/25</b> <b>Dr M L C Attygalle</b> Senior Lecturer Department of Physics Faculty of Applied Sciences University of Sri Jayawardenapura Nugegoda	NSF Travelling Fellowship	The Official Visit to the European Organization for Nuclear Research (CERN) Switzerland as a Member of the Official Ministerial Delegation to Switzerland 02 <sup>nd</sup> -07 <sup>th</sup> May, 2017	USD 3,180
21.	<b>OSTP/2017/26</b> <b>Dr M C M Iqbal</b> Associate Research Professor Plant & Environmental Sciences National Institute of Fundamental Studies (NIFS) Hantana Road, Kandy	NSF Training Fellowship		
22.	<b>OSTP/2017/27</b> <b>Dr R M Dharmadasa</b> Research Fellow Industrial Technology Institute MRDC, Halbarawa Garden Thalahena, Malabe	NSF Training Fellowship		
23.	<b>OSTP/2017/28</b> <b>Mr H M D A K Herath</b> Lecturer Department of Plant Science Rajarata University of Sri Lanka, Anuradhapura	NSF Training Scholarship	International Centre for Genetic Engineering and Biotechnology (ICGEB) organized course, Bioinformatics: Computer Methods in Molecular and Systems Biology ICGEB, Trieste, Italy 26 <sup>th</sup> -30 <sup>th</sup> June, 2017	USD 904
24.	<b>OSTP/2017/29</b> <b>Dr D M Suratissa</b> Museum Curator Department of Zoology & Environmental Sciences University of Colombo Colombo 03	NSF Travelling Fellowship	Comite International Pour La Documentation Summer School and Extended Training Workshops 2017 : Museum Documentation Theory and Practice Museum of Texas Tech University Texas, USA 13 <sup>th</sup> -22 <sup>nd</sup> July, 2017	USD 6,752
25.	<b>OSTP/2017/30</b> <b>Dr R G Puhulwella</b> Senior Lecturer Department of Chemical and Process Engineering University of Moratuwa Moratuwa	NSF Training Fellowship	International Research Collaboration to Improve Efficiency of Dry Anaerobic Digestion Technology for Treatment of Organic Fraction of Municipal Solid Wastes, Environmental Biotechnology Laboratory National Institute for Agronomic Research (INRA), Narbonne, France 25 <sup>th</sup> July - 01 <sup>st</sup> August, 2017	USD 4,470

No	Name & Address	Category (i.e. NSF Training Fellowship, NSF Travelling Fellowship, and NSF Training Scholarship)	Title of the Training Programme, Venue and Dates	Award Amount
26.	<b>OSTP/2017/31</b> <b>Dr M K D K Piyaratne</b> Senior Lecturer Computer Unit Faculty of Agriculture University of Ruhuna Kamburupitiya	NSF Travelling Fellowship	International Training Course on Technology of Cloud Computing for Food Safety Guizhou Academy of Sciences, China  12 <sup>th</sup> -26 <sup>th</sup> July, 2017	USD 756
27.	<b>OSTP/2017/35</b> <b>Dr Maduka de Lanerolle - Dias</b> Senior Lecturer Department of Biochemistry and Molecular Biology University of Colombo Colombo 08	NSF Travelling Fellowship	WHO/Cochrane/Cornell University Summer Institute for Systematic Review in Nutrition for Global Policy Making Cornell University, New York, USA  24 <sup>th</sup> July - 08 <sup>th</sup> August, 2017	USD 3,472
28.	<b>OSTP/2017/36</b> <b>Dr Sudarshanee Geekiyanage</b> Senior Lecturer Department of Agricultural Biology University of Ruhuna Kamburupitiya	NSF Travelling Fellowship	Joint ICGEB-ICTP-APCTP Workshop on Systems Biology and Molecular Economy of Microbial Communities Abdus Salam International Centre for Theoretical Physics, Italy  03 <sup>rd</sup> -07 <sup>th</sup> July, 2017	USD 1,072
29.	<b>OSTP/2017/37</b> <b>Dr P V S C Vithana</b> Consultant Community Physician Family Health Bureau Ministry of Health and Indigenous Medicine Colombo 10	NSF Training Fellowship	Principles and Practice of Cancer Prevention and Control Course National Cancer Institute, National Institute of Health , Maryland, USA  10 <sup>th</sup> July - 4 <sup>th</sup> August, 2017	USD 948
30.	<b>OSTP/2017/38</b> <b>Dr Milinda R Withana</b> Senior Registrar Cardiology Institute of Cardiology National Hospital of Sri Lanka, Colombo 10	NSF Training Scholarship	Observer ship at Texas Heart Institute Houston, Texas, USA  14 <sup>th</sup> August - 22 <sup>nd</sup> October, 2017	USD 6,460
31.	<b>OSTP/2017/39</b> <b>Dr Chamindri Witharana</b> Senior Lecturer Department of Biochemistry and Molecular Biology University of Colombo Colombo 08	NSF Training Scholarship	3 <sup>rd</sup> Worldwide Meeting of Young Academics South African Young Academy of Science (SAYAS), Johannesburg South Africa  19 <sup>th</sup> -21 <sup>st</sup> July, 2017	
32.	<b>OSTP/2017/40</b> <b>Prof. W G D Dharmaratna</b> Senior Professor/Dean Faculty of Technology University of Ruhuna Wellamadama, Matara	NSF Training Fellowship	High Energy Physics Instrumentation Workshop Kathmandu, Nepal  20 <sup>th</sup> -21 <sup>st</sup> June, 2017	USD 1,128

No	Name & Address	Category (i.e. NSF Training Fellowship, NSF Travelling Fellowship, and NSF Training Scholarship)	Title of the Training Programme, Venue and Dates	Award Amount
33.	<b>OSTP/2017/41</b> <b>Prof. Upul J Sonnadara</b> Senior Professor Department of Physics University of Colombo Colombo 03	NSF Travelling Fellowship	High Energy Physics Instrumentation Workshop Kathmandu, Nepal 20 <sup>th</sup> -21 <sup>st</sup> June, 2017	USD 1,128
34.	<b>OSTP/2017/42</b> <b>Prof. A A P de Alwis</b> Project Director Coordinating Secretariat for Science, Technology and Innovation Battaramulla	NSF Travelling Fellowship	High Energy Physics Instrumentation Workshop Kathmandu, Nepal 20 <sup>th</sup> -21 <sup>st</sup> June, 2017	
35.	<b>OSTP/2017/43</b> <b>Dr Nadeesha M Wickramage</b> Senior Lecturer Department of Physics University of Ruhuna Wellamadama, Matara	NSF Travelling Fellowship	High Energy Physics Instrumentation Workshop Kathmandu, Nepal 20 <sup>th</sup> -21 <sup>st</sup> June, 2017	USD 1,128
36.	<b>OSTP/2017/45</b> <b>Ms C S Munasinghe</b> Department of Zoology University of Peradeniya Peradeniya	NSF Training Scholarship	Temporary internship to investigate the socioeconomic drivers of marine resource decline sustainable places research Institute of Cardiff University, UK 20 <sup>th</sup> October - 20 <sup>th</sup> December, 2017	USD 6,325
37.	<b>OSTP/2017/46</b> <b>Dr Sachie Panawala</b> Project Scientist Coordinating Secretariat for Science Technology and Innovation Battaramulla	NSF Travelling Fellowship	1 <sup>st</sup> Joint workshop based on the Memorandum of Understanding (MoU) between the National Science Foundation, Sri Lanka and the National Natural Science Foundation, China Beijing, China 04 <sup>th</sup> -07 <sup>th</sup> July, 2017	USD 1,114
38.	<b>OSTP/2017/49</b> <b>Dr H M Y C Mallikarachchi</b> Senior Lecturer Department of Civil Engineering University of Moratuwa Moratuwa	NSF Training Fellowship	Training on Ultralight Deployable Structures California Institute of Technology, USA 20 <sup>th</sup> October - 20 <sup>th</sup> December, 2017	USD 3,854
39.	<b>OSTP/2017/50</b> <b>Dr W M P B Weerasinghe</b> Veterinary Research Officer Veterinary Research Department, Gannoruwa Peradeniya	NSF Travelling Fellowship	Short Term Training on in vitro Gas Fermentation Technique University of Hohenheim, Germany 01 <sup>st</sup> -21 <sup>st</sup> October 2017	USD 1,957.18

## IPSAT Grants Awarded - 2017

No	Name & Institution	Title of the Training Programme, Venue and Dates
1.	<b>Prof. S S N Fernando</b> University of Sri Jayewardenepura	Annual Scientific Sessions of Faculty of Medical Sciences, University of Sri Jayewardenepura  24 <sup>th</sup> -25 <sup>th</sup> May, 2017
2.	<b>Dr H S Kathriarachchi</b> Institute of Biology resource person of the National Symposium:	“Understanding and Conserving Biodiversity: The use of Ecological, Phylogenetic and Evolutionary Relationships”  26 <sup>th</sup> May 2017, Colombo
3.	<b>Prof. Chandrika N Wijeyaratne</b> Sri Lanka Medical Association	The 130 <sup>th</sup> Anniversary International Medical Congress 2017, Sri Lanka Medical Association  13 <sup>th</sup> -16 <sup>th</sup> July 2017, Colombo
4.	<b>Dr R S Jayakody</b> University of Sri Jayawardanepura	Resource persons of the 3 <sup>rd</sup> International Symposium on Polymer Science and Technology 2017  13 <sup>th</sup> -15 <sup>th</sup> July, 2017
5.	<b>Dr Prasanna Premadasa</b> General Sir John Kotelawala Defence University	The workshop on “Expanding Access to Healthcare through Bioengineering Advances”  2 <sup>nd</sup> August, 2017
6.	<b>Dr K P P Peiris</b> Gampaha Wickremarachchi Ayurveda Institute	Resource person of the International Conference on Salakya Tantra  15 <sup>th</sup> -17 <sup>th</sup> September, 2017
7.	<b>Prof. D M S H K Ranasinghe</b> University of Sri Jayawardanepura	The 4 <sup>th</sup> International Conference of Multidisciplinary Approaches  20 <sup>th</sup> -22 <sup>nd</sup> September, 2017
8.	<b>Dr Himali Samaraweera</b> University of Peradeniya	The 29 <sup>th</sup> Annual Congress of the Postgraduate Institute of Agriculture, University of Peradeniya, Kandy  16 <sup>th</sup> -17 <sup>th</sup> November, 2017
9.	<b>Eng. Vethanayagam Regunathan</b>	The 73 <sup>rd</sup> Annual Sessions of the SLAAS  4 <sup>th</sup> -8 <sup>th</sup> December, 2017
10.	<b>Prof. Lalith Jayasinghe</b> National Institute of Fundamental Studies	The 1 <sup>st</sup> Sri Lanka ANRAP Regional Seminar (ANRAPSL1) on Herbal Approaches in Combating Diabetes and Common Tropical Disease  17 <sup>th</sup> -19 <sup>th</sup> January, 2018
11.	<b>Prof. Guttila Yugantha Jayasinghe</b> University of Ruhuna	The 8 <sup>th</sup> International Symposium on Agriculture and Environment (ISAE 2018)  17 <sup>th</sup> January, 2018

## Staff Involvement in Awareness & Knowledge Enhancement and Process Improvement Activities (Local) - 2017

No	Programme	Duration	Staff Participation
<b>Short Term</b>			
1.	Training on Annual Board of Survey Skills Development Fund Ltd (SDFL)	02 <sup>nd</sup> March, 2017	<b>Ms Upuli Rathnayake</b> Scientific Officer
2.	Training on Annual Board of Survey Skills Development Fund Ltd (SDFL)	02 <sup>nd</sup> March, 2017	<b>Ms Nadeeja Wickremarachchi</b> Senior Scientific Officer
3.	Workshop on University – IPPolicy	24 <sup>th</sup> - 27 <sup>th</sup> April, 2017	<b>Ms Nadeeja Wickremarachchi</b> Senior Scientific Officer
4.	Training workshop on Leadership and Career Management	29 <sup>th</sup> May, 2017	<b>Ms Nadeeja Wickremarachchi</b> Senior Scientific Officer
5.	National workshop on IP Management and Commercialization for Technology Managers, Colombo	30 <sup>th</sup> October - 01 <sup>st</sup> November	<b>Ms Nadeeja Wickremarachchi</b> Senior Scientific Officer
6.	Workshop on Research Management	28 <sup>th</sup> November	<b>Ms Nadeeja Wickremarachchi</b> Senior Scientific Officer
7.	National workshop on IP Management and Commercialization for Technology Managers, Colombo	30 <sup>th</sup> October - 01 <sup>st</sup> November	<b>Mr J G Shantha Siri</b> Principal Scientific Officer
8.	Energy Management	09 <sup>th</sup> - 10 <sup>th</sup> November	<b>Mr J G Shantha Siri</b> Principal Scientific Officer
9.	Workshop on new innovations and future directions of indigenous medicines and herbal products sri lanka association for the advancement of science (SLAAS)	03 <sup>rd</sup> April, 2017	<b>Ms Nadeeja Wickremarachchi</b> Senior Scientific Officer
10.	Workshop on new innovations and future directions of indigenous medicines and herbal products sri lanka association for the advancement of science (SLAAS)	03 <sup>rd</sup> April, 2017	<b>Ms Upuli Rathnayake</b> Scientific Officer
11.	Workshop on new innovations and future directions of indigenous medicines and herbal products sri lanka association for the advancement of science (SLAAS)	03 <sup>rd</sup> April, 2017	<b>Ms Suchima Gonapinuwala</b> Scientific Officer
12.	Innovation Strategy and Learning Event Ceylon Chamber of Commerce	24 <sup>th</sup> March, 2017	<b>Ms Suchima Gonapinuwala</b> Scientific Officer
13.	Programme on “How to Become a Productive Leader” National Institute of Labour Studies (NILS)	03 <sup>rd</sup> April, 2017	<b>Mrs Thilinakumari Kandanamulla</b> Scientific Officer
14.	Leadership and Team Building National Institute of Labour Studies (NILS)	3 <sup>rd</sup> -5 <sup>th</sup> April, 2017	<b>Ms Priyanwatha Warakagoda</b> Scientific Officer
15.	National Conference on Library and Information Sciences (NACLIS - 2017) Sri Lanka Library Association (SLLA)	29 <sup>th</sup> June, 2017	<b>Mrs Hemamali Priyadarshani</b> Library Assistant
16.	Public Property PRAG Institute (Pvt) Ltd	24 <sup>th</sup> August, 2017	<b>Mr K K Yohan Chandeera</b> Book Keeper

No	Programme	Duration	Staff Participation
17.	Public Property PRAG Institute (Pvt) Ltd	24 <sup>th</sup> August, 2017	<b>Mr E M D C B Ekanayake</b> Management Assistant
18.	Advance functions of MS Excel Distance Learning Centre Ltd (DLC)	21 <sup>st</sup> -22 <sup>nd</sup> September, 2017	<b>Ms H A Kanthi</b> Management Assistant
19.	Advanced Functions of MS Excel Distance Learning Centre Ltd (DLC)	21 <sup>st</sup> -22 <sup>nd</sup> September, 2017	<b>Ms Ayomi Palihawadana</b> Confidential Secretary
20.	Training Needs Analysis Skills Development Fund Ltd (SDFL)	26 <sup>th</sup> -27 <sup>th</sup> September, 2017	<b>Dr P R M P Dilrukshi</b> Serior Scientific Officer
21.	Financial Statements Final Accounts PRAG Institute (Pvt) Ltd	12 <sup>th</sup> June, 2017	<b>Mrs Priyanka Bamunendra</b> Accountant
22.	Financial Statements Final Accounts PRAG Institute (Pvt) Ltd	12 <sup>th</sup> June, 2017	<b>Mr K K Yohan Chandeeera</b> Book Keeper
23.	Financial Statements Final Accounts PRAG Institute (Pvt) Ltd	12 <sup>th</sup> June, 2017	<b>Mrs Pushpa Ellapallage</b> Book keeper
24.	Training Programme on Personality and Leadership Development Skills Development Funds Ltd (SDFL)	21 <sup>st</sup> -22 <sup>nd</sup> September, 2017	<b>Mrs Dilrukshi Ekanayake</b> Scientific Officer
25.	Music Therapy for Stress Relief Skills Development Funds Ltd (SDFL)	9 <sup>th</sup> October, 2017	<b>Ms Chamarika Samarasinghe</b> Management Assistant
26.	Music Therapy for Stress Relief Skills Development Funds Ltd (SDFL)	9 <sup>th</sup> October, 2017	<b>Mrs Chandima Samarasinghe</b> Management Assistant
27.	Music Therapy for Stress Relief Skills Development Funds Ltd (SDFL)	9 <sup>th</sup> October, 2017	<b>Mrs Buddhi Wickremasinghe</b> Procurement & Transport Officer
28.	Music Therapy for Stress Relief Skills Development Funds Ltd (SDFL)	9 <sup>th</sup> October, 2017	<b>Mrs Radeesha Millawithana</b> Management Assistant
29.	Music Therapy for Stress Relief Skills Development Funds Ltd (SDFL)	9 <sup>th</sup> October, 2017	<b>Mrs Rukshani Pathirana</b> Management Assistant
30.	Attitude & Professional Development of Drivers Skills Development Fund Ltd (SDFL)	13 <sup>th</sup> -14 <sup>th</sup> October, 2017	<b>Mr R P C Janaka Perera</b> Driver  <b>Mr Anurasiri Dias</b> Driver
31.	Internal Auditing and Internal Control Methods Skills Development Fund Ltd (SDFL)	9 <sup>th</sup> -10 <sup>th</sup> November, 2017	<b>Mrs R M M Jayajewani</b> Internal Audit Officer
32.	Special Lecture on Customer Care  National Human Resources Development Council of Sri Lanka (NHRDC)	06 <sup>th</sup> January, 2017	<b>Ms Priyanwada Warakagoda</b> Scientific Officer
33.	Special Lecture on Customer Care  National Human Resources Development Council of Sri Lanka (NHRDC)	06 <sup>th</sup> January, 2017	<b>Mrs Erosha Edirisinghe</b> Management Assistant

No	Programme	Duration	Staff Participation
34.	Azure Discovery Day Microsoft Sri Lanka (Pvt)Ltd	14 <sup>th</sup> March, 2017	<b>Mr Asela Fernando</b> Network Administrator
35.	Azure Discovery Day Microsoft Sri Lanka (Pvt) Ltd	14 <sup>th</sup> March, 2017	<b>Mr Madhawa Perera</b> IT Manager
36.	National Patent Drafting Course National Intellectual Property Office of Sri Lanka (NIPO)	24 <sup>th</sup> -28 <sup>th</sup> July, 2017	<b>Ms D N Wickramarachchi</b> Senior Scientific Officer
37.	National Patent Drafting Course National Intellectual Property Office of Sri Lanka (NIPO)	24 <sup>th</sup> -28 <sup>th</sup> July, 2017	<b>Ms Priyanwada Warakagoda</b> Scientific Officer
38.	National Workshop on IP Management and commercialization for Technology Managers, Colombo	30 <sup>th</sup> Oct-01 <sup>st</sup> November, 2017	<b>Ms Priyanwada Warakagoda</b> Scientific Officer
39.	Workshop on "Implementation of the National Biosafety Framework in accordance with the Cartagena Protocol on Biosafety	29 <sup>th</sup> -30 <sup>th</sup> August, 2017	<b>Dr Gowry Moorthy</b> Senior Scientific Officer
40.	Climate Change Lakshman Kadiragamar Institute	28 <sup>th</sup> August, 2017	<b>Mrs Upuli Rathnayake</b> Scientific Officer
41.	Climate Change Lakshman Kadiragamar Institute	28 <sup>th</sup> August, 2017	<b>Mrs Udeshika Nanayakkara</b> Research Assistant
42.	4 <sup>th</sup> International Conference on Multidisciplinary Approaches 2017 University of Sri Jayewardenepura & Ministry of Science Technology and Research (MSTR)	20 <sup>th</sup> -22 <sup>nd</sup> September, 2017	<b>Ms Chamika Dharmasena</b> Scientific Officer
43.	4 <sup>th</sup> International Conference on Multidisciplinary Approaches 2017 University of Sri Jayewardenepura & Ministry of Science Technology and Research (MSTR)	20 <sup>th</sup> -22 <sup>nd</sup> September, 2017	<b>Ms Mahesha Nadugala</b> Scientific Officer
44.	Good Governance and Role of the Public Service National Human Resources Development Council (NHRDC)	4 <sup>th</sup> October, 2017	<b>Ms Surani Ediriweera</b> Scientific Officer
45.	Good Governance and Role of the Public Service National Human Resources Development Council (NHRDC)	4 <sup>th</sup> October, 2017	<b>Mrs Sobitha Wijenayake</b> Confidential Secretary
46.	Workshop on IP Policy formulation	11 <sup>th</sup> -12 <sup>th</sup> September, 2017	<b>Dr Gowry Moorthy</b> Senior Scientific Officer
47.	Workshop on IP Policy formulation	11 <sup>th</sup> -12 <sup>th</sup> September, 2017	<b>Ms Dilani Jayaweera</b> Scientific Officer
48.	Workshop on IP Policy formulation	11 <sup>th</sup> -12 <sup>th</sup> September, 2017	<b>Ms Nadeeja Wickremarachchi</b> Senior Scientific Officer
49.	Workshop on IP Policy formulation	11 <sup>th</sup> -12 <sup>th</sup> September, 2017	<b>Ms Priyanwada Warakagoda</b> Scientific Officer
50.	Scientist role in S&T innovation for National Economic Development current status and future trends in the NSC of IK and Mineral Resources Sri Lanka Association for the Advancement of Science (SLAAS)	15 <sup>th</sup> September, 2017	<b>Mrs Dilushi Munasinghe</b> Scientific Officer

No	Programme	Duration	Staff Participation
51.	Scientist role in S&T innovation for National Economic Development current status and future trends in the NSC of IK and Mineral Resources Sri Lanka Association for the Advancement of Science (SLAAS)	15 <sup>th</sup> September, 2017	<b>Ms Priyanwada Warakagoda</b> Scientific Officer
52.	Workshop on Personality and Leadership development Skills development Fund Ltd (SDFL)	21 <sup>st</sup> -22 <sup>nd</sup> September, 2017	<b>Mrs Dilrulshi Ekanayake</b> Scientific Officer
53.	Workshop on Personality and Leadership development Skills development Fund Ltd (SDFL)	21 <sup>st</sup> -22 <sup>nd</sup> September, 2017	<b>Ms Maduka Senaratne</b> Scientific Officer
54.	Mapping out value chain for development of a seaweed industry in Sri Lanka Sri Lanka Institute of Nano Technology (SLINTEC)	2 <sup>nd</sup> May, 2017	<b>Mrs Pavani Abeysiri</b> Scientific Officer
55.	Practical Aspects of Bid Evaluation Skills Development Fund Ltd (SDFL)	24 <sup>th</sup> -25 <sup>th</sup> November, 2017	<b>Ms Priyanwada Warakagoda</b> Scientific Officer
56.	Seminar on Frontiers in Agrichemicals Institute of Chemistry Ceylon (ICC)	29 <sup>th</sup> November, 2017	<b>Mrs Pavani Abeysiri</b> Scientific Officer
57.	Seminar on Frontiers in Agrichemicals Institute of Chemistry Ceylon (ICC)	29 <sup>th</sup> November, 2017	<b>Ms Priyanwada Warakagoda</b> Scientific Officer
58.	කාර්යාල කාර්ය සහයක නිලධාරීන්ගේ වගකීම් සහ කාර්යභාරය Skills Development Fund Ltd (SDFL)	19 <sup>th</sup> -20 <sup>th</sup> December, 2016	<b>Mr Suranga Cooray</b> Office Aide
59.	Motivation & Team Building Program Life Skill Academy (LSA)		<b>All Staff</b>
60.	Procurement workshop National science Foundation (NSF)	29 <sup>th</sup> January, 2017	<b>HM, AR, MM, JM &amp; MA</b> categories of Staff
61.	Planning and Plate Making Sri Lanka Institute of Printing (SLIP)	10 <sup>th</sup> July - 16 <sup>th</sup> October, 2017	<b>Mr Ranil Kumara De Silva</b> Plate Maker
<b>Long Term</b>			
1.	PT Session	Every Wednesday for 1 ½ hours	<b>Group Training for the entire staff</b>
2.	English language proficiency	Every Monday for one hour at two sessions	<b>Group Training for the entire staff</b>
3.	Graphic Designing Course Wijeya Graphics (Pvt) Ltd	January, 2017 - April, 2017	<b>Mr Madunka Kottahachchi</b> Graphic Design Assistant
4.	Book Binding and Finishing Sri Lanka Institute of Printing (SLIP)	06 <sup>th</sup> April, 2017 - January 2018	<b>Mr Sandun Darshana Fernando</b> Printing Attendant
5.	Offset - Lithography Sri Lanka Institute of Printing (SLIP)	Commenced on April, 2017 Every Thursday 5-8 p.m.	<b>Mr S M Amarathunga</b> Machine Operator
6.	Advanced Certificate Course of Transport Management Construction Equipment Training Centre (CETC)	11 <sup>th</sup> August, 2017 - November, 2017	<b>Mr Saman Sujeewa</b> Management Assistant

<b>No</b>	<b>Programme</b>	<b>Duration</b>	<b>Staff Participation</b>
7.	PhD in Nanotechnology and R&D commercialization Wayamba University of SL	January, 2016 – May, 2017	<b>J G Shantha Siri</b> Principal Scientific Officer
8.	Master in Library & information Science (MLS) National Institute of Library and Information science (NILIS)	22 <sup>nd</sup> October, 2016 - October, 2017 1 year	<b>Mr C A B Wickremasinghe</b> Library Assistant
9.	MSc, Open University	December, 2015 – December, 2017	<b>Ms Dilani Jayaweera</b> Scientific Officer
10.	Postgraduate Diploma in Applied Sociology University of Colombo	November, 2016 – 2017  1 year Completed	<b>Mrs Chamika Dharmasena</b> Scientific Officer
11.	PhD (Bio-Medical Sciences) General Sri John Kotelawala Defence University	July, 2014 - July, 2017	<b>Ms Mahesha Nadugala</b> Scientific Officer

## Staff Involvement in Awareness & Knowledge Enhancement and Process Improvement Activities (Foreign) - 2017

No	Programme, Country & Duration	Awarding Agency	Staff Participation
<b>Staff Development</b>			
1.	President's Summit - IP Hub Project 19 <sup>th</sup> - 24 <sup>th</sup> June, 2017, South Korea	World Intellectual Property Organization	<b>Ms Nadeeja Wickremaarachchi</b> Senior Scientific Officer
2.	President's Summit - IP Hub Project 19 <sup>th</sup> - 24 <sup>th</sup> June, 2017, South Korea	World Intellectual Property Organization	<b>Dr Thamara F Dias</b> Principal Scientific Officer
3.	AAA-TWAS Summer Course on Science Diplomacy 20 <sup>th</sup> -27 <sup>th</sup> August, 2017, Trieste, Italy	ICPT & NSF	<b>Ms Thilinakumari Kandanamulla</b> Scientific Officer
4.	WIPO Distance Learning Course - General Course on Intellectual Property - DL 101 October - November, 2017	World Intellectual Property Organization	<b>Ms Nadeeja Wickremaarachchi</b> Senior Scientific Officer
5.	WIPO Distance Learning Course on IP Management - DL September - December, 2017	World Intellectual Property Organization	<b>Ms Priyanwada Warakagoda</b> Scientific Officer
6.	MSc (Food Analysis) Graduate school of Bio resources & Bio-environmental Sciences Kyushu University, Japan 1 <sup>st</sup> October, 2015 - 01 <sup>st</sup> October, 2017	Japan	<b>Mr Dilan Rasika Disanayke</b> Scientific Officer
7.	General Course on Intellectual Property WIPO Distance Learning Course 21 <sup>st</sup> - 22 <sup>nd</sup> September, 2017	DL Course	<b>Ms Nadeeja Wickremaarachchi</b> Senior Scientific Officer
8.	PhD (Carbon Management & Bio Resources - Life Cycle Assessment) University of Southern, March, 2015 - 2017	Denmark	<b>Ms W L C Dasanayake</b> Scientific Officer
<b>Official Representation of NSF</b>			
1.	Sakura Programme 19 <sup>th</sup> -25 <sup>th</sup> February, 2017, Japan	JST, Japan	<b>Ms Dilrukshi Ekanayake</b> Scientific Officer
2.	Sakura Programme 19 <sup>th</sup> -25 <sup>th</sup> February, 2017, Japan	JST, Japan	<b>Ms Maduka Senarathne</b> Scientific Officer
3.	23 <sup>rd</sup> Session of the ICGB Board of Governors 14 <sup>th</sup> -19 <sup>th</sup> May, 2017, Italy	NSF	<b>Dr S A V Moorthy</b> Senior Scientific Officer
4.	"Trade, Science, Technology and Innovation and capacity Building" at the ECOSOC Forum 22 <sup>nd</sup> -25 <sup>th</sup> May, 2017	USA	<b>Prof. Sirimali Fernando</b> Chairperson/NSF
5.	6 <sup>th</sup> Annual Meeting of the Heads of Research councils of the GRC 29 <sup>th</sup> -31 <sup>st</sup> May 2017, Canada	NSF	<b>Prof. Sirimali Fernando</b> Chairperson/NSF
6.	6 <sup>th</sup> Annual Meeting of the Heads of Research councils of the GRC 29 <sup>th</sup> -31 <sup>st</sup> May 2017, Canada	NSF	<b>Mr S M A W Anuruddha</b> Senior Scientific Officer

No	Programme, Country & Duration	Awarding Agency	Staff Participation
7.	1 <sup>st</sup> Joint Workshop between NSF and NSFC 4 <sup>th</sup> -7 <sup>th</sup> July, 2017, Beijing, China	NSFC & NSF	<b>Ms K A T K G Kandanamulla</b> Scientific Officer
8.	1 <sup>st</sup> Joint Workshop between NSF & NSFC and Symposium on Funding Science & People Cooperation for Prosperous Belt and Road, NSF & NSFC 1 <sup>st</sup> -8 <sup>th</sup> July, 2017, China	NSF	<b>Prof. Sirimali Fernando</b> Chairperson/NSF
9.	1 <sup>st</sup> Joint Workshop between NSF & NSFC and Symposium on Funding Science & People Cooperation for Prosperous Belt and Road, NSF & NSFC 1 <sup>st</sup> -8 <sup>th</sup> July, 2017, China	NSFC & NSF	<b>Mr S M A W Anuruddha</b> Principal Scientific Officer
10.	2 <sup>nd</sup> Joint Workshop between NSF and Pakistan Science Foundation 14 <sup>th</sup> -16 <sup>th</sup> September, 2017, Pakistan	Pakistan Science Foundation & NSF	<b>Prof. Sirimali Fernando</b> Chairperson/NSF
11.	2 <sup>nd</sup> Joint Workshop between NSF and Pakistan Science Foundation 14 <sup>th</sup> -16 <sup>th</sup> September, 2017, Pakistan	Pakistan Science Foundation & NSF	<b>Dr C G Yapa</b> Principal Scientific Officer
12.	2 <sup>nd</sup> Joint Workshop between NSF Sri Lanka & Pakistan Science Foundation (PSF) 14 <sup>th</sup> -16 <sup>th</sup> September, 2017, Pakistan	Pakistan Science Foundation & NSF	<b>Mr S M A W Anuruddha</b> Principal Scientific Officer
13.	7 <sup>th</sup> Annual Global Research Alliance Council meeting (GRA) - on invitation by the organizers 29 <sup>th</sup> August, 2017 - 1 <sup>st</sup> September, 2017, Japan	GRA /Japan & NSF	<b>Dr Thamara F Dias</b> Director General (Covering)
14.	3 <sup>rd</sup> International Journal online Management Meeting 3 <sup>rd</sup> -8 <sup>th</sup> September, 2017, Kathmandu, Nepal	INASP & NSF	<b>Ms Amila Thennakoon</b> Senior Information Officer
15.	3 <sup>rd</sup> International Journal online Management Meeting 3 <sup>rd</sup> -8 <sup>th</sup> September, 2017, Kathmandu, Nepal	INASP & NSF	<b>Mr Asanga Indrajith Ahangama</b> Library Assistant
16.	14 <sup>th</sup> Annual Meeting of the STS Forum & Funding Agency President's Meeting 1 <sup>st</sup> -3 <sup>rd</sup> October, 2017, Japan	NSF	<b>Prof. Sirimali Fernando</b> Chairperson/NSF
17.	32 <sup>nd</sup> General Assembly and Associated Meetings 22 <sup>nd</sup> -25 <sup>th</sup> October, 2017, Taiwan	The ICSU & NSF	<b>Ms L M N S Nadugala</b> Scientific Officer
<b>Ministerial Nominations</b>			
1.	International Conference on Popularization of Science 4 <sup>th</sup> -6 <sup>th</sup> October, 2017, Malaysia	NSF	<b>Prof. Sirimali Fernando</b> Chairperson/NSF

## Printing Unit Number of Other Work Printed - 2017

	Job Name	Quantity
1.	Cheque Posting Covering Letters	2000
2.	Ledger Book	01
3.	Junior Science Conferences Proceedings	250
4.	Junior Science Conferences Proceedings	125
5.	NSF Note Pads	50
6.	Payment Vouchers	3000
7.	N B S Action Plan	01
8.	Visiting Cards	250
9.	Booklet for NSF Awards	175
10.	File Covers for Board Papers	150
11.	Certificates / SPD	20
12.	Visiting Cards	50
13.	School Letters / SPD	1230
14.	NSF Letter Heads	10000
15.	NSLRC Brochures	1000
16.	NSF Note Books	60
17.	Certificates / RD	27
18.	Tutorial English	100
19.	Receipt Books / RD	10
20.	Document	2460
21.	Tutorial English	170
22.	Certificates / ILD	70
23.	Visiting Cards	200
24.	Poster SLJSS	100
25.	Broachers SLJSS	200
26.	Letters for JPD	2088
27.	Competition Applications	835
28.	Document	4880
29.	Document	1800
30.	Internal Memo	10000
31.	Payment Vouchers	2000
32.	Leave Forms	3000
33.	Intermission Forms	1000
34.	Visiting Cards	50
35.	Visiting Cards	50
36.	O T Forms	1000
37.	Cheque Posting Letters	3000
38.	Certificates / RD	28
39.	Visiting Cards	100
40.	Letters / SPD	600

	<b>Job Name</b>	<b>Quantity</b>
41.	Distress Loan Forms	300
42.	Visiting Cards	100
43.	Broachers OSTP	200
44.	Applications & Guidelines	400
45.	Broachers / RD	100
46.	Flyer JNSF	200
47.	STEM Interim Request	12
48.	Payment Vouchers	2000
49.	Broachers NSLRC	500
50.	Visiting Cards	50
51.	Certificates Science Drama	50
52.	Visiting Cards	200
53.	Invitation Cards	42
54.	Dossier / ICGEB / RD	20
55.	File Covers RRC	60
56.	Teachers Forms to Schools	1230
57.	NSF Note Pads / ILD	100
58.	NSF Note Pads / RD	150
59.	Application Form	1640
60.	English Tute	50
61.	Booklet / Research	125
62.	Name Tags GRC Meeting	75
63.	Visiting Cards	100
64.	Visiting Cards	100
65.	Letters/ SPD	760



