



NATIONAL  
SCIENCE  
FOUNDATION

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Annual Report 1  
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தேசிய விஞ்ஞான மன்றம்  
National Science Foundation



## **It's all about the NSF'S hard work done in 2019 !**

*The NSF is moving ahead progressively with the energy and drive of its committed staff guided by the Chairman and the Board of Management 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 74 graphical presentations, 17 tables, 110 pictures, 01 diagram and 18 annexes. The entire annual report contains 235 pages together with the Audit Report & the NSF feedback on the Audit Report. The report is prepared following the format of the PED Guidelines for Good Governance.*



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# Overview

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- » **Functions as mandated by the Act**
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## About

The National Science Foundation, which functions under the purview of the Ministry of Higher Education, Technology & Research is providing its dedicated service to the nation over 50 years. The organization was initially established as the National Science Council (NSC) in 1968 (by the Act No. 09 of 1968). NSC was restructured as the Natural Resources, Energy and Science Authority (NARESA) in 1982 (by the Act No. 78 of 1981). After 16 years of service, NARESA was reorganized as the National Science Foundation (NSF) by the Act No. 11 of 1994 in 1998.

## 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 scientists, with a view-
  - (i) to strengthening scientific research potential, including research in the social sciences, and science education programmes;
  - (ii) to developing the natural resources of Sri Lanka;
  - (iii) to promoting the welfare of the people of Sri Lanka; and
  - (iv) to training research personnel in science and technology
- (b) to foster the interchange of scientific information among scientists in Sri Lanka and foreign countries;
- (c) to award scholarships and fellowships for scientific study or scientific work at science and technology institutions;
- (d) to maintain a current register of scientific and technical personnel, and in other ways to provide a central clearing house for the collection, interpretation and analysis of data, on the availability of and the current and projected need for, scientific and technical resources in Sri Lanka, and to provide a source of Sri Lanka, and to provide a source of information for policy formulation on science, technology and other fields;
- (e) to popularize science amongst the people by funding programmes for that purpose.

# Vision for Science, Technology, Research & Innovation

Be the nation's premier driving force in promoting Science, Technology and Innovation for economic and social prosperity of Sri Lanka

## Mission

Promote Science, Technology and Innovation for economic and social prosperity of Sri Lanka by:

- Initiating, facilitating and supporting research, development, innovation and technology transfer;
- Enabling and funding for knowledge creation, dissemination, capacity building, partnerships, popularizing science and promoting STEM education; and
- Conducting policy research and supporting policy development;

Whilst ensuring competent & contented staff and providing due attention to sustainable development goals.

## Our Core Values

1. **Freedom:** Upholding the two principles: universality of science and the freedom in the pursuit of knowledge as individual scientists without any discrimination based on age, ethnic origin, gender, language, physical disability, political stance, personal interest and religion
2. **Quality:** Striving to achieve the highest quality in all its endeavours
3. **Competence, Professionalism and Due Diligence:** Committing to provide all the services competently, professionally and with due diligence to meet the highest standards of achievement
4. **Collaboration and Teamwork:** Fostering cooperation, collaboration and teamwork whilst respecting team dynamics in an environment conducive for stakeholder satisfaction and a rewarding experience

5. **Staff Empowerment:** Embracing new ideas and empowering staff and capacity building for best performance
6. **Responsiveness:** Understanding national and industry needs and promptly responding with expert advice and innovative initiatives to facilitate rapid development
7. **Honesty and Openness:** Building trust and respect with all stakeholders through effective communication and mutual understanding
8. **Ethical behaviour, Accountability and Integrity:** Performing all tasks maintaining the highest ethical standards, demonstrating high integrity and accountability
9. **Safety and Security:** Ensuring safe and secure environment for all
10. **Sustainability:** Embracing sustainability principles and green concepts
11. **Good Governance:** Conducting all activities responsibly ensuring fairness, equity and transparency whilst fulfilling statutory requirements



# NSF's future direction

It affords me great pleasure to send this message to the Annual Report - 2019 of the National Science Foundation, the premier national institution mandated to promote science, technology and innovation for socio-economic development. Founded in 1968, it has made a remarkable contribution to national development through its positive impact on a wide range of fields, including S&T, capacity building and competency enhancement of R&D institutions and academia, promoting public awareness on S&T and enhancing public scientific literacy.



With such achievements and accomplishments to its credit, the NSF celebrated its Golden Jubilee in 2018 in a fittingly laudable manner. I wish to record my deep appreciation and profound gratitude to all past Chairpersons and Directors General and others who contributed with dedication, devotion and distinction to bring the NSF to its present heights.

The world is in a state of flux and the economic, technological, environmental, social and political landscapes are dynamic and rapidly changing and markets are becoming increasingly sophisticated and globalized. Besides, with the whole world currently shaken by the COVID-19 pandemic, this crucial and defining hour offers the NSF, as the cradle of S&T in Sri Lanka, a pivotal role to play in mitigating its impact and building a robust and resilient economy.

In the circumstances, the NSF is in the process of reviewing and revisiting its portfolio, funding priorities, criteria and strategies and effecting organizational reforms and embarking upon novel initiatives so as to respond effectively to change and “New Normal”. Establishment of a digital platform to harness Sri Lankan scientific and professional expatriates for national development, setting up a National Analytical and Testing Facility and a National Consortium for Digital Resources, making NSF carbon-neutral by 2025 and conducting a national conference on COVID-19 under the theme “From Adversity to Serendipity” are some major initiatives on the drawing board.

The NSF has always attached very much importance to its Annual Reports and has gone the extra mile in preparing them. Its Annual Report of 2017 was adjudged the best under the category “Research Institutions” at the Best Annual Report and Accounts Awards 2019 organized by the Association of Public Finance Accountants Sri Lanka (APFASL). That was no accident, but the result of the conscious, concentrated and concerted effort of Dr. Thamara F. Dias, Additional Director and Actg. Director General of NSF ably assisted by the Heads and staff of Divisions and Units. The Annual Report of 2019 was also prepared in an exemplary manner under her direction and guidance and I wish to express my appreciation to all who contributed to it.

With S&T as a primary driver of economic development, the NSF will redouble its effort to advance the cause of S&T for the common good to make the NSF a strategic partner and dynamic force in transforming Sri Lanka into a developed country in keeping with the vision of the government.

**Prof. Ranjith Senaratne**  
**Chairman**



# Director General's review



Being the Acting Director General and the Additional Director of the NSF, I am delighted to present the Annual Report of the National Science foundation (NSF), Sri Lanka for the financial year 2019.

As in previous years, the year 2019 was filled with several programmes performed under the five mandates empowered by the Science & Technology Development Act No. 11 of 1994. The NSF with a clear vision and focus carried forward its mission towards realizing the objectives and goals by utilizing 81.1% of its capital allocation of Rs. 342 Million during the year. Review contains a summary highlighting the progress against the action plan with main achievements, followed by a detailed account on the work performed under the 6 major programmes in this Annual Report. I wish to provide a complete review of activities conducted during 2019 in 235 pages from here onward.

It is our aim to deliver increasing outputs and outcomes under identified and specific academic, social, and economic Key Performance Indicators (KPIs) set forth based on the work of previous years. Our future direction would be to increase the performance of the NSF by facilitating more research, capacity building through strengthened collaborative activities and popularizing the outputs amongst key stakeholders and people in the country through improved methodologies and processes. With this aim, constant review of the existing schemes and programmes for effectiveness, will be on the continuous move for greater impact.

I express my sincere appreciation to the Chairman and the Board of Management of the NSF for their guidance provided throughout in carrying out the work and the NSF Team, which is the greatest strength of the institution, for their dedication and commitment in attending to work diligently fulfilling the requirements despite resource constraints. I also wish to take this opportunity to thank Prof. Ananda Jayawardane who was the former Vice Chancellor of the University of Moratuwa and served the NSF as the Director General from January 2018 - December 2019, complete two years, with enthusiasm, affection, and devotion. He with dedication geared into revising the corporate plan of the NSF and finalized it for 2019 - 2023. Introducing 5S & establishing Quality Circle projects (2018 & 2019) and NSF landscaping project (2019) were the other main tasks initiated and was progressing during his tenure.

**Dr Thamara F. Dias**  
**Acting 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 Higher Education, Technology and Innovation.



Dr A M Mubarak (*w.e.f. 28<sup>th</sup> January, 2019 - 4<sup>th</sup> December, 2019*)  
Chairman  
410/2, Bauddhaloka Mawatha  
Colombo 07



Prof. Ananda Jayawardane (*w.e.f. 18<sup>th</sup> January, 2018 - 1<sup>st</sup> January, 2020*)  
Director General  
Senior Professor  
Department of Civil Engineering  
University of Moratuwa  
Moratuwa



Prof. (Mrs) S S Neluka Fernando (*w.e.f. 28<sup>th</sup> January, 2019 - 4<sup>th</sup> December, 2019*)  
Senior Professor  
Department of Microbiology  
Faculty of Medical Sciences  
University of Sri Jayewardenepura  
Gangodawila  
Nugegoda



Mrs Ayanthi Gurusinghe (*w.e.f. 28<sup>th</sup> January, 2019 - 4<sup>th</sup> December, 2019*)  
72/7, Janapriya Mawatha  
Kalapaluwawa  
Rajagiriya



Dr T A R J Gunasekera (*w.e.f. 25<sup>th</sup> February, 2019 - 4<sup>th</sup> December, 2019*)  
Director General  
National Institute of Education  
High Level Road  
Maharagama



Prof. T M Pallewatta (*w.e.f. 25<sup>th</sup> February, 2019 - 4<sup>th</sup> December, 2019*)  
President  
Institute of Engineers Sri Lanka  
120/15, Wijerama Mawatha  
Colombo 7



Prof. A Aloka Pathirana (*w.e.f. 28<sup>th</sup> January, 2019 - 4<sup>th</sup> December, 2019*)  
Professor  
Department of Surgery  
Faculty of Medical Sciences  
University of Sri Jayewardenepura  
Gangodawila  
Nugegoda



Mr H C D L Silva (*w.e.f. 01<sup>st</sup> April, 2015 - to date*)  
Additional Director General  
Department of Treasury Operations  
Ministry of Finance & Mass Media  
Colombo 01



Prof. Preethi Udagama (*w.e.f. 25<sup>th</sup> February, 2019 - 4<sup>th</sup> December, 2019*)  
General President  
SLAAS  
Vidya Mandiraya  
120/10, Wijerama Mawatha  
Colombo 07



Prof. Uma Coomaraswamy (*w.e.f. 26<sup>th</sup> April, 2019 - 4<sup>th</sup> December, 2019*)  
University Grants Commission  
20, Ward Place  
Colombo 07



Prof. D Weerakoon (*w.e.f. 02<sup>nd</sup> January, 2019 - 4<sup>th</sup> December, 2019*)  
Department of Zoology & Environment Science  
University of Colombo  
Colombo 03

# Senior Management Committee

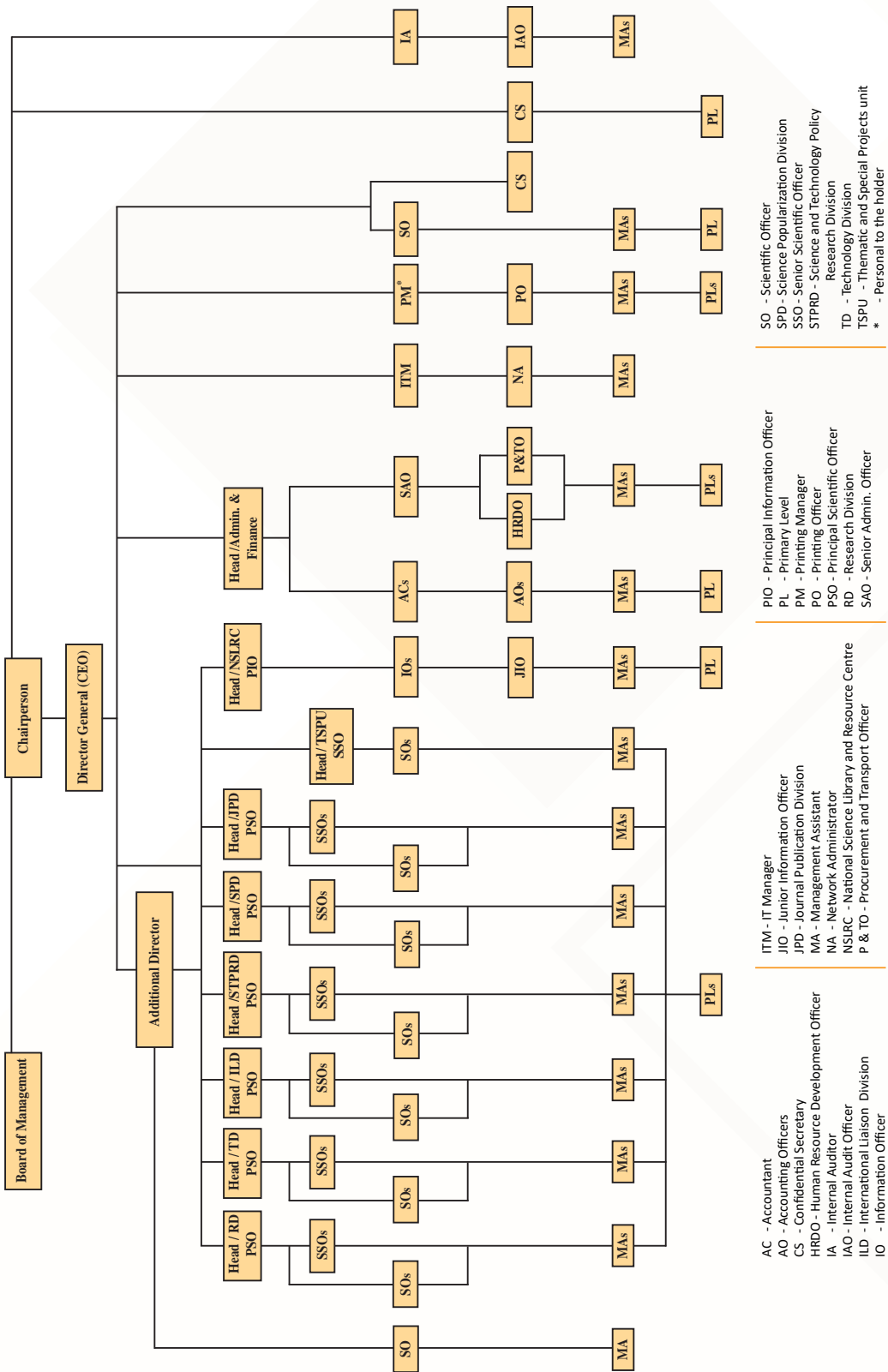
In order to reap the desired effects of good governance, and helping the Board of Management to ensure smooth functioning of the Foundation, and also to bring into focus the matters/ issues that have all positive and negative impacts for the Foundation and further enhancing the inter-relationships and interactions between the Staff and the Board of Management, the Senior Management Committee (SMC) functioned throughout the year 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

The SMC was composed of the HM Category of staff members together with the Senior Accountant and the Senior Administrative Officer and met every month to discuss matters according to a specific agenda and the minutes of decisions/recommendations of the meetings were submitted to the Board of Management for information.

# Organizational structure & staff review

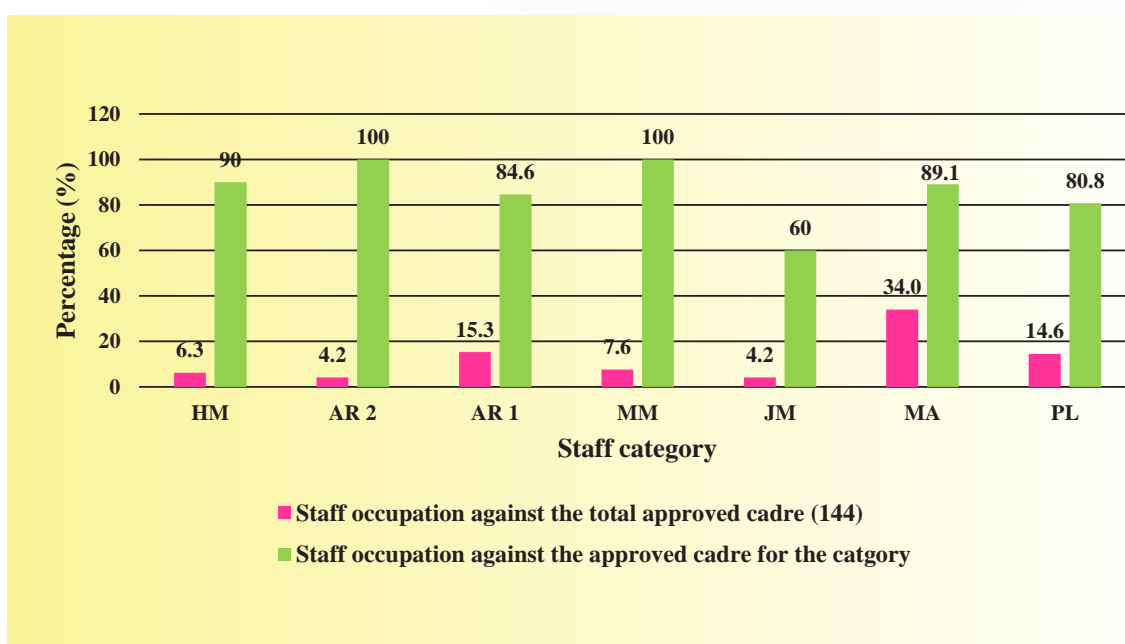
## Organizational Structure (OS) - National Science Foundation



The NSF functions with an approved cadre of 144. A complete review of the NSF staff occupation is given in *Table 1* and is graphically presented in *Figure 1*.

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

Category	Year					
	As of 2018.12.31			As of 2019.12.31		
	Approved	Existing	Vacant	Approved	Existing	Vacant
HM	10	10	0	10	9	1
AR 2	6	5	1	6	6	0
AR 1	26	25	1	26	22	4
MM	11	11	0	11	11	0
JM	10	8	2	10	6	4
MA	57	51	6	55	49	6
PL	24	21	3	26	21	5
<b>Total</b>	<b>144</b>	<b>131</b>	<b>13</b>	<b>144</b>	<b>124</b>	<b>20</b>



**Figure 1:** Staff occupation against the approved cadre in 2019

The details of Principal Staff of NSF as of 31<sup>st</sup> December 2019 is given in *Annex 1*.





# External resource pool

There were 25 Committees, Advisory/Editorial Boards and a National Committee helping with the NSF.

These Committees, Advisory Boards etc. were composed of eminent personnel in different subject fields and provided their expertise in carrying out NSF activities throughout at the request of NSF.

## ○ Research Advisory Board

- Working Committee on Agriculture & Food Science
- Working Committee on Basic Sciences
- Working Committee on Biotechnology
- 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 "Vidurava" Science Magazine
- 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 Gender in STEM
- Steering Committee on Water Security
- Steering Committee on Oceanography and Marine Resources

- 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



# **work under the major programmes**

**The NSF continued to perform its functions as mandated by the Act and continued with number of schemes / projects and activities of diverse nature under the following 6 major programmes**

## **Programme 1**

**Strengthening STI Potential**

## **Programme 2**

**Providing a source for STI indicators & data**

## **Programme 3**

**National gateway to S & T information**

## **Programme 4**

**Popularizing science public**

## **Programme 5**

**International cooperation**

## **Programme 6**

**Enhancing systems for productivity improvement**



# Summary

The following highlights the NSF performance in 2019.

- The progress of the action plan implemented in 2019 is depicted as a % under 6 programmes (Figure 2). Some actions planned for the year could not be performed due to various constraints. The NSF was able to spend a sum of Rs. 277 million, against the allocation, Rs. 342 million to perform the functions as stipulated in the Science & Technology Development Act no. 11 of 1994. The financial progress made during the year under the six major programmes is graphically depicted in Figure 3.

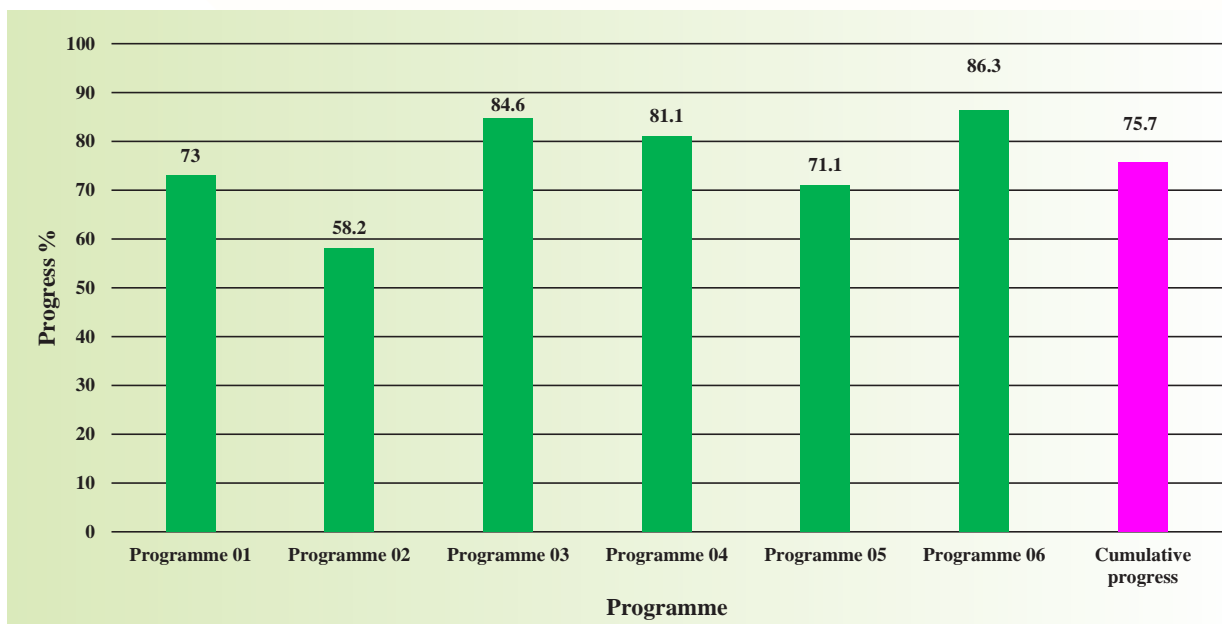


Figure 2: Physical performance 2019

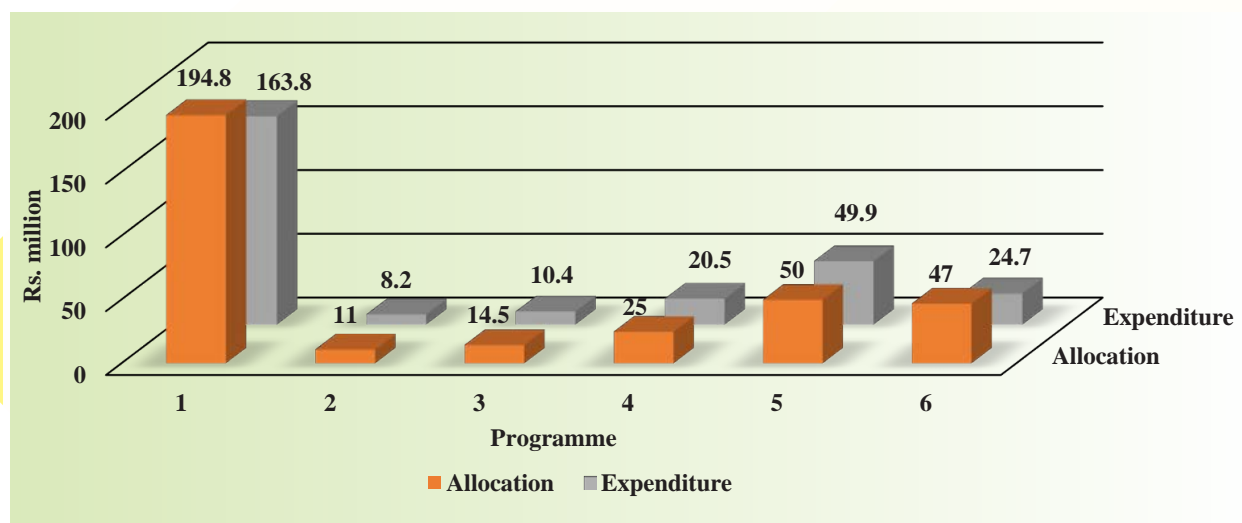


Figure 3: Financial performance 2019

➤ The support provided under different grant schemes during the year is summarized in the following graphs (Figures 4, 5 & 6).

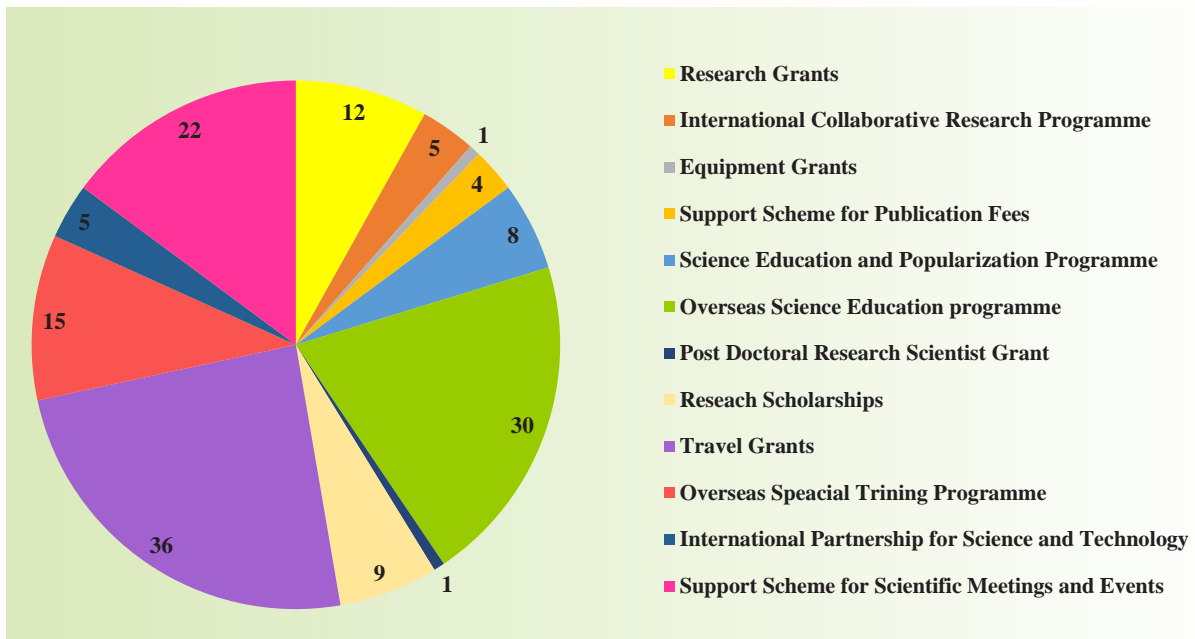


Figure 4: Number of grants awarded under different grant schemes

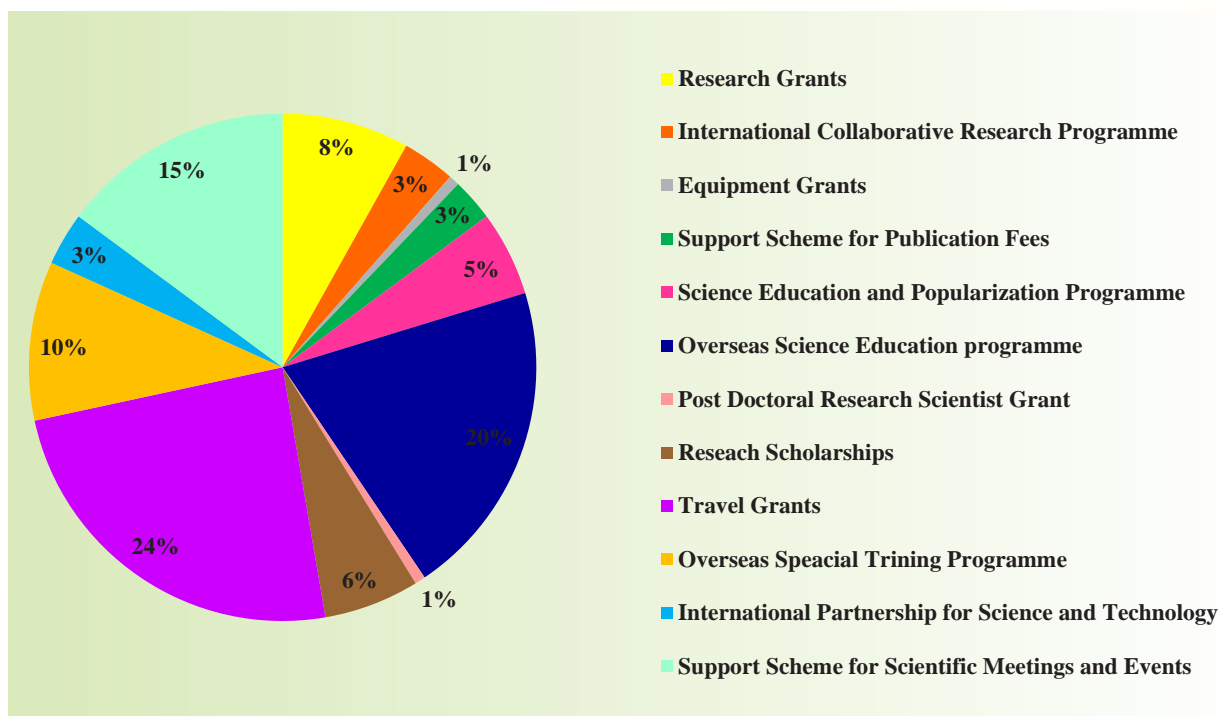
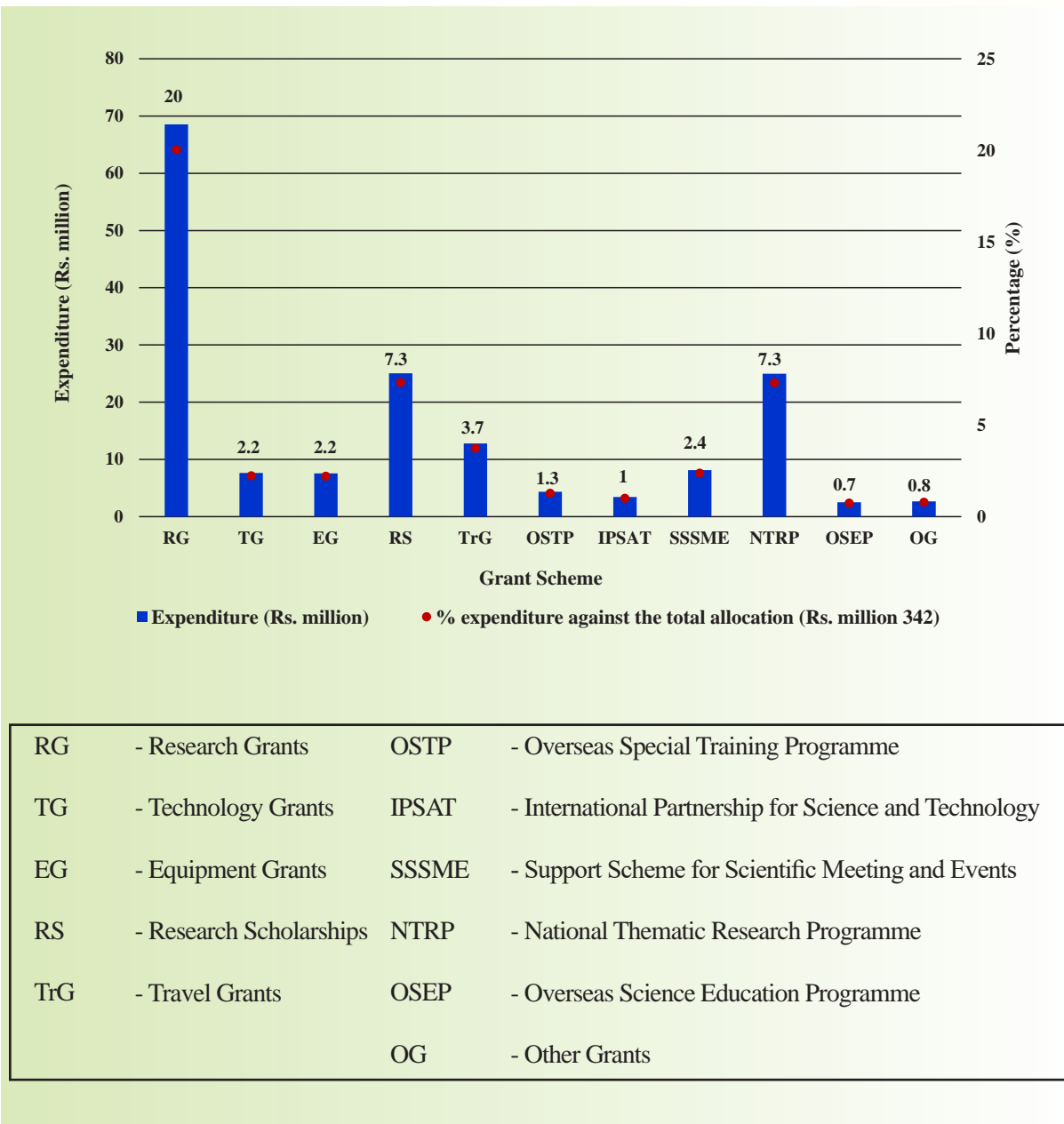


Figure 5: Scheme performance as a % against the total number of grants (148)

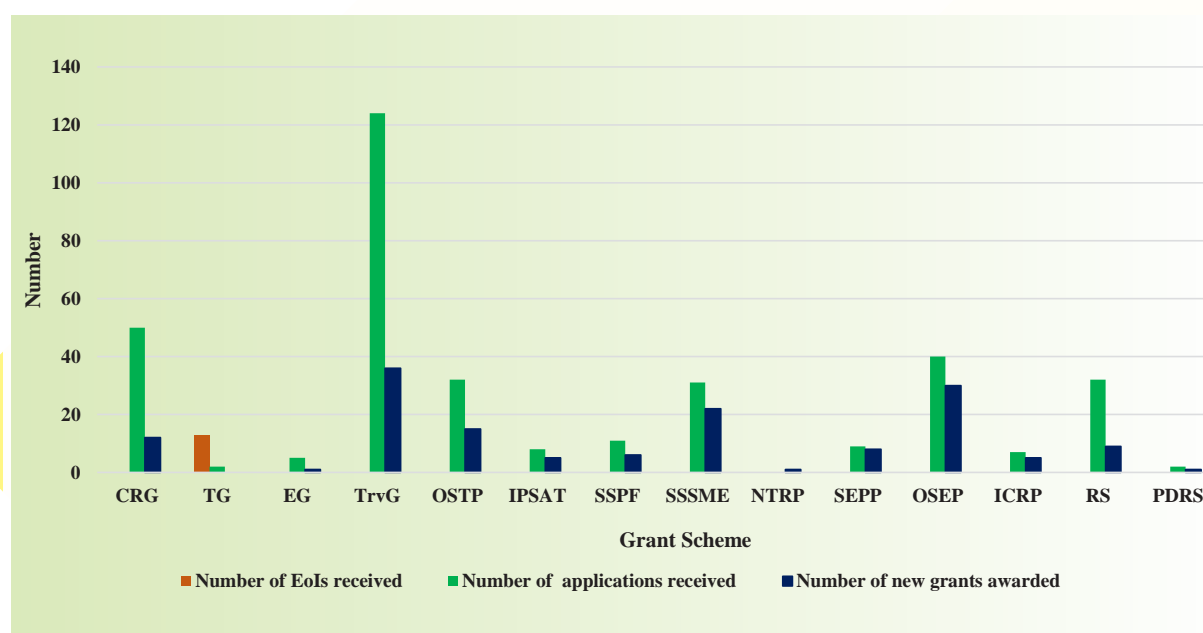


**Figure 6:** Financial support provided under different grant schemes

Other Grants depicted in *Figure 6* include the grants awarded under Science Education and Popularization Programme (SEPP) (Rs. 0.64 million), Post Doctoral Research Scientist Grants (Rs. 1.2 million) and Support Scheme for Publication Fees (SSPF) (Rs. 0.8 million) where Rs. 2.68 million was spent.

**Table 02:** Grant summary

Field/s	No. of ongoing projects during the year			No. of completed projects during the year			Total number of projects taken forward to 2020		
	Basic	Applied	Product Development	Basic	Applied	Product Development	Basic	Applied	Product Development
Agriculture	01	10	09	01	03	01	-	07	08
Biotechnology	04	02	01	01	01	01	03	03	-
Basic Sciences	09	13	05	03	02	01	06	11	04
Engineering, Architecture & ICT	01	12	10	-	02	05	01	10	04
Environment & Biodiversity	10	09	-	02	01	-	08	08	-
Health Sciences	15	31	-	02	08	-	13	23	-
Indigenous Knowledge	01	-	-	-	-	-	01	-	-
Social Science	01	-	-	-	-	-	01	-	-
Climate Change & Natural Disaster	-	05	-	-	-	-	-	05	-



**Figure 07:** Summary of the new grants awarded in 2019



- Subsequent to the request of Sri Lanka government to UNESCO, the China Science and Technology Museums (CSTM) under the guidance of Chinese Association of Natural Science Museums (CANSM) and UNESCO, prepared the Master Plan titled “Content Construction Planning Scheme for the National Science Centre, Sri Lanka” and officially handed over to the Sri Lankan Government on the 15<sup>th</sup> October 2019 at the Opening Ceremony of the International Symposium on “The Development of Natural Science Museums” under the Belt and Road Initiative (BRISMIS 2019) in Beijing. The Chairman/NSF in the presence of the Ambassador of Sri Lanka to China HE Dr Karunasena Kodituwakku received the Master Plan on behalf of the Sri Lankan Government.



- Under the category “Research Institutions”, the NSF was adjudged the "Winner" at the Best Annual Report and Accounts Awards 2019 organized by the Association of Public Finance Accountants Sri Lanka (APFASL). The annual reports of 2017 were considered at this competition.



- Several technology grant products were successful in 2019.
  1. Pulse Oximeter for local purchase. The product is an import substitute which enhances the strength of local medical device manufacturing market giving the rise to save 30% of foreign exchange per unit.
  2. Global textile industry is demanding materials with smart features. Anti-microbial smart textiles developed by the University of Peradeniya in collaboration with the Teej Lanka (Pvt) Ltd is now ready to enter global market.
  3. VARTM technology used in the boat building industry developed by the University of Ruhuna was culminated with establishing local manufacturing of boats. SME sector in the boat and ship building industry is benefitted through this development.
  4. An electronic system of low-powered low-cost workstations with embedded patient management software was developed and installed at the Central Leprosy Clinic of the National Hospital Sri Lanka (NHSL). The new system has replaced the tedious paper-based process.
  5. Compost blocks made of aquatic weed “water hyacinth”, the most invasive alien aquatic plant species grown in water tanks and lakes has entered the market as a grassroots innovation.
- The Journal of the National Science Foundation of Sri Lanka (JNSF) and the Sri Lanka Journal of Social Science (SLJSS) started processing of manuscripts through the Sri Lanka Journals Online System (SLJOL) moving towards paperless online journal management. The JNSF initiated early online publishing of abstracts of JNSF issues before publishing the full articles. Further, the JNSF received an Impact Factor of 0.419 in 2019. Sri Lanka Journal of Social Science (SLJSS) appointed an International Editorial Advisory Board to increase the international exposure and visibility of the journal as well as to make it more resourceful. A regular "Editorial" was introduced to SLJSS to enhance the viewership and quality. A "Reviewer Index" was introduced to the December issue to provide due recognition to the valuable reviewer base of the journal.
- The total number of scientists and technologists registered in the Science and Technology Management Information System (STMIS) database was increased up to 6493.

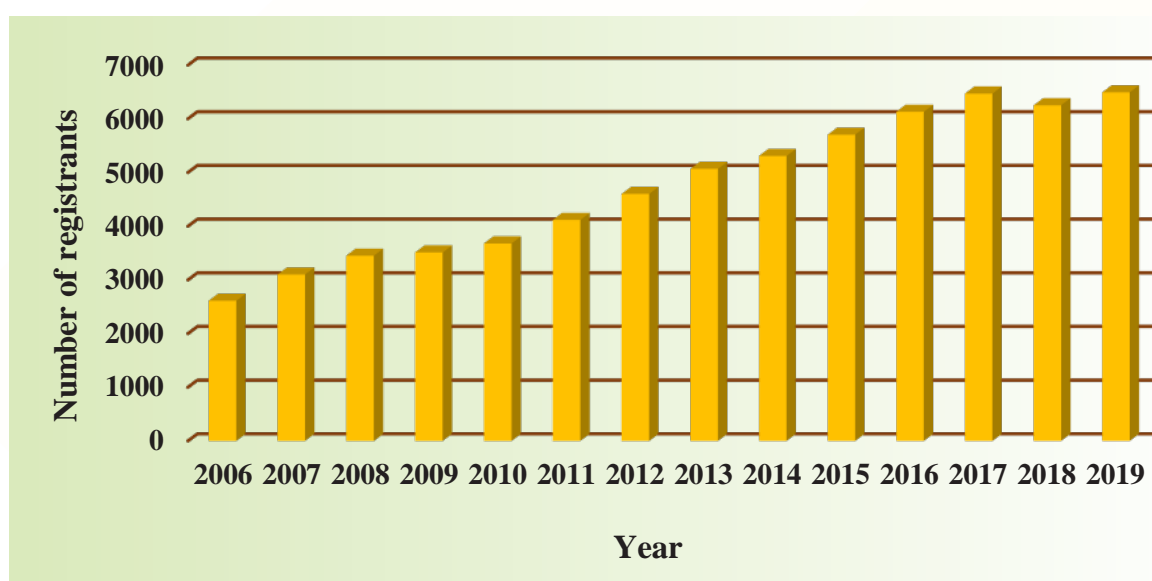


Figure 08: Number of Scientists registered in the STMIS during 2006-2019

- The NSF maintains several national level databases to cater to S&T information needs of Sri Lankan researchers, academia and the general public on current and past researches conducted in the country. SLSID (information on S&T literature of local origin), SLSTICAT (information on print & audio-visual material available at NSF) & SLAAS (information on papers presented at the annual sessions of the Sri Lanka Association for the Advancement of Science) are three main databases developed by the NSF to serve this purpose. All the databases are hosted on “Viduketha” (viduketha.nsf.gov.lk), an integrated information storage and retrieval system” for easy online access. Apart from the “Viduketha”, there are other 25 e-repositories made by the NSF through the National Digitization Project (NDP) out of which 19 e-repositories are now available online. Further, the NSF subscribes to many foreign databases and provides access to the latest S&T literature of indexed/non indexed journals for the benefit of the scientific community.

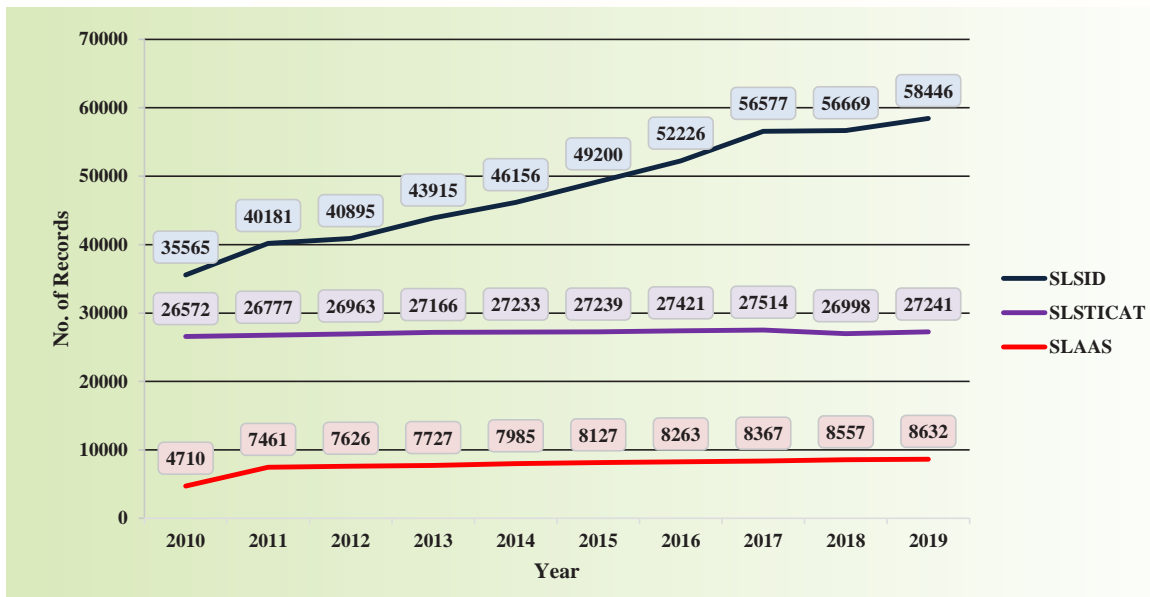


Figure 09: Growth of Databases (2010-2019)

- The NSF functioned with staff of 131 at the beginning of 2019 and the figure decreased to 124 by the 31<sup>st</sup> December 2019.

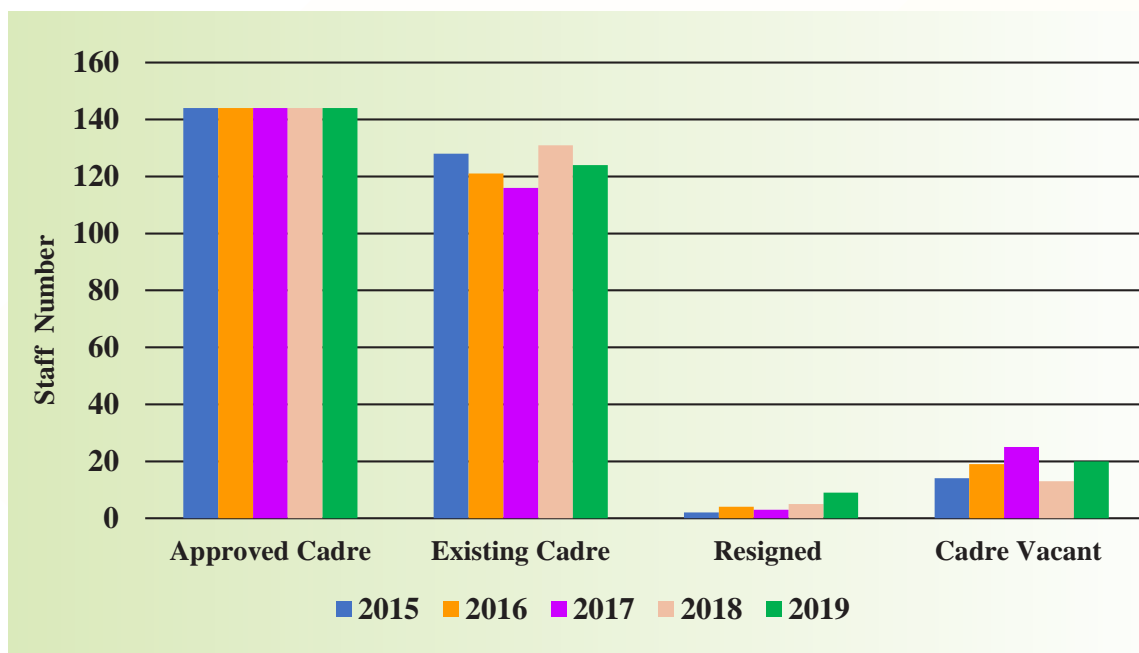


Figure 10: Staff status from 2015 - 2019





# 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**

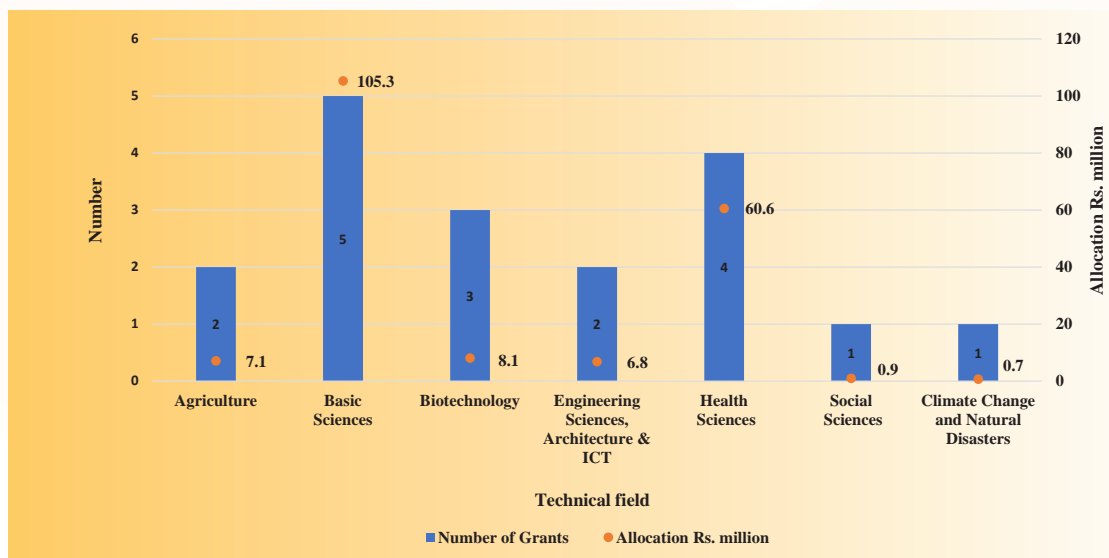


*The National Science Foundation focuses on promoting R&D and Innovation through various grant schemes and projects helping to create a knowledge-based economy by technology development and initiating start-up businesses by all categories of people in the country.*

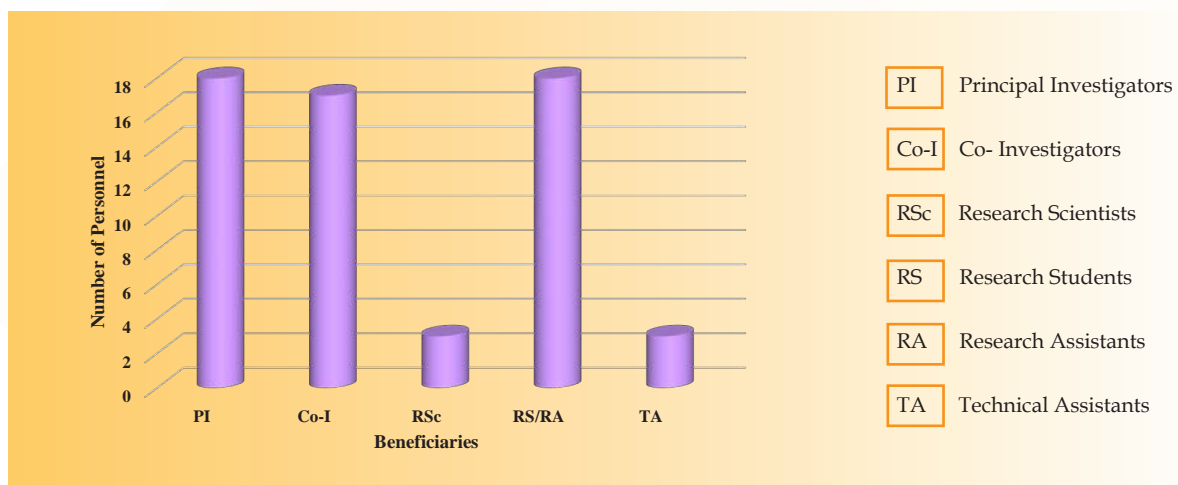
## Research & technology focus

The NSF continued to provide support to supplement the financial, physical and manpower resources available in the S&T institutions in Sri Lanka to carryout scientific research during 2019. Financial support was provided under four schemes; Competitive Research Grants, International Collaborative Research Grants, Thematic and special research projects and Technology stream.

In 2019, 67 grant applications were received for consideration for funding and 18 grants were awarded. The details of new grants awarded are given in *Annex 2*.



**Figure 11:** Number of research grants awarded and fund allocations under different technical fields during 2019



**Figure 12:** Number of beneficiaries under the new grants awarded in 2019

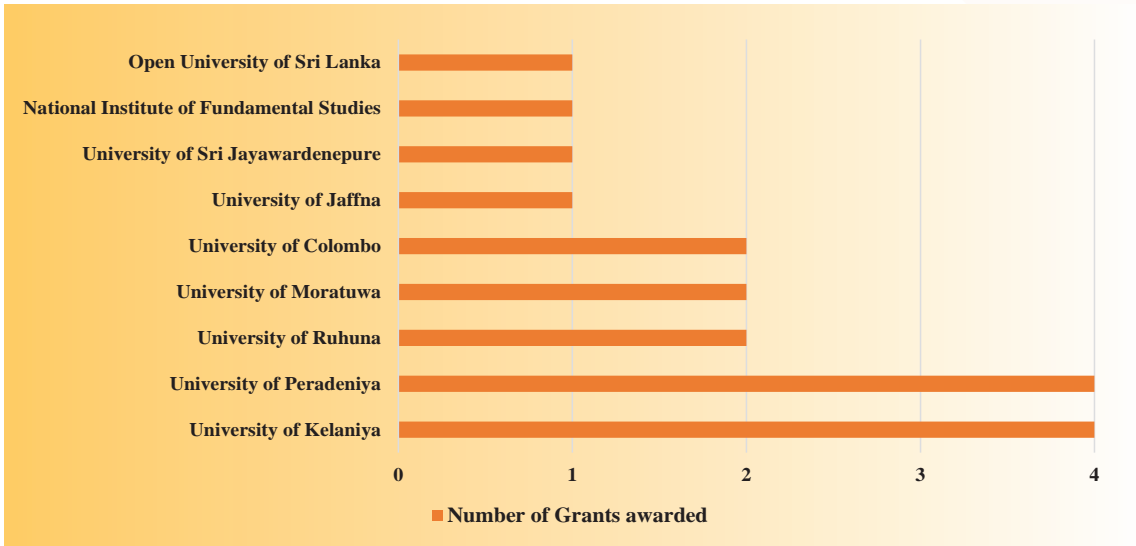


Figure 13: Institutions benefitted by the new grants awarded in 2019

One Equipment Grant worth of Rs. 7.6 million was awarded to the University of Sri Jayawardenepura. The equipment is used for research in Basic Sciences by many researchers including undergraduate and postgraduate students. The objective was to improve the research facilities using plant materials. The details of the equipment provided is given in *Annex 3*.

The NSF released a total of Rs.170 million for 116 ongoing projects under basic & applied sciences and for product development (technology stream). This includes Rs. 45.78 million and Rs. 23 million disbursed for continuation of the Research Project on Health Science (RPHS) and Special Project on Cinnamon (SPC) respectively. The details of ongoing grants are given in *Annex 4*.

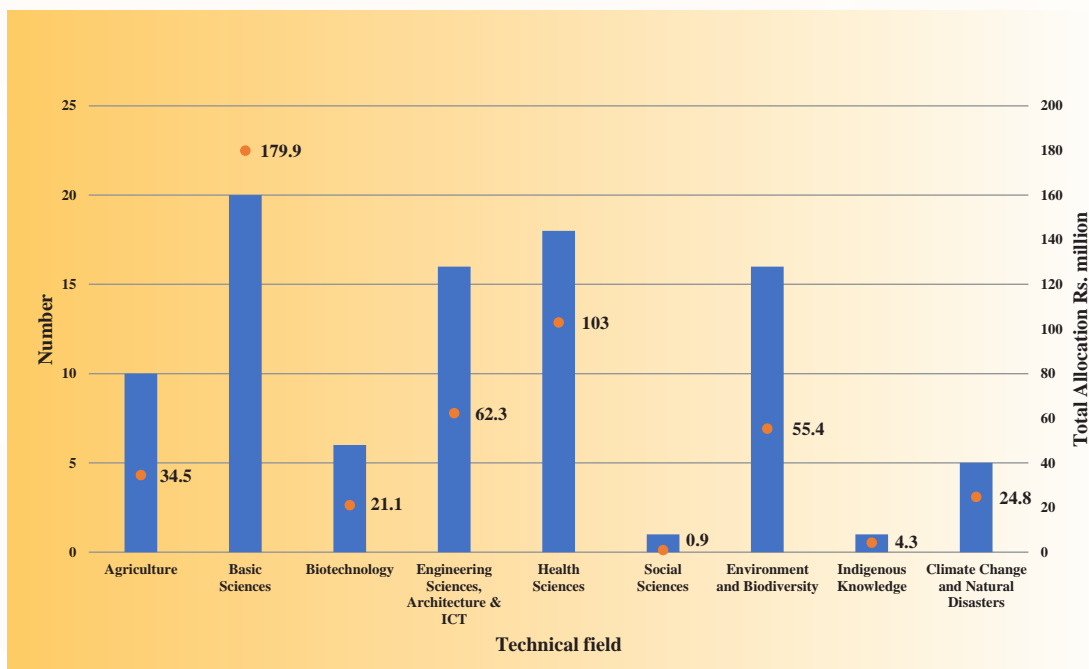


Figure 14: Number of grants and the fund disbursement under different technical fields for ongoing grants in 2019



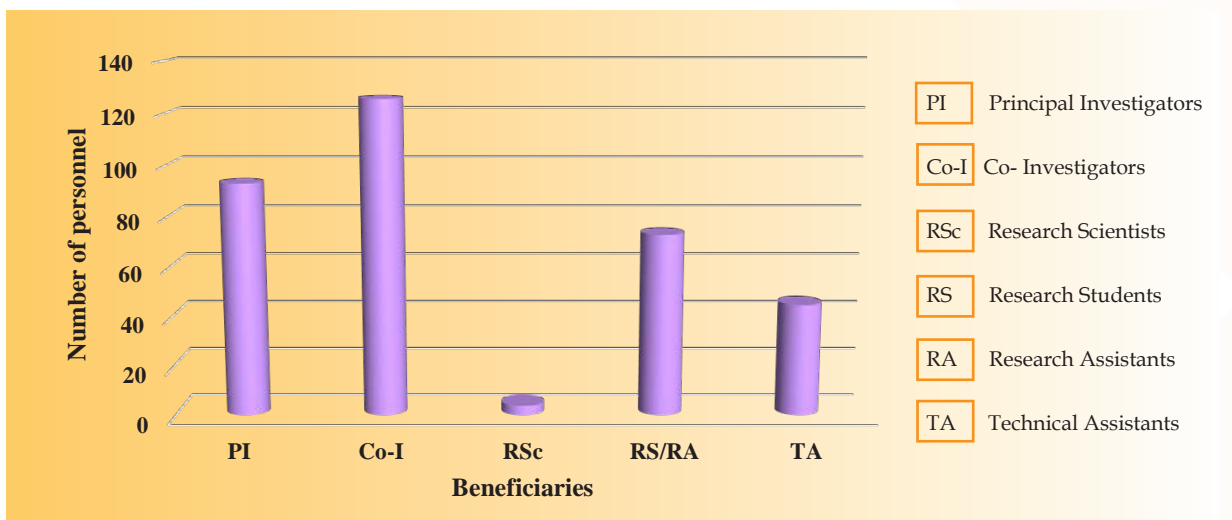


Figure 15: Number of beneficiaries under the ongoing Grants in 2019

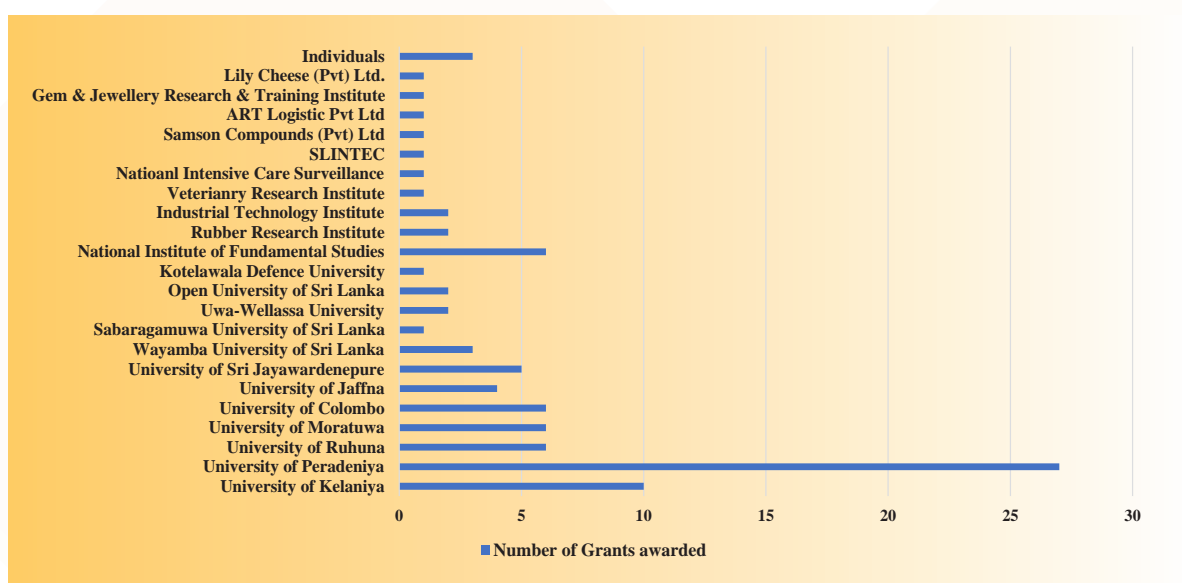


Figure 16: Institutions continued projects with NSF support in 2019

## R&D in progress

### Locally manufactured Pulse Oximeter

Majority of medical equipment and surgical implants required for the local health care sector are imports. As such, the cost of these equipment and implants are high, leading to limited availability in government hospitals for use. As reported by the Biomedical Engineering Services of the Ministry of Health, total quantity of multiparameter monitors, pulse oximeters and ECG machines required per annum are 272, 340 190, with the unit costs reaching as high as Rs. 700,000, Rs. 250,000 and Rs. 120,000 respectively.

The cost can be reduced by manufacturing equipment locally. University of Moratuwa has partnered with Premium International Pvt Ltd. to develop a Pulse Oximeter and ECG module with abnormality detector for patient monitoring. Both units are equipped with advanced features compared to other global products. The initial prototype of Pulse Oximeter has been successfully developed with more than 75% of local value creation. Product was presented to the Cabinet of Ministers. The Ministry of Health is ready to purchase the equipment.

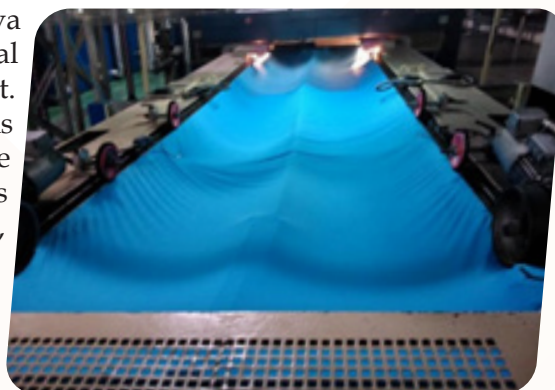
The Pulse Oximeter is embedded with many features and is comparable with all competitive products in the global market. It was expected to transfer the technology development to local health care sector in 2020.



## Smart textiles – antimicrobial textile materials

“The global antimicrobial textiles market size was USD 9,468 million in 2019 and is projected to reach USD 12,313 million by 2024, at a CAGR of 5.4% during the forecast period”. (Source: Research & Markets)

Earmarking the global trend towards the increased use of antimicrobial textiles, a team of researchers from the University of Peradeniya manufactured antimicrobial textiles with the financial support provided under a Technology grant. Anti-microbial textiles have diverse applications in the healthcare, sportswear and home-textile industries. Cotton is the major fabric used in various applications including medical textile, apparel, commercial textiles, automotive, home textiles, and other such applications as it is a natural raw material. However, cotton being natural, makes it more susceptible to microbial attacks. Therefore, making antimicrobial textiles from cotton fabric has a great demand and market potential.



The project encompasses the application of nanotechnology in producing antimicrobial cotton textiles and is conducted in collaboration with the TeeJ Lanka PLC at Avissawella.



The method was integrated into industrial flow processes and bulk trials of 100 m x 100 m fabrics were carried out at the factory scale. TeeJ Lanka PLC is working towards bringing the product to global market through their international buyers.

## New light in local boat building sector

The boat and ship building industry has shown considerable development within the last few years and is identified as one of the key players in the export sector of Sri Lanka. However, majority of the players in the boat building sector has not yet adopted the use of advanced composite materials and advanced innovative technologies, but rather use fibreglass materials and technologies such as hand lay-up and spray-up processes to meet their needs.

The global boat building industry has shifted from fiberglass to polymer composite structures and use advanced composite moulding technologies. In Sri Lanka, few industry players use advanced materials and technologies to be on par with global counterparts. Lack of infrastructure facilities within state universities for transforming advanced composite manufacturing technologies is a key barrier for future development of the boat building sector in Sri Lanka.

To address the existing knowledge gap, the NSF supported the Department of Mechanical and Manufacturing Engineering of University of Ruhuna to manufacture model boats using Vacuum Assisted Resin Transfer Moulding (VARTM) process. VARTM process was successfully used to design composite laminate structures for three prototypes, "PANGA 22", "Dingy" and flat bottomed "Theppama".

With over 45 participants representing SMEs, Sri Lanka Navy and leading private sector boat builders, a knowledge dissemination workshop was conducted at the University of Ruhuna. Lectures followed by hands-on experience sessions provided a good platform to create awareness. A booklet containing guidelines for manufacturing boats using VARTM technique, equipment and consumables required, manufacturing procedure, mixing ratios of fibre and matrix materials and selection of equipment was circulated among all participants.



## Transforming aqua weeds to eco-materials

Fertilizers of natural or synthetic origin is used for the purpose of soil management and enhancing the growth of plants. Currently, there is an upward trend in the use of organic fertilizers by customers. The use of aquatic weeds for this purpose is new in this scenario.

The aquatic weed "water hyacinth" (*Eichhornia crassipes*), is the most invasive alien aquatic plant species growing in water tanks and lakes. The compost block made of this weed has entered the market with the NSF support given to a grassroot level innovator. The Block sold at agrarian services outlets is ideal for urban agriculture. The spread of the weed as a blanket in many lakes is a menace for water bodies, limiting the availability of water for cultivation, drinking and other purposes by village communities.



*Plants grown in compost blocks*



*Compost blocks with dimensions 10'' x 10'' x 10'' & 12 kg weight*

Income generation through a pollutant, cleaning aquatic water bodies, reducing the use of chemical fertilizers, and employment opportunities for village community are the benefits accrued through this project.

Having identified the social impact of introducing the technology to other rural communities where lakes are heavily attacked by invasive species, the NSF initiated knowledge transfer activities targeting the village community in Katagamuwa, Nikaweratiya area. With the support of Nikaweratiya "Vidatha" Resource Centre, a programme was conducted to transfer the knowledge and the technology.

*A village person said, "We use the stem of the plant to make ornamental items and all the other parts are just thrown away. This technology is very much valuable for us and we can now get into new developments"*



*Katugamuwa lake covered with Water Hyacinth*



*Demonstrating the use of Water Hyacinth to make compost blocks*



*Village people participating in the programme*

## Special projects

The Research Programme on Health Science (RPHS) was initiated in mid 2016 and was in progress through 2019.

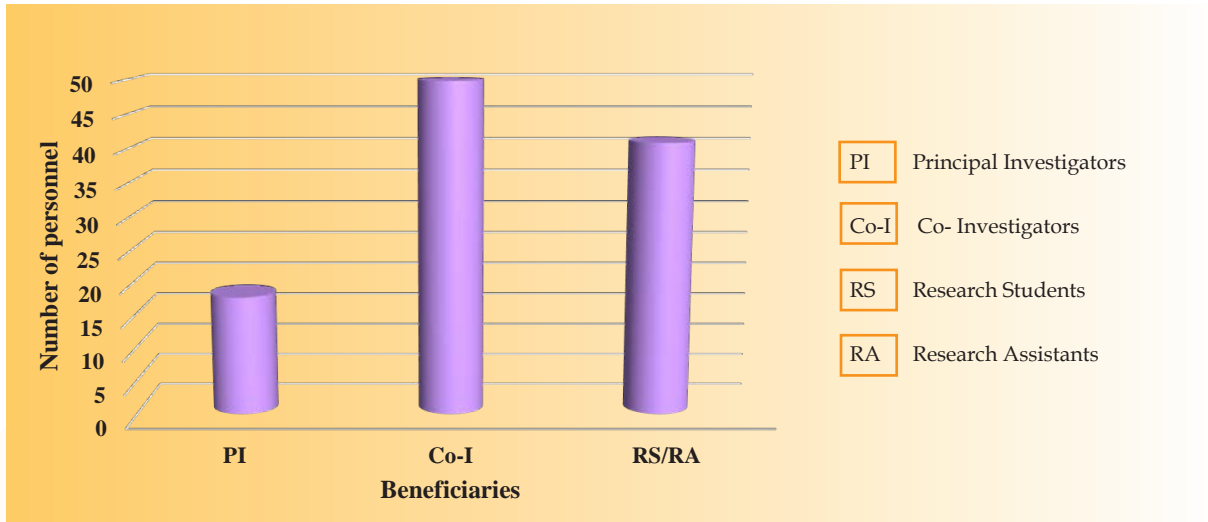


Figure 17: Number of beneficiaries under the ongoing grants of Research Programme on Health Science

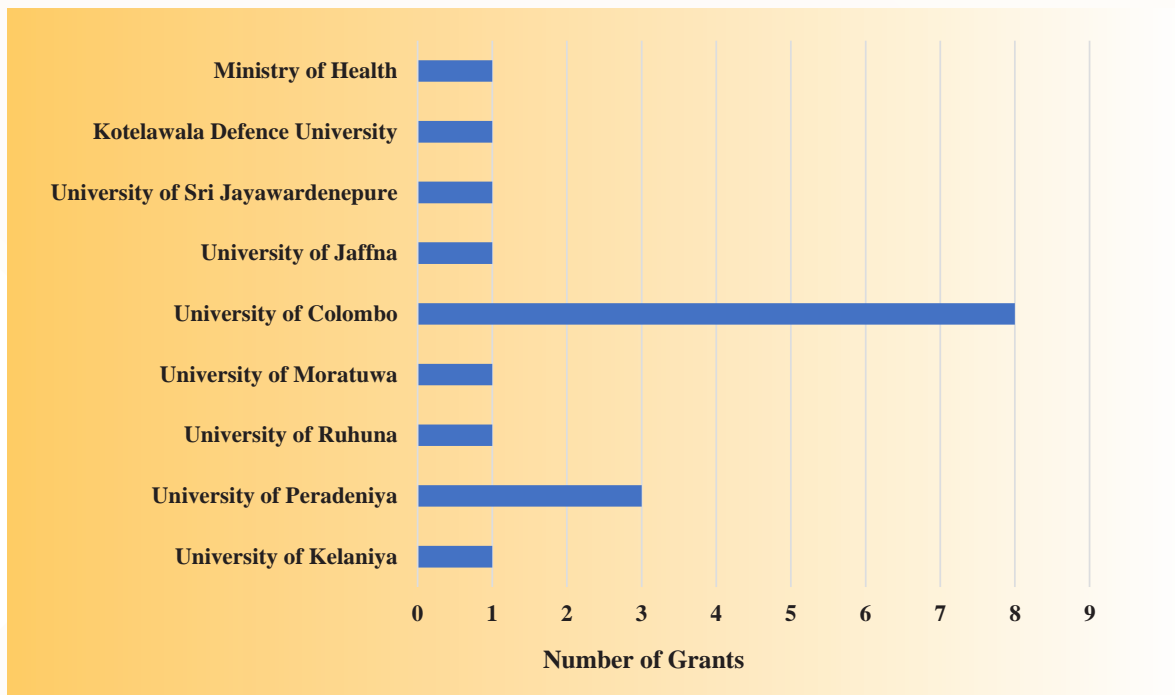


Figure 18: Institutions benefitted under Research Programme on Health Science in 2019

The RPHS is expected to end by December, 2020.

The Special Project on Cinnamon (SPC) is expected to end by April, 2020. There were five ongoing projects progressing under this project. The expected output of the project to be;

- Knowledge on pharmacological efficacy of Cinnamon.
- Increased awareness on chemical profiles of Cinnamon in geographical regions.
- Standardized essential oil and quills of Ceylon cinnamon.
- Cinnamon genome sequence.
- Knowledge on Cinnamon and Cinnamon products related market potential and branding of Ceylon Cinnamon.

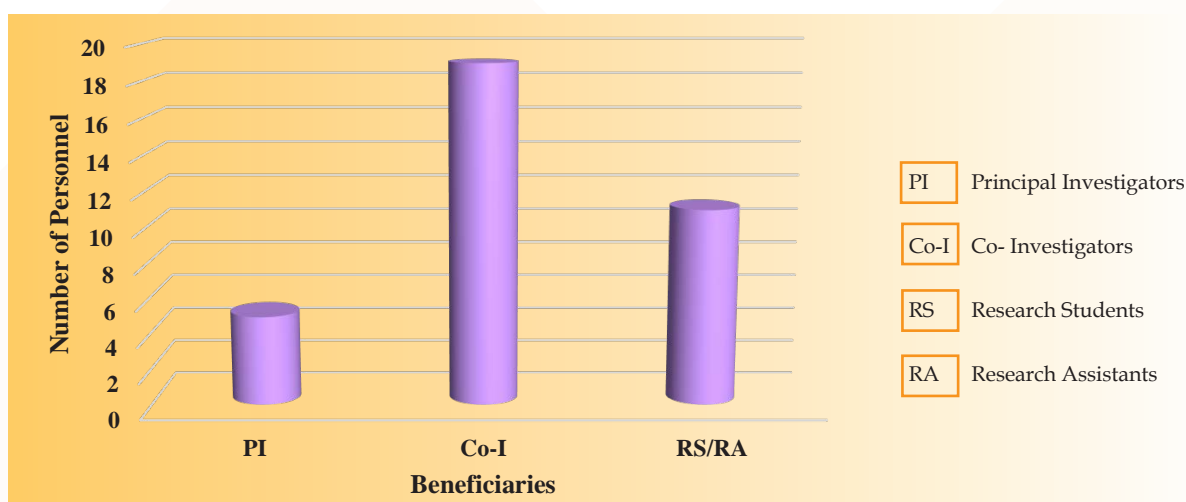


Figure 19: Number of beneficiaries under the SPC

## Highlights of completed projects

A total of 37 grants were completed during the year. The details are given in *Annex 5*.

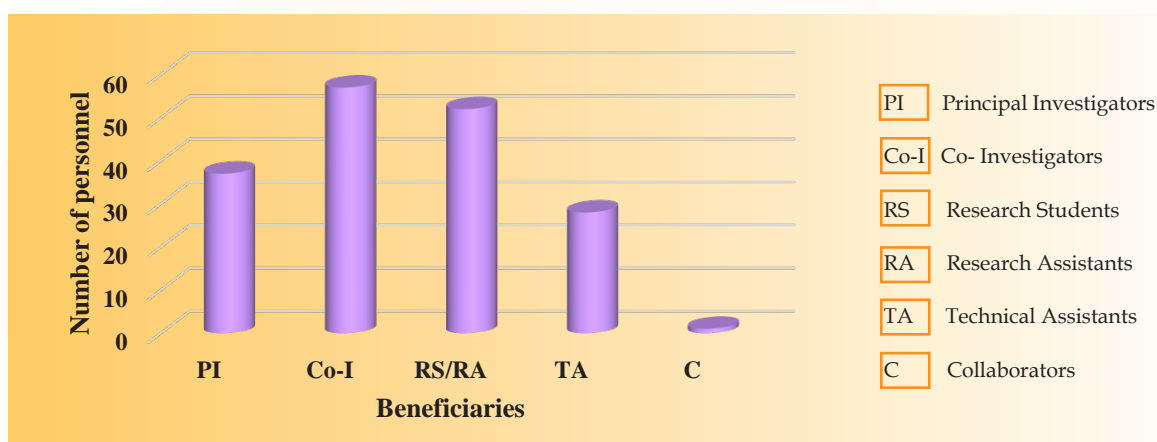


Figure 20: Beneficiaries under the completed grants in 2019

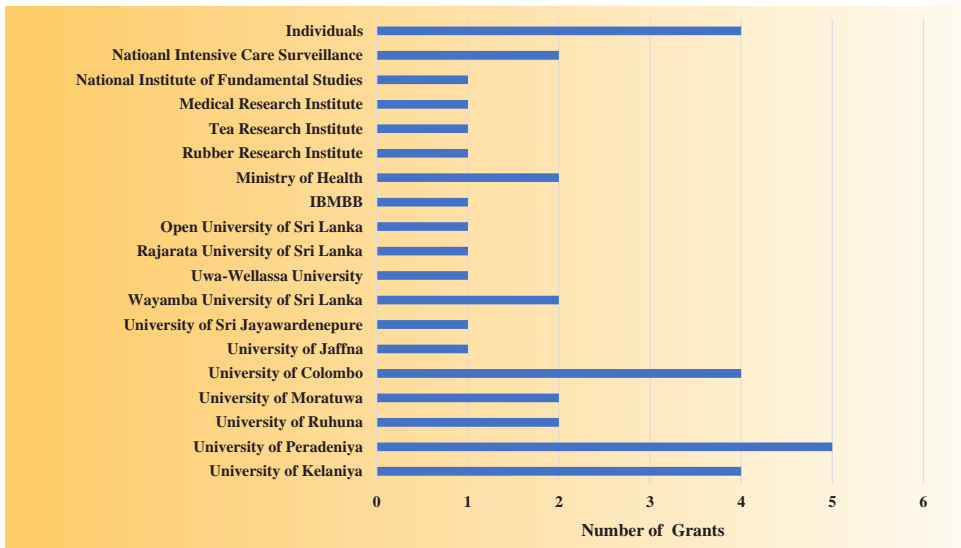


Figure 21: Completed grants in 2019 - Institutional profile

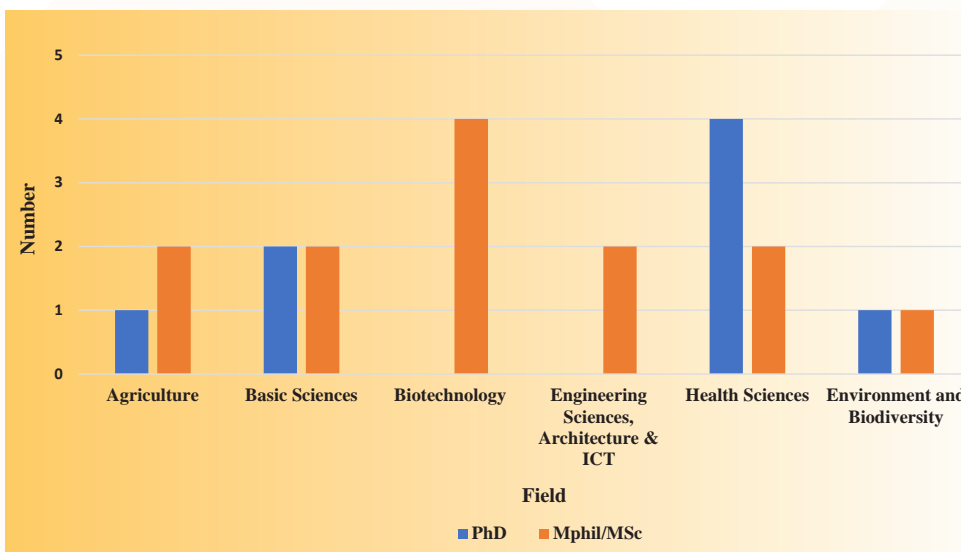


Figure 22: Number of PhD, MPhil & MSc graduates produced under the different technical fields through research projects completed in 2019

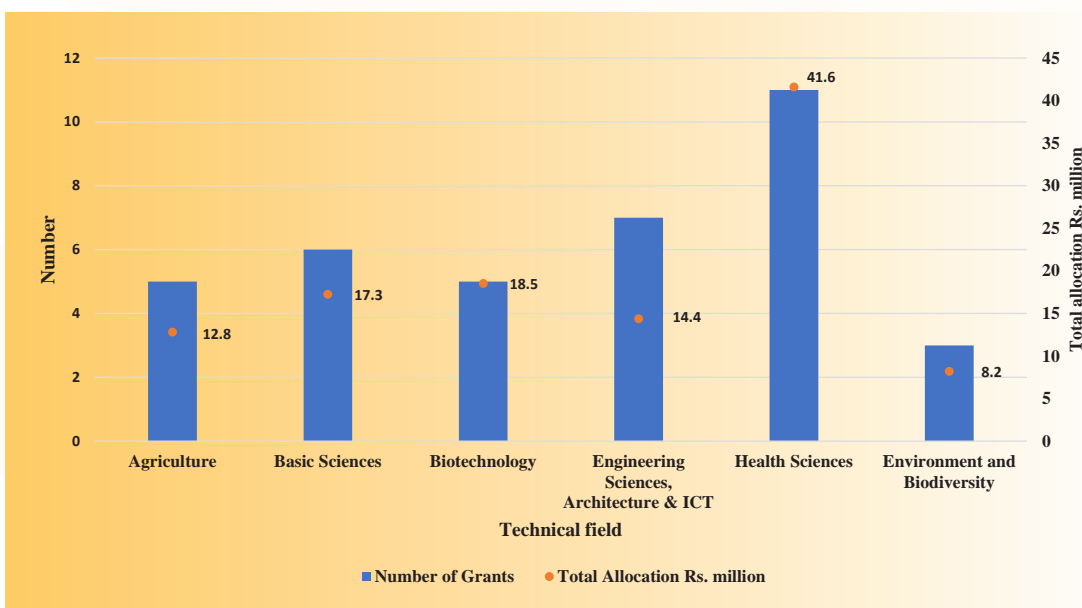


Figure 23: Total funds spent on research under different technical fields (completed grants in 2019)

## Success stories

### Self-compacting in-situ cast mud-concrete load-bearing walling system



*Assembling the frame work-Process of in-situ cast mud-concrete wall construction*

Mud-concrete is a sustainable, novel earth-based walling material developed at the Faculty of Engineering, University of Moratuwa, under the grant RG/2015/EA & ICT/02. It is a mixture of soil, cement being used as a stabilizer in very low quantities and water. The precise gravel percentage governs the strength of the mud-concrete. Most importantly, the introduced self-compaction method brings solutions to remove the labour intensive construction methods and control the cost, quality and time during construction. This novel walling system was patented under the Intellectual Property Act No. 36 of 2003 (Patent Number: 18762/ International Patent Classification: E04C1/00). This technology is currently being used in the construction industry and CSR projects in Sri Lanka.



*Prototype in-situ cast mud-concrete load-bearing wall model made for laboratory testing*

### Jellyfish resource in Sri Lanka



*An ornamentally valuable species (Australian spotted jellyfish) found in Northwest coast of the country.*

First ever comprehensive study on Jellyfish resource in Sri Lankan waters was conducted in the Department of Aquaculture & Fisheries, Wayamba University of Sri Lanka under the grant RG/2016/OMR/01. The study resulted in reporting 43 jellyfish species out of which 23 have been reported for the first time in Sri Lankan waters. Further, 8 new species have been recorded as useful outcome. In addition, distribution and abundance of each jellyfish has been mapped with respect to different seasons. With the records of previous studies, a checklist has been developed with 150 species of jellyfish from Sri Lankan waters which happens to be the first of its kind of research in Sri Lanka.



*A fisherman is carrying a giant, edible species (white-type jellyfish).*





*A potentially exportable species (Sand-type jellyfish) for edible purpose.*



*Ball-type jellyfish which is currently exported from Sri Lanka in bulk.*



*Upside-down jellyfish found in Jaffna Peninsula (a good bio-indicator for water pollution and as an ornamental species)*



*A commonly occurred hazardous jellyfish species (Portuguese man of war) along the Southwest and Northwest coasts during respective monsoonal periods.*

## Effective utilization of industrial fruit waste

Generation of large quantities of waste in the fruit processing industry (peels, fleshy parts, seeds, bagasse, etc) is becoming a huge environmental problem. In this context, a study was conducted aiming at investigating the potential for utilization of fruit waste for product development and value addition by a group of researchers from Wayamba University of Sri Lanka under the grant RG/2017/AG/02. Among many products developed successfully a few are mentioned below:

1. Mango peel-based vinegar production.
2. Pectin extraction processes (optimized for lime, banana and mango peels.)
3. Fat replaced ice cream using extracted pectin.
4. Pineapple bagasse-based muffin and milk-based dietary fiber enriched cookie.

Many of the products are ready for commercial scale production, while pineapple bagasse powder enriched muffin production is already entered into commercial scale production under the brand name "Wayo Food".



## Promising vaccine candidate against Dengue virus

An effective vaccine for dengue is currently a priority need worldwide. However, the development of anti-dengue vaccines is challenged by the observed high variation in immune response against infection by different dengue virus (DENV) serotypes or their genetic variants. These immune responses are non-neutralizing and at the same time disease enhancing. This study proposed an alternative strategy to the commonly used tetravalent-type vaccine design strategy to focus on conserved vaccine. Research work was carried out at General Sir John Kotelawela Defence University by a three-member research team.

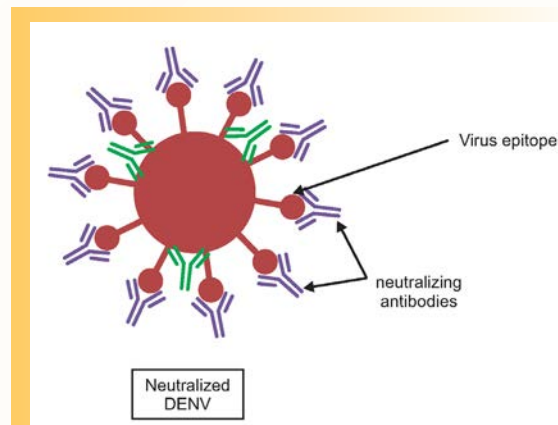


Diagram -01  
Mechanism of neutralizing antibodies

The research was successfully completed with 3 articles in peer-reviewed indexed journals and 2 national patents.

The research team was able to identify five dengue protein targets, which were conserved, broadly immunogenic and neutralizing for the 4 dengue serotypes, demonstrating that those to be good candidates for an epitope-based vaccine against specific targets of dengue virus. Neutralizing antibodies protects the host cell from dengue virus by preventing attachment between the virus and the host cell. This is done by covering the attachment sites of the virus shown as in figure. The investigators have already taken an initiative to develop this vaccine commercially. The project further identified several other dengue protein targets, which are ideal markers in the diagnosis of dengue infection and are already being developed into a rapid diagnostic kit which can be commercialized.

**Table 03:** Patents arising from grants

Field	Number of patents filed
Agriculture	01
Biotechnology	02
Health Sciences	01
Gemology	01

**Table 04:** Publications/communications arising from grants

Field	Type	Local Journals	International Refereed Journals
Agriculture	Manuscripts	04	
	Book Chapters	01	
	Publications	-	03
	Communications	15	06
Basic Sciences	Manuscripts	01	10
	Communications	12	07
Engineering, Architecture & ICT	Manuscripts	01	02
	Communications	02	03
Health sciences	Manuscripts	-	03
	Communications	03	02
Environment & Biodiversity	Manuscripts	-	-
	Communications	03	03
Industrial	Communications	03	01
Food Science	Publications	-	01
	Communications	-	02

## Recognizing S&T excellence

National Science Foundation, as the nation's premier driving force in promoting Science, Technology and Innovation for economic and social prosperity of Sri Lanka, annually organizes the NSF Awards Ceremony to recognize, felicitate and encourage the Sri Lankans Scientists/Engineers who have made outstanding contributions in their respective fields.

Accordingly, "NSF Awards 2018" was held on 18<sup>th</sup> December 2019 at the BMICH, with Hon. Dr Bandula Gunawardena, Minister of Higher Education, Technology & Innovation and Hon. Thlianga Sumathipala, State Minister of Technology & Innovation gracing the occasion as the Chief Guest and the Guest of Honour. Secretary to the Ministry of Higher Education, Technology & Innovation, Mr Anura Dissanayake and Secretary to the Ministry of Technology & Innovation, Mr Chinthaka S. Lokuhetti participated as Special Guests. Prof. Malik Ranasinghe, Senior Professor of the University of Moratuwa was the Keynote speaker, who made an insightful presentation on 'Benefits of Research'.

This year, high-performing research projects completed in 2018 were appraised. The Judging Panels had recommended:

- » NSF Research Awards 2017/2018 - five NSF Research Awards and seven Certificates of Commendation.
- » NSF Technology Awards 2018 - one Certificate of Commendation.
- » Support Scheme for Supervision of Research Degrees (SUSRED) 2018 - twelve supervisory teams were successful in securing awards.
- » The World Academy of Sciences (TWAS)/ NSF Young Scientist Award - one scientist in the field of Biology.



*NSF Awards 2018:  
The Winners of Excellence*



*Dr Ranil Jayawardena, Senior Lecturer in Physiology, University of Colombo & Clinical Nutritionist is receiving the World Academy of Sciences (TWAS) / NSF Young Scientist Award 2018 in the field of Biology*

## Event support

Support Scheme for Scientific Meetings and Events (SSSME) intends to provide assistance to both state and non-state institutes to conduct scientific meetings, training programs, workshops and conferences. This enhances opportunities for Sri Lankan scientists to interact with local and foreign scientists in their fields creating a platform to share and enhance their knowledge.

Nineteen institutes were granted a total of Rs. 6.4 million to hold the scientific meetings and events during the year. This has facilitated more than 4000 individuals to participate in the events and to enhance their knowledge while paving the way to initiate useful collaborations. Further, nearly 1500 abstracts have been published resulting in communication of new knowledge. Twenty-two events were financially assisted through this scheme where the NSF co-organized one event out of the total, identifying the timely importance of the themes and the events for the country.

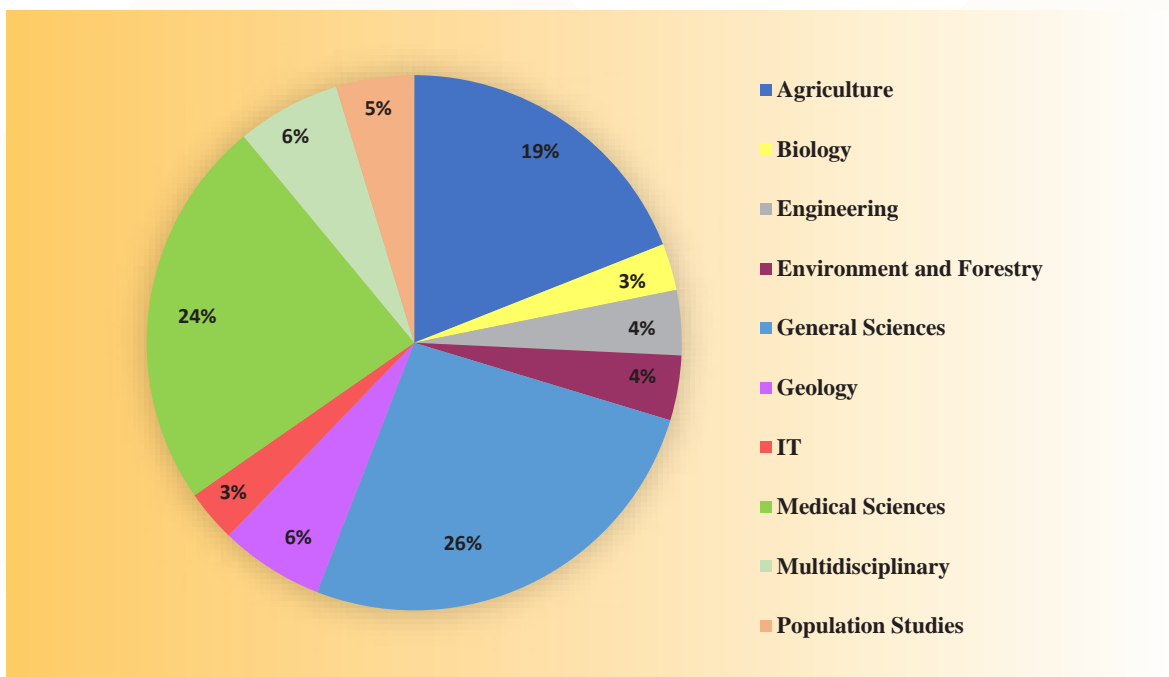


Figure 24: Fund disbursement under different fields

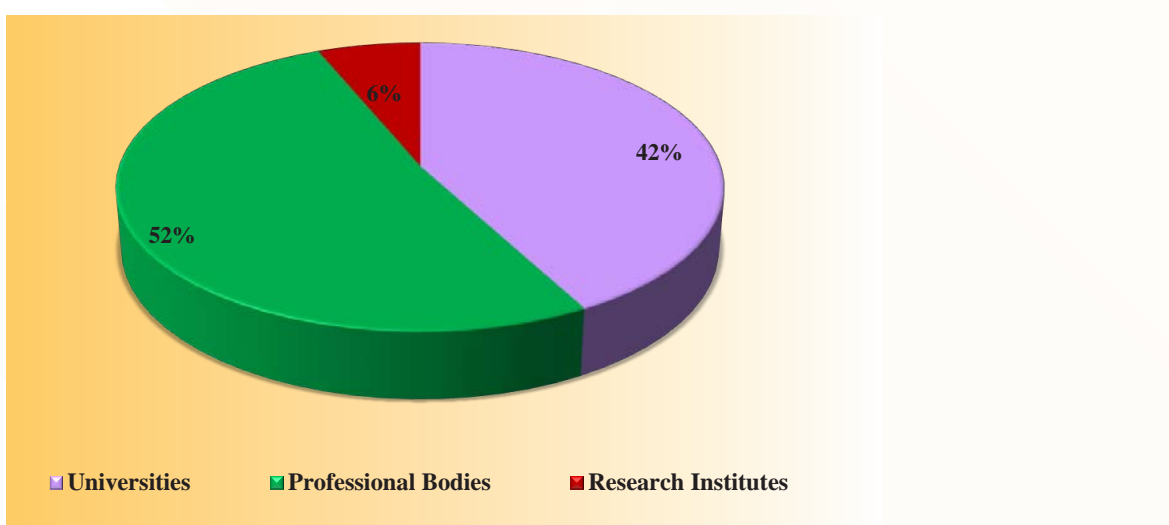


Figure 25: Fund disbursement among different sectoral institutions

# Publication support

Research publications enable the sharing of findings with other scientists so that they can benefit from the new knowledge discovered. It also gives project findings the opportunity to be critically evaluated, reproduced and thus gaining validity. Therefore, the way to reach the widest audience is to publish the findings in a reputed journal. However, some reputed journals charge publication fees. As such, the NSF initiated a new grant scheme, Support Scheme for Publication Fees (SSPF), to help with the publication fees for Sri Lankan scientists whose papers have been accepted by reputed journals indexed in the Science Citation Index, Science Citation Index Expanded and Social Science Citation Index, as an encouragement and to ensure greater visibility for their R&D activities.

The statistics pertaining to SSPF from 2016 – 2019 are given below:

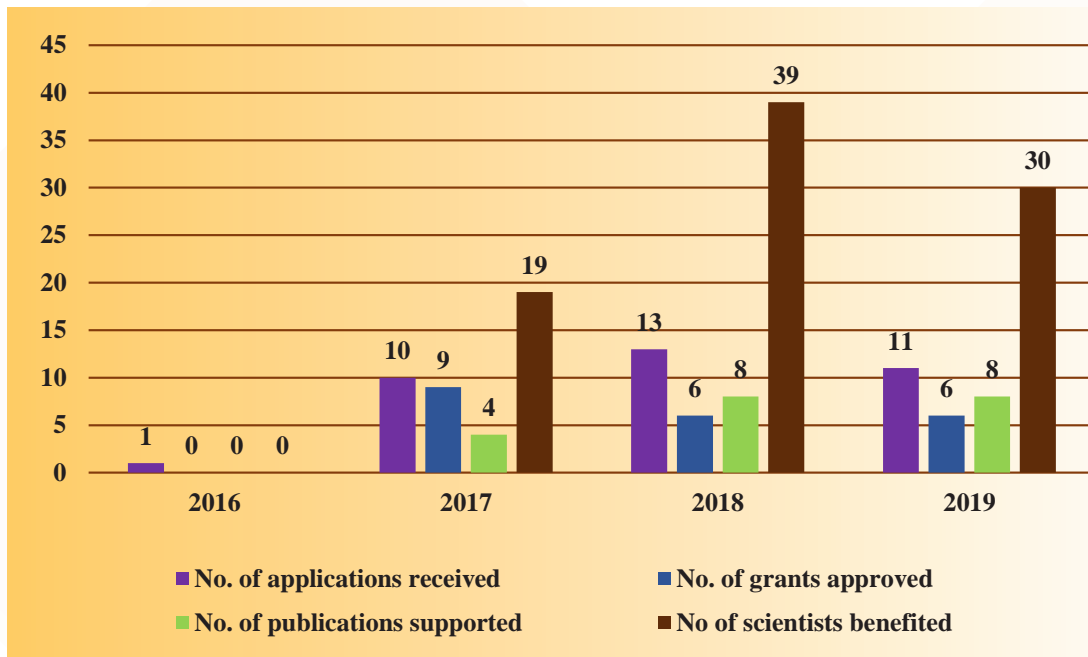


Figure 26: Summary of publication support

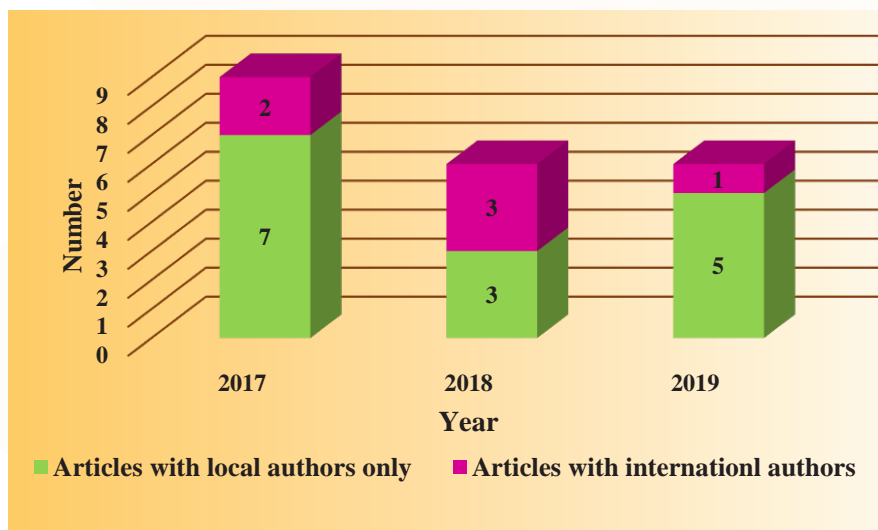


Figure 27: Support given by origin: a comparison

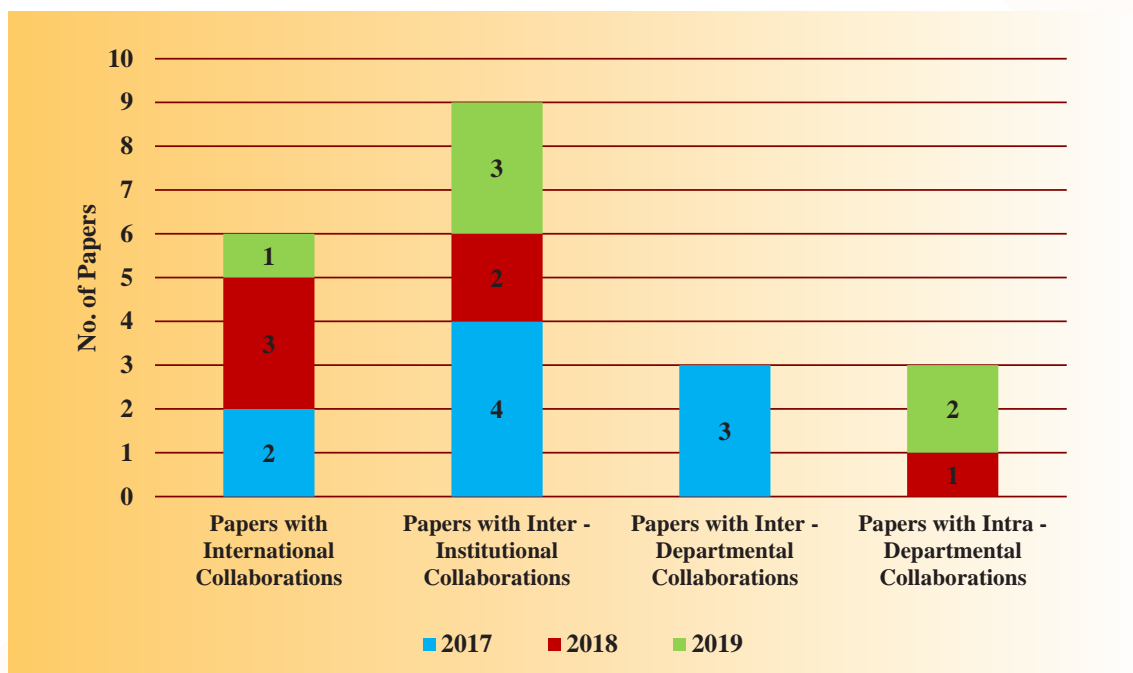


Figure 28: Collaborations under the SSPF Grants

The Impact Factor (IF) of journals are used to measure the importance of a journal by calculating the number of times selected articles are cited by peers within the recent years. The higher the impact factor, the higher the ranking of the journal and the IF is one tool that can be used to compare journals in a subject category.

In view of the need to encourage Sri Lankan scientists to publish their research findings in high impact journals, the NSF revised the criteria, funding limits and also imposed a minimum where the Journal Impact Factor is considered to receive a grant under this scheme. This will be implemented from 2020.

Given below are the details of the Journal Impact Factors (over 02, as per 2018 Journal Citation Report of Clarivate Analytics) of the papers supported by the NSF during 2017 - 2019:

Table 05: Journal IF of papers supported by NSF.

	2017	2018	2019	Total
Papers with IF of 02 - 03	04	02	05	11
Papers with IF over 03	03	00	01	04

## NSF events supporting R&D

### Milestone for safe biotechnology research in Sri Lanka

As signatory body to Cartagena Protocol, Sri Lanka developed a National Biosafety Framework and National Biosafety Policy in 2005. Following that, the current project "Implementation of the National Biosafety Framework in accordance with the Cartagena Protocol on Biosafety", known as "National Biosafety Project" is being implemented by the Ministry of Environment and Wildlife Resources along with Food & Agriculture Organization (FAO) of the United Nations; Sri Lanka. The project consists of four components out of which component two and a part of component four are technically supported by the NSF which were initiated in March 2019.

Component two focuses on formulating guidelines for Environmental Risk Assessment of GMOs, confined field trials, contained use of LMOs/GMOs and feed and food safety, while the component four aims at producing awareness materials on biotechnology & biosafety. Each component is guided by an international consultant, national consultants and working group members, who work together on various objectives like formulating the guidelines, training manuals and preparing awareness materials with the support & coordination by the NSF. The components are handled by groups of experts from various national institutes.

NSF has conducted a number of technical meetings and workshops to formulate the guidelines and has prepared few outreach materials for professionals.

The draft guidelines have been submitted to the Ministry of Environment and Wildlife Resources and more awareness materials are being produced for various target groups.



*Working groups and consultants discussing during workshop.*

### Taking part at "Shilpasena" national exposition

A four-day national exposition on Science, Technology & Innovation to bridge the gap in communicating new technologies to the society was held at the BMICH from 18 - 21 July 2019. Subsequent to this event another exhibition in the series was organized in Polonnaruwa from 25 - 29 September 2019. The NSF organized the stall under the theme "Artificial Intelligence (AI)" with the help of AI experts from the universities and the private sector. AI is the simulation of human intelligence processes by machines, especially computer systems. These processes include learning (the acquisition of information and rules for using the information), reasoning (using rules to reach approximate or definite conclusions) and self-correction. More than 20 such simulations used today were showcased at the AI stall at both events as follows.



- » Sinhala - Tamil computer assisted translation system
- » Driverless cars
- » Adaptive authentication demonstration
- » AiGROW
- » Autochatic chatbot
- » AI for industry
- » Computer vision: semantic image segmentation
- » Computer vision: object recognition
- » Dengue AI web interface
- » Agri AI web interface
- » AI drones for precision agriculture
- » Manufacturing execution system
- » Identification of skin diseases
- » AI powered intelligent agent
- » Personalized privacy assistant
- » Optimised customer journey through review analysis
- » Sanbot - humanoid robot
- » Intelligent transportation system



The NSF demonstrated the outcome of its major activities by organizing the NSF stall at both events. Popularizing the schemes supported by the NSF and displaying the role played to enhance S&T development, the stall widely attracted the attention of the general public towards its key services. A simple method of cardiopulmonary assessment, split skin harvester, non-invasive blood glucose measurement system and bio-conducting of diamond black moth were among the most attractive exhibits in the stall. While facilitating the registration of scientific & technological personnel in the Science & Technology Management Information System (STMIS), a database managed by the NSF, the public was attracted to the NSF book stall too. The book stall was the most popular among the visitors where they were able to purchase NSF publications including "Vidurava", the Science Magazine which is very popular among school children.



The background of the page features a close-up of a hand typing on a laptop keyboard. Overlaid on this is a digital graphic of a globe with several white human icons connected by thin lines, representing a global network. The page is decorated with large, overlapping geometric shapes in shades of blue and cyan. A large dark blue diamond shape is positioned in the upper left, containing the title. A light blue diamond shape is in the lower left, containing the program description. A teal shape is on the right side, and a grey arrow-shaped element is at the bottom right.

# 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.*

## **A strategic partnership with DCS to improve on the R&D survey**

The NSF is mandated to collect Research and Development related information from all relevant stakeholders of the country. Falling into 4 categories, namely, state sector R&D institutes, private sector business enterprises, higher education institutes, and private non-profit organizations, the survey is systematically designed meeting international standards and is conducted on regular basis partnering with other government organizations. Data pertaining to the R&D activities of higher education institutes are collected by the University Grant Commission (UGC).

The contribution of business enterprises to national production as well as to R&D activities of the country are well recognized in this endeavour and these are measured under a separate category. Due to various reasons, the NSF confronted with some difficulties in collecting data under "Business Enterprises" category. Having considered the mandate of the Department of Census & Statistics (DCS) and their expertise in conducting national level surveys, the NSF entered into a strategic partnership with the DCS for collecting data under the business category for the National RDI Survey of 2018. Accordingly, a MoU was signed between the NSF and DCS on the 6<sup>th</sup> September at the NSF. On behalf of the two institutions, Prof. Ananda Jayawardane, the Director General of the NSF and Ms Indu Bandara, the Director General of DCS signed the MoU.

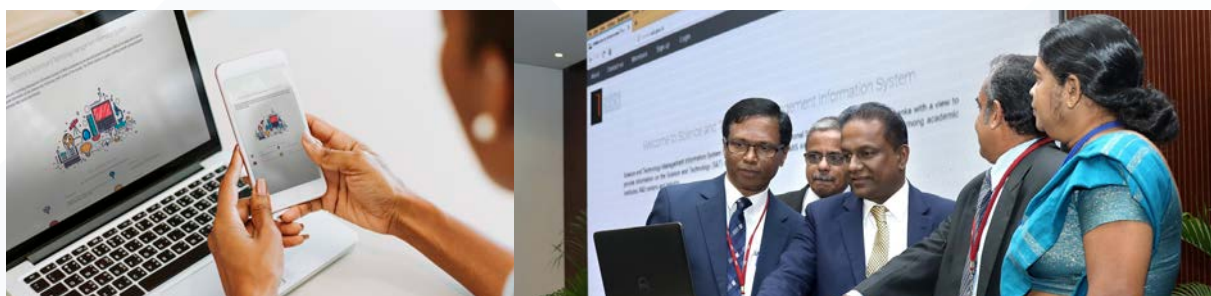
According to this MoU, the DCS will collect data on RDI activities done by the private sector business enterprises from 2019 onwards. The two institutions will share their expertise and resources to conduct a successful survey island wide. With newly established partnership with the DCS, the NSF is able to overcome the obstacles and increase the response rate of the business enterprises to the survey. With data collection done for 2018, it became explicit that the partnership with the DCS will enable to measure the economic values of the R&D activities of the country more realistically and with precision.



*The NSF & DCS are signing the MoU and handing over*

## Reaching the public through a manpower information system (STMIS)

Science & Technology Management Information System (STMIS) from its inception in 2004 strived for gradual progression in serving the needs of its stakeholders. However, the system became obsolete with time due to outdated software and consequently, the interaction between the S&T community and the general public was declined. With the aim of restoring the academic-industrial and public interaction with S&T, the NSF introduced the upgraded STMIS in October 2019. Provision is now given to all to feed information online on their expertise and research outputs. The information on advanced scientific equipment and training programmes offered by the research institutions are the other forms of data contained in the database.



*The upgraded STMIS is being launched*

The benefits provided by the STMIS is enormous. While serving as a one-stop information source on science-related expertise in the country, STMIS provides several other facilities. The S&T personnel who are registered with the STMIS are kept abreast of opportunities in the S&T sector that are available locally and internationally. This includes information regarding scientific fora for awareness and capacity building, opportunities of funding and collaborations, as well as career opportunities such as scholarships, fellowships, and vacancies in the S&T sector. Organizers of scientific events can benefit from the STMIS since it directly routes the messages to the beneficiary, increasing the response rate.

## Policy discussions & studies

### Socio-cultural factors shaping up S&T

A conference, “Social and Cultural Nexus of Science and Technology Development” was held in Colombo from 3<sup>rd</sup> - 4<sup>th</sup> October 2019 to create a platform to debate on how the S&T development of a country can be shaped up by the socio-cultural factors. The conference was attended by eminent academics, researchers, policymakers and state officials in the field mainly from Sri Lanka and India.

The NSF organized this conference noting the different approaches taken by the developed and developing countries in the region in technology adoption. Sri Lanka seemingly, has not been able to significantly pay attention to identify attributes of various socio-cultural factors that can make a positive impact on the progression of science and technology of the country. This has created policy gaps and certain failures in the sectoral developments. The Conference was organized to address some of these gray areas and enhance the policy debates on how the progress of science and technology of the country can be stimulated by taking a wholistic view on the topic.



*The NSF entered into a strategic partnership with the ICSSR*

## Identification of medicinal plants with uncertain identity

Considering the existing complications in identifying the medicinal plants in Sri Lanka, the NSF planned a study to authenticate medicinal plants with uncertain identity. Several planning sessions were held at the NSF to formulate a proposal to conduct this study in several phases to begin in 2020 with the assistance of external experts.

## Protecting IK related Intellectual Property (IP)

There is an increasing debate among the policy makers in developing countries about protecting IP of Indigenous Knowledge (IK) being used for commercial purposes without giving benefits or at least due recognition to the owners. It is observed that the existing international intellectual property system does not provide adequate protection to IK and traditional cultural expressions. Therefore, the communities and governments have an interest to establish an internationally adoptable legal instrument which can provide unique protection to IK. However, due to various reasons, introducing an intellectual property protection system for IK has not been materialized.

Recognizing the need to have an intellectual property protection system for IK in Sri Lanka, the NSF formed an Expert Group to formulate a policy framework. After reviewing the existing legal framework and IPR tools used by other countries, the Expert Group made some recommendations to explore the possibilities of using IPR tools to protect IK from any unauthorized users. A booklet titled "Intellectual Property Rights Protection of Indigenous Knowledge: Using and Extending Existing Legal Protections" was published with these recommendations. Based on the recommendations it is expected to create conversations with relevant stakeholders to develop a framework for Intellectual Protection System for IK.

## Exploring IK of ancient water civilizations in Sri Lanka

With the increasing demand for resources, the world is now facing numerous crises in the management of natural resources. In the past few decades, various scientific and socio-political theories were introduced with the aim of understanding these crises and finding solutions to these. At present, the issue has been narrowed down to the concept of "sustainability", and the whole world is now trying to define "sustainable development" and to develop strategies for sustainable use of natural resources. In the journey of finding ways to sustainably manage natural resources, it is important to find out how our ancestors co-existed with the environment for thousands of years. Accordingly, exploring Indigenous Knowledge of ancient water civilizations in Sri Lanka was identified as an important theme under this.

The main objective of this study is to explore the sustainability and cyclicity of ancient irrigation systems in Sri Lanka and to understand the social-cultural-hydrological and ecological dimensions associated with it. Several preparatory discussions were held at the NSF to develop a concept with the help of experts who have various insights into this topic.



# Gender in Science, Technology, Engineering and Mathematics (GSTEM)

With the participation and making active contributions to the Global Research Council (GRC) discussions, the NSF Programme on "Women in Science" was initiated in 2018.

With subsequent developments, the following events/activities took place during the year 2019.

1. NSF represented at the GRC Gender Working Group (GRC GWG).
2. NSF contributed to the publication on "Case Studies on Promotion of Gender in STEM".
3. Ms Thilina Kandanamulla represented NSF at the Gender Summit - 16 (Asia Pacific) held in Singapore in August 2019 .
4. Prof. Ananda Jayawardane/Director General of the NSF delivered a recorded speech at the session on "Gender Disaggregated Data Collection, Analysis and Reporting" at the Asia Pacific Regional Meeting of the GRC held in Jakarta, Indonesia in October, 2019.
5. NSF expressed the interest in associating with UNESCO SAGA Programme, in order to share technical expertise and experience in conducting the survey and related policy formulation.
6. A survey was conducted on GSTEM in Sri Lanka as a contract research aligning with the UNESCO SAGA (STEM and Gender Advancement) Programme. The Study was completed scrutinizing data on the sectors of Higher Education, Vocational Training, Research and Business Enterprises in Sri Lanka in relation to STEM fields.





## 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**



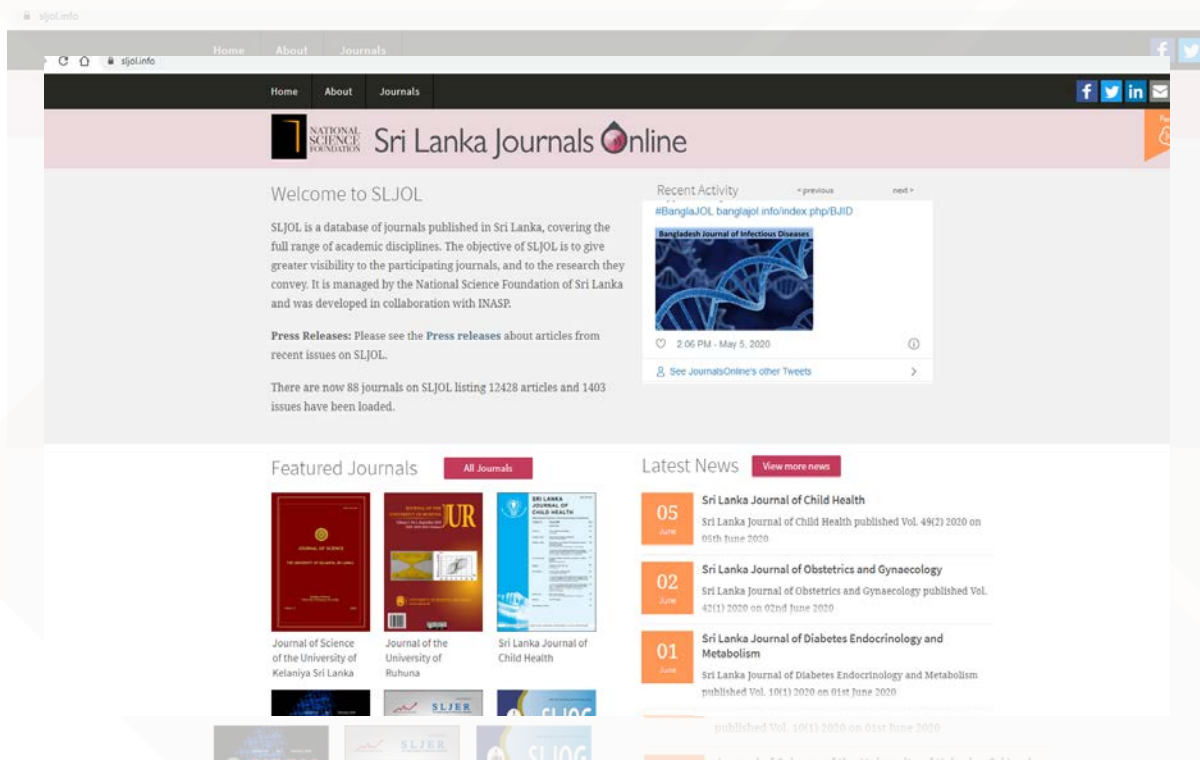
*Fostering interchange of scientific information is one of the key functions of the NSF. Empowered by the S&T Development Act No. 11 of 1994, the NSF provides access to scientific and technological literature and related information to all the stakeholders, being the key getaway in the country for providing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

## Strengthening resources base

### Sri Lanka Journals Online (SLJOL)

Sri Lanka Journals Online [SLJOL - <https://www.sljol.info/>] is a unique online platform which shines a light on Sri Lankan research by providing a greater visibility to research outputs. The platform also plays a role in overcoming the great challenge faced by the scientists in disseminating their findings worldwide.

The SLJOL, a conglomeration of eighty-five (85) scholarly peer reviewed journals published in Sri Lanka, is a member of the Journals Online (JOL) project established by the International Network for the Availability of Scientific Publications (INASP) of the United Kingdom (UK). NSF operates this in collaboration with Ubiquity Press, UK. Sri Lankan researches are more visible, detectable and accessible nationally and internationally through the SLJOL. The site has been immensely useful to policy makers and researchers formulating S&T policies and locating past R&D outputs.



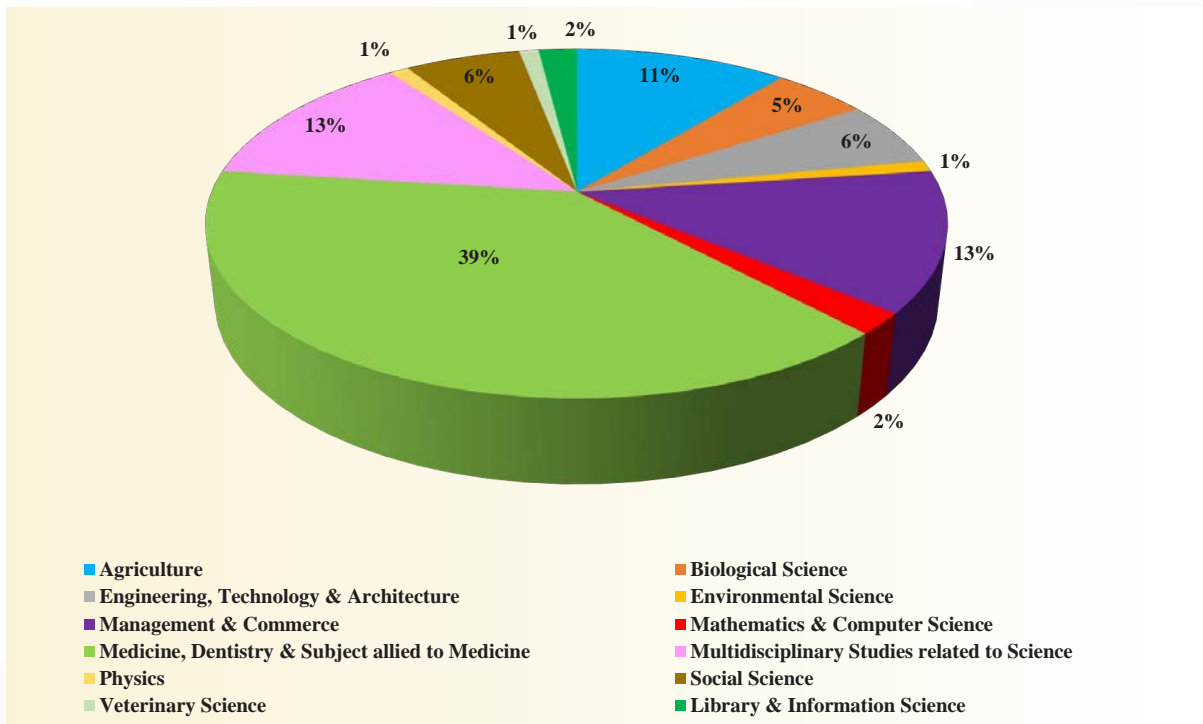


Figure 29: Journals published in SLJOL under different subject fields

Since its inception in 2008 with 06 journals, SLJOL has extensively matured during the last decade and it continues to grow fast even today. Currently, 11,944 research articles of 1346 issues covered by 85 Sri Lankan scholarly journals are securely archived in SLJOL.

In 2019, 1405 research articles of 174 journal issues were published in SLJOL. Four new journals were setup on the SLJOL in 2019 following the fulfilment of formal eligibility criteria to join with SLJOL.

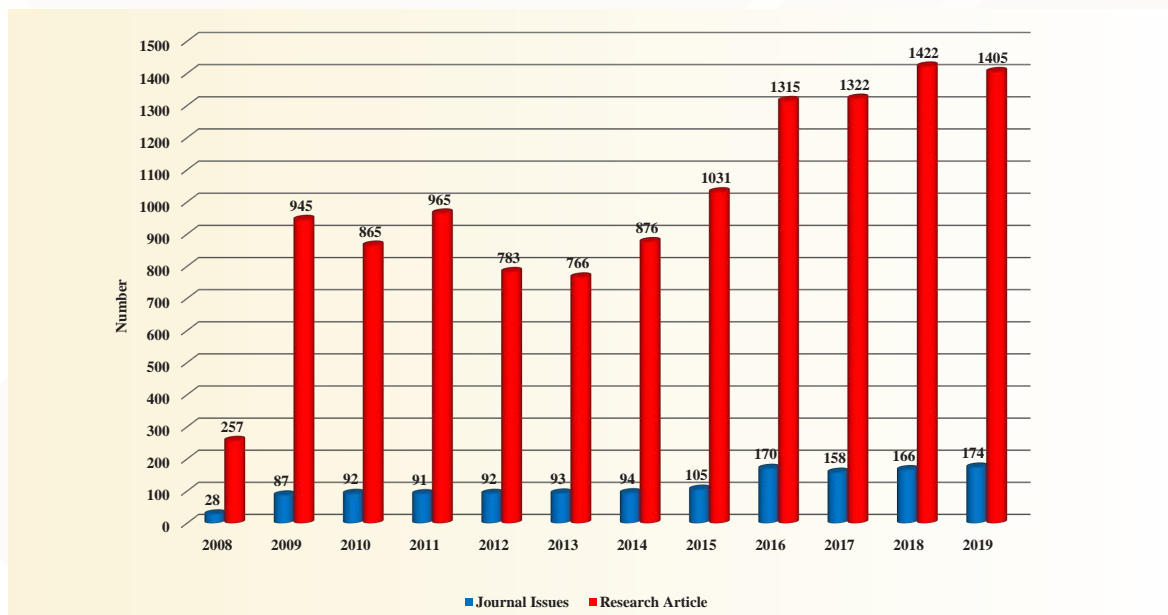


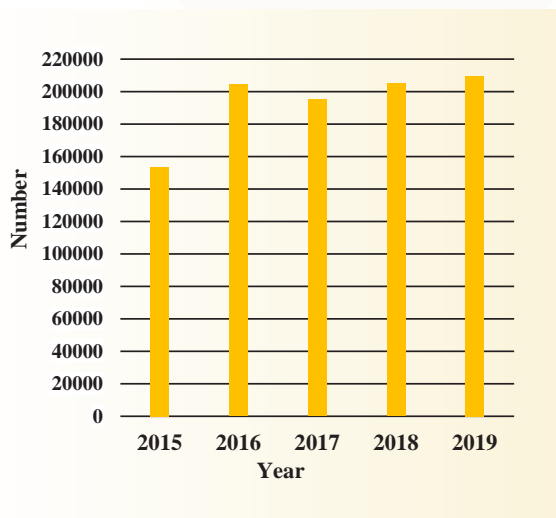
Figure 30: Growth of SLJOL since its inception

According to the statistics of 2019, given by Google analytics, 209,568 viewers have been recorded from 210 countries and 97,950 full text articles have been globally downloaded from the SLJOL platform.

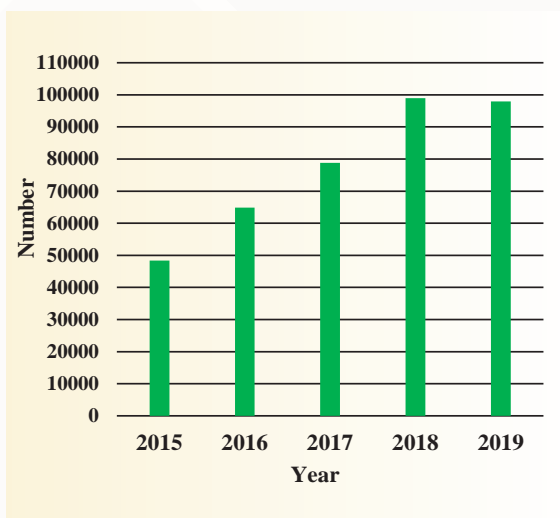
**Table 06:** Global Distribution of SLJOL Users (Top 50 Countries)

Country	No. of users	Country	No. of users	Country	No. of users
Sri Lanka	83668	Thailand	1319	Ghana	537
India	22062	South Korea	1310	United Arab Emirates	535
United States	21002	Ethiopia	1143	New Zealand	500
Philippines	8720	France	1123	Russia	452
China	7024	Singapore	979	Poland	444
United Kingdom	5603	Egypt	974	Hong Kong	435
Japan	4822	Nepal	951	Sweden	388
Australia	4004	Mexico	883	Tanzania	376
Nigeria	3996	Netherlands	852	Iraq	365
Indonesia	3718	Italy	843	Colombia	345
Pakistan	3358	Saudi Arabia	793	Portugal	341
Malaysia	3181	Kenya	773	Uganda	335
Bangladesh	1704	South Africa	713	Myanmar (Burma)	322
Canada	1671	Iran	659	Belgium	312
Brazil	1633	Spain	639	Switzerland	309
Turkey	1604	Vietnam	562	Peru	300
Germany	1499	Taiwan	555		

As shown in following figures, usage of the SLJOL has been boosted with shifting to a new platform in 2015 which allows the users to share the content on social media such as Twitter, facebook & LinkedIn.



**Figure 31:** Usage of SLJOL worldwide



**Figure 32:** Full text downloads from SLJOL (2015-2019)

One important responsibility of the Sri Lanka Journals Online is to periodically evaluate how successful its journals and whether preventive actions are needed to avoid catastrophe or to make the platform stronger to be effective. In 2019, SLJOL supported editors in various ways to achieve the said objective.

## National Digitization Project

The NSF launched the National Digitization Project (NDP) in 2011 to be implemented in several phases, with the objective of digitizing local S&T literature available in research & academic institutions in the country to facilitate easy & quick online access through a national network of Institutional Repositories (IRs). The project has a national importance since it preserves the valuable Sri Lankan scholarly literature & provides surrogates especially to those with potential for deterioration. Further, the project helps bringing the national outputs of S&T to global visibility.

National Digitization Project I which was composed of three phases was progressing successfully at its third phase (Phase III) during 2019 as a key task of the NSF. Digitization of local literature collections in selected libraries, establishment of IRs (on DSpace software) for each library & uploading of digitized documents into IRs are the main activities of each phase. In line with the above activities, digitization of 15 institutional collections and establishment of respective IRs were completed under Phase III in 2019. Uploading of documents into databases/digital repositories was in progress and the databases/IRs showed a significant growth by the end of 2019 as illustrated below.

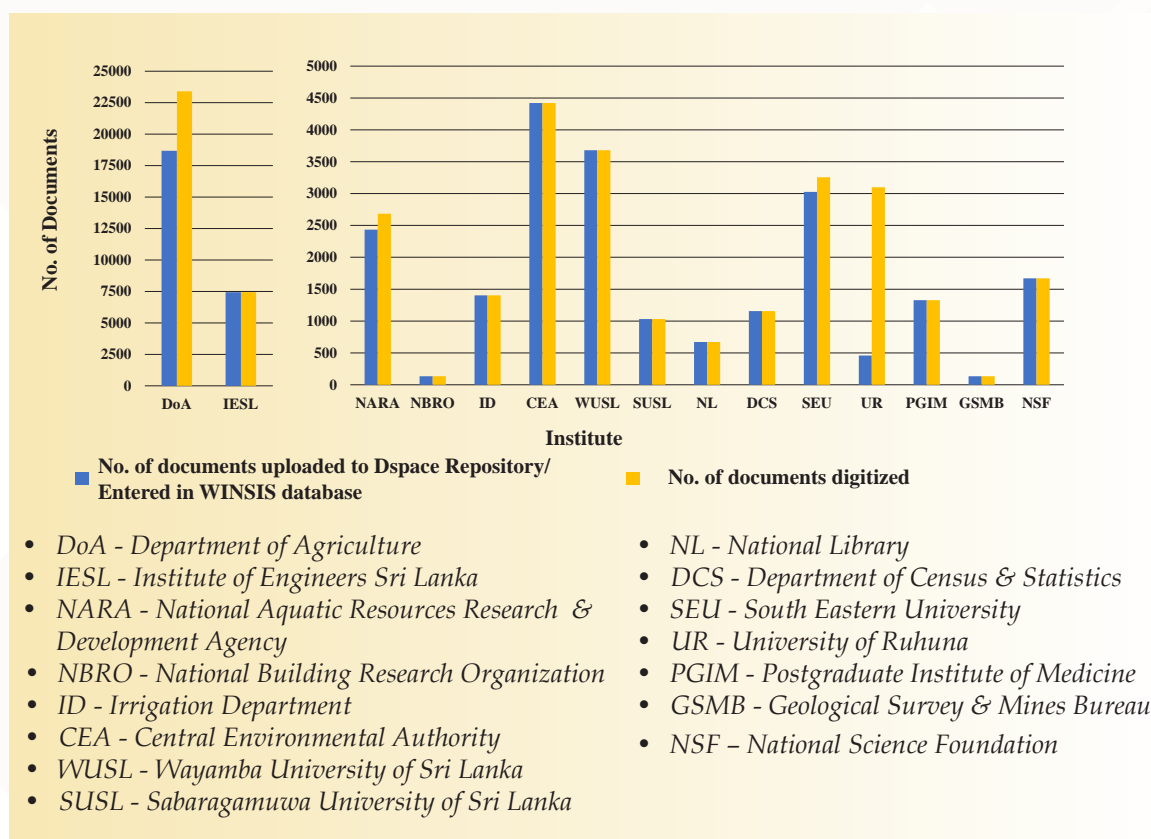


Figure 33: NDP Phase III - Growth of databases/IRs



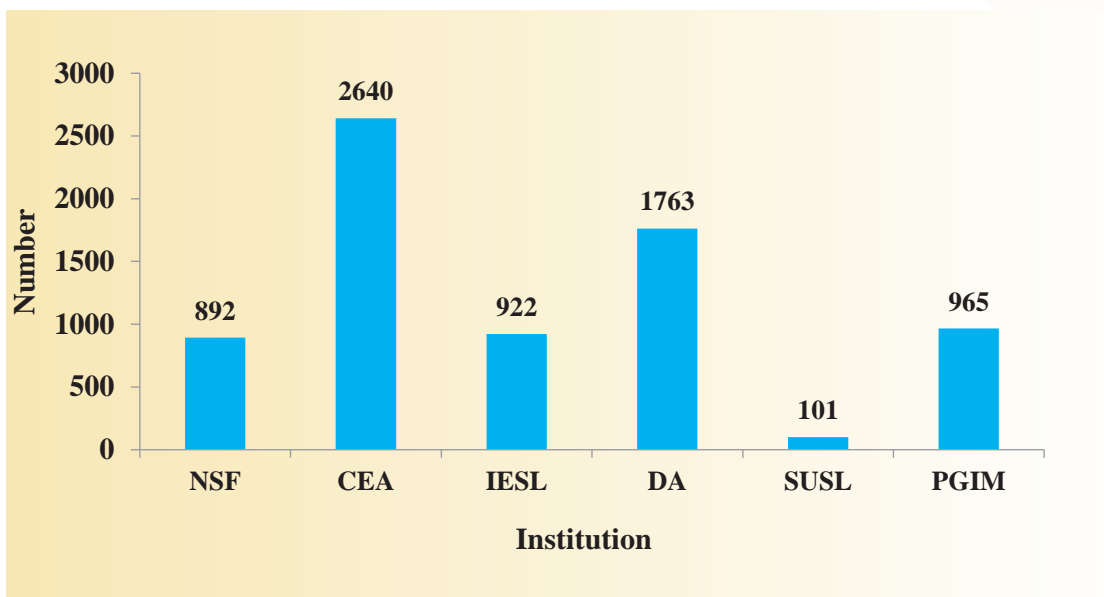


Figure 34: Number of full text articles/ documents made available for online access in 2019

The usage of the repositories is measured by the number of views made and the number of documents downloaded from the respective repositories. The statistics on usage of the repositories hosted on the NSF server during 2019 is illustrated below.

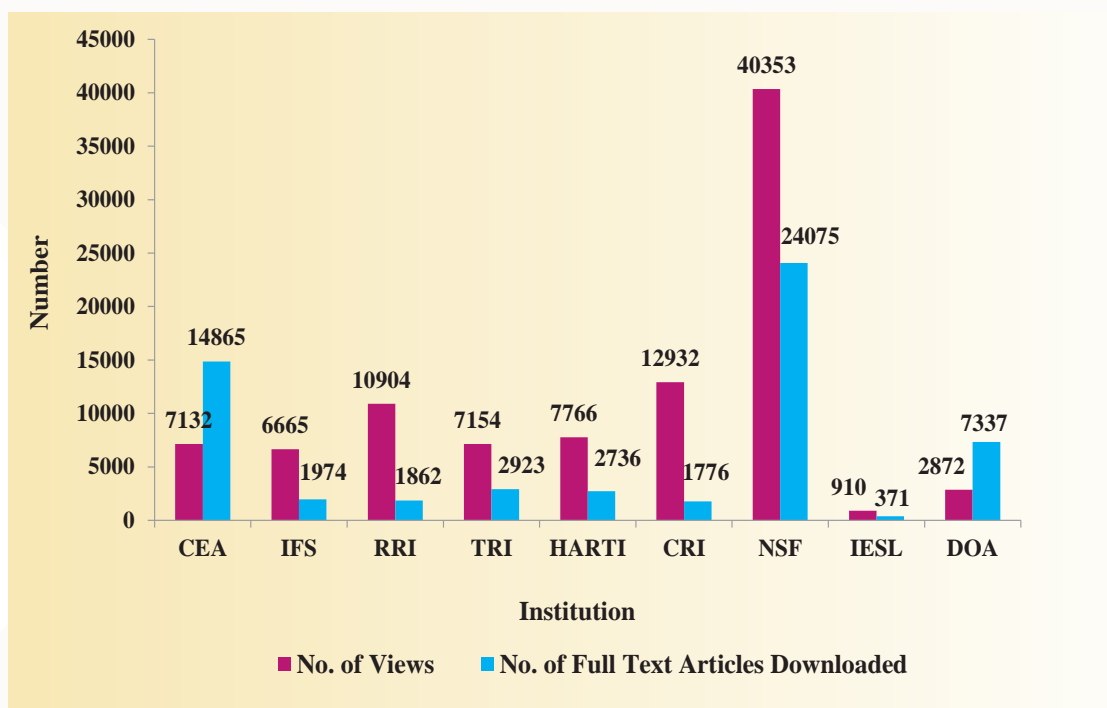


Figure 35: Usage of repositories hosted on NSF server during 2019

The ultimate goal of the NDP is to create a national network of IRs among academic, research and related institutions in the country. Twenty five digital repositories have been established since the inception of the project and eleven repositories out of them have been integrated to the national network, <http://dl.nsf.ac.lk> by the end of 2019.

## Providing information services

Technical support was provided to develop a comprehensive bibliographic database on research related to major non-communicable diseases (NCDs) and risk factors in Sri Lanka by using Java CDS/ISIS (J-ISIS) software. The service was provided to the University of Colombo. The database is presently hosted on NSF J-ISIS server.



Two more databases were developed for Sinhala Encyclopedia Office & Sinhala Dictionary Office of the Department of Cultural Affairs, with the support of J-ISIS software.

## Events of the year

The efficiency of providing the information service is enhanced through a network, Sri Lanka Science & Technology Information Network (SLSTINET) operated among S&T libraries in the country. The current membership of SLSTINET is over 120 consisting member libraries in the universities, research institutions, government departments & statutory bodies, banks and other special libraries in Sri Lanka.

The SLSTINET annual conference, "The Evolving Roles of the Librarians as Information Professionals in the Digital Era", was held on 9<sup>th</sup> August 2019 at the Sri Lanka Foundation (SLF) with over 180 participants.

Role of SLSTINET and way forward was discussed under several topics including, "Transforming libraries into new business model as information centers," at this Conference.



## Journal of the National Science Foundation (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, while abstracts of the articles are published early online. All articles in the journal are published under the Creative Commons License 'Attribution-No Derivatives-CC-BY-ND 4.0'.

Contents of the journal are peer-reviewed under double-blind review and are currently indexed in Clarivate Analytics Science Citation Index Expanded, Chemical & Biological Abstracts, BIOSIS Previews, Zoological Records, SCOPUS, TEEAL, Ulrich's, AGRICOLA and EBSCOhost. The Impact Factor of the journal has been increased to 0.419 over the year from 2010 (*Figure 39*) highlighting that articles published in the JNSF are more cited by other researchers worldwide. The journal is published both online and in print form. The full text of JNSF can be accessed through the Sri Lanka Journals Online (SLJOL) website free of charge.

In 2019, the JNSF initiated processing of manuscripts through the Sri Lanka Journals Online System (SLJOL) moving towards paperless online journal management. As of now, all steps related to journal management are conducted through the online system.

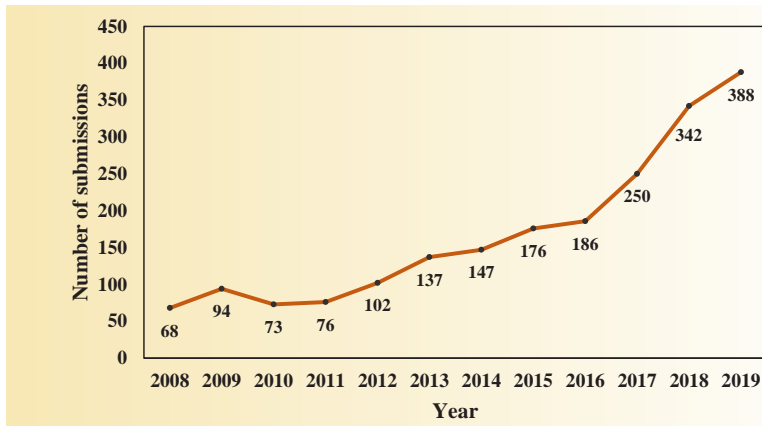


Figure 36: Submission of the articles for JNSF

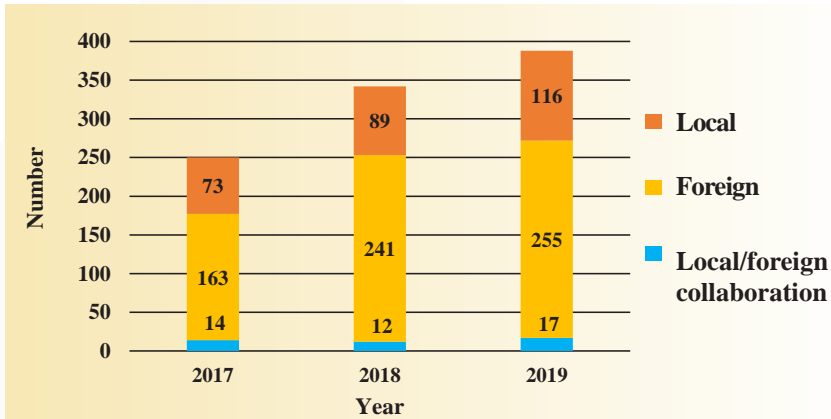


Figure 37: Submission by origin: a comparison

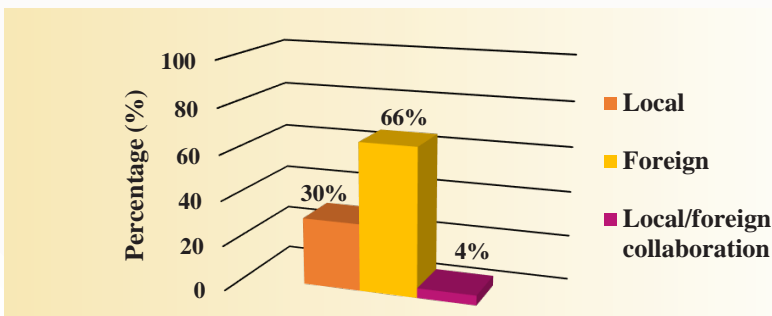


Figure 38: Percentage of submissions in 2019 based on origin

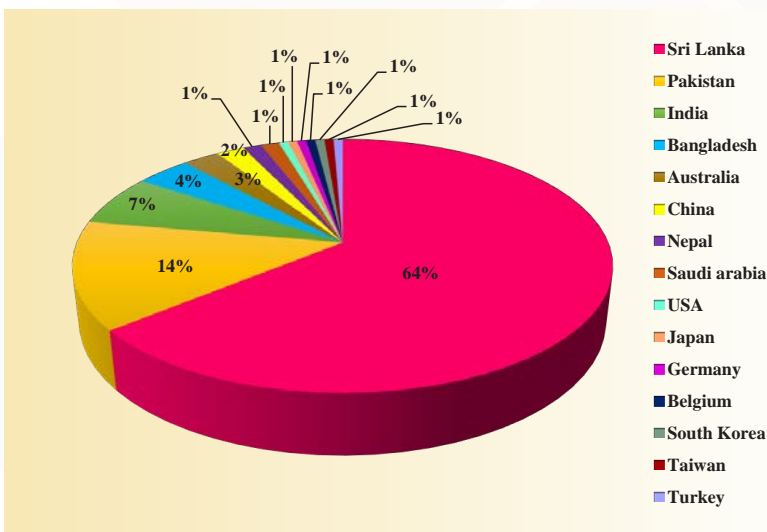


Figure 39: Origin of authors published in JNSF in 2019

The authors are affiliated to 45 different foreign institutions.

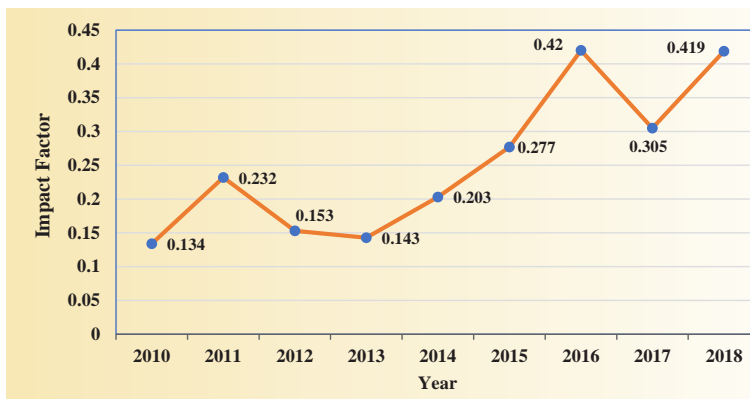


Figure 40: Impact Factor increase from 2010 - 2018

As shown in *figure 41* the 5-year Impact Factor has arisen to 0.597 compared to the previous year, displaying continuous improvement.

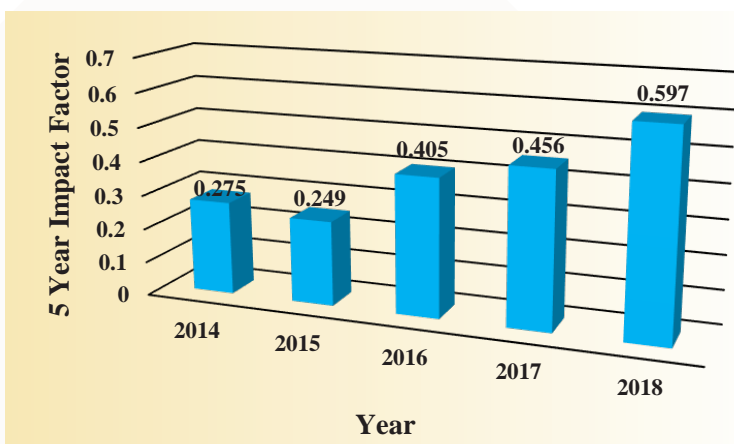


Figure 41: 5-year Impact Factor of JNSF

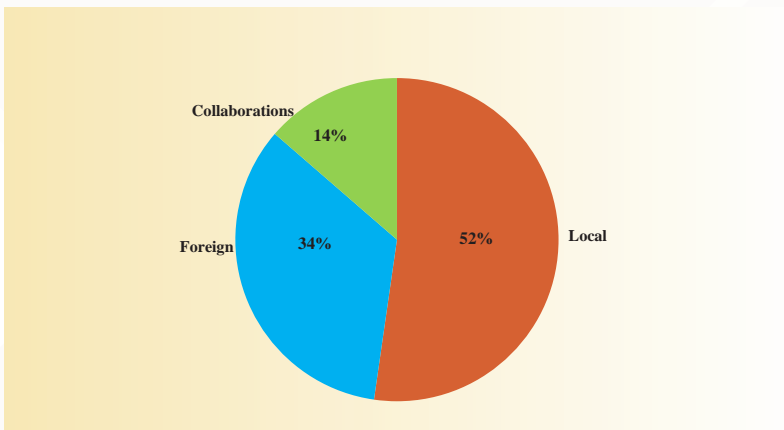


Figure 42: Origin of authors published in JNSF in 2019

When considering the origin of authors who published articles, 52% of the articles were from local researchers, while 34% and 14% were from foreign and collaborative research, respectively.

Out of the 66% local and collaborated articles, 34% displayed Inter-Institutional collaborations, while 12% had International collaborations. The percentage of Intra-Departmental and Inter-Departmental collaborations were 11% and 9%, respectively.

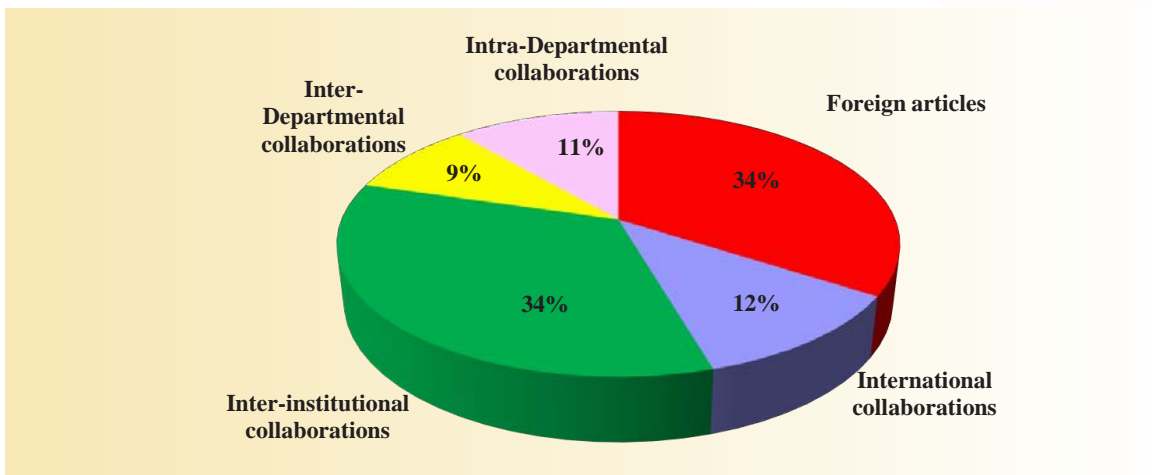


Figure 43: Nature of articles published in JNSF in 2019 based on collaborations

Ninety-nine local authors were able to disseminate their research findings to the global scientific community by publishing their papers in the Journal, the JNSF being international indexed and open access.

Twenty-one local universities and institutes have contributed for the articles published in 2019 the main proportion being from the universities with University of Peradeniya and University of Colombo with most authors, followed by the University of Ruhuna, University of Moratuwa, University of Sri Jayewardenepura and University of Jaffna.

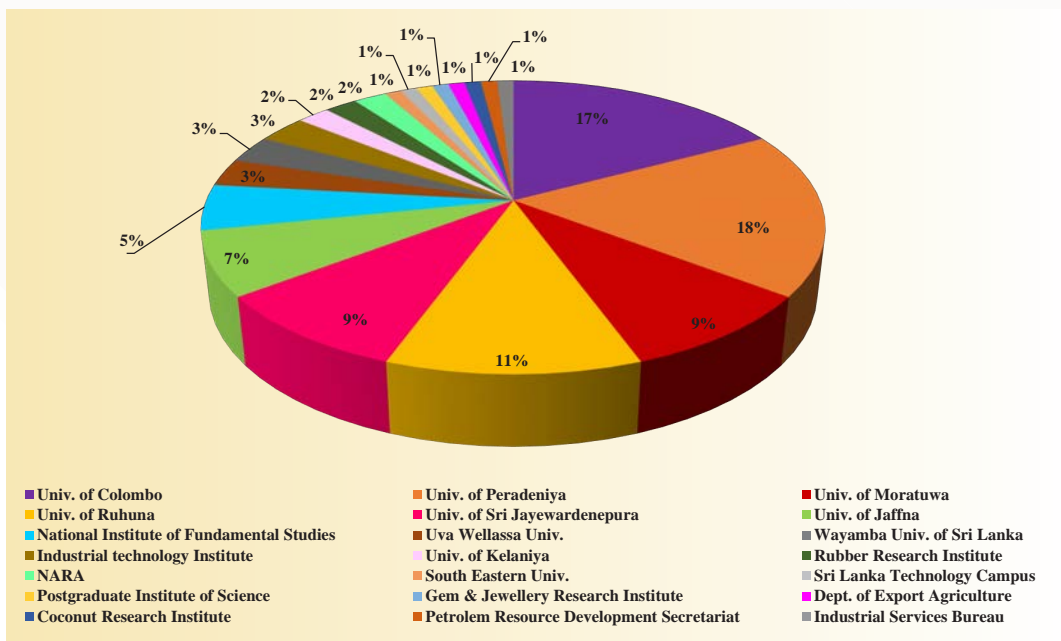


Figure 44: Percentage of local authors published in the JNSF in 2019 by university/institution



# Sri Lanka Journal of Social Sciences

Sri Lanka Journal of Social Sciences (SLJSS) was launched in 1978 as a premier social science journal in Sri Lanka. It is published twice a year (in June and December), entertaining social science contributions in the form of research articles, review articles, work-in-progress articles, correspondence and invited book reviews. The journal publishes social science articles in Sinhala, Tamil and English languages, on topics relevant to Sri Lanka in particular, and South Asia in general. All papers are subjected to double-blind peer-review. The journal provides open access to all its articles through the Sri Lanka Journals Online (SLJOL) platform. All articles in the journal are published under the Creative Commons License 'Attribution-No Derivatives-CC-BY-ND 4.0'.

Sri Lanka Journal of Social Sciences is currently indexed in SCOPUS and in the Emerging Sources Citation Index (ESCI) of Clarivate Analytics. SLJSS is one of the only five Sri Lankan journals indexed in ESCI.

In an attempt to increase the number of citations, the NSF initiated activities to invite review articles from identified academic personnel in the social sciences field in Sri Lanka. All such invited articles are processed following the same procedure as per the journals' normal double-blind peer review process.

Since December 2019, SLJSS started hosting regular Editorials from its Co-Editors in each of its issues.

Starting from 2019, the journal showcases and acknowledges its reviewer base for the year through a Reviewer Index in the December issue of each volume adding value to the publication.

New submissions from 2019 show a slight increase compared to 2018. Interestingly, in 2019, the local submissions show an increasing trend while submissions from foreign sources show a decrease. No collaborative articles were submitted in 2019.

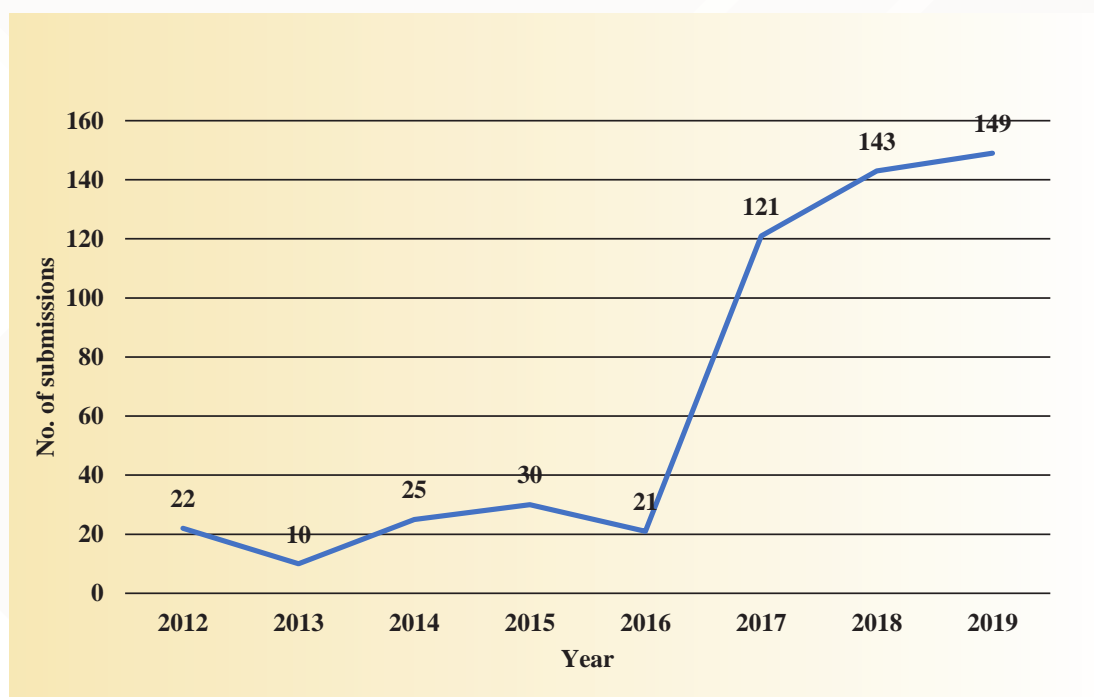


Figure 45: New article submissions for SLJSS (2012-2019)

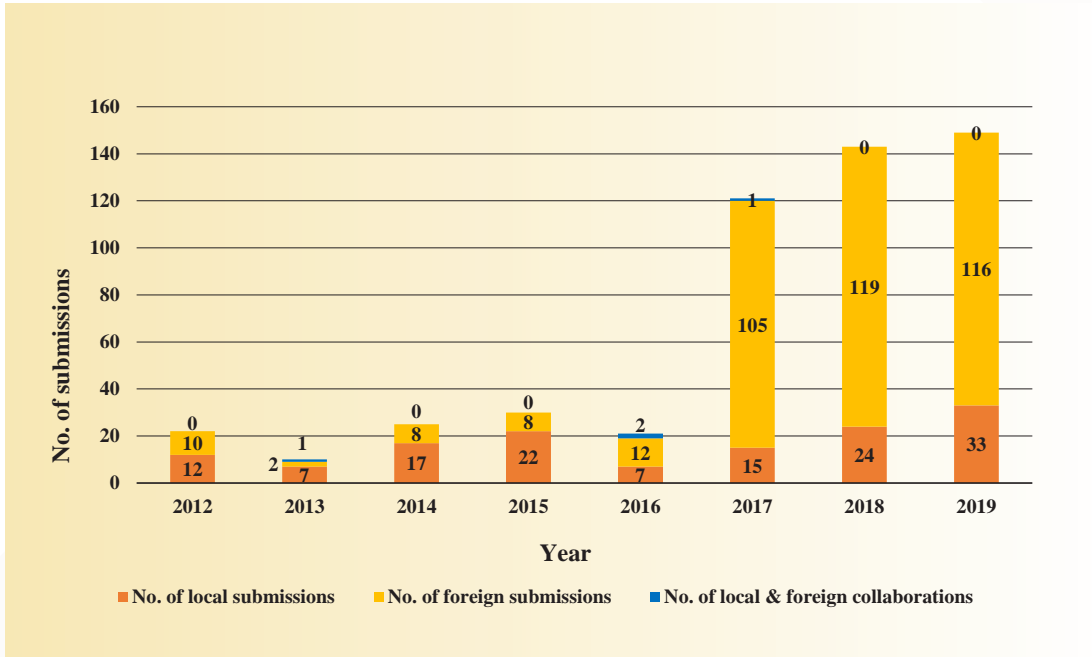


Figure 46: New article submissions by origin (2012-2019)

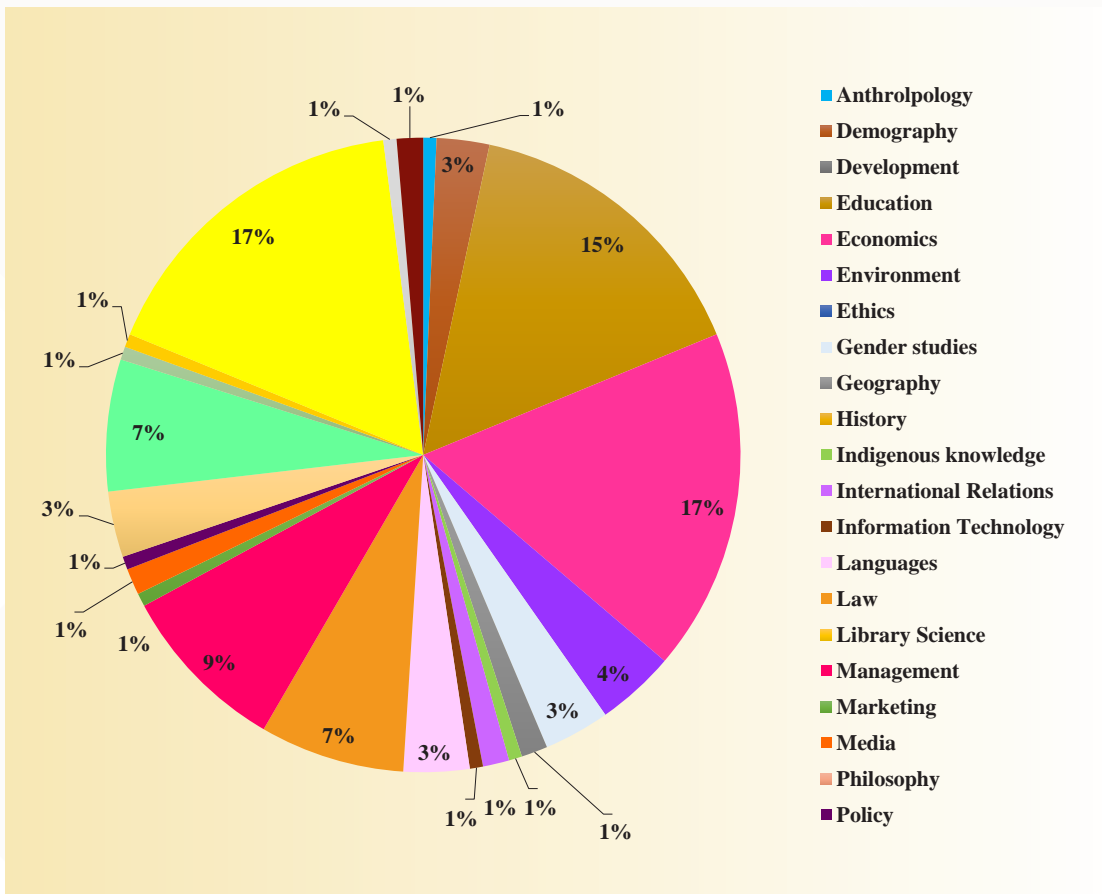


Figure 47: Submissions by discipline 2019



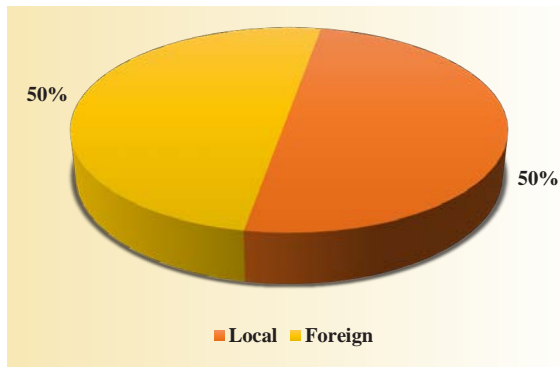


Figure 48: Origin of authors of SLJSS in 2019

2019 shows an equal distribution of foreign and local authors in articles published within the year. Since there were no collaborative articles, the same is true for the origin of articles published in 2019.

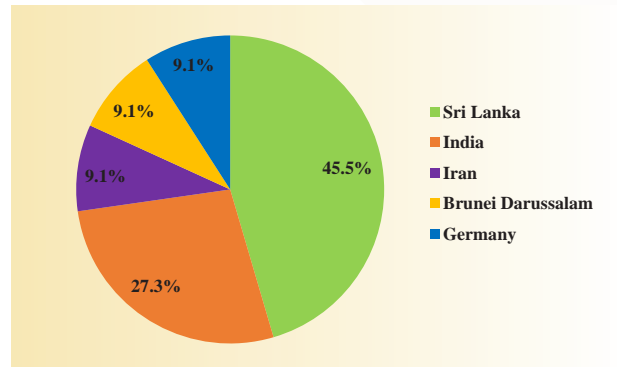


Figure 49: SLJSS 2019 : Authors by origin

Among foreign authors, majority represented India, followed by Iran, Brunei Darussalam and Germany.

Seven foreign institutes were represented by the authorship in Volume 42 of SLJSS.

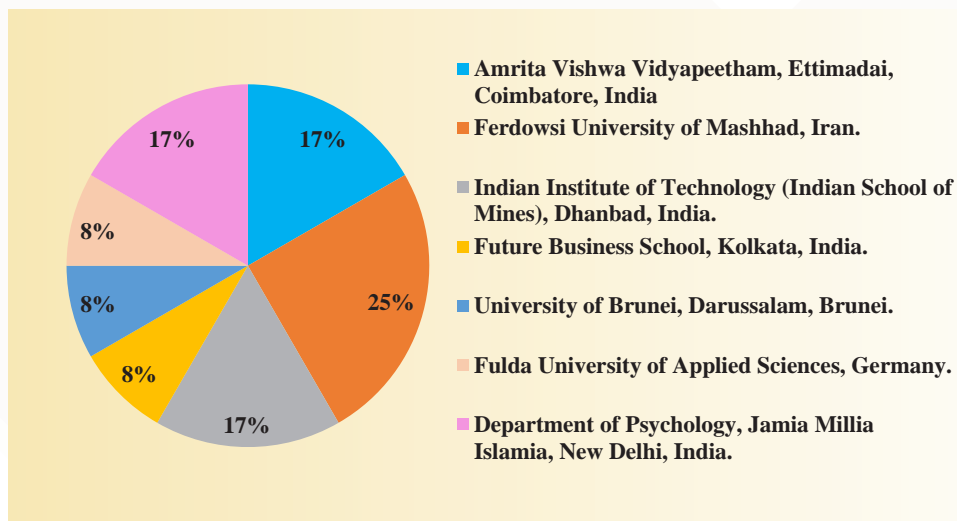


Figure 50: Representation of foreign affiliations of published articles

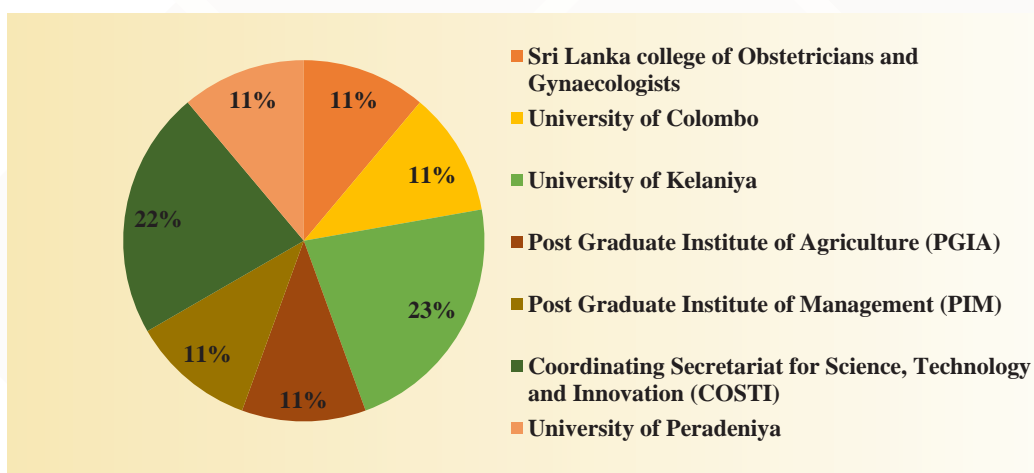


Figure 51: Representation of local affiliations of published articles

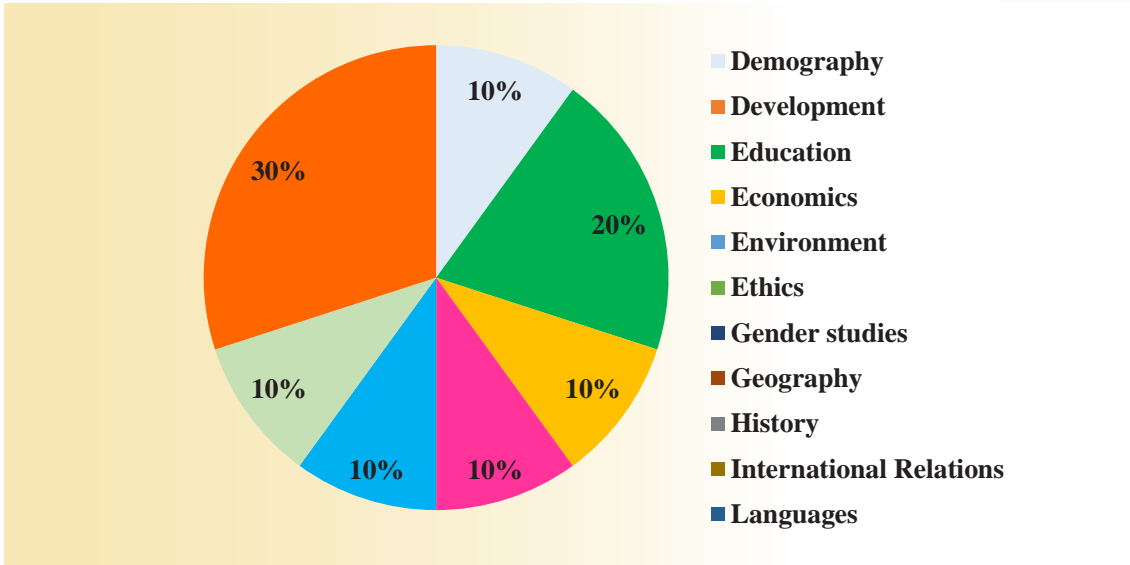


Figure 52: SLJSS 2019 : articles published by field

Majority of the articles published in 2019 were from the field of Sociology.

Volume 42 issues 01 & 02 of SLJSS were published in June and December of 2019 with 13 articles in total.





# 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. Number of activities were conducted in 2019 specifically focusing on school children.*

## Strengthening science base and fostering creativity & innovation

### Publications

As in previous years the NSF continued to publish the “Vidurava” Science Magazine as a mean of enhancing scientific knowledge among school children in the country. Four issues were published during the year on the following topics.

1. Built environment
2. Aeronautics
3. Sustainable use of earth resources
4. Artificial intelligence

In addition, the following books were published aiming at increasing science literacy among school children and general public.

1. Proceedings of the Science Research Projects Competitions
2. වකුගඩු රෝගයේ වළකීම
3. පර්යේෂණ ක්‍රියාවලිය හඳුනා ගනිමු
4. A Historical Review of Science Planning and Research in Sri Lanka (1812 - 2000)
5. Biotechnology

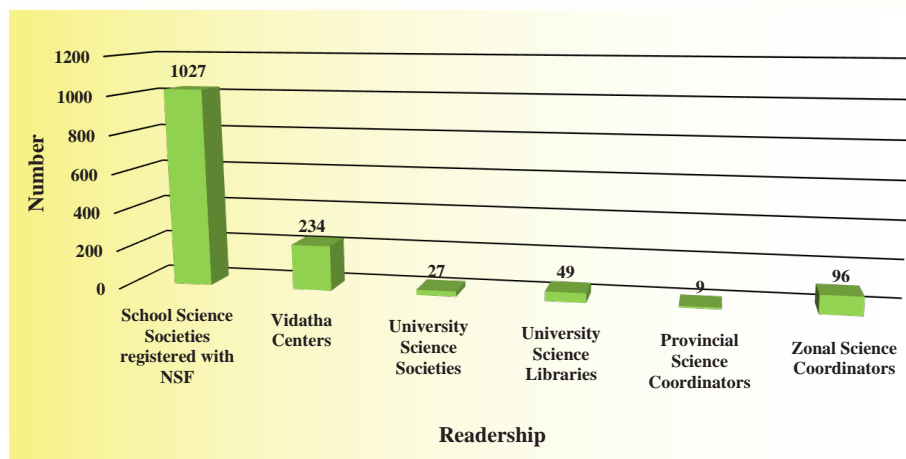


Figure 53: Readership of “Vidurava” science magazine

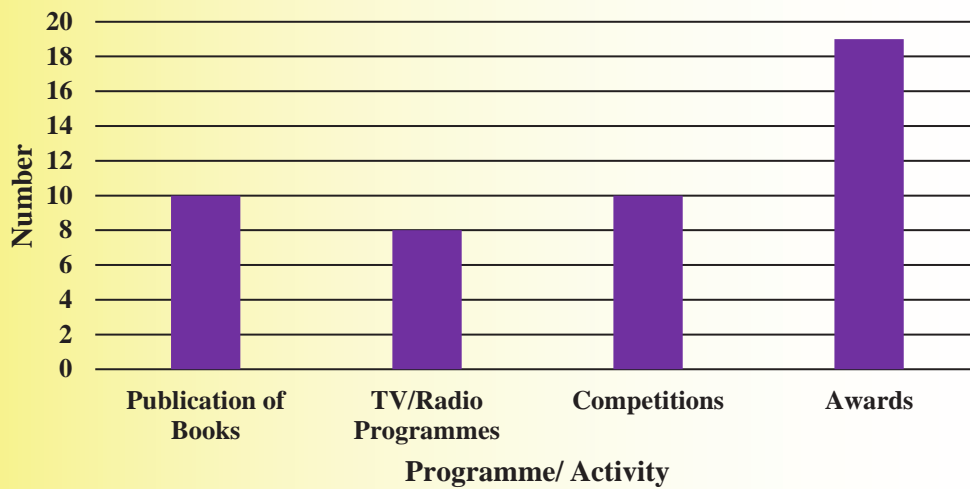


Figure 54: Programmes / activities conducted popularizing science

## National platform for Science education

The NSF conducts science popularization activities through Schools and University Science Societies since 2005. Under the School and University Science Society Programme (SUSSP) a total of 1030 School and 57 University Science Societies are registered with the NSF.

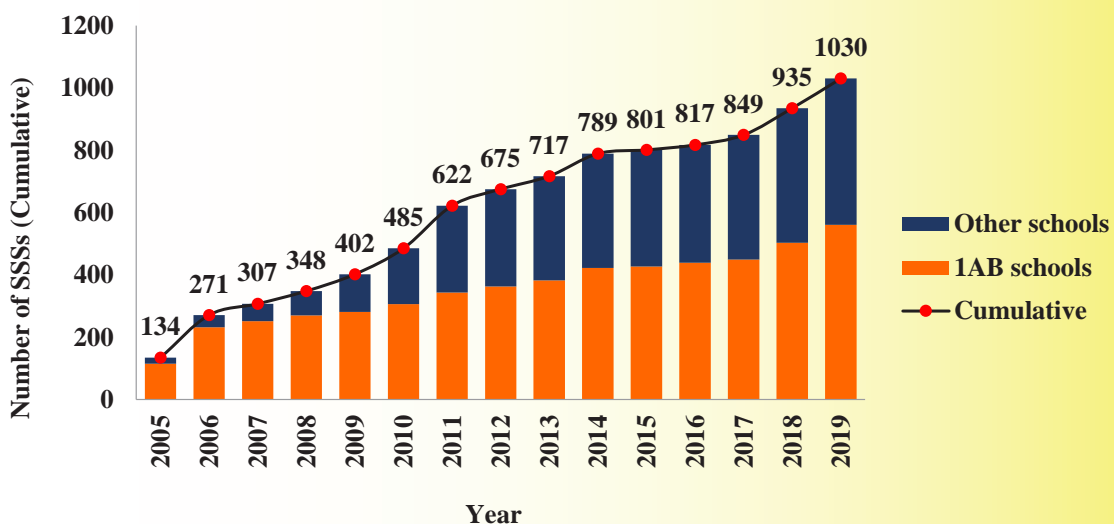


Figure 55: Growth of School Science Societies (SSS)

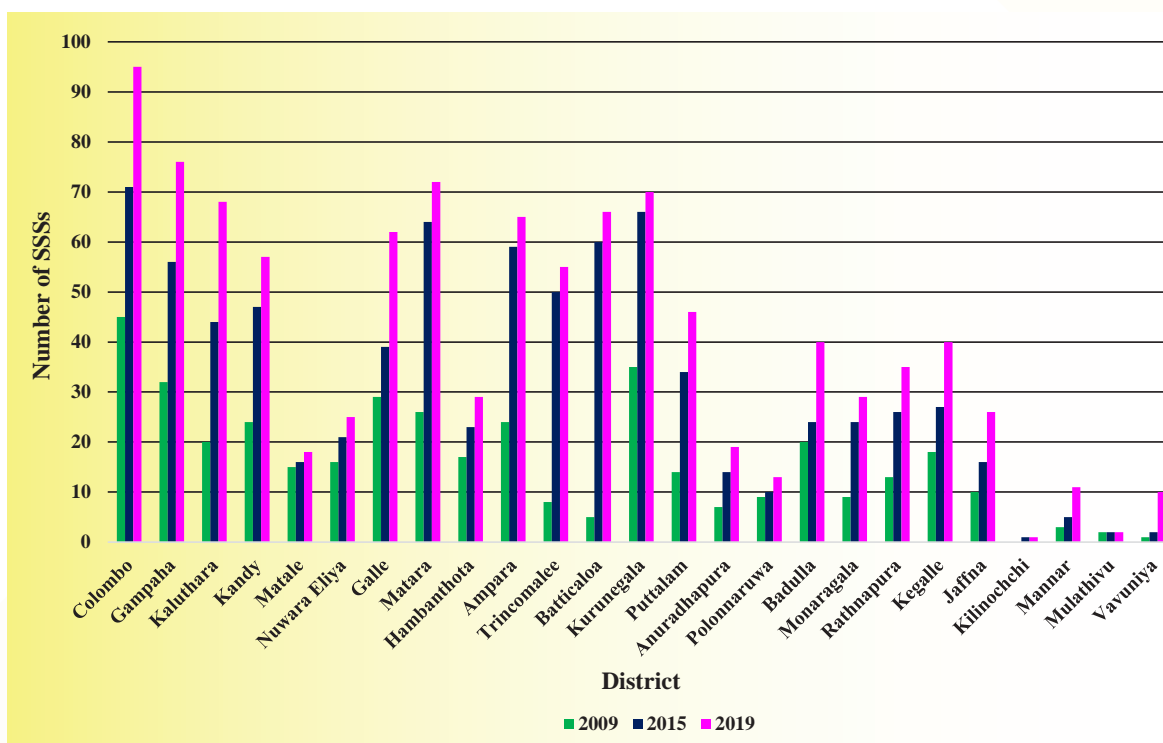


Figure 56: Growth of School Science Societies based on Districts

Under SUSSP, the schools are encouraged to conduct science-based programmes and the NSF assists them in various means to get the students to be engaged in more Science, Technology, Engineering and Mathematics (STEM) activities at school level. This helps the schools to promote STEM education concept and increase STEM activities starting from lower grades. In 2019, the NSF assisted schools by liaising resource persons to conduct science-based activities in their schools. More than 2000 school children were benefitted out of this exercise.

Table 07: Schools supported under SUSSP in 2019

School Supported	Name of the programme
CP/KOT Delta Gemunupura Maha Vidyalaya Pussallawa	School Science Day
Harishchandra National College Negombo	Workshop on "Advocacy in Science" for Grade 11 students
Zahira College Colombo	School Science Day: SUSTAZA'19
Yasodara Devi Balika Maha Vidyalaya	Star observation night camp

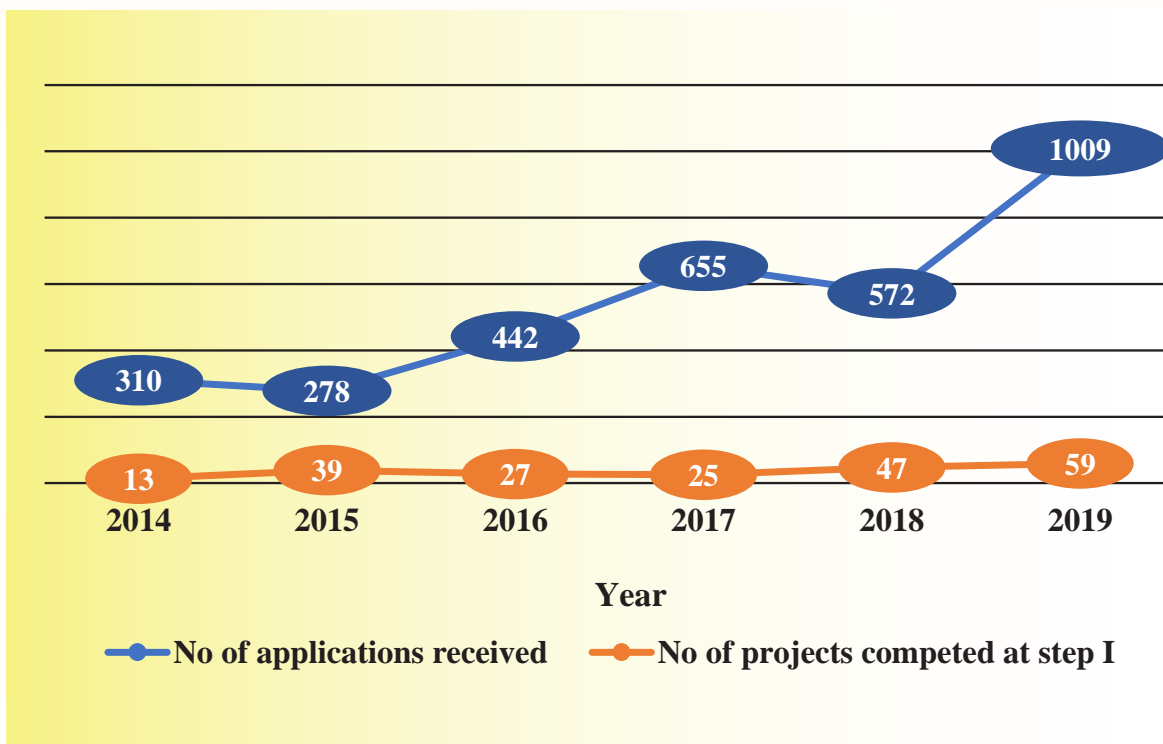
## Competitions at secondary and tertiary levels

### Science Research Project Competition

Inculcating research culture among school children the NSF conducts a series of competitions every year. Science Research Project Competition (SRPC) is a major National competition out of many competitions conducted during the year. The SRPC is conducted at two steps to select the best 20 research projects out of the total number of projects competed at step I. Ten best projects out of 20 are selected at step II. The entire process from writing through evaluation at two review sessions was mentored by NSF appointed supervisors from the universities. The details of the winners are given in *Annex 9*.

**Table 08:** Trends of SRPC since 2016

Year	2016	2017	2018	2019
No of project proposals received	84	118	126	112
No of project proposals selected for mentoring	55	42	79	89
No of projects competed at step I	27	25	47	59



**Figure 57:** Progress of SRPC (2014-2019)



## Sri Lanka Science & Engineering Fair (SLSEF)

Sri Lanka Science & Engineering Fair 2018 was conducted in February 2019 at the Institute of Engineers Sri Lanka (IESL) in collaboration with the NSF. SRPC winners at step II and the best ten winners of the Junior Inventor of the Year 2018 took part in the competition organized by the IESL. The winners of SLSEF took part in the Intel International Science & Engineering Fair (INTEL ISEF) held in Arizona, USA in May 2019.



*Students in action at SLSEF 2019*



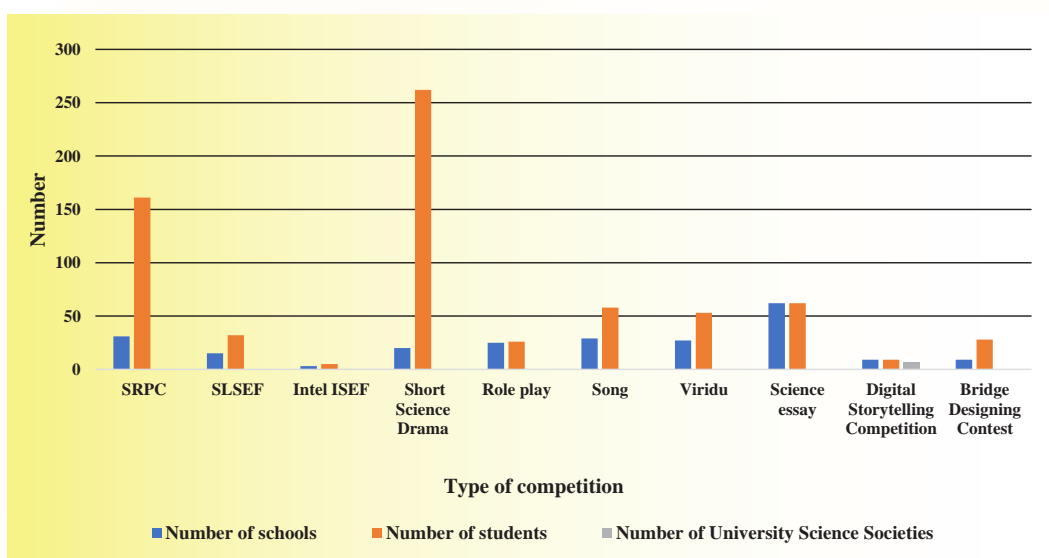
*Student participation at SLSEF 2019*

**Table 09:** The winners of IESL took part in the INTEL ISEF

Title	School	Name of Student/s	Teacher in-charge	Principal Supervisor appointed by the NSF
Effect of acidity on seed germination of selected varieties of paddy	Gnanodaya Maha Vidyalaya Kaluthara	S S Ravinath De Silva H L C Denuwan Hashela S Ransika Seneviratne	Sanjeewani Udawatta	Prof. Sudheera Ranwala, Professor, Department of Plant Sciences, University of Colombo
Smart Safe Gas Regulator	Sandalankawa Central College Sandalankawa	Wahalamuni Arachchilage Kavith Budwin Udupola	D P C S Dasanayaka	-
Innovative Tree Branch Removing Device	Zahira College Mawanella	Mohamed Zamny Mohamed Ayyash	Z M M Zamny	-

Out of the competitions conducted every year, Inter School and University Science Society Competitions (ISUSC) are placed at a higher stand in terms of inculcating science culture specially among school children of lower grades. The following competitions were conducted in 2019 on the theme ‘Sustainable use of Earth Resources’.

1. Short Science Drama
2. Role play
3. Song
4. Viridu
5. Science essay
6. Digital Storytelling
7. Bridge Designing Contest



**Figure 58:** Participation at competitions

# Celebrating the World Science Day

The NSF has been celebrating the World Science Day in Sri Lanka annually from 2004, since UNESCO declared 10<sup>th</sup> November as the World Science Day for Peace and Development at its General Meeting held in 2001. The “World Science Day 2019” was held on the 1<sup>st</sup> of November 2019 at the BMICH under the theme, “Sustainable Use of Earth Resources”. More than 1600 school children, teachers, undergraduates, scientists and science communicators participated at this event. The Secretary to the then Ministry of Science, Technology and Research, Mr Chinthaka S. Lokuhetti graced the occasion as the Chief Guest of this event. The Keynote Address of the event was delivered by Dr P B Dharmasena, an eminent Soil Scientist in the country.

The Winners of variety of science competitions; Inter School Science Society, Science Research Project Competition (SRPC), as well as the participants of the International Science and Engineering Fair (ISEF) were felicitated on this day.

The NSF Media Award for media personnel was first awarded in this year for active engagement in science popularization and improvement of science literacy of the country. Prof. M T M Jiffry memorial Award for science popularization, which is a life-time award was presented to Prof. Rangika Umesh Halwatura from the University of Moratuwa. Star rating awards for best performing school science societies and teachers’ awards recognizing the contributions to promote science education in schools were the other awards among many presented on this day.



*Dr P B Dharmasena, Visiting Lecturer of Rajarata University delivering the keynote speech*

*Prof. Rangika Umesh Halwatura, Professor in Civil Engineering of University of Moratuwa is receiving Prof. M T M Jiffry memorial Award (lifetime award) for science popularization*

## Grant support

Providing support for science education and exposure to students and teachers on trends in modern science, technology, research and innovation, the two grant schemes; Science Education and Popularization Programme (SEPP) and Overseas Science Education Programme (OSEP) were implemented in 2019 as in previous years. Five universities and one school were benefitted under the SEPP Scheme. The details of grant recipients are given in *Annex 10*.

Fifteen undergraduates and school students supported under the OSEP Scheme won prizes and medals at international events.

**Table 10:** Achievements of student recipients of OSEP Grants

Name of the Student & Affiliation	Event	Nature of Recognition
Ms T D Ariyaratna University of Moratuwa	IEEE Wireless Communication and Networking Conference 2019, Morocco  15 <sup>th</sup> to 18 <sup>th</sup> April, 2019	Research paper was published in the proceedings
Ms M A H Muthukumari Pragnarathne Sirimavo Bandaranayake Vidyalaya Colombo 07	Oguzhan Ozkaya Education Karademir Science Energy Engineering Fair (OKSEF), Turkey  11 <sup>th</sup> to 16 <sup>th</sup> June, 2019	Second place in the Engineering Energy category
Mr K P K D Pathirage University of Moratuwa	41 <sup>st</sup> Engineering in Medicine and Biology Conference 2019 (41 <sup>st</sup> EMBC 2019), Berlin, Germany  23 <sup>rd</sup> to 27 <sup>th</sup> July, 2019	Research paper was published in the proceedings
Mr S M Karawita Taxila Central College Horana	50 <sup>th</sup> International Physics Olympiad, Israel  07 <sup>th</sup> to 15 <sup>th</sup> July, 2019	Bronze medal
Ms D H R Tharindi University of Moratuwa	1 <sup>st</sup> International Energy and Electricity Market Business Decision Simulation Competition, China  11 <sup>th</sup> to 25 <sup>th</sup> July, 2019	First Prize
Ms P S Tharindra Siriwardana University of Moratuwa		
Mr U G Chathura Jayasankha University of Moratuwa		
Mr R H Ravin Jayarathne University of Moratuwa		

Ms D H R Tharindi University of Moratuwa	1 <sup>st</sup> Regional Association of Energy and Power Universities Summer School, Shanghai University of Electric Power, Shanghai, China  11 <sup>th</sup> to 25 <sup>th</sup> July, 2019	Honor certificates for participation
Ms P S Tharindra Siriwardana University of Moratuwa		
Mr U G Chathura Jayasankha University of Moratuwa		
Mr R H Ravin Jayarathne University of Moratuwa		
Ms K S Dissanayake CMS Hillwood College Sangaraja Mawatha Kandy	International Earth Science Olympiad 2019, South Korea  25 <sup>th</sup> August to 03 <sup>rd</sup> September, 2019	ITFI Silver Prize and ITFI ESP Bronze Prize
Ms S S Wickramathilake Mahamaya Girls' College Kandy	International Earth Science Olympiad 2019, South Korea  25 <sup>th</sup> August to 03 <sup>rd</sup> September, 2019	Bronze Medal and ITFI Bronze Prize
Mr K W S A Rathnapriya Taxila Central College Horana	24 <sup>th</sup> International Astronomy Olympiad Competition, Romania,  19 <sup>th</sup> to 27 <sup>th</sup> October ,2019	Special prize for the best result

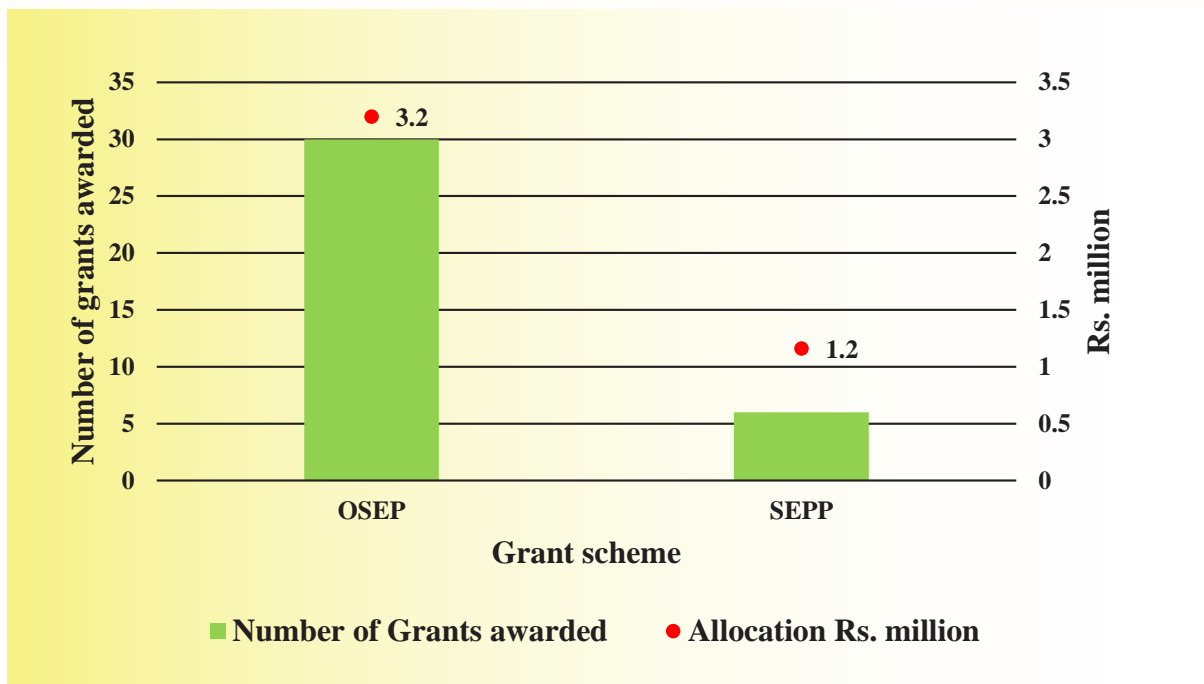


Figure 59: Grants awarded under OSEP and SEPP Schemes





# 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.*

## Capacity building

### Research scholarships

It is considered that the output of postgraduate research degrees by the Sri Lankan universities is not adequate to deliver the S&T output required for the socio-economic upliftment. As such, it is important to attract and encourage science/engineering graduates to conduct full-time research leading to research degrees. The programme, “Research Scholarships” provides financial support to Sri Lankan science and engineering graduates to conduct full-time research (within Sri Lanka) leading to MPhils and PhDs.

32 Scholarship Grant applications were evaluated and 09 new scholarships were awarded in 2019 for research students to pursue postgraduate degrees in multi-dimensional areas as indicated in *Figures 60 & 61*. The progress of 35 ongoing awards were monitored and 03 scholarship awards were completed during the year. The details of all scholarships awarded, monitored and completed are given in *Annexes 11,12 & 13*.

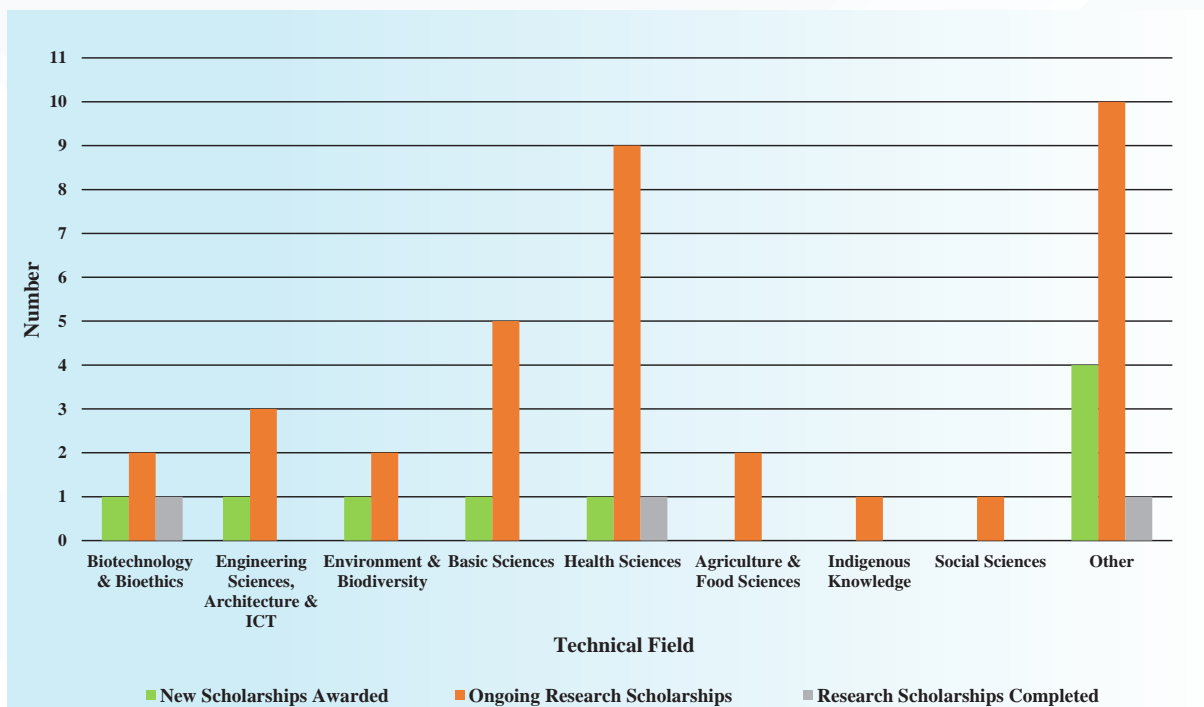


Figure 60: Scholarships details in 2019 based on the fields

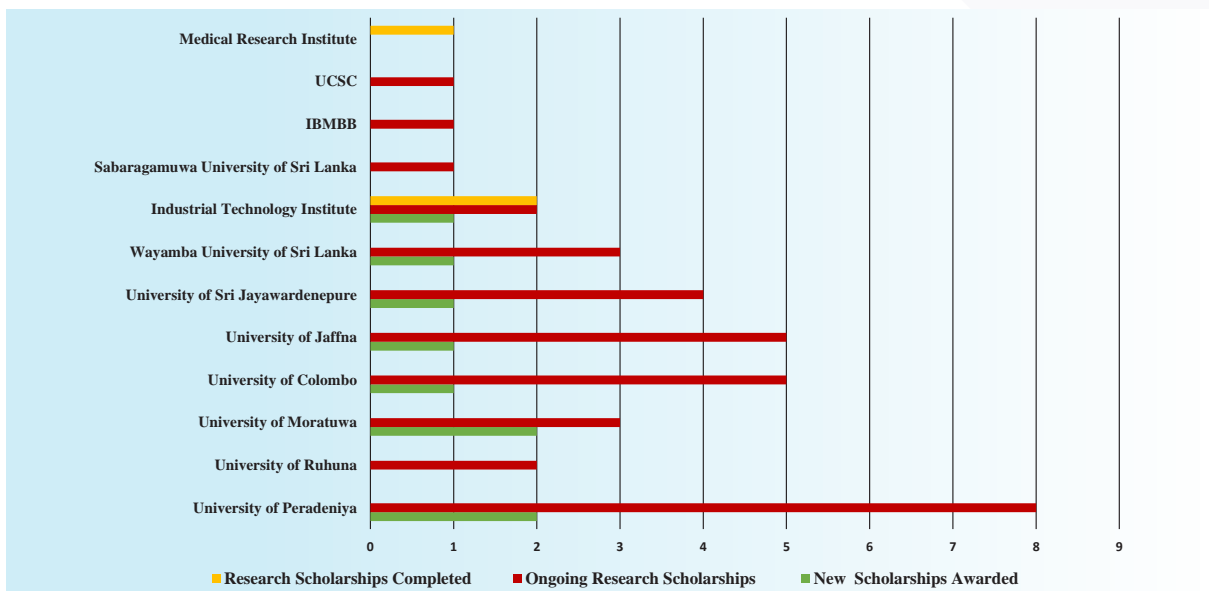


Figure 61: Distribution of scholarships in 2019

## Taking Science to globe

In the global system of innovation, Sri Lanka cannot stay isolated from the world leading scientific organizations, research institutes and universities. Aiming at strengthening Sri Lanka’s RDI, scientists and researchers are encouraged to keep track with rapidly developing RDI of the globe. Accordingly, the NSF maintains international S&T cooperation and builds partnerships with the S&T community abroad. There are many programmes and schemes established under Programme 5 to support the Sri Lankan scientists and researchers to take part at international scientific events sharing their research outputs and to obtain S&T expertise at laboratories abroad where such facilities and expertise are not available locally.

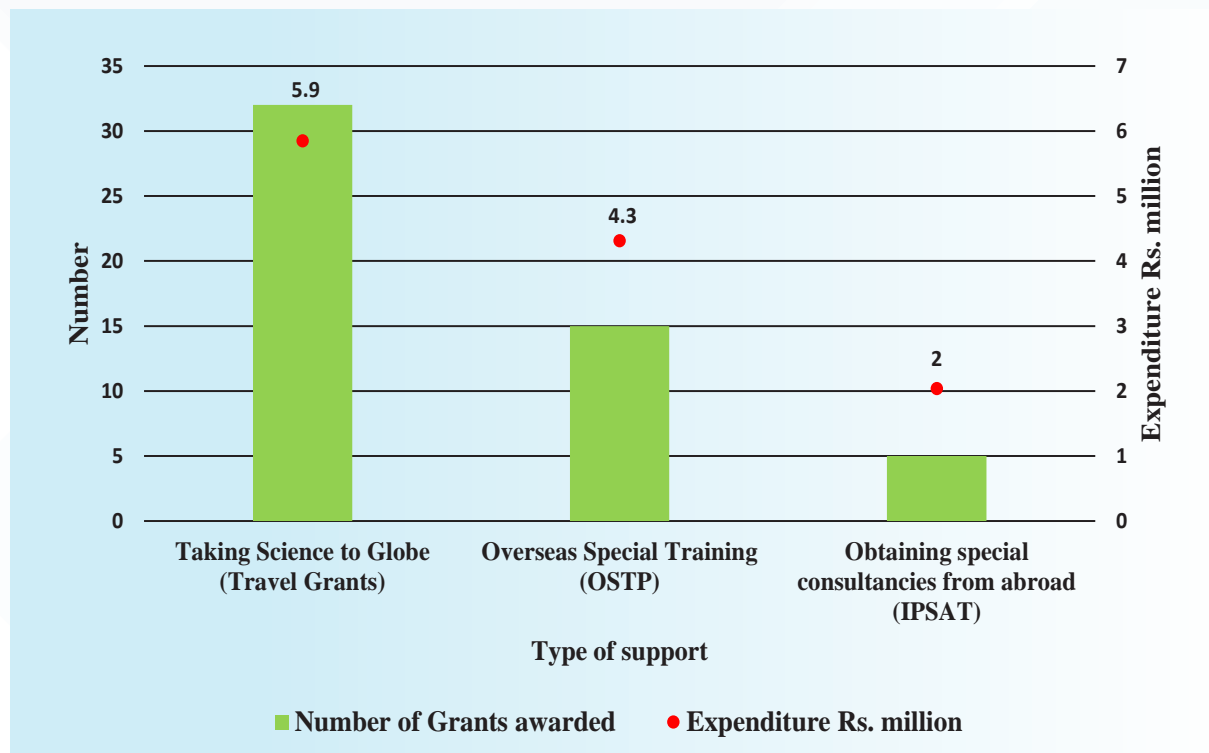


Figure 62: Grant support provided under Travel grants, OSTP & IPSAT

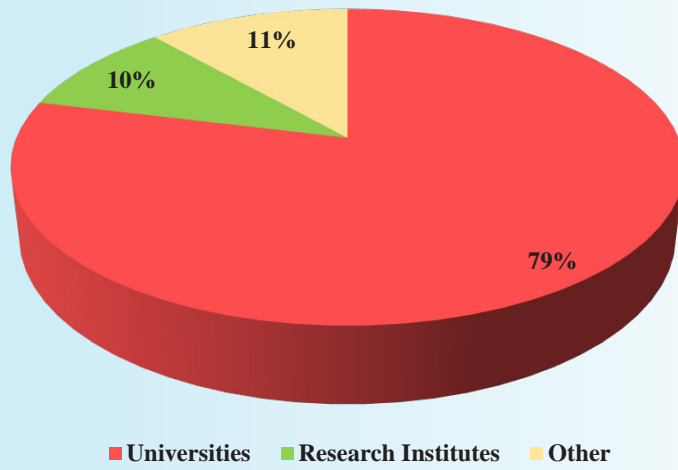


Figure 63: Grant support provided based on the affiliation of the applicants for Travel Grants, OSTP & IPSAT

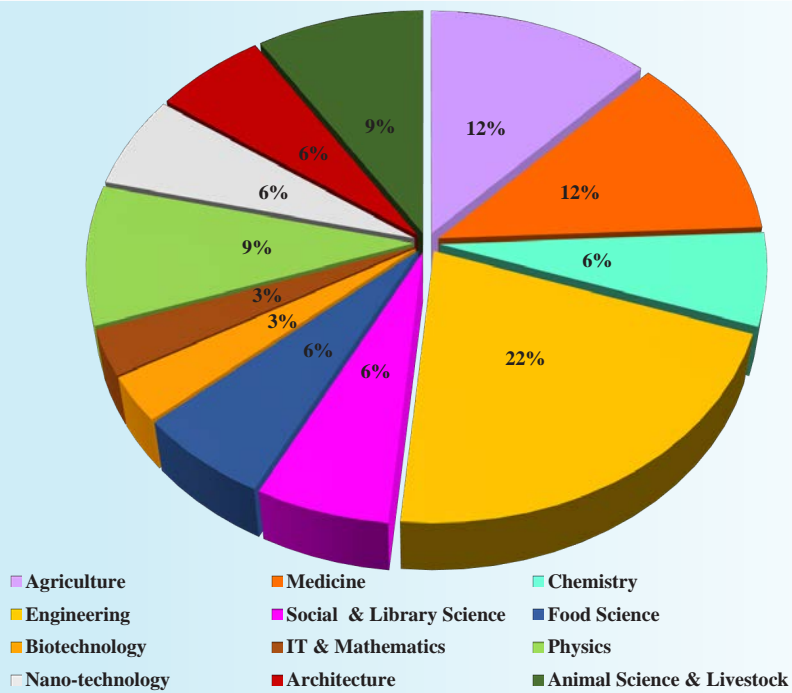


Figure 64: Travel Grants awarded based on the field

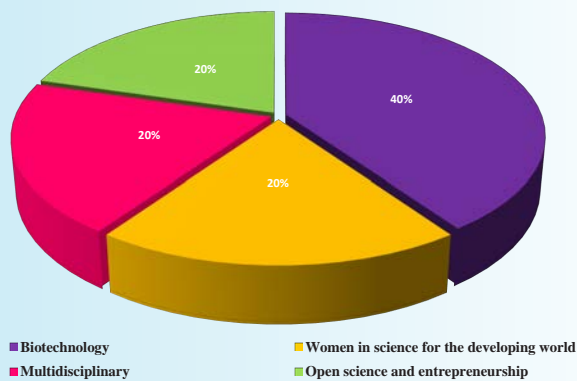


Figure 65: IPSAT Grants awarded based on the field

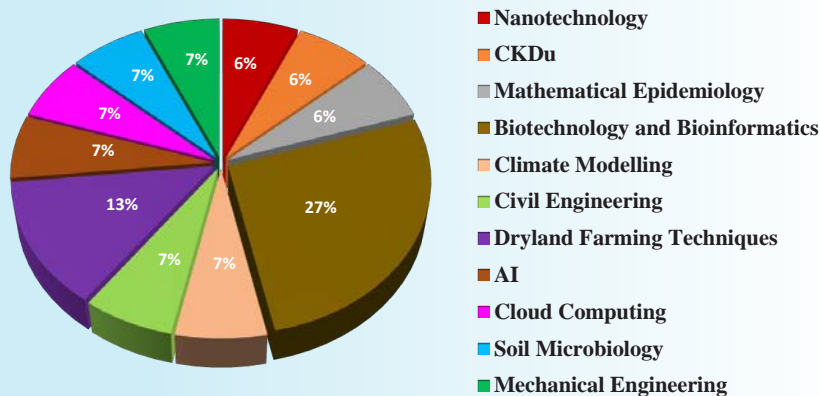


Figure 66: OSTP Grants awarded based on the field

## Knowledge transfer programme

Some of the grant recipients on their return and other visitors to NSF shared their knowledge at Knowledge Transfer Programmes (KTPs) conducted by the NSF. Part of S&T community was benefitted out of these KTPs. A total of 10 KTPs were conducted during the year.

Table 11: KTPs conducted during the year

Title of the presentation/Grant recipient/ Affiliation	Output/outcome achieved in scientific/ social & economic terms
<i>Safer Communities with Hydrometeorological Disaster Resilient Houses</i> Prof. Chintha Jayasinghe Department of Civil Engineering University of Moratuwa	The research teams have successfully conducted collaborative research with the University of Bath, UK and have developed a flood resistant building structure. Created awareness on potential remedies and made recommendations to minimize the damage and ensure safety.
<i>Artificial Intelligence</i> Ms Chapa Sirithunga Department of Electrical and Electronic Engineering Faculty of Engineering University of Moratuwa	Completed her PhD successfully and shared knowledge and experience with other PhD students in the faculty.
<i>Optimizing Soil and Water Stewardship to Meet Challenges in Dryland Agriculture</i> Prof. D A L Leelamanie Mr I U Samarawickrama Department of Crop Science Faculty of Agriculture University of Ruhuna	Initial investigations have been started on modifying the universal soil loss equation to suit the Sri Lankan soil conditions.

<p><b><i>Evaluation, Monitoring and Impact Assessment of Research</i></b>  Dr Jennifer Sjolund  Scientific Programme Coordinator  International Foundation for Science (IFS)  Sweden</p>	<p>Conducted an awareness on the best practices of evaluation, monitoring and impact assessment of Research.   <i>(Not a NSF grant recipient)</i></p>
<p><b><i>R &amp; D Commercialization, technology development and startups</i></b>  Prof. Antonio Jose Hyder  Honorary Professor of Technology Marketing  Stanford University  USA</p>	<p>Awareness on R &amp; D Commercialization, technology development and forming startups.   <i>(Not a NSF grant recipient)</i></p>
<p><b><i>Australian research experiences in medical biotechnology and aspects of women in STEM</i></b>  Prof. Chamindie Punyadeera  Associate Professor &amp; Head  Saliva Translational Research Group  Institute of Health &amp; Biomedical Innovations  The School of Biomedical Sciences  Queensland University of Technology, Australia</p>	<p>Awareness on saliva translational research and the different aspects of women in STEM.   <i>(Not a NSF grant recipient)</i></p>
<p><b><i>How to Modify Your Lifestyle</i></b>  Dr Ranil Jayawardena  Department of Physiology  Faculty of Medicine  University of Colombo</p>	<p>Enhanced awareness on sustainable solutions to problems associated with nutrition.   <i>(Not a NSF grant recipient)</i></p>
<p><b><i>Burnout among Professionals</i></b>  Dr Dulani Samaranyake  Senior Lecturer  Department of Community Medicine  Faculty of Medicine  University of Colombo</p>	<p>Sustainable solutions to overcome burnout at working place.   <i>(Not a NSF grant recipient)</i></p>
<p><b><i>Ayurvedic approaches to Gynecology</i></b>  Dr Kuamadie Karunagoda  Institute of Indigenous Medicine  University of Colombo</p>	<p>Good practices to alleviate disorders associated with female reproductive tract.   <i>(Not a NSF grant recipient)</i></p>
<p><b><i>Ayurveda perspectives of Arthritis</i></b>  Dr Kamal Perera  Institute of Indigenous Medicine  University of Colombo</p>	<p>Good practices to avoid Arthritis.   <i>(Not a NSF grant recipient)</i></p>

# Exploring for STI progression; exposure beyond boundaries

## Bilateral International Scientific Cooperation

Organization	Specific benefits currently obtained in terms of R&D or developing STI potential
German Academic Exchange Service (DAAD)	International exposure and opportunities for developing collaborations with the German scientists through research related visits to Germany
Japan Science and Technology Agency (JST) - e-Asia Joint Research Programme	International collaborative research
National Natural Science Foundation of China (NSFC)	Five Joint research projects in Health, Water and Environmental Sciences are ongoing
Pakistan Science Foundation (PSF)	Six research projects are ongoing in the areas of Health and Material Sciences

Establishing scientific cooperation with organizations abroad has been a continuous effort of the NSF in strengthening STI potential of the country. A series of meetings was held in Sri Lanka this year with the aim of tapping scientific resources overseas.

Several meetings were conducted to strengthen bilateral Scientific Cooperation during 2019.

1. Meeting with HE John Rodhe, the Ambassador of the German Federal Republic to Sri Lanka - possibility to establish a link with Fraunhofer Institution was discussed.
2. Meeting with Prof. Joybrato Mukharjee, the President of the German Academic Exchange Service (DAAD) - existing cooperation and the way forward, organizing a collaborative workshop on Dengue in New Delhi in 2020, arranging a visit to German science museums by the scientists involved in setting up of the National Science Centre in Sri Lanka, taking steps to increase the number of applications from the field of Social Sciences for the 'NSF-DAAD Project-based Personnel Exchange Programme' Grants Scheme were some of the highlights of the discussion.
3. Meeting held with HE Robina P. Marks, High Commissioner of South Africa - Satellite technology for agriculture improvement, Dryland agriculture, Desalinization, Biodiversity, Value addition to natural products (e.g. Cinnamon), Renewable Energy, Mapping and value addition to mineral resources were some of the potential areas discussed for collaboration.

4. Meeting with Ms Susan F Walke, Economic Section Chief and David J. McGurie, Public Affairs Officer of the Embassy of USA - possible areas of scientific cooperation with US institutes was discussed and a proposal was submitted for consideration.
5. Meeting with HE Hussein El Saharty, Ambassador of the Arab Republic of Egypt - Possibilities of cooperation in transfer of technology and know-how in precision agriculture, biopharmaceuticals, water purification and collaborations on training and knowledge sharing in library sciences and the design and management of science centres were discussed.
6. Meeting with the HE David Holly, Australian High Commissioner - Possibility of initiating an MoU with the Commonwealth Scientific and Industrial Research Organization (CSIRO) was sought.
7. Meeting with Ms Anastasia Khokhlova, First Secretary of the Embassy of the Russian Federation and Director of the Russian Centre in Colombo Mr Rostislav Lenchuk - Nanotechnology and Biotechnology were identified as the possible areas to be considered to plan collaborative activities within already signed MoUs with relevant Ministries in Sri Lanka.



*DAAD delegation at NSF*

## **Multilateral International Scientific Cooperation**

NSF is the National focal point for several international scientific organizations such as International Centre for Genetic Engineering and Biotechnology (ICGEB), International Science Council (ISC), Global Research Council (GRC), Global Research Alliance on Agricultural Greenhouse Gases (GRA), International Union of Biochemistry and Molecular Biology (IUBMB), Science Council of Asia (SCA), The World Academy of Sciences (TWAS), different science-related sub sectors of UNESCO and European Organization for Nuclear Research (CERN).

NSF has conducted numerous international conferences, meetings and workshops with the above scientific organizations under various themes within the scope of STI.

Through these collaborations the NSF;

1. Conducts collaborative research through scholarships and postdoctoral fellowships.
2. Initiated action to establish an ICGEB Regional Research Centre (RRC) in Sri Lanka in collaboration with the Ministry of Higher Education, Technology and Innovation.
3. NSF represented at four research and cross cutting groups of the GRA.
4. Activities on the UNESCO Man and the Biosphere Programme (MAB) were in progress.
5. Activities were ongoing with the UNESCO IHP and International Bioethics Committee of UNESCO.
6. Subscribes to the Collaborative Institutional Training Initiative (CITI) programme of the USA to take online courses free-of-charge in areas related to Bioethics.
7. NSF annually funds two Sri Lankan students to participate at the Summer Students Programme of CERN.

## Collaborative events supporting S&T

### Awareness session on Biosimilar Products for Sri Lankan pharmaceutical industry

A session on Biosimilar products for Sri Lanka pharmaceutical Industry was organized when Dr Lawrence Bank/Director General of the International Centre for Genetic Engineering and Biotechnology (ICGEB) visited Sri Lanka in December 2019. Cost effectiveness of biosimilars will be a major market boosting factor as it will lead to growing demand and adoption rate.

Foreseeing the potential of biosimilars revolutionizing the local pharmaceutical industry, members of the Pharmaceutical Association, Pharmacology Departments of Universities and other Public and Private R&D Institutions were invited to share the knowledge and experience of Dr Lawrence Banks. Dr Banks in his presentation enlightened the gathering with six areas which is instrumental in entering into product manufacturing.





## Strengthening ties with the JST

Getting young scientists extensively and meaningfully involved in Science, Technology and Innovation (STI) is essential and seemingly is the trend in the Asian region. The young researchers are the future leaders of STI who will play a pivotal role in application of STI towards socio-economic advantages of the country. Therefore, providing guidance and mentoring young researchers & nurturing all the passions for STI in them will be essentially important and an investment.

In this context, the NSF partnered with the Japan Science and Technology Agency (JST) to facilitate a conducive environment for the young researchers to boost their interests to become future research leaders. Formation of Sakura Science Club Alumni Association of Sri Lanka (SSCAASL) is one of the mechanisms that will enable fostering young researchers in this endeavour.

The first meeting of the SSCAASL to achieve this objective was held successfully on the 21<sup>st</sup> February 2019.



## Stakeholder meeting on Urban studies

According to the UN Habitat Report, Sri Lanka has one of the slowest rates of urbanization. Most of the urbanization in Sri Lanka is due to urban sprawl, rather than structured developments. As there is a relative dearth of research relating to overall process of urbanization and its impacts on well-being, NSF brought together the stakeholders, research institutions and researchers to share their experiences in relation to urban development and to discuss way forward. The participants were from Megapolis and Port City, Urban Development Authority, Urban Settlement Development Authority, Colombo Municipality Council and Universities and researchers working in the communities. It was highlighted that:

1. There is an urgent need to fund and promote further research on urbanization, the urban environment and well-being.
2. The NSF should take steps to promote multidisciplinary research with key stakeholders on the process of urbanization, the urban environment, and its impact on well-being.
3. International conference and regular research meetings may be the other mechanisms to promote urban studies in Sri Lanka.





# 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.

## Financial support

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.

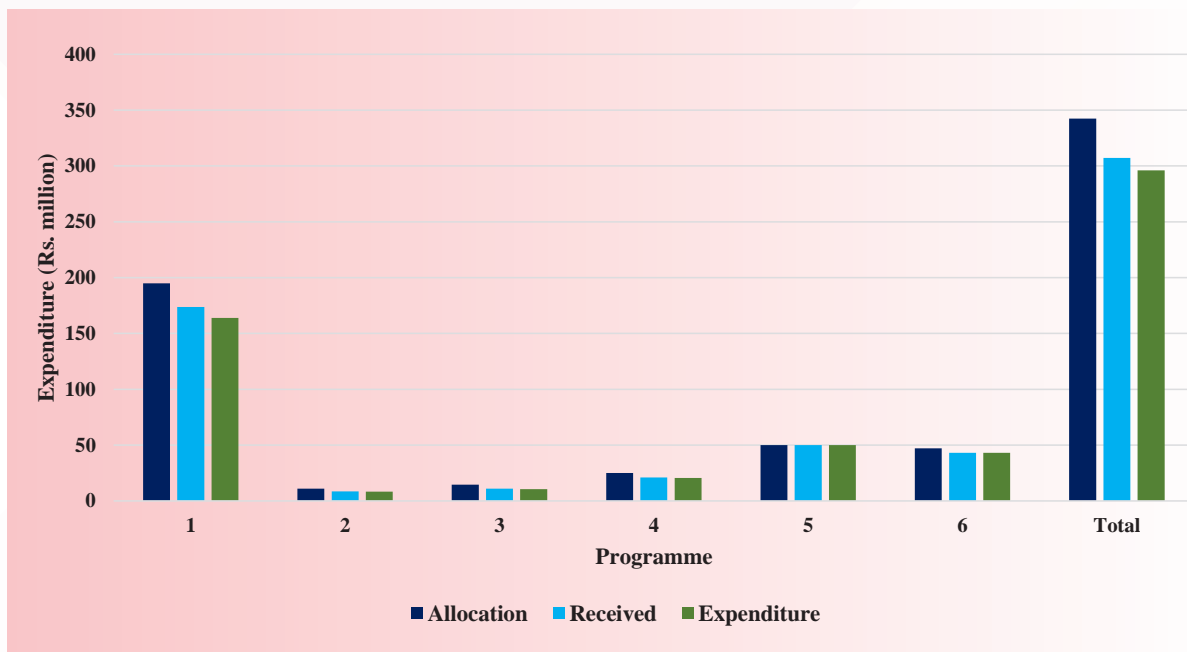


Figure 67: Financial performance under major programmes

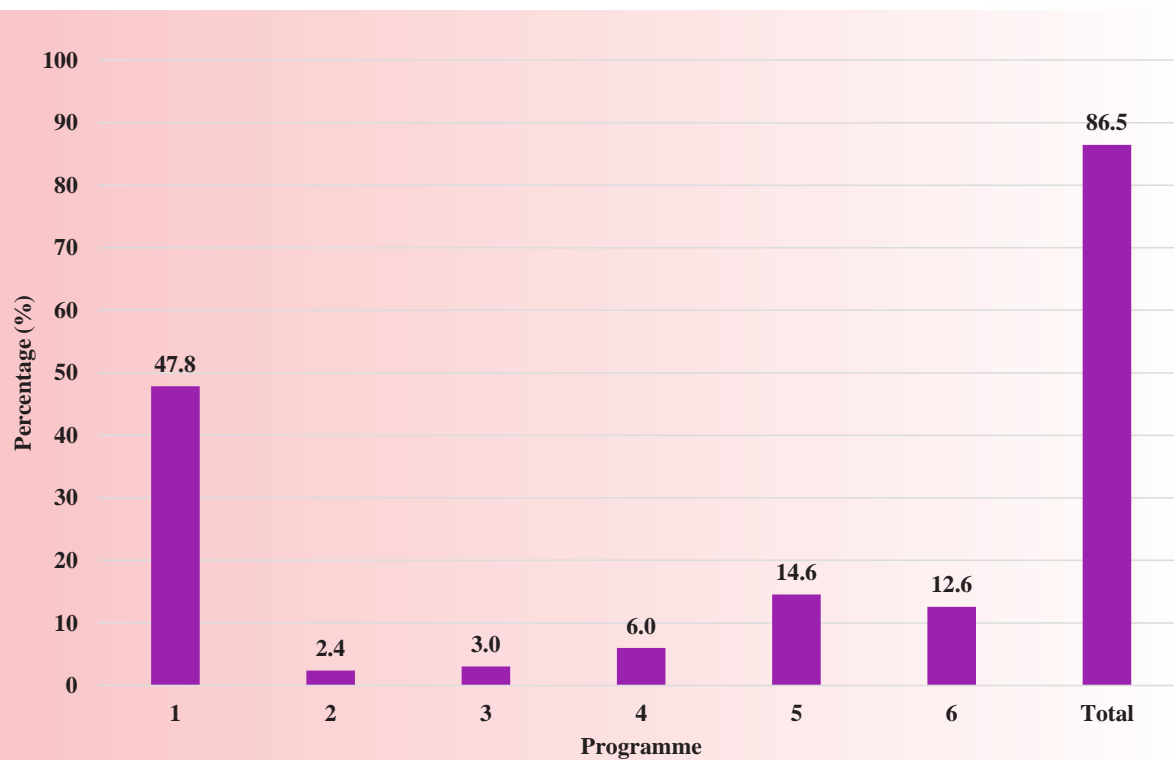


Figure 68 : Expenditure under major programmes as a percentage against the total allocation Rs. 342 million

## Information technology support

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

During 2019, an internet payment facility was introduced to capture institutional foreign currency remittance for various activities. The facility was an in-house development with the Bank of Ceylon, Sri Lanka. The stage II of the development, which will entertain the local currency remittance was also in progress.

## 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 12*.

**Table 12:** vareity of publications printed

Publication	Quantity
"Vidya" newsletter Vol. 5 & 6 2018	550
JNSF - December 2018 & Off prints	180 +20
SLJSS - June 2018 & Off prints	100+20
"Vidya" newsletter Vol. 1 2019	600
JNSF - March 2019 & Off prints	180 +20
"Vidurava" October - December 2018 (Sinhala)	1900
"Vidurava" January - March 2019 (Sinhala)	1900
"Vidurava" January - March 2019 (English)	1500
SLJSS -Vol. 42 issue 01- 2019 & Off prints	100+20
"Vidurava" October - December 2018 (Tamil)	750
"Vidurava" January - March 2019 (Tamil)	750
JNSF - June 2019 & Off prints	180+20
"Vidurava" April - June 2019 (Sinhala)	1900
"Vidya" newsletter July 2019	550
Booklet on Intellectual Property	500
Annual Report and summary - 2017 (3 Languages)	80+90
"Vidurava" July - September 2019 Special Issue (English)	500
"Vidurava" July - September 2019 Special Issue (Sinhala)	1500
"Vidurava" July - September 2019 Special Issue (Tamil)	350
"Vidya" newsletter Vol. 21 Issue 3 - 2019	560
"Vidurava" April - June 2019 (English)	1500
Biotechnology Book (Tamil)	200

## Improving processes & procedures

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 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.

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 to Board of Management. Eight meetings of the SMC were held during the year under review.

10 regular Board meetings were held during the year.

## Audit & Management Committee report

The Board of Management of the NSF appointed three Members of the Board to serve in the Audit & Management Committee (AMC) at its meeting held on 04<sup>th</sup> April 2019. Accordingly, the following Members were serving during the year.

- Mr H C D L Silva (Chairman)
- Dr T A R J Gunasekara (Member)
- Prof. Preethi Udagama (Member)
- Ms C P R Bandara (Chief Internal Auditor/MoSTR)
- Ms L S R Perera (Representative of the National Audit Office (NAO))
- Ms H D Anuruddhika (Chief Internal Auditor/MoSTR) - At the third meeting

Three meetings were held on the 21<sup>st</sup> May, 9<sup>th</sup> August & 22<sup>nd</sup> November during the year 2019. The fourth meeting of the AMC was planned to be held on the 12<sup>th</sup> December. However, due to unforeseen discontinuation of the Board as per the circular PS/SP/SB/Circular/02/2019 dated 28<sup>th</sup> November 2019, this meeting could not be held as planned.

Mr H C D L Silva served as the Chairman of the AMC since 2015. He was reappointed from July 2018 as the treasury representative to the Board of Management of the NSF. The Internal Auditor (IA) of the NSF was very active throughout the year and conveyed the recommendations of the AMC to the Heads of the Divisions to take appropriate action for smooth functioning. Progress reports on the actions taken were also reported to the AMC.

Special attention was drawn to the following works at the recommendation of the AMC.

- Review of the Board of Survey procedure based on the comments made by the NAO.
- Follow-ups on the statutory requirements of the NSF throughout the year.
- Follow-ups on the NAO queries until completion.
- Bringing improvements to replying to Audit Queries.
- Review of activities of the NSF and making recommendations on corrective and preventive actions.
- Avoid repetition of the Audit matters.



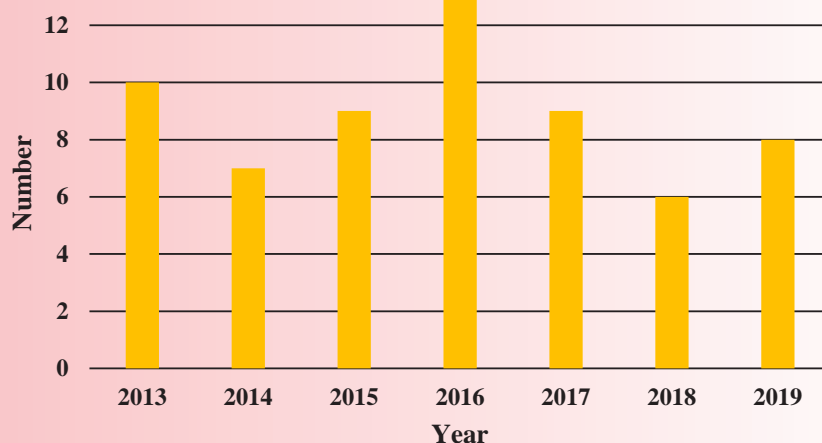


Figure 69 : Number of Audit Queries received (2013 - 2019)

## Implementation of 5S

The NSF continued with sorting, retaining and transferring of documents under the 5S initiative embarked in 2018. As phase 2 of the initiative, the implementation of QC projects began. The approval was obtained to implement the following QC projects.

Table 13: Quality circle projects

Project title	Quality Circle
Internal customer satisfaction	Chairperson's Office, DG Office, AD Office
Solid waste management	RD
Image building of NSF	TD
Energy conservation & efficiency improvement at NSF	ILD
Improve the efficiency & effectiveness of science popularization programmes conducted for school community	SPD
Promoting inter-divisional collaboration for policy research	STPRD
Practically paperless JPD	JPD
Modernization of NSLRC	NSLRC
Reorganization of stores	Finance
Creating a secure & pleasant environment	Admin
මුද්‍රණ අංශය පිළිසකර කිරීම සහ කටයුතු කාර්යක්ෂම කිරීම	Printing
Paperless office	IT
CSR Project	5S Audit Team

## Improving technical competency of staff

The purpose of training is to equip people with necessary skills, knowledge and attitudes to meet the organization's needs in relation to its objectives. Training is undertaken after a critical appraisal of Institutional/Divisional needs in relation to its objectives, while taking into account the realistic aspirations of the employees. Training and development is a continuous process at NSF for every employee, irrespective of the category.

NSF recognizes the value and importance of providing opportunities to all staff, managerial, executive and other support staff, to develop their job-related knowledge and skills. NSF expects that with development and training, individual effectiveness will increase and the staff will make a richer contribution to the work of their Divisions in support of NSF obligations. By the effective utilization of limited resources and investing in peoples' training and development, the NSF expects to harness the full potential of the staff, while fulfilling their needs for personal development and job satisfaction.

Accordingly, the Staff Development Committee (SDC) of the NSF, prepared the Annual Training Plan for the institution based on the training needs identified by the Heads of Divisions and Units. Every effort was made by the SDC to provide need-based training opportunities to the staff during the year, within the annual allocation for staff development, complying with the guidelines given in the Staff Training Policy.

In addition, the NSF encouraged, supported and provided opportunities for the staff to undergo training in all other relevant areas including facilitation of the regular, weekly session on physical & mental fitness. Staff members in the category of Management Assistant continued to benefit from the English language classes held once - a week. The SDC also organized 06 training programmes of general interest at the NSF, in order to provide the opportunity for more staff members to reap the benefits from the trainings. 252 staff members attended the six programmes.

The training programmes held during 2019 are categorized as follows and the details are given in *Figures 70 & 71*.

- » Short Term Training Programmes (01 - 05 days)
- » Medium Term Training Programmes (06 - 12 days)
- » Long Term Training Programmes (more than 13 days)

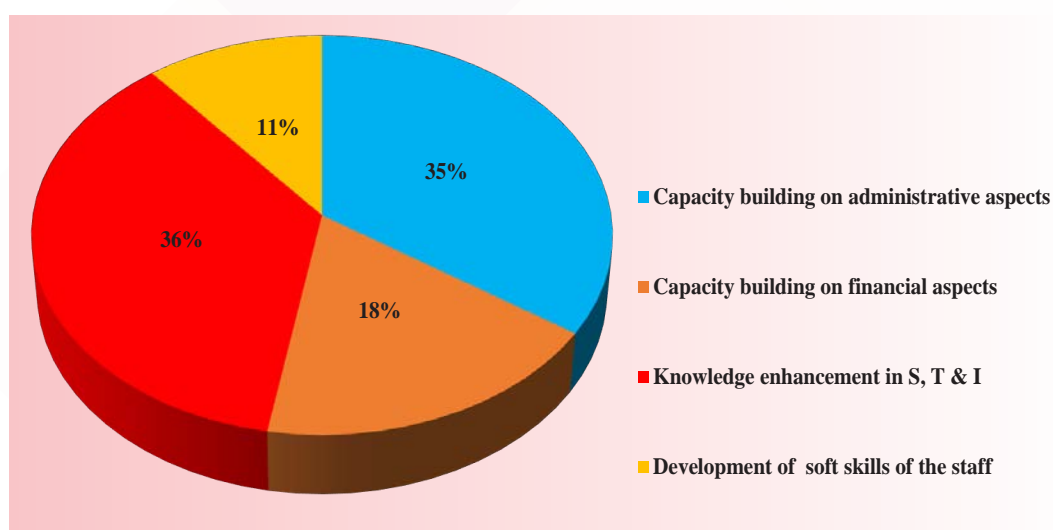


Figure 70: Training Programme completed in 2019

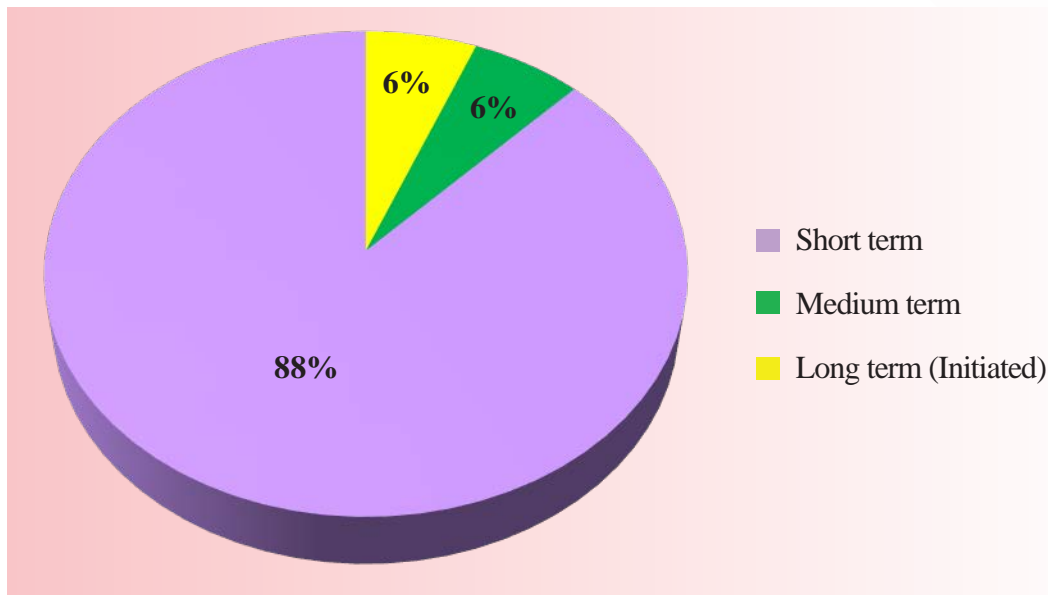


Figure 71 : Training Programmes ( completed/initiated) by duration

## Annual team building and productivity enhancement programme

The annual productivity improvement session organized by the welfare society of the NSF was held on 19<sup>th</sup> October, 2019 at Jetwing Sea, Negombo with the view to enhancing the knowledge, skills and attitudes of the staff.

Mr Channa Karunaratne, human resource development trainer and life skills coach was the resource person to conduct the staff motivation programme. The programme was composed of interactive activities and a presentation on motivational attitude changing. It helped the staff to enhance their problem solving abilities, thinking capacities, leadership skills and interpersonal relationships.



# "Vidya" newsletter

NSF published four issues of "Vidya" newsletter covering highlights of activities conducted during the year.



## Turning over a new leaf



Prof. Ananda Jayawardana, Director General of the NSF welcoming the Hon. Minister of Science, Technology & Research Mr. Sujewa Senasinghe to the NSF. The Secretary to the Ministry Mr. Chinthaka S. Lokuhetti (Standing in the middle) also joined the visit.

As the new Minister of Science Technology and Research, Hon. Sujewa Senasinghe takes the office, the NSF turns over a new leaf in promoting science and bringing the fruits to the country's industry and people targeting better outputs. On the 30<sup>th</sup> of January the Hon Minister visited the NSF to speak to the staff about his new S & T implementation strategies that would yield more benefits to the people in the country. Being a lawyer by profession and completely new to the subject field, the Hon. Minister has taken the challenge to lead the S & T community to greater heights. With the appointment of the new Chairman, Dr A.M. Mubarak to the NSF Board of Management, the staff of the NSF look forward to a renewed leadership to take forward the Institution's vision towards marking social prosperity.

Dr Azeer Mohamed Mubarak was the Director and Chief Executive Officer of the Industrial Technology Institute (ITI) formerly CISIR from 2002-2012. An old boy of Royal College, and an alumni of the University of Colombo, he holds a first class honours degree in Chemistry and a PhD from the University of Cambridge. He also had post-doctoral stints at the University of Maryland, USA and Royal Institute of Technology, Stockholm, Sweden.

He was the President, Institute of Chemistry, Ceylon in 1994, General President, Sri Lanka Association for the Advancement of Science in 2014 and President, National Academy of Sciences of Sri Lanka in 2016/17 and 2017/18.

Dr Mubarak is a Commonwealth Scholar and the first recipient of the National Award under the category "Outstanding Leadership in introducing Technologies" awarded by the Ministry of Science and Technology in 2005. He has served on several Presidential and Ministerial Task Forces and on Government delegations including Presidential Task Force on S & T Development, Ministerial Committee to formulate the National S & T



Dr. A.M. Mubarak, The newly appointed Chairman of the NSF



## NSF Promoting Artificial Intelligence at the "Shilpa Sena Exposition, Sri Lanka Technology Revolution"



A four-day National Exposition on Science, Technology & Innovation to bridge the gap in communicating new technologies to the society was held at the BMICH from 18 - 21 July 2019. The NSF organized the stall under the theme "Artificial Intelligence (AI)" with the help of AI experts from the universities and the private sector. AI is the simulation of human intelligence processes by machines, especially computer systems. These processes include learning (the acquisition of information and rules for using the information), reasoning (using rules to reach approximate or definite conclusions) and self-correction. More than 20 such simulations used today were showcased at the AI stall.



## NSF Getting A Positive Mileage!

The NSF excelled at the Best Annual Report and Accounts Awards 2019 organized by the Association of Public Finance Accountants Sri Lanka (APFASL), the Public Sector Wing of CA Sri Lanka.



Dr. Thamarasa F. Dias/Additional Director of the NSF who was the Director General (Covering) in 2017 receiving the award from Mr. Udaya R. Seneviratne/Secretary to the President

Under the category "Research Institutions", the NSF was adjudged the winner while the National Engineering Research & Design Centre (NERDC) and the Industrial Technology Institute (ITI) were adjudged runners up at the Third Best Annual Report and Accounts Awards 2019 organized by the Association of Public Finance Accountants Sri Lanka (APFASL). All three institutions coming under the purview of the Ministry of Science, Technology & Research was a merit to the Ministry.

The award ceremony was held at the BMICH on the 25<sup>th</sup> October 2019, Mr. Udaya R. Seneviratne/Secretary

to the President being the Chief Guest of the occasion. The APFASL holds this competition annually aiming at improving the quality of annual reports and accounts published by the public sector, with the ultimate objective of encouraging the institutes to improve transparency and accountability in performance.

The annual reports of 2017 were considered at this competition. The 2017 annual report of the NSF contains a comprehensive analysis of all the work performed during the year with graphical presentations and pictures that would enable the interested parties to form a judgment on performance of the NSF and its future directions.



## Rewarding Scientists for Research Excellence

Rewarding for high-performing rewarded at the annual awards occasion as the Chief Guest and research is a strategy embraced by the NSF held on 18<sup>th</sup> December 2019 at the BMICH. Hon. Dr. The Secretary to the Ministry of Higher Education, Technology & Innovation, Mr. Anura Dissanayake have made outstanding contributions & Innovation and Hon. Thilanga and the Secretary to the Ministry of Technology & Innovation, Mr. Chinthaka S. Lokuhetti also participated in the ceremony as Special Guests. Prof. Malik Ranasinghe, Senior Professor of the University of Moratuwa and the Chairman of Sampath Bank PLC delivered the keynote speech on the topic "Benefits of Research?".



# Revision to Corporate Plan 2019-2023

The National Science Foundation has earned great reputation as the premier facilitator and funding organization for the advancement of science, technology and innovation contributing to a knowledge based economy and social prosperity of Sir Lanka. We take pride in our role and services during the last fifty years, reaching several milestones and achievements, facilitated by the Ministry of Science, Technology and Research and with the dedication of the successive leadership of the NSF, its staff, external experts and various other stakeholders, guided by the previous corporate plans. Despite these achievements, we are still slow in our progress towards a knowledge economy due to several reasons and there is plenty of room to improve our performance in many aspects, including the successful transfer of research findings and technologies for the economic and social benefit of our people.

It is with this background that the NSF decided to revise the Corporate Plan based on a series of workshops, surveys and consultations following a participatory approach. After a critical review and a more rigorous process of refinement, the new Corporate Plan 2019-2023 was developed. The revised Corporate Plan provides a clear framework for the development of the NSF and demonstrates its commitment to successfully and strategically fulfil the mandates as outlined in the Science and Technology Development Act. No 11 of 1994.



# Establishing Quality Circles (QCs) to Improve Productivity

The NSF, following the 5S implementation took place in 2018, established Quality Circles with the objective of improving productivity and performance of the organization. Accordingly, two brainstorming sessions to form QCs were held on 07th and 18th March 2019 and a training workshop on QC for all NSF staff was held on 10th May 2019 with the help of the Productivity Secretariat.

Thirteen QCs were established and following projects were proposed for implementation.

- Internal Customer Satisfaction
- Solid Waste Management
- Image Building of NSF
- Energy Conservation & Efficiency Improvement at NSF
- Improve the efficiency & effectiveness of Science Popularization programmes conduct for school community
- Promoting inter-divisional collaboration for policy research
- Practically Paperless
- Modernization of Library
- Reorganization of Stores
- Creating a Secure Pleasant Environment
- මුද්‍රණ අංශය පිළිසකර කිරීම සහ කටයුතු කාර්යක්ෂම කිරීම
- Enable Paperless office concepts
- CSR Project - Distribution of refurbished office equipment to underprivileged schools/ institutes



# 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 14 shows how the activities described under the 6 different programmes align with the SDGs.

**Table 14:** SDGs and NSF Activities

SDG	Activity / Programme
 <b>Goal 2:</b> End hunger, achieve food security and improved nutrition and promote sustainable agriculture	NTRP - Food security Competitive Research Grants in Agriculture sector
 <b>Goal 3:</b> Ensure healthy lives and promote well-being for all at all ages	Competitive Research Grant Scheme, International Collaborative Research Programmes, Research Programme on Health Science Facilitating Policy Development on Social Sciences
 <b>Goal 4:</b> Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	"Science for All" the science popularization programme
 <b>Goal 6:</b> Ensure availability and sustainable management of water and sanitation for all	NTRP - Water Security MAB Programme Competitive Research Grants in water sector International Hydrology Programme

SDG	Activity / Programme
 <p><b>Goal 9:</b> Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p>	<p>Technology Grant Schemes 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>National Man &amp; the Biosphere (MAB) Programme</p>
 <p><b>Goal 16:</b> Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</p>	<p>Entire programme 6 ensuring good governance</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 International Grant Schemes</p>



# Financial Review



## Observation of the accounting officer on performance 2019

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 2019 were Rs. 149.1 million and Rs. 332.8 million respectively. Only Rs. 149.1 million and Rs. 307.2 million were released by the Department of Treasury Operations as "Recurrent" and "Capital" expenditure in installments during the year. The details of expenditure is given in *Table 15*.

**Table 15:** Recurrent and Capital expenditure in 2019

Expenditure	Rs.'000	
	Estimate	Expenditure
<b>Recurrent Expenditure</b>		
Personal Emoluments	113,650	120,172
Other Recurrent	35,450	27,469
<b>Total</b>	<b>149,100</b>	<b>147,641</b>
<b>Capital Expenditure</b>	342,315	277,507

The details of Capital Expenditure for 2019 is given in *Table 16*.

**Table 16:** Details of Capital expenditure in 2019

	Description	Expenditure 2019 Rs.'000
01	Strengthening scientific research potential	163,791
02	Conducting science & technology policy research	8205
03	Creating national gateway to S&T information	10,423
04	Science Popularization	20,544
05	Capacity building and international cooperation	49,884
06	Resource improvement and system administration	24,660
	<b>Total</b>	<b>277,507</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 with the available financial resources.

## Statement of financial position as at 31<sup>st</sup> December, 2019

	2019	2018	2017
			Rs.'000
<b>ASSETS</b>			
<b>Current Assets</b>			
Cash & Cash Equivalents	26,536	11,084	40,705
Receivables	21,546	7,934	6,080
Stocks	1,664	1,916	1,343
Pre Payments	1,163	1,322	1,331
Other Current Assets	109	3,407	3,407
<b>Total Current Assets</b>	<b>51,018</b>	<b>25,663</b>	<b>52,866</b>
<b>Non-Current Assets</b>			
Receivables	10,994	9,575	3,504
Property, plant & Equipment	1,257,815	443,448	440,806
Capital Work in Progress	13,940	-	-
Intangible Assets	7,540	7,796	357
Investments	873,002	857,070	748,129
<b>Total Non-current Assets</b>	<b>2,163,291</b>	<b>1,317,889</b>	<b>1,192,796</b>
<b>Total Assets</b>	<b>2,214,309</b>	<b>1,343,552</b>	<b>1,245,662</b>
<b>Liabilities</b>			
<b>Current Liabilities</b>			
Accrued Charges	14,937	16,065	6,909
Creditors	5,453	3,643	24,444
	20,390	19,708	31,353
<b>Non-Current Liabilities</b>			
Provision for Retiring Gratuity	38,865	34,765	29,969
Deferred Revenue	29,745	49,814	37,185
	68,610	84,579	67,154
<b>Total Liabilities</b>	<b>89,001</b>	<b>104,287</b>	<b>98,507</b>
<b>Net Assets</b>	<b>2,125,309</b>	<b>1,239,265</b>	<b>1,147,155</b>
<b>Equity and Reserves</b>			
Accumulated Fund	2,690	(38,654)	(21,823)
Revaluation Reserve	1,249,216	420,849	420,849
Government Grant	873,002	857,070	748,129
NSF Development Fund	401	-	-
<b>Total Equity</b>	<b>2,125,309</b>	<b>1,239,265</b>	<b>1,147,155</b>

### Head Administration & Finance

The Accounting policies and Notes on pages 08 to 35 form an integral part of these Financial Statements. The Board of Directors is responsible for the preparation and presentation of these Financial Statements. These Financial Statements were approved by the Board of Directors and signed on their behalf,

Chairman

Acting Director General

Board Member

## Statement of financial performance for the year ended 31<sup>st</sup> December, 2019

			Rs.000
<b>Revenue</b>	<b>2019</b>	<b>2018</b>	
Government Grant	149,100	139,501	
<b>Other Income</b>			
Interest received	674	595	
Sundry Income	286	127	
Profit/(Loss) Sale of Publications	766	466	
Photocopy receipts	4	4	
NSLRC Income	26	2	
Profit/(Loss) Sale of Fixed Assets	17	5	
Publications Charges Received - JNSI	231	265	
Other Income	308,573	284,312	
Differed Revenue	24,777	12,709	
		484,453	437,985
<b>Expenditure</b>			
<b>Personal Emoluments</b>			
Salaries & allowances	88,090	76,763	
Employees Provident Fund	11,624	10,214	
Employees Trust Fund	2,325	2,037	
Transport & Fuel Allowances	6,651	6,474	
Provision for retiring gratuity	8,322	7,059	
Overtime	2,783	2,375	
Holiday payment	105	82	
Uniforms	272	297	
	<b>120,172</b>	<b>105,301</b>	
Travelling	3,430	3,943	
Supplies	3,627	3,662	
Maintenance	6,073	10,281	
Contractual Service	12,249	11,978	
Others	17,194	11,075	
Depreciation	17,328	14,756	
Capital Expenditure	277,507	308,382	
	<b>337,407</b>	<b>364,077</b>	
		457,579	469,378
Surplus Deficit over the income before extraordinary items		26,874	(31,393)
Extraordinary items (Net Profit or loss)		-	-
<b>Net Surplus/ (Deficit) for the period</b>		<b>26,874</b>	<b>(31,393)</b>

## Statement of financial position as at 31<sup>st</sup> December, 2019

As at 31.12.2018		Note	Rs.	Rs.
	<b>Assets</b>			
	<b>Current Assets</b>			
11,083,507.73	Cash & Cash Equivalents	14	26,536,034.84	
7,934,188.30	Receivables	15	21,545,907.15	
1,916,566.68	Stocks	16	1,664,409.14	
1,321,758.49	Pre Payments		1,163,292.36	
3,407,615.20	Other Current Assets	17	108,650.00	
25,663,636.40	<b>Total Current Assets</b>			51,018,293.49
	<b>Non-Current Assets</b>			
9,574,779.00	Receivables	15	10,994,116.00	
443,447,800.33	Property, plant & Equipment	18	1,257,814,616.06	
-	Capital Work in Progress		13,939,703.12	
7,795,726.82	Intangible Assets	19	7,540,458.51	
857,069,645.00	Investments	20	873,002,124.00	
1,317,887,951.15	<b>Total Non-current Assets</b>			2,163,291,017.69
1,343,551,587.55	<b>Total Assets</b>			2,214,309,311.18
	<b>Liabilities</b>			
	<b>Current Liabilities</b>			
16,065,694.04	Accrued Expenses	21	14,937,310.81	
3,643,028.82	Creditors	22	5,452,919.91	
19,708,722.86	<b>Total Current Liabilities</b>			20,390,230.72
	<b>Non-Current Liabilities</b>			
34,765,095.17	Provision for Retiring Gratuity	23	38,865,339.00	
49,813,766.95	Deferred Revenue	24	29,745,012.17	
84,578,862.12	<b>Total Non-current Liabilities</b>			68,610,351.17
104,287,584.98	<b>Total Liabilities</b>			89,000,581.89
1,239,264,002.57	<b>Net Asset</b>			2,125,308,729.29
	<b>Equity and Reserves</b>			
	<b>Accumulated Fund</b>			
(7,261,356.75)	NSF Fund		(24,184,567.58)	
(31,393,021.32)	Add: Excess of Expenditure over Income		26,874,083.35	
(38,654,378.07)	<b>Total Accumulated Funds</b>			2,689,515.77
420,848,735.64	Revaluation Reserve			1,249,216,114.91
857,069,645.00	Government Grant			873,002,124.00
-	NSF Development Fund	25		400,974.61
1,239,264,002.57	<b>Total Equity</b>			2,125,308,729.29



# Statement of financial performance for the year ended 31<sup>st</sup> December, 2019

As at 31.12.2018		Rs.	Rs.	Rs.
139,501,000.00	<b>Grants from Treasury - Recurrent</b>			149,100,000.00
	<b>Income for the year</b>			
595,047.46	Interest received	673,775.85		
127,290.00	Sundry Income	285,998.52		
466,280.00	Net Profit/(Loss) Sale of Publications - (Note 12.1) (Printed to disseminate Information)	765,500.00		
3,510.00	Photocopy receipts	3,648.00		
265,032.54	Publications Charges Received - JNSF	231,101.05		
2,125.00	NSLRC Income	25,750.00		
4,739.87	Profit/(Loss) Disposal of Fixed Assets	17,174.69		
1,464,024.87			2,002,948.11	
	<b>Other</b>			
12,708,602.69	Deffered Income (Assets)	24,777,204.65		
283,306,700.00	Deffered Income (Capital)	307,189,000.00		
-	Income form Projects	1,169,694.80		
1,004,905.50	Income form Workshops	214,505.20		
297,020,208.19			333,350,404.65	
298,484,233.06				335,353,352.76
437,985,233.06				484,453,352.76
	Less; Expenditure for the year			
	<b>Recurrent Expenditure</b>			
	<b>Office Expenditure</b>			
565,595.00	Traveling & Allowances for Board Members	551,775.00		
158,800.40	Refreshments for meetings	261,554.60		
-	Printing & Publications	-		
724,395.40			813,329.60	
	<b>Staff Emoluments</b>			
76,763,014.43	Salaries & Allowances	88,090,287.52		
10,213,817.06	Employees Provident Fund	11,623,778.31		
2,037,112.92	Employees Trust Fund	2,324,676.30		
6,474,640.00	Transport & Fuel Allowances	6,651,106.77		
7,059,011.47	Provision for Retiring Gratuity	8,322,306.33		
2,374,806.68	Overtime	2,783,221.31		
82,047.45	Holiday Payment	104,871.55		
297,005.00	Uniforms	271,701.93		
105,301,455.01			120,171,950.02	
	<b>Office Administration</b>			
3,943,473.49	Travelling - Office	3,429,586.89		
1,639,301.36	Stationery & Consumables	1,424,802.97		
4,057,605.48	Electricity	3,708,506.42		
3,084,747.98	Telephone/ Fax	3,276,043.03		
164,973.00	Postal charges	451,605.08		
160,000.00	Audit fees - Auditor General's Department	534,600.00		
80,715.00	Bank charges	71,500.00		
74,799.76	Medical Expenses	78,974.51		
1,171,321.00	Advertising	727,185.25		
2,022,270.62	Fuel Expenses	2,201,983.27		
1,437,483.18	Maintenance of Motor Vehicles	2,432,464.50		
2,432,909.43	Maintenance of Office Equipment & Furniture	2,616,091.56		
6,411,094.14	Maintenance of Building	1,018,377.83		

		Rs.	Rs.	Rs.
-	Maintenance of Land	5,850.00		
898,880.29	Insurance	861,591.93		
528,496.55	Water Consumption charges	563,565.50		
1,661,601.42	Security Services	1,815,421.68		
14,755,809.99	Depreciation	17,328,306.14		
488,332.02	Amortisation of intangible assets	1,596,760.27		
-	Legal Fees	36,500.00		
763,669.57	Sundry Expenses	594,283.19		
1,581,582.63	Janitorial Services	1,572,570.13		
280,342.50	Translation charges	176,709.10		
1,725.00	Stamp duty	1,325.00		
26,667.00	Debtors Written off	3,298,965.20		
-	Stock of Stationery & Consumables written off	399,132.32		
144,550.00	Stock of Magazines & Journals written off	216,100.00		
47,812,351.41			50,438,801.77	
	<b>Others</b>			
44,196.73	National Science Library & Resource Centre- <b>Note 12.2</b>	65,010.00		
1,590,457.41	Printing Division - <b>Note 12.3</b>	3,024,868.72		
5,523,346.68	Subscription for Internet Services	5,558,526.69		
7,158,000.82			8,648,405.41	
	<b>Capital Expenditure</b>			
142,277,575.82	Mandate 01 - <b>Note 13.1</b>	163,791,264.53		
5,047,951.76	Mandate 02 - <b>Note 13.2</b>	8,204,692.46		
17,229,792.09	Mandate 03 - <b>Note 13.3</b>	10,423,433.18		
21,417,557.73	Mandate 04 - <b>Note 13.4</b>	20,543,768.73		
80,112,908.49	Mandate 05 - <b>Note 13.5</b>	49,883,665.50		
42,296,265.85	Mandate 06 - <b>Note 13.6</b>	24,659,958.21		
308,382,051.74			277,506,782.61	
469,378,254.38				457,579,269.41
<b>(31,393,021.32)</b>	Excess of income over Expenditure			<b>26,874,083.35</b>

## Statement of changes in net assets/equity

Summary	Contributed Capital	Revaluation Reserve	Other Reserve	Other Funds	NSF Fund	Total Accum. Fund	Total
<b>Balance as at 01.01.2019</b>	-	420,848,735.64	857,069,645.00	-	(38,654,378.07)	(38,654,378.07)	1,239,264,002.57
Changes in accounting Policy	-	-	-	-	-	-	-
Prior year adjustments	-	-	-	-	14,469,810.49	14,469,810.49	14,469,810.49
<b>Restated balance</b>	-	420,848,735.64	857,069,645.00	-	(24,184,567.58)	(24,184,567.58)	1,253,733,813.06
<b>Change in net asset/equity for 2019</b>							
Revaluation Surplus	-	828,367,379.27	-	-	-	-	828,367,379.27
Investment adjustment	-	-	15,932,479.00	-	-	-	15,932,479.00
<b>Grants From Treasury</b>							
Capital	-	-	-	-	307,189,000.00	307,189,000.00	307,189,000.00
Recurrent	-	-	-	-	149,100,000.00	149,100,000.00	149,100,000.00
Other operations	-	-	-	400,974.61	28,164,352.76	28,164,352.76	28,565,327.37
<b>Expenditure during the year</b>							
Capital	-	-	-	-	(277,506,782.61)	(277,506,782.61)	(277,506,782.61)
Recurrent	-	-	-	-	(180,072,486.80)	(180,072,486.80)	(180,072,486.80)
<b>Total recognised revenue and expenses for the period</b>	-	828,367,379.27	15,932,479.00	400,974.61	26,874,083.35	26,874,083.35	871,574,916.23
<b>Balance as at 31st December 2019</b>	-	1,249,216,114.91	873,002,124.00	400,974.61	2,689,515.77	2,689,515.77	2,125,308,729.29

## Statement of cash flow

	2019	2018	Rs'000
<b><u>Cash flows from operating Activities</u></b>			
Net excess of expenditure over income	26,874	(31,393)	
Add: NSF fund prior year adjustments	14,470	14,562	
	<u>41,344</u>	<u>(16,831)</u>	
<b><u>Adjustments for</u></b>			
Depreciation	17,328	14,756	
Amortisation of Intangible assets	1,597	489	
Gratuity paid during the year	(4,222)	(2,263)	
Provision for Gratuity	8,322	7,059	
Disposal of Fixed Assets	(17)	(5)	
Over Provision of Doubtfull Debtors	-	-	
Deferred Revenue	(24,777)	(12,709)	
Operating profit/loss before working capital chang	<u>39,575</u>	<u>(9,504)</u>	
Net increase/decrease in trade other receivables	(25,513)	(7,915)	
Net increase/decrease in inventories	252	(573)	
Net decrease/increase in trade payables	682	(11,646)	
Cash generated from operations	<u>(24,580)</u>	<u>(20,134)</u>	
Net cash from operating activities		<b>14,995</b>	<b>(29,638)</b>
<b><u>Cash flows from Investing Activities</u></b>			
Proceed of Disposal of Fixed Assets	56	17	
Purchase of assets	(4,708)	(17,410)	
Net cash used in investing activities		<b>(4,652)</b>	<b>(17,393)</b>
<b><u>Cash Flows from Financial Activities</u></b>			
Contribution from Government	4,708	17,410	
Contribution from NSF Components	401	-	
		<b>5,109</b>	<b>17,410</b>
Net cash from financing activities		15,453	(29,621)
Cash & cash equivalent at beginning period	11,084	11,084	40,705
<b>Cash &amp; cash equivalent at end of period</b>	<b><u>26,536</u></b>	<b><u>11,084</u></b>	

# Notes on accounting policies for the year ended 31<sup>st</sup> December, 2019

## 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%
-------------------	-----

### Assets Revaluation

Land, Building (Including Container Office) and Motor Vehicles were revalued by the **Department of Government Valuation** and their revalued amounts are as follows.

Assets Group	Date of Letter	Value	Effective Date
Land	14.03.2019	1,122,000,000.00	14.03.2019
Building	14.03.2019	88,783,000.00	14.03.2019
Building - Container	03.03.2020	1,700,000.00	31.12.2019
Motor Vehicles	27.02.2020	25,300,000.00	31.12.2019

#### 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 15th November 2010

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

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

#### 5 Presentation of Grants related to assets and income

##### Grants related to assets

The treatment of depreciation related to assets have been dealt as 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. 873,002,124 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	4,222,062.50	
Provision for the year	<u>8,322,306.33</u>	

10 NSF owns 07 vehicles as at 31.12.2019

## 11 Funds Drawn from the Treasury during - 2019

	<b>Budget</b>	<b>Received</b>	
	<b>Rs.</b>	<b>Rs.</b>	
Capital Funds	342,350,000.00	307,189,000.00	<b>Note A</b>
Recurrent Funds	149,100,000.00	149,100,000.00	

### **Note A**

#### **Capital Funds Allocation to Relevent Mandates**

1 Mandate 01	173,689,000.00
2 Mandate 02	8,500,000.00
3 Mandate 03	11,000,000.00
4 Mandate 04	21,000,000.00
5 Mandate 05	50,000,000.00
6 Mandate 06	43,000,000.00
	<u>307,189,000.00</u>

#### **Funds drawn from the Treasury from 1968 to 2019**

	<b>Rs.</b>
Consolidated funds	Rs. <u>2,877,732,826.45</u>
Foreign Aids	Rs. <u>338,908,549.60</u>

## Notes on accounts

### 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.

	2019	2018
	Rs.	Rs.
1 Research Grants	79,448,749.55	91,201,702.58
2 Technology Grants	8,851,850.50	29,397,185.70
3 International Liasion Division	209,473.05	2,860,165.82
4 Director's Office Vote	5,869,545.00	18,818,521.72
5 Thematic Special Project Unit	25,010,524.17	-
6 Research Project Health Science - RPHS	44,401,122.26	-
	<b>163,791,264.53</b>	<b>142,277,575.82</b>

#### 13.2 Mandate 02

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

	2019	2018
	Rs.	Rs.
1 Science & Technology Policy Research Division	8,204,692.46	5,047,951.76
	<b>8,204,692.46</b>	<b>5,047,951.76</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.

	2019	2018
	Rs.	Rs.
<b>National Library and Resource Center</b>		
1 SLJOL Databse	5,279,831.10	5,365,023.38
2 Library Books	44,642.60	38,545.00
3 National Digitization	1,025,774.13	9,293,599.41
4 Seminars & Workshops	29,181.15	56,375.27
5 Subscriptions & Periodicals	369,188.98	563,310.00
6 Honararium for Committee Meeting	32,500.00	27,500.00
7 National Repository S & T	1,247,624.58	-
	<b>8,028,742.54</b>	<b>15,344,353.06</b>
<b>Journal Publication Unit</b>		
1 Journal of National Science Foundation - ( JNSF)	1,948,233.57	1,482,874.46
2 Sri Lanka Journal of Social Sciences - ( SLJSS)	446,457.07	402,564.57
	<b>2,394,690.64</b>	<b>1,885,439.03</b>
	<b>10,423,433.18</b>	<b>17,229,792.09</b>



13.4 **Mandate 04**

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

	2019	2018
	Rs.	Rs.
1 Science Popularization Division	20,543,768.73	21,417,557.73
	<b>20,543,768.73</b>	<b>21,417,557.73</b>

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	26,251,787.56	28,191,631.00
2 International Contacts - Travel Grants	10,549,081.72	26,822,106.94
3 International Contacts - CERN	2,338,576.07	925,125.21
4 International Contacts - OSTP	4,615,161.93	11,728,974.27
5 International Contacts - IPSAT	4,193,472.55	4,178,532.76
6 International Liasion Division	675,360.45	7,363,186.76
7 Subscription to International Scientific Organizations	1,260,225.22	903,351.55
	<b>49,883,665.50</b>	<b>80,112,908.49</b>

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	2,045,079.15	4,562,169.41
2 Building	758,738.76	1,515,478.25
3 Motor Vehicles	-	-
4 Information Technology	8,147,604.30	19,193,391.93
5 Land & Improvements	-	-
6 Accessories & Miscellaneous	70,190.00	33,380.00
7 Staff Development Local	2,497,856.60	2,387,539.14
Foreign	898,781.98	685,897.44
8 Director's Office Vote	10,241,707.42	1,044,495.00
9 Women in Science Programme	-	12,500.00
10 NSF 50th Anniversary	-	12,861,414.68
	<b>24,659,958.21</b>	<b>42,296,265.85</b>

**Note No 12**

<b>12.1 <u>Net Profit/(Loss) Sale of Publications</u></b>	<b>2019</b>
	<b>Rs.</b>
1 Other Publications	31,500.00
2 Sri Lanka Journal of Social Sciences	100.00
3 Sri Lanka Journal of Social Sciences Vol No. 41	3,000.00
4 Sri Lanka Journal of Social Sciences Vol No. 42	3,700.00
5 Vidurava	36,600.00
6 NSF Journal	600.00
7 Journal of National Science Foundation Vol No. 44	600.00
8 Journal of National Science Foundation Vol No. 45	(1,800.00)
9 Journal of National Science Foundation Vol No. 46	15,200.00
10 Journal of National Science Foundation Vol No. 47	143,400.00
11 Vidurava Vol. 34 Special (E)	(800.00)
12 Vidurava Vol. 34 Special (S)	(400.00)
13 Vidurava Vol. 34 Special (T)	(300.00)
14 Vidurava Vol. 35-1 (E)	(4,900.00)
15 Vidurava Vol. 35-1 (S)	(300.00)
16 Vidurava Vol. 35-1 (T)	(1,400.00)
17 Vidurava Vol. 35-2 (E)	(500.00)
18 Vidurava Vol. 35-2 (S)	2,000.00
19 Vidurava Vol. 35-2 (T)	(100.00)
20 Vidurava Vol. 35 Special (E)	(135,100.00)
21 Vidurava Vol. 35 Special (S)	6,400.00
22 Vidurava Vol. 35 Special (T)	6,600.00
23 Vidurava Vol. 36-1 (E)	74,200.00
24 Vidurava Vol. 36-1 (S)	95,000.00
25 Vidurava Vol. 36-1 (T)	73,400.00
26 Vidurava Vol. 36-2 (E)	150,000.00
27 Vidurava Vol. 36-2 (S)	181,900.00
29 Vidurava Vol. 36-3 (E)	34,800.00
30 Vidurava Vol. 36-3 (S)	30,500.00
31 Vidurava Vol. 36-3 (T)	21,600.00
	<hr/>
	<b>765,500.00</b> <hr/>

<b>12.2 <u>National Science Library &amp; Resource Centre</u></b>	<b>2019</b>	<b>2018</b>
	<b>Rs.</b>	<b>Rs.</b>
1 Maintenance & Repairs	7,600.00	13,021.73
2 Consumables	57,410.00	31,175.00
	<hr/>	<hr/>
	<b>65,010.00</b>	<b>44,196.73</b>
	<hr/>	<hr/>

<b>12.3 <u>Printing Unit</u></b>	<b>2019</b>	<b>2018</b>
	<b>Rs.</b>	<b>Rs.</b>
1 Consumables & Chemicals	2,155,441.89	1,745,975.07
2 Paper & Boards	189,572.77	(211,726.46)
3 Maintenance & Repairs	679,854.06	56,208.80
	<hr/>	<hr/>
	<b>3,024,868.72</b>	<b>1,590,457.41</b>
	<hr/>	<hr/>

<b>Note No 14 - Cash and Cash Equivalents</b>		2019	2018
		Rs.	Rs.
<b>Bank Accounts</b>			
1	BOC - 0002323269	24,029,835.67	3,699,353.59
2	BOC - 0002323270	26,423.24	1,756,774.65
3	BOC - 0002322471	293,881.37	195,404.91
4	BOC Savings - 80771519	2,029,832.62	2,566,939.86
5	Special cash imprest	100,000.00	100,000.00
6	Petty cash	5,000.00	5,000.00
7	Cash & Cheques in hand	51,061.94	2,760,034.72
		<b>26,536,034.84</b>	<b>11,083,507.73</b>

**Note A : Capital Cash Balance as at 31.12.2019**

Treasury Funds - Capital	21,679,018.06	56,324.77
Health Science Project	-	22,625.84
Biosafety Project	1,842,364.75	-
Cinemon Project	508,452.86	3,620,402.98
	<b>24,029,835.67</b>	<b>3,699,353.59</b>

**Note No 15 - Receivables**

**Cash Advances & Advance payments**

1	Miscellaneous	Schedule - 1	16,719.20	106,781.33
2	Advance Payment - Landscaping	Schedule - 1	5,538,405.97	-
<b>3 Loans to Staff</b>				
	i. Distress loan - 01	Schedule - 2	3,300,106.00	4,115,281.00
	ii. Distress loan - 02	Schedule - 3	11,677,230.00	8,667,006.00
	iii. Combined loan	Schedule - 4	-	-
4	Festival Advance	Schedule - 5	22,500.00	10,000.00
5	Staff Debtors	Schedule - 6	421,581.23	129,671.61
6	Sundry Debtors	Schedule - 7	11,563,480.75	4,480,227.36
			<b>32,540,023.15</b>	<b>17,508,967.30</b>

Note 15.1 - Staff Loan Payments	Amount	Settlements With in one Year	Settlements After one year
Distress Loan - 01	3,300,106.00	938,592.00	2,361,514.00
Distress Loan - 02	11,677,230.00	3,044,628.00	8,632,602.00
	<b>14,977,336.00</b>	<b>3,983,220.00</b>	<b>10,994,116.00</b>

**Note No 16 - Stocks**

1	Stationery and Consumables	Schedule - 8	832,845.39	1,512,502.93
2	Publications	Schedule - 8	831,563.75	404,063.75
			<b>1,664,409.14</b>	<b>1,916,566.68</b>

**Note No 17 - Other Current Assets**

1	Treasury Deposit		-	3,298,965.20
2	Refundable Deposit	Schedule - 9	108,650.00	108,650.00
			<b>108,650.00</b>	<b>3,407,615.20</b>

		2019	2018
		Rs.	Rs.
<b>Note No 20 - Investments</b>			
1	SLINTEC	873,002,124.00	857,069,645.00
	Note - B	<u>873,002,124.00</u>	<u>857,069,645.00</u>
<b>Note - B : Investments Breakup</b>			
	No of Shares		
	Ordinary Shares	394,036,527.00	304,907,331.00
	Preference Shares	478,965,597.00	552,162,314.00
		<u>873,002,124.00</u>	<u>857,069,645.00</u>
<b>Note No 21 - Accrued Expenses</b>			
1	Accrued Expenses	14,937,310.81	16,065,694.04
	Schedule - 10	<u>14,937,310.81</u>	<u>16,065,694.04</u>
<b>Note No 22 - Creditors</b>			
Creditors amounting to Rs.5,452,919.91 represents monies held by NSF as given below,			
1	Retention Payable - Ransavi Constructions	1,012,292.73	-
2	Ransavi Constructions	2,035,869.41	-
3	Health Science Project	-	22,625.84
4	Cinemon Project	508,452.86	3,620,402.98
5	Biosafety Project	1,842,364.75	-
6	Staff Creditors	3,940.16	-
7	Sundry Creditors	50,000.00	-
		<u>5,452,919.91</u>	<u>3,643,028.82</u>
<b>Note No 23 - Provision for Retiring Gratuity</b>			
	Balance as at 01.01.2019	34,765,095.17	29,968,923.70
	(+) Provision for the year	8,322,306.33	7,059,011.47
		43,087,401.50	37,027,935.17
	(-) Paid during the year	(4,222,062.50)	(2,262,840.00)
	Balance as at 31.12.2019	<u>38,865,339.00</u>	<u>34,765,095.17</u>
<b>Note No 24 - Deffrede Revenue</b>			
1	Deffred Revenue - Assets	29,745,012.17	49,813,766.95
	Note - C	<u>29,745,012.17</u>	<u>49,813,766.95</u>
<b>Note C : Deffered Revenue - Assets</b>			
	Balance as at 01.01.2019	49,813,766.95	37,185,596.06
	(+) Assets Capitalized	4,708,449.87	25,336,773.58
		54,522,216.82	62,522,369.64
	(-) Depreciation Deffered	(24,777,204.65)	(12,708,602.69)
	Balance as at 31.12.2019	<u>29,745,012.17</u>	<u>49,813,766.95</u>
<b>Note No 25 - NSF Development Fund</b>			
1	NSF Component	241,239.81	-
2	Staff Component	159,734.80	-
		<u>400,974.61</u>	<u>-</u>

## Property plant and equipment as at 31<sup>st</sup> December, 2019

Description	Balance as at 01.01.2019 (Rs.)	Additions	Revaluation Transfers	Disposals	Balance as at 31.12.2019 (Rs.)
<b>Assets - (Cost &amp; Revaluation)</b>					
Land	370,000,000.00	-	752,000,000.00	-	1,122,000,000.00
Building	59,169,278.25	758,738.76	31,313,721.75	-	91,241,738.76
Office Equipment & Furniture	108,907,760.46	2,538,029.15	-	2,307,932.58	109,137,857.03
Motor Vehicles	35,014,750.00	-	(9,714,750.00)	-	25,300,000.00
Accessories & Miscellaneous	1,366,952.55	70,190.00	-	5,086.00	1,432,056.55
Library Books	5,628,477.66	-	-	-	5,628,477.66
Documentation Equipment	16,067,611.85	-	-	122,350.00	15,945,261.85
	<b>596,154,830.77</b>	<b>3,366,957.91</b>	<b>773,598,971.75</b>	<b>2,435,368.58</b>	<b>1,370,685,391.85</b>
<b>Accumulated Depreciation</b>					
Building	22,070,580.70	4,471,602.16	22,973,609.55	-	3,568,573.31
Office Equipment & Furniture	80,477,742.83	9,820,267.20	-	2,268,717.27	88,029,292.76
Motor Vehicles	29,010,297.97	2,784,500.00	31,794,797.97	-	-
Accessories & Miscellaneous	1,298,731.97	32,622.04	-	5,086.00	1,326,268.01
Library Books	3,782,065.12	219,314.74	-	-	4,001,379.86
Documentation Equipment	16,067,611.85	-	-	122,350.00	15,945,261.85
	<b>152,707,030.44</b>	<b>17,328,306.14</b>	<b>54,768,407.52</b>	<b>2,396,153.27</b>	<b>112,870,775.79</b>
<b>Net Value</b>	<b>443,447,800.33</b>				<b>1,257,814,616.06</b>

### Note No 19 - Intangible Assets

	2019	2018
Cost	Rs.	Rs.
Balance at the beginning of the year	8,318,396.57	391,664.70
Additions	1,341,491.96	7,926,731.87
Transfers	-	-
<b>Balance as at the end of the year</b>	<b>9,659,888.53</b>	<b>8,318,396.57</b>
<b>Accumulated amortisation</b>		
Balance at the beginning of the year	522,669.75	34,337.73
Charge for the year	1,596,760.27	488,332.02
<b>Balance as at the end of the year</b>	<b>2,119,430.02</b>	<b>522,669.75</b>
<b>Carrying amount as at the end of the year</b>	<b>7,540,458.51</b>	<b>7,795,726.82</b>

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

### Schedule 1

#### Miscellaneous cash advances as at 31.12.2019

Date	V. No.	File No.	Name	Amount - Rs.
11-02-2019	G - 81	AG - 96	Mr. Manuja Karunarathna	1,719.20
17-12-2019	G - 2262	AL - 24	Mr. Asanga Ahangama	15,000.00
				<b>16,719.20</b>

#### Advance Payment - Ransavi Constructions

27-09-2019	G - 1549	AG - 05	Ransavi Constructions	5,538,405.97
				<b>5,538,405.97</b>

## Schedules for accounts for the year ended 31<sup>st</sup> December, 2019

Schedule - 10

### Accrued Charges

#### Recurrent

1	Audit Fees	2,375,175.00	
2	Water Consumption	46,542.99	
3	Electricity	271,205.00	
4	Salaries & Allowances	407,139.41	
5	Gratuity	108,945.00	
6	Fuel	165,058.28	
7	Telephone	54,524.77	
8	Medical Expenses	12,818.60	
9	Sundry Expenses	7,342.00	
10	Travelling	549,287.05	
11	Overtime	232,866.45	
12	Refreshments for Meetings	480.00	
13	Advertiesment	96,513.75	
14	Subscription for Internet Charges	862,414.48	
15	Mobile Internet	27,917.53	
16	Janitorial Charges	143,650.80	
17	Security Charges	146,993.40	
18	Maintenance of Motor Vehicle	93,328.79	
19	Maintenance of Office Equipments	7,016.86	
20	Maintenance of Buildings	1,904,202.15	
21	Stationery & Consumables	441,506.41	
22	Maintenance & Repair - Library	7,600.00	
23	Consumables & Chemicals - Printing	276,500.00	
24	Translation Charges	151,332.50	
25	Holiday Payment	17,586.45	8,407,947.67

#### Capital

1	Building	465,001.15	
2	Directors Vote	460,000.00	
3	JPU Unit - SLJSS	17,500.00	
4	JPU Unit - JNSF	62,500.00	
5	Editorial Board by JNSF	15,200.00	
6	Technology Division	41,500.00	
7	Research Division	746,412.00	
8	Science Populariztion Division	894,150.80	
9	International Licence Division	350.00	
10	International Contacts	99,796.81	
11	International Contacts - OSTP	263,846.90	
12	International Contacts - IPSAT	782,350.00	
13	Science & Technology Policy Research Division	200,000.00	
14	Research Project on Health Science	560,000.00	
15	Office Equipments & Furniture	117,665.48	
16	Intergrated Software Programme	1,803,090.00	6,529,363.14

#### Total

**14,937,310.81**

	Rs.	Rs.
<b><u>Stocks</u></b>		
1 Stationary & Consumables - Stores	365,136.78	
- Printing	<u>467,708.61</u>	
		832,845.39
2 Coral Reef Posters		15,220.00
3 Horton Plains Vedio Cassettes		8,043.75
<b><u>Books &amp; Periodicals</u></b>		
4 Sri lanka Journal of Social Science Vol No 41		2,700.00
5 Sri lanka Journal of Social Science Vol No 42		2,800.00
6 Vidurawa 35 Special ( Sinhala )		5,200.00
7 Vidurawa 35 Special ( Tamil )		6,400.00
8 Vidurawa 36-1 (English)		73,000.00
9 Vidurawa 36-1 (Sinhala)		89,000.00
10 Vidurawa 36-1 (Tamil)		73,200.00
11 Vidurawa 36-2 (English)		150,000.00
12 Vidurawa 36-2 (Sinhala)		181,100.00
13 Vidurawa 36-3 (English)		34,800.00
14 Vidurawa 36-3 (Sinhala)		30,500.00
15 Vidurawa 36-3 (Tamil)		21,600.00
16 Journal of National Science Foundation Vol No. 46		19,200.00
17 Journal of National Science Foundation Vol No. 47		<u>118,800.00</u>
<b>Total</b>		<b><u><u>1,664,409.14</u></u></b>

## Loan Balance as at 31.12.2019

## Schedule - 2

**Distress Loan - 01**

	Rs.	Rs.
1 Mr.M.D.Vajira	93,180.00	
2 Mr.A.A. Dias	124,992.00	
3 Mrs.Monika Wijayamanne	158,308.00	
4 Mrs.Dilani Jayaweera	98,550.00	
5 Mrs.J.A.C.H Samarasinghe	161,370.00	
6 Mr.Chandrasiri Perera	119,844.00	
7 Mrs.K.A.T.K.G.Kadanamulla	86,552.00	
8 Mr.W.P.S.Sammani Weerasingha	96,947.00	
9 Mrs.Chani M De Silva	140,309.00	
10 Mrs.Kanchana Sewwandhi	118,230.00	
11 Mrs.J.A.C.G.Samarasinghe	216,632.00	
12 Mr.Umeke Samaranayake	151,107.00	
13 Mr.E.M.D.C.B Ekanayaka	111,552.00	
14 Mrs.R.M.M Jayajeewani	159,320.00	
15 Mrs.D.M Nadeesha Sirangi	98,224.00	
16 Mr.Asanga Indrajith Ahangama	161,184.00	
17 Mrs.D.M.W Sadari Dematagolla	210,924.00	
18 Mrs.Dilushi Munasingha	77,720.00	
19 Mr.S.A.Jayasinghe	95,540.00	
20 Mr.Ranil Kumara de Silva	179,564.00	
21 Mrs.M.N Thasneem	195,802.00	
22 Mrs.W.A.H Vinoli Chandi	125,615.00	
23 Mrs.R.N.N.Gamage	104,958.00	
24 Mr.Dushantha Pushpakumara	108,682.00	
25 Mrs.K.W.D.Madushani	105,000.00	
		<b><u>3,300,106.00</u></b>



**Distress Loan - 02**

Schedule - 3

1	Mr.M.D.Vajira	63,060.00
2	MRs.H.A.Kanthi	204,134.00
3	Miss.N.Paranavidana	187,470.00
4	Mrs.V.R.Priyanganie	166,640.00
5	Mrs.N.S.Liyanage	183,304.00
6	Mrs.N.S.S Silva	183,304.00
7	Mr.Saman Sujeewa	166,640.00
8	Mrs.R.K.D.U Medhavi	166,640.00
9	Mr.K.A.D.P.N. Nanayakkara	229,130.00
10	Mr.B.S.Cooray	166,640.00
11	Mr.H.P.L Caldera	166,640.00
12	Mrs.D.M.R. Ippalawatte	204,134.00
13	Mrs.Hemamali Priyadarshani	179,138.00
14	Mrs..A.J.N. Silva	237,462.00
15	Mrs.D.M.N Prishathi	166,640.00
16	Mrs.I.C.Ramani	166,640.00
17	Mr.K.G.J Karunasena	166,640.00
18	Mrs.W.A.D.A Perera	179,138.00
19	Mrs.D.N.Wickramarachchi	195,802.00
20	Ms.K.N.R.H.D.Mahapitiya	229,130.00
21	Mrs.Dilani Jayaweera	88,875.00
22	Mrs.J.A.C.H Samarasinghe	67,760.00
23	Mrs.M.A.R.L Millavithana	195,802.00
24	Mrs.S.V.P.M.Rukshani	233,296.00
25	Mr.S.N.P.K Sapumohotti	199,968.00
26	Mrs.T.D.P.P Samaranayake	129,024.00
27	Mrs.Dilrukshi Ekanayake	187,470.00
28	Mrs.B.T.Wickramasingha	183,304.00
29	Mr.T.D.K.Gunasekara Zoysa	229,130.00
30	Mrs.R.A.A.R Ranathunga	195,802.00
31	Mrs.Maduka Senarathna	187,470.00
32	Mr.P.D Gunamuditha	147,705.00
33	Mr.K.K.Yohan Chandeera	166,640.00
34	Mrs.Chani M De Silva	26,746.00
35	Mrs.H.K.C Priyadarshanie	155,440.00
36	Mr.Umeke Samaranayake	81,909.00
37	Mr.E.M.D.C.B Ekanayaka	78,449.00
38	Mrs.Pushpa Ellapallage	166,640.00
39	Mrs.Priyanka Bamunendra	166,640.00
40	Mrs.D.M Nadeesha Sirangi	119,224.00
41	Mrs.A.N.L Perera	174,870.00
42	Mrs.B.V.I.D Wimalarathna	208,300.00
43	Mr.Janaka Perera	231,224.00

44	Mr.Asanga Indrajith Ahangama	30,268.00
45	Mrs.Saroja Udayangani	190,414.00
46	Mrs.D.M.W Sadari Dematagolla	13,986.00
47	Mrs.Dilushi Munasinghe	163,908.00
48	Mr.S.C.S Fernando	155,488.00
49	Mrs.P.H.Hasni	224,964.00
50	Mrs.M.Shamila	169,224.00
51	Mr.Ranil Kumara de Silva	39,220.00
52	Mr.Pujitha Hewawasam	204,134.00
53	Mrs.J.K Harsha Shamini	171,270.00
54	Mr.Sandun Fernando	138,920.00
55	Mrs.G.G.K.P.Sumudu Kumari	166,640.00
56	Mr.Manuja Karunarathna	224,964.00
57	Mr.Sajeewa Pannala	195,802.00
58	Mrs.S.Warnasooriya	208,300.00
59	Mrs.R.N.N.Gamage	107,457.00
60	Mrs.M.S.Weerasooriyagedara	208,300.00
61	Mrs.N Muhandiram	220,798.00
62	Mrs.K.N.Samanthi	208,300.00
63	Dr.K.B.Hasanthi	208,300.00
64	Mr.Dushantha Pushpakumara	72,471.00
65	Mr. Mohomad Rihas	188,547.00
66	Mr.Malith Dananjaya	207,032.00
67	Mrs.K.W.D.Madushani	103,300.00
68	Mr.Nuwan Nishantha	200,277.00
69	Mrs.N.M.Wickramsingha	212,466.00
70	Mrs.C.N.G Moragoda	212,466.00

**11,677,230.00**

*Schedule - 4*

Combined Loan as at 31.12.2019

	Rs.	Rs.
1 Not Available	-	-
		<b><u>                    </u></b>

*Schedule - 5*

Festival Advance Balances as at 31.12.2019

Name	Rs.
1 Mr.K.A.D.P.N. Nanayakkara	10,000.00
2 Mr.S.C.S Fernando	10,000.00
3 Mrs.J.K Harsha Shamini	1,250.00
4 Mrs.Fathima Samra	1,250.00
<b>Total</b>	<b><u>22,500.00</u></b>

**Prepayments**

	Rs.
1 Information Technology	93,307.42
2 Insurance	328,903.50
3 Maintenance of Motor Vehicles	3,374.02
4 Maintenance of Office Equipments	349,716.85
5 Postage	101,950.00
6 Uniforms	273,607.30
7 Subscriptions & Periodicals	12,433.27
	<u>1,163,292.36</u>

**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>

**Staff Debtors Schedule**

1 Mr.M.A.R Bandara	1,040.97
2 Mr.C.B.A.Wickramasingha	2,470.19
3 Mrs.Piyumi Sakunthala	1,782.74
4 Mrs.K.D.N.Keeragala	168,240.38
5 Mrs.Priyanka Bamunendra	126.95
6 Mr.Sanjaya Amarathunga	123,656.00
7 Mr.W.Ajantha Sanjeewa	124,264.00
	<u>421,581.23</u>

**Sundry Debtors Schedule****Sundry Debtors Balances as at 31/12/2019**

Date	V.No	Grant No.	Grantee	Amount	
				Rs.	cts.
18-11-2019	JV - 467		Colombo Municipal Council	21,112.50	
25-11-2019	JV - 499	Invoice No - 5276	Mr.Pujitha Hewawasam Monthly Salary - November 2019	41,944.31	
28-11-2019	JV - 491		Ministry of Science & Technology - Election Duty	6,000.00	
03-12-2019	JV - 492		BMICH - NSF Research Awards	20,000.00	
31-12-2019	JV - 667	RG/2015/BT/03	Dr. Inoka Perera, Dept. of Zoology, Faculty of Science, University of Colombo.	76,487.75	
31-12-2019	JV - 667	RG/2015/HS/02	Dr. Rajiva De Silva Dept. of Immunology, Medical Research Institute, Colombo 08.	137,300.00	
31-12-2019	JV - 667	RG/2015/HS/07	Dr. Charitha Goonasekera, Dept. of Pre-Clinical Sciences, Faculty of Medicine, Kotelawa Defence University.	12,017.59	
31-12-2019	JV - 667	RG/2016/BS/01	Prof. R.M.G.Rajapakse, Department of Chemistry, Faculty of Science, University of Peradeniya.	1,418,297.30	
31-12-2019	JV - 667	RG/2016/BS/04	Dr. W.M.C.J. Wijekoon Dept. of Soil Science, Faculty of Agriculture, University of Ruhuna.	140,347.86	
31-12-2019	JV - 667	RG/2016/BT/01	Dr. S.N.T. De Silva Dept. of Biotechnology, Faculty of Agriculture & Plantation Management, Wayamba University of Sri Lanka.	23,156.36	
31-12-2019	JV - 667	RG/2017/EB/05	Dr. N.P.S.Kumburegama, Postgraduate Institute of Science, Department of Zoology, University of Peradeniya,	6,341.82	

31-12-2019	JV - 667	RG/2017/EQ/01	Prof. P.A.Paranagama College of Chemical Sciences, Institute of Chemistry Ceylon, Rajagiriya.	181,010.00
31-12-2019	JV - 667	RG/2017/EQ/03	Mr. Wijetunga Department of Agriculture Engineering, University of Ruhuna.	182,530.00
31-12-2019	JV - 667	RG/2017/EA & ICT/01	Dr. H.M.I.Prasanna Dept. of Surveying & Geodesy, Faculty of Geomatics, Sabaragamuwa University of Sri Lanka.	331,481.50
31-12-2019	JV - 667	RG/2017/HS/02	Prof. Renu Wickramasinghe, Dept. of Parasitology, Faculty of Medical Science, University of Sri Jayawardenepura.	612,516.97
31-12-2019	JV - 667	NSF/SCH/2013/07	Ms. Nadikala Muthiah A2 F7, Armour Street Flats, Colombo 12.	73,588.15
31-12-2019	JV - 667	NSF/SCH/2017/06	Ms. G.D. Liyanaarachchi No.160, Gunasekara Mawatha, Maththumagala, Ragama.	91,491.00
31-12-2019	JV - 667	NSF/SCH/2018/01	Ms. Sathees Sasrubi Dept. of Biochemistry Faculty of Medicine University of Jaffna.	300,000.00
31-12-2019	JV - 667	TG/2014/Tech-D/04	Prof. R.M.G.Rajapaksha, Dept. of Chemistry, University of Peradeniya.	528,653.68
31-12-2019	JV - 667	TG/2015/Tech-D/05	Dr. Neelika Malavige, Senior Lecturer, Dept. of Microbiology, Faculty of Medical Sciences, University of Sri Jayawardenepura.	1,794,343.25
31-12-2019	JV - 667	TG/2016/Tech-D/04	Mr. Sarath Kumara Seneviratne, Director/Engineering, ART Logistics (Pvt) Ltd, 449A, Suriyagoda, Kiribathkumbura.	54,731.69
31-12-2019	JV - 667	TG/2016/Tech-D/07	Mr. S.G.Shantha Kumara No.30/1, Wennawatta, Wellampitiya.	11,020.00

31-12-2019	JV - 667	TG/2017/Tech-D/02	Dr. Udayanga Galappaththi Senior Lecturer, Dept. of Mechanical & Manufacturing Engineering, University of Ruhuna.	20,203.00
31-12-2019	JV - 683	RG/2015/EQ/02	Faculty of Science University of Kelaniya, Kelaniya.	25,000.58
31-12-2019	JV - 683	RG/2016/EQ/04	Faculty of Science University of Kelaniya, Kelaniya.	252,866.34
31-12-2019	JV - 683	TG/2013/Tech-D/03	Dr.J.G Samarawickrama Senior Lecturer, Dept. of Electronic & Telecom Engineering University of Morauwa.	3,274,396.90
31-12-2019	JV - 688	RG/2005/DMM/05	Postgraduate Institute of Science, University of Peradeniya, Peradeniya	1,926,642.20
				<b>11,563,480.75</b>

## Reconciliation of financial position

	Note	Audited Balance as at 31 December 2018	Adjustments	Adjusted Balance as at 31 December 2018
<b>ASSETS</b>				
<b>Current Assets</b>				
Cash & Cash Equivalents		11,083,508		11,083,508
Receivables		7,934,188		7,934,188
Stocks		1,916,567		1,916,567
Pre Payments		1,321,758		1,321,758
Other Current Assets		3,407,615		3,407,615
<b>Total Current Assets</b>		<b>25,663,636</b>	-	<b>25,663,636</b>
<b>Non-Current Assets</b>				
Receivables		9,574,779		9,574,779
Property, plant & Equipments		443,447,800		443,447,800
Intangible Assets		7,380,392	415,335	7,795,727
Investments		857,069,645		857,069,645
<b>Total Non-current Assets</b>		<b>1,317,472,616</b>	<b>415,335</b>	<b>1,317,887,951</b>
<b>Total Assets</b>		<b>1,343,136,252</b>	<b>415,335</b>	<b>1,343,551,588</b>
<b>Liabilities</b>				
<b>Current Liabilities</b>				
Accrued Charges		16,065,694		16,065,694
Creditors		3,643,029		3,643,029
		19,708,723	-	19,708,723
<b>Non-Current Liabilities</b>				
Provision for Retiring Gratuity		34,765,095		34,765,095
Deffered Revenue		49,398,432	415,335	49,813,767
		84,163,527	415,335	84,578,862
<b>Total Liabilities</b>		<b>103,872,250</b>	<b>415,335</b>	<b>104,287,585</b>
<b>Net Assets</b>		<b>1,239,264,003</b>	-	<b>1,239,264,003</b>
<b>Equity and Reserves</b>				
<b>Accumulated Funds</b>				
NSF Fund		(38,654,378)	-	(38,654,378)
Revaluation Reserve		420,848,736		420,848,736
Government Grant		857,069,645		857,069,645
<b>Total Equity</b>		<b>1,239,264,003</b>	-	<b>1,239,264,003</b>

## Notes to financial statements

### Note - A

As per the audit observations of 2018, Intangible assets amortisation has been restated as follows.

	<u>Balance</u>	<u>Correction</u>	<u>Actual Balance</u>
Amortization - Intangible Assets	903,667.23	(415,335.21)	488,332.02
	<u>903,667.23</u>	<u>(415,335.21)</u>	<u>488,332.02</u>
<b>Cost</b>			
Balance at the beginning of the year	391,664.70	-	391,664.70
Additions	7,926,731.87	-	7,926,731.87
Transfers	-	-	-
<b>Balance as at the end of the year</b>	<u>8,318,396.57</u>	<u>-</u>	<u>8,318,396.57</u>
<b>Accumulated amortisation</b>			
Balance at the beginning of the year	34,337.73	-	34,337.73
Charge for the year	903,667.23	(415,335.21)	488,332.02
<b>Balance as at the end of the year</b>	<u>938,004.96</u>	<u>(415,335.21)</u>	<u>522,669.75</u>
<b>Carrying amount as at the end of the year</b>	<u>7,380,391.61</u>	<u>415,335.21</u>	<u>7,795,726.82</u>

## Reconciliation of comprehensive income

	Year ended 31 December 2018		
	<u>Audited Balance 2018</u>	<u>Adjustments</u>	<u>Adjusted Balance 2018</u>
<b>Revenue</b>			
Government Grant	139,501,000		139,501,000
<b>Other Income</b>			-
Interest received	595,047		595,047
Sundry Income	127,290		127,290
Sale of Publications	731,313		731,313
Photocopy receipts	3,510		3,510
NSLRC Income	2,125		2,125
Profit/(Loss) Sale of Fixed Assets	4,740		4,740
Other	284,311,606		284,311,606
Differed Revenue	13,123,938	415,335	12,708,603
	438,400,568		437,985,233
<b>Expenditure</b>			
<b>Office Expenditure</b>			
Traveling & Allowances for Board Members	565,595		565,595
Refreshments for meetings	158,800		158,800
Printing & Publications	-	724,395	-
	724,395		724,395



**Staff Emoluments**

Salaries & Allowances	76,763,014		76,763,014	
Employees Provident Fund	10,213,817		10,213,817	
Employees Trust Fund	2,037,113		2,037,113	
Transport & Fuel Allowance	6,474,640		6,474,640	
Provision for Retiring Gratuity	7,059,011		7,059,011	
Overtime	2,374,807		2,374,807	
Holiday Payment	82,047		82,047	
Uniforms	297,005		297,005	
		105,301,455		105,301,455

**Office Administration**

Travelling - Office	3,943,473		3,943,473	
Stationary & Consumables	1,639,301		1,639,301	
Electricity	4,057,605		4,057,605	
Telephone/ Fax	3,084,748		3,084,748	
Postal charges	164,973		164,973	
Audit fees - Auditor General's Dept.	160,000		160,000	
Legal fees	-		-	
Bank charges	80,715		80,715	
Medical Expenses	74,800		74,800	
Advertising	1,171,321		1,171,321	
Fuel Expenses	2,022,271		2,022,271	
Maintenance of Motor Vehicles	1,437,483		1,437,483	
Maintenance of Office Equipment & Furniture	2,432,909		2,432,909	
Maintenance of Building	6,411,094		6,411,094	
Insurance	898,880		898,880	
Water Consumption charges	528,497		528,497	
Security Services	1,661,601		1,661,601	
Depreciation	14,755,810		14,755,810	
Amortisation of intangible assets	903,667	(415,335)	488,332	
Sundry Expenses	763,670		763,670	
Janitorial Services	1,581,583		1,581,583	
Translation charges	280,343		280,343	
Stamp duty	1,725		1,725	
Debtors Written off	26,667		26,667	
Stock of Magazines & Journals written off	144,550	48,227,687	144,550	47,812,351

**Others**

National Science Library & Resource Centre	44,196		44,196	
Printing Division	1,590,457		1,590,457	
Subscription for Internet Services	5,523,347	7,158,000	5,523,347	7,158,000

**Capital Expenditure**

Awards & Grants : Mandate 01	142,277,576		142,277,576	
Science & Tec Policy Research : Mandate 02	5,047,952		5,047,952	
National Gateway S & T Inframation : Mandate 03	17,229,792		17,229,792	
Science popularization programmes : Mandate 04	21,417,558		21,417,558	
International cooperation : Mandate 05	80,112,908		80,112,908	
Capital Assets, Maintenance & Admin : Mandate 06	42,296,266		42,296,266	
		308,382,052		308,382,052

**Excess of Income over expenditure**

**(31,393,021)** **(31,393,021)**

## Reconciliation of statement of cash flow

### Reconciliation of Statement of Cash Flow

Rs'000

	Audited Balance 2018	Adjustments	Adjusted Balance 2018	
<b><u>Cash flows from operating Activities</u></b>				
Net excess of expenditure over income	(31,393)		(31,393)	
Add; NSF fund prior year adjustments	14,562		14,562	
	<b>(16,831)</b>		<b>(16,831)</b>	
<b><u>Adjustments for</u></b>				
Depreciation	14,756		14,756	
Amortisation of Intangible assets	904	(415)	489	
Gratuity paid during the year	(2,263)		(2,263)	
Provision for Gratuity	7,059		7,059	
Disposal of Fixed Assets	(5)		(5)	
Over Provision of Doubtfull Debtors	-		-	
Revaluation Reserve of Disposal Vehicles	-		-	
Deffered Revenue	(13,124)	415	(12,709)	
Debtor Written off	-		-	
Operating profit/loss before working capital changes	<b>(9,504)</b>		<b>(9,504)</b>	
Net increase/decrease in trade other receivables	(7,915)		(7,915)	
Net increase/decrease in inventories	(573)		(573)	
Net decrease/increase in trade payables	(11,646)		(11,646)	
Cash generated from operations	<u>(20,134)</u>		<u>(20,134)</u>	
Net cash from operating activities	<b>(29,638)</b>		<b>(29,638)</b>	
<b><u>Cash flows from Investing Activities</u></b>				
Proceed of Disposal of Fixed Assets	17		17	
Purchase of assets	(17,410)		(17,410)	
Proceeds from sale of books	-		-	
Net cash used in investing activities	<b>(17,393)</b>		<b>(17,393)</b>	
<b><u>Cash Flows from Financial Activities</u></b>				
Contribution from Government	17,410		17,410	
Foreign Aid	-		-	
	<b>17,410</b>		<b>17,410</b>	
Net cash from financing activities	(29,621)		(29,621)	
Cash & cash equivalent at beginning period	40,705		40,705	
<b>Cash &amp; cash equivalent at end of period</b>	<b><u>11,084</u></b>		<b><u>11,084</u></b>	

## Budget & actual expenditure 2019

### Capital Expenditure

Rs.000'

	<i>Estimate 2019 - Original</i>	<i>Estimate 2019 - Revised</i>	<i>Actual Expendituer</i>	<i>Surplus/(Vareinces)</i>
Mandate - 01	210,850	194,815	163,791	31,024
Mandate - 02	12,500	11,000	8,205	2,795
Mandate - 03	15,000	14,500	10,423	4,077
Mandate - 04	28,000	25,000	20,544	4,456
Mandate - 05	55,000	50,000	49,884	116
Mandate - 06	59,000	47,000	24,660	22,340
<b>Total</b>	<b>380,350</b>	<b>342,315</b>	<b>277,507</b>	<b>64,808</b>

### Recurrent Expenditure

Rs.000'

	<i>Estimate 2019 - Original</i>	<i>Estimate 2019 - Revised</i>	<i>Actual Expendituer</i>	<i>Surplus/(Vareinces)</i>
Personal Emoluments	109,550	115,139	115,800	(661)
Travelling Expenses	3,800	2,881	3,430	(549)
Supplies	3,550	3,293	3,898	(605)
Maintenance Expenditure	3,300	5,938	6,073	(135)
Contractual Services	10,900	11,590	12,249	(659)
Others	13,900	10,259	11,683	(1,424)
<b>Total</b>	<b>145,000</b>	<b>149,100</b>	<b>153,133</b>	<b>(4,033)</b>

### Recurrent Expenditure

Advers variances are due to the accrued recurrent expenditure.

	<i>Estimate 2019 - Original</i>	<i>Estimate 2019 - Revised</i>	<i>Actual Expenditure</i>	<i>Surplus/(Variances)</i>
<b><u>Staff Emoluments</u></b>				
Salaries & Allowances	82,000	87,679	88,090	(411)
Employees Provident Fund	12,000	11,624	11,624	0
Employees Trust Fund	2,400	2,325	2,325	0
Payment for unutilized leave	-	-	-	-
Fuel & Transport Allowance	7,000	6,651	6,651	(0)
Retiring Gratuity	4,000	4,222	4,222	(0)
Overtime	2,000	2,551	2,783	(232)
Holiday Payment	150	87	105	(18)
	<b>109,550</b>	<b>115,139</b>	<b>115,800</b>	<b>(661)</b>
<b><u>Traveling</u></b>				
Office Traveling	3,800	2,881	3,430	(549)
	<b>3,800</b>	<b>2,881</b>	<b>3,430</b>	<b>(549)</b>
<b><u>Supplies</u></b>				
Uniforms	500	272	272	0
Stationary & Consumables	1,300	984	1,425	(441)
Printing & Publications	50	-	-	-
Fuel & Lubricants	1,700	2,037	2,202	(165)
	<b>3,550</b>	<b>3,293</b>	<b>3,898</b>	<b>(605)</b>
<b><u>Maintenance</u></b>				
Maintenance of Motor vehicle	1,000	2,339	2,432	(93)
Maintenance of Office equipment & furniture	1,500	2,609	2,616	(7)
Maintenance of Building	500	984	1,018	(34)
Maintenance of Land	300	6	6	0
	<b>3,300</b>	<b>5,938</b>	<b>6,073</b>	<b>(135)</b>
<b><u>Services</u></b>				
Electricity	3,900	3,438	3,709	(271)
Postage	800	452	452	0
Telephone/ Fax	2,200	3,222	3,276	(54)
Insurance charges for vehicles & Building	900	862	862	0
Water consumption	300	518	564	(46)
Security Services	1,600	1,668	1,815	(147)
Janitorial Services	1,200	1,430	1,573	(143)
Leasing	-	-	-	-
	<b>10,900</b>	<b>11,590</b>	<b>12,249</b>	<b>(659)</b>

	<i>Estimate 2019 - Original</i>	<i>Estimate 2019 - Revised</i>	<i>Actual Expenditure</i>	<i>Surplus/(Variances)</i>
<b>Other Recurrent</b>				
Advertising	600	631	727	(96)
Allowances to Board members Audit Committee & travelling	600	552	552	0
Audit fees - Auditor General's Dept.	160	535	535	0
Bank charges	10	72	72	1
Entertainment	40	-	-	-
Legal fees	50	37	37	1
Medical scheme	150	66	79	(13)
Refreshments for committee meetings	400	262	262	0
National Science Library & Resources Centre	60	65	65	(0)
Printing unit	780	2,749	3,025	(276)
Stamp duty	50	1	1	(0)
Sundry Expenses	500	594	594	(0)
Translation charges	200	26	177	(151)
Internet membership fees	4,400	4,669	5,559	(890)
Subscription for S/W Licence Renewal	5,900	-	-	-
	<b>13,900</b>	<b>10,259</b>	<b>11,683</b>	<b>(1,424)</b>
<b>Total</b>	<b>145,000</b>	<b>149,100</b>	<b>153,133</b>	<b>(4,033)</b>
<b>Provision &amp; other</b>				
Gratuity Provision	-	-	8,322	-
Depreciation	-	-	17,328	-
Amortitation of Intangible Assets	-	-	1,597	-
Debtors Write off	-	-	3,299	-
Stock Stationery & Consumables Written off	-	-	399	-
Stock Magazines & Journals Written off	-	-	216	-
<b>Total Other Recurrent</b>	<b>-</b>	<b>-</b>	<b>31,162</b>	<b>-</b>
<b>Total</b>	<b>145,000</b>	<b>149,100</b>	<b>184,295</b>	<b>-</b>





# Auditor General's Report







# ජාතික විගණන කාර්යාලය

## தேசிய கணக்காய்வு அலுவலகம்

### NATIONAL AUDIT OFFICE



මගේ අංකය  
எனது இல. }  
My No. }

TEC/B/NSF/1/19/44

ඔබේ අංකය  
உமது இல. }  
Your No. }

දිනය  
திகதி }  
Date }

26 August 2020

Chairman  
National Science Foundation

**Report of the Auditor General on the Financial Statements and Other Legal and Regulatory Requirements of the National Science Foundation for the year ended 31 December 2019 in terms of Section 12 of the National Audit Act, No. 19 of 2018.**

## 1. Financial Statements

### 1.1 Opinion

The audit of the financial statements of the National Science Foundation for the year ended 31 December 2019 comprising the statement of financial position as at 31 December 2019 and the statement of statement of financial performance, statement of changes in equity and cash flow statement for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with provisions of the National Audit Act No. 19 of 2018 and Finance Act No. 38 of 1971. My report to Parliament in pursuance of provisions in Article 154 (6) of the Constitution will be tabled in due course.

In my opinion, the accompanying financial statements give a true and fair view of the financial position of the Foundation as at 31 December 2019, and of its financial performance and its cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

### 1.2 Basis for Opinion

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

අංක 306/72, පොල්දූව පාර, මත්තමුල්ල, ශ්‍රී ලංකාව

இல. 306/72, பொல்தூவ வீதி, பத்தரமுல்லை, இலங்கை.

No. 306/72, Polduwa Road, Battaramulla, Sri Lanka.



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

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

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

Those charged with governance are responsible for overseeing the National Science Foundation's financial reporting process.

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

### 1.4 Auditor's Responsibilities for the Audit of the Financial Statements

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

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

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the National Science Foundation's internal control.



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

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

## 2. Report on Other Legal and Regulatory Requirements

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

- I have obtained all the information and explanation that required for the audit and as far as appears from my examination, proper accounting records have been kept by the Foundation as per the requirement of section and section 12 (a) of the National Audit Act, No. 19 of 2018.
- The financial statements presented is consistent with the preceding year as per the requirement of section 6 (1) (d) (iii) of the National Audit Act, No. 19 of 2018.
- The financial statements presented includes all the recommendations made by me in the previous year as per the requirement of section 6 (1) (d) (iv) of the National Audit Act, No. 19 of 2018.

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

- to state that any member of the Board of Management of the National Science Foundation has any direct or indirect interest in any contract entered into by the National Science Foundation which are out of the normal course of business as per the requirement of section 12 (d) of the National Audit Act, No. 19 of 2018.



- to state that the National Science Foundation has not complied with any applicable written law, general and special directions issued by the Board of Management of the National Science Foundation as per the requirement of section 12 (f) of the National Audit Act, No. 19 of 2018.
- to state that the National Science Foundation has not performed according to its powers, functions and duties as per the requirement of section 12 (g) of the National Audit Act, No. 19 of 2018
- to state that the resources of the National Science Foundation had not been procured and utilized economically, efficiently and effectively within the time frames and in compliance with the applicable laws as per the requirement of section 12 (h) of the National Audit Act, No. 19 of 2018 except for,

The MS Office 365 software had been purchased a year before at a cost of Rs.5,786,158/- with validity for one-year and licence had been renewed for 2019 for Rs. Rs.5,789,249/-. The expenditure was shown under Research and Development expenditure for the relevant year and set-off against the revenue. The requirement for high expenditure on this special software is not explained to the audit and therefore this matter was of concern to the audit.

### **3. Other Observations**

- a) Action had not been taken to settle the outstanding balances worth of Rs.5,520.068/- which were carried forward from 2017 & 2018.
- b) A total of Rs.3,274,397/- had been released for the second phase of a project which was initially started in 2013. Funds for the project had been transferred in instalments, Rs. 227,396/-, Rs. 175,000/- and Rs. 2,872,000/- in April 2014, March 2018 and August 2018 respectively.

Due to non-performance of the project, the money had been withheld with an outside party for over a year without being utilized usefully.

- c) No action had been taken to settle the unidentified deposits of Rs.134,249/- which was carried forward for several years in the Statements of Bank Reconciliations.
- d) According to paragraph 05 of the Guidelines for Research Grants, the final financial statements should be obtained within 30 days after completion of the projects and the balance funds should have been settled. However, a total of Rs.4,261,162 had not been settled as of the date of audit, 19.06.2020, in relation to 07 grants completed as at 31/12/2019.

W.P.C. Wickramaratne  
Auditor General



# NSF feedback on the Auditor General's Report



Auditor General,  
National Audit Office.

Reference to the report of the National Audit Office on the Financial Statements of the National Science Foundation for the year ended 31st December 2019 in terms of section 12 of the National Audit Act No.19 of 2018. Our comments for the above audit report are given below.

## **1. Financial Statements**

### **1.1 Opinion**

#### **1.2 Basis for the Opinion**

- a) Agreed with the Audit Observation.  
The value of library books worth of Rs.44,642 purchased in 2019 was adjusted to the opening balance of the library books and corrected the closing balance of the library stock.
- b) Agreed with the Audit Observation.  
Steps will be taken to rectify the identification of the other income as per the section 48 of the Sri Lanka Public Sector Accounting Standards No.01 when preparing financial statements for 2020.
- c) Agreed with the Audit Observation.  
Steps will be taken to rectify the identification of the other income as per the section 48 of the Sri Lanka Public Sector Accounting Standards No.01 when preparing financial statements for 2020.

#### **1.3 Responsibilities of Management on Financial Statements**

#### **1.4 Responsibility of Auditor on Financial Statements**

## **2. Report on other legal and regulatory requirement**

### **3. Other Audit Observations**

- a) The Balance of Rs.5,520,068/- which are coming from 2017 and 2018 will be settled as follows.

Category	Description	Payable balance (Rs.)	The way of settle
Recurrent	Audit Fees	1,840,575/-	The amount will be paid after receiving the annual budgetary allocations from the Treasury.
	Maintenance of buildings	1,870,402/-	Already, Rs.500,000/- have been paid and the balance of Rs.1,370,402/- will be paid after receiving the annual budgetary allocations from the Treasury.
Capital	Building	6,001/-	This was the retention money that had to be paid at the completion of the contract. Since the contractor could not be identified, action will be taken to write off the amount from the books of accounts after obtaining approval of the BoM.
	IT Integration	1,803,090/-	Legal advice had been sought to terminate the agreement. Accordingly, the agreement has to be terminated with mutually understanding.  Then relevant action in this regard will be taken with the approval of the Board of Management.

- b) Out of the total balance of Rs. 4,261,162/- by 07 grants mentioned in audit observation, NSF had collected Rs.4,146,515/- (balance amount for 05 grants). The balance for 01 grant, Rs.23,156 will be received after extending the cheque date. Remaining balance of Rs.91,491/- will be collected on or before 31.07.2019.

Sending reminders is in process to receive the balance money of the grants within one month after completion of the grant period.

- c) Our explanation on the audit observation are as follows.

TG/2017/Tech-D/04 Miniature low powered low-cost workstation with embedded patient Management software for specialized clinics.

This grant was awarded for 3 years. It was initiated in April,2014. It was scheduled to be completed on April,2017 but 4 extensions of 6 months had been granted to complete the activities considering the importance of the expected output of the grant. Accordingly, the grant was to be completed in April,2019.



The financial and physical progress during this period is as follows.

From the total project cost, Rs. 595,990/- was released in April 2014, as the first installment. Funds worth of Rs. 227,396/- was reported as remaining balance, as of 12/10/2017. By this time the Grantee has completed the first unit. As the balance funds were not adequate to purchase the motor required to fabricate the second unit, funds worth of Rs. 175,000/- and Rs. 2,872,000/- was released on 20/03/2018 and 09/08/2018, respectively. Therefore, the amount Rs. 3,274,397/- was accumulated from 09/08/2018 and not from 2013.

Due date of completion of the project was 02nd April 2019, as per the approved extension. It has been noted that there was a delay in procuring the motor and due to this, the project work was further delayed. As such, the NSF terminated the project with effect from May 2019 and requested the Grantee to refund the balance funds by 22nd August 2019. A reminder was sent on 20/10/2019. In response to that balance funds were returned on 06/02/2020.

- d) This is a software suite consisting of general Office productivity applications such as Word, Excel, PowerPoint, Outlook, File storage service and collaborative platforms.

The main objective is to increase work efficiency anticipating following features/benefits;

- The licensing scheme is based on per user basis. Not traditional per seat (Per machine/installation) licenses. The license management is quite easy as users can be removed or added by portal administrator at any occasion. Procuring of license also is easy either by monthly or year basis. The cost will be based on time period.
- Identically same applications will be available for all users across the organization. That will avoid most common version incompatibility issues.
- The applications are always up to date. No product expiration. No need to purchase latest versions like standalone applications.
- Per user license is authorized to install the applications up to 05 devices per account basis. That will enable user to install the same application across many devices (Home PC/ Notebook, Tablets, Smart Phones etc.) to avoid document compatibility issues.
- Compatible with most Mobile Operating Systems such as Android and Apple iOS which will enable users to work any time.
- Inbuilt web-based online applications (Word, Excel, PowerPoint, Notes etc.) with cross platform support. Eg: Windows, Linux, and Mac.
- Online cloud storage facility to store and share files (SharePoint Online and One Drive). This will enable users to access their working files irrespective of the location and device.
- Not required to maintain local backups as files are stored in the Cloud with retention policies.
- Online collaborative facility including video conferencing.
- Most popular Outlook webmail facility with 99.9% up time with Microsoft mail delivery guarantee.

- Cross platform supported webmail facility with off-line Outlook application
- Single point of access for shared mailboxes
- Large attachment supports up to 30Mb
- Calendar with resource allocation facilities
- Task management

This has been procured for all Executive staff and Management Assistants with the approval of the Board of Management.

The Software was utilized effectively Work from Home (WFH) and was very useful during from March to May 2020.

However, due to significant expenditure incurred, the management decided to curtail the existing licenses quantity or migrate to a cost effective solution. It was identified 05 alternative proposals instead of using the costly Software. The proposals are being evaluated for the best alternative solution. Based on the report a decision will be taken for a cost-effective solution.

- e) It was written to the bank several times regarding the unidentified deposits from 2016 to 2019 worth of Rs. 124,249. According to their letter dated 06/02/2020 the depositor and the reason for the deposit could not be identified. Therefore, action will be taken to identify these deposits as Miscellaneous Income and will be adjusted in the financial statement accordingly.

Chairman  
National Science Foundation

A hand is shown using a calculator, with a pen held in the other hand. In the background, there are several charts and graphs on a wall, suggesting a financial or business setting. The image is overlaid with a large, stylized pink diamond shape.

# Financial Highlights in the preceding 5 years

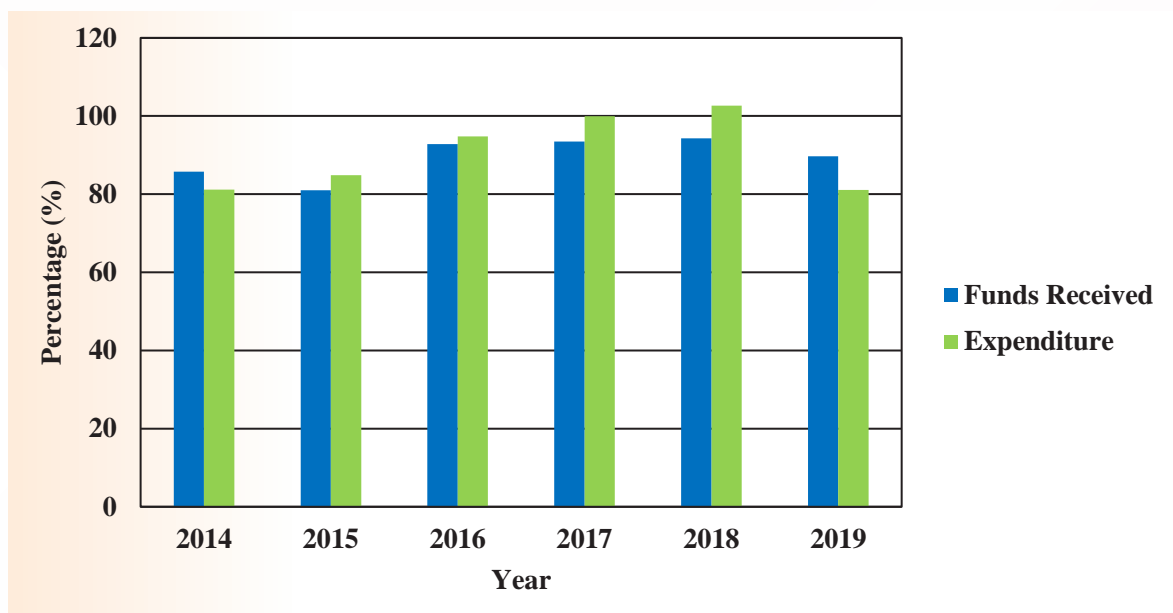


The NSF keeps records of all performance and review frequently for better investment in the priority areas for Science Technology & Innovation development, thus, reminding to be Know Your Customer (KYC) norms compliance. This analysis together with the information given in pages 103-104, provides current and future financial health at the NSF.

The investments for the preceding five years are given in *Table 17* and depicted in *Figures 72, 73 & 74*.

**Table 17:** Financial review for the preceding five years

Year	Financial Details (Rs. million)		
	Allocation	Funds Received	Expenditure
2014	260	223	211
2015	290	235	246
2016	250	232	237
2017	260	243	259.97
2018	300	283	308
2019	342.32	307.19	277.51



**Figure 72 :** Financial performance for 2014 - 2019: % against allocation

*Note :* For comparison, the figures for 2019 is also included in the graph.

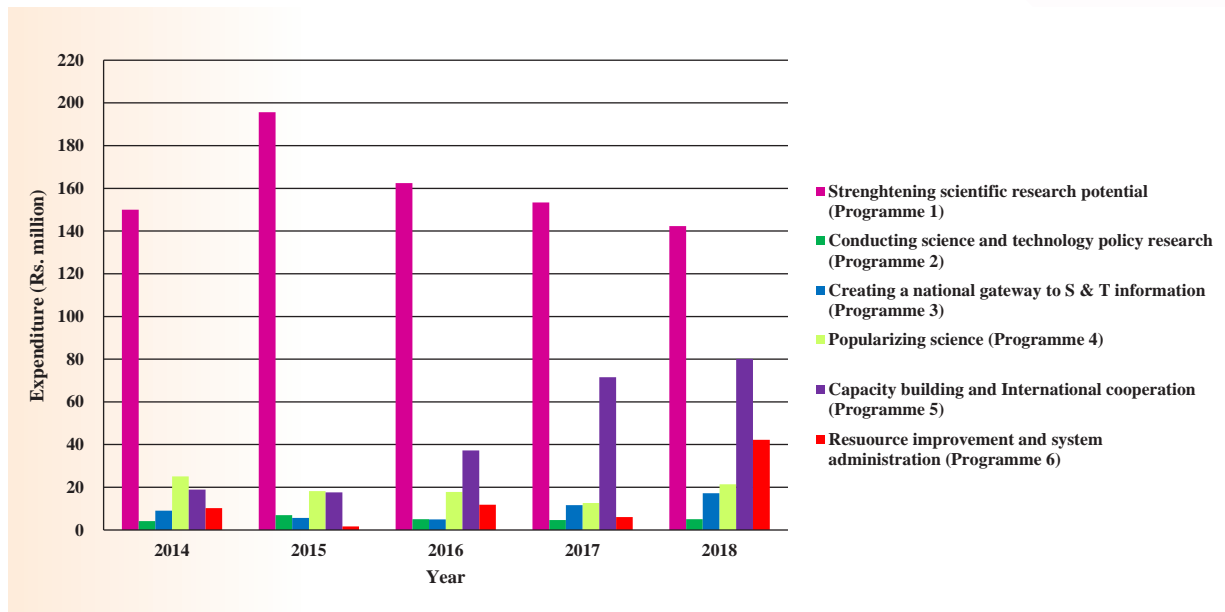


Figure 73 : Expenditure under major programmes

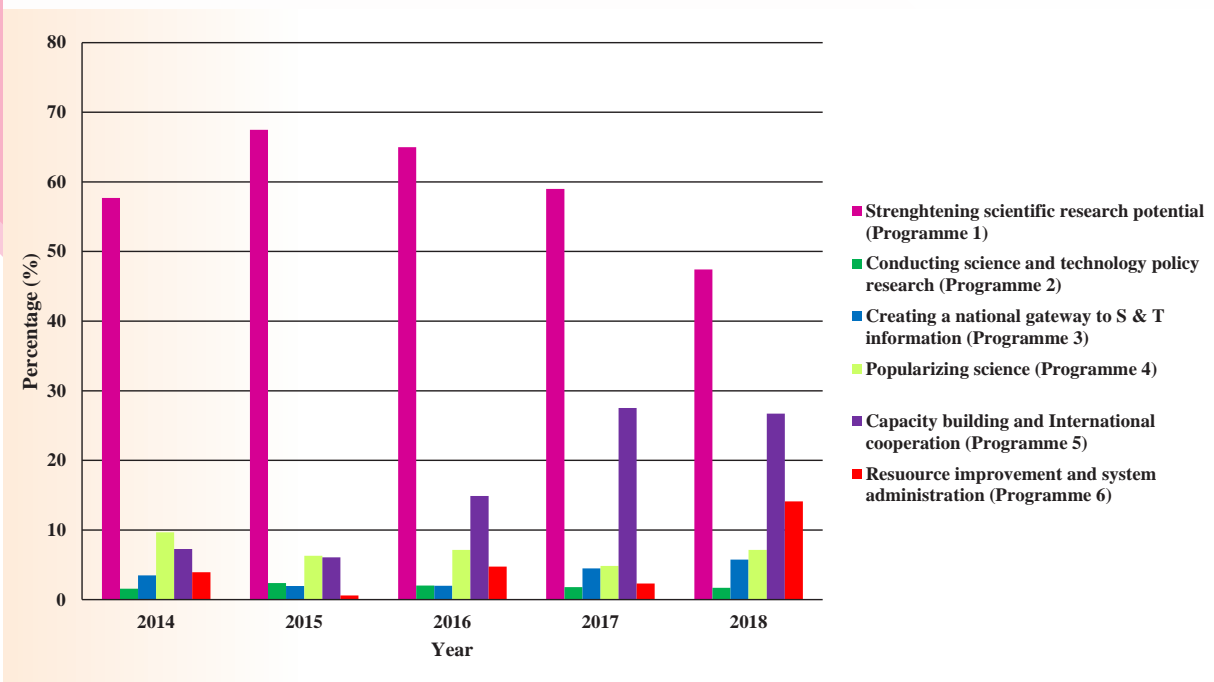


Figure 74: Expenditure under major programmes as a % against the total allocation

Note : The figure for 2019 are given in page 117.



# Annexures





# Principal Staff - As at 31<sup>st</sup> December, 2019

Annex 1

## Chairperson

Dr A M Mubarak

*B.Sc.(Hons), Ph.D. (Cantab), FIChemC, FNASSL*

*From 01.02. 2019 to 05.12.2019*

## Director General

Prof. Ananda Jayawardane

*B.Sc. Eng. Hons (Moratuwa), M.Sc. (UK), Ph.D (UK),  
C Eng. IntPE (SL), FIE (SL), FIPM (SL), FNAS (SL), GSLID*

## Additional Director

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

## Research Division (RD)

Dr S A V Moorthy, *B.Sc. (Jaffna), M.Sc. (Colombo),  
Ph.D. (Colombo)* Principal Scientific Officer/Head

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

Dr A M N S Nadugala, *B.Sc. Agric. (Hons) (Peradeniya),  
M.Sc. (Asian Institute of Technology),  
Ph.D. (Sir John Kothalawala Defence University)* Senior Scientific Officer

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

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

Dr H I Sandanayake, *B.V.Sc. (Peradeniya)* Scientific Officer

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

Dr S S Ediriweera, *B.Sc. Special (Kelaniya), M.Phil. (Colombo)  
Ph.D. (Colombo)* Scientific Officer

Eng. Sureshinie Warnasooriya, *B.Sc. Special Eng. (Hons)  
(Moratuwa), M.Sc. (Moratuwa)* Scientific Officer

## Science and Technology Policy Research Division (STPRD)

Mr S M A W Anuruddha, *B.Sc. (Hons) (Colombo),  
M.Sc. (Colombo)* Principal Scientific Officer/Head

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

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

Mr P G I P Ariyadasa, *B.Sc. Agric. (Hons) (Peradeniya),  
M.Sc. Financial Economics (Colombo)* Scientific Officer

## International Liaison Division (ILD)

Mr J G Shantha Siri, <i>B.Sc. (Hons) (Colombo), M.Sc. (Kelaniya)</i>	Principal Scientific Officer/Head
Ms E M D C K Ekanayake, <i>B.Sc. Agric. (Hons) (Peradeniya), M.Sc. (Peradeniya)</i>	Senior Scientific Officer
Ms K A T K G Kandanamulla, <i>B.Sc. Agric. (Hons) (Ruhuna), M.Sc. (Colombo)</i>	Scientific Officer
Ms N L Muhandiram, <i>B.Sc. (Hons) (Uva Wellassa)</i>	Scientific Officer

## Technology Division (TD)

Mr K G J Karunasena, <i>B.Sc. Agric. (Hons) (Peradeniya) M.Phil. Agric. (Peradeniya)</i>	Principal Scientific Officer/Head
Ms D N Wickramarachchi, <i>B.Sc. (Hons) (The Open University), M.Sc. (Sri Jayewardenepura)</i>	Senior Scientific Officer
Dr P S Warakagoda, <i>B.Sc. Agric. (Hons) (Ruhuna), M.Phil. (Ruhuna), Ph.D. (Ruhuna)</i>	Scientific Officer Upto 29.04.2019
Ms R N N Gamage, <i>B.Sc. (Hons) (Asian University)</i>	Scientific Officer
Ms Sarani K Meneripitiya, <i>B.Sc. Special (Hons) (Kelaniya)</i>	Scientific Officer

## Science Popularization Division (SPD)

Dr P R M P Dilrukshi, <i>B.Sc. Special (Hons) (Peradeniya), Ph.D. (Peradeniya)</i>	Principal Scientific Officer/Head
Ms M D Senarathne, <i>Graduateship in Chemistry (I. Chem.) M.Sc. Polymer Science (Sri Jayewardenepura)</i>	Senior Scientific Officer
Ms R A A R Ranatunga, <i>B.Sc. Special (Hons) (Colombo)</i>	Scientific Officer
Mr D M Dilan Rasika, <i>B.Sc. Special Agric. (Hons) (Peradeniya), M.Sc. (Kyushu, Japan)</i>	Scientific Officer up to 07.11.2019
Mr W A D L R Warnakula, <i>B.Sc. Special Agric. (Hons) (Wayamba)</i>	Scientific Officer
Ms H M A J Herath, <i>B.Sc. Special Food Science &amp; Nutrition (Wayamba)</i>	Scientific Officer

## Journal Publication Unit (JPU)

Dr C G Yapa, <i>B.Sc. Special (Hons) (Colombo), Ph.D. (Colombo)</i>	Principal Scientific Officer/Head
Ms Uthpala Karunarathne, <i>B.Sc. Special (Hons) (Kelaniya), M.Sc. (Colombo)</i>	Senior Scientific Officer
Ms W M U K Rathnayake, <i>B.Sc. Special (Hons) (Wayamba)</i>	Scientific Officer
Mrs S Samarasekera, <i>B.Sc. Special (Hons.) (Sri Jayewardenepura), B.Sc. (Economic &amp; Mgt.) (Uni. of London)</i>	Scientific Officer

## Director's Office

Ms G R P I Abeysiri, *B.Sc Agric. Special (Wayamba)* Scientific Officer

## Additional Director's Office

Dr K B Hasanthi, *B.V.Sc. (Peradeniya)* Scientific Officer

## Thematic & Special Projects Unit (TSPU) From February, 2019

Ms H D N Jayaweera, *B.Sc. (Hons) (Sri Jayewardenepura)* Scientific Officer/Head

Ms M S Weerasooriyagedara, *B.Sc. Special (Uva Wellassa)* Scientific Officer

## National Science Library and Resource Centre (NSLRC)

Mr Manuja Karunarathne, *B.Sc. (Kelaniya), M.Sc. (Kelaniya)* Principal Information Officer/Head

Ms A Tennakoon, *B.Sc. (Kelaniya)* Senior Information Officer

Ms R P Sugathadasa, *B.Sc. (Sri Jayewardenepura)* Senior Information Officer

Mr Pujitha D Hewawasam, *B.Com. (Swinburn University)* Information Officer

Ms M Niyas Thasneem, *B.Sc. (Southern University)* Information Officer

Mr P K B A S M Pannala, *B.Sc. (Hons.) (National Uni. of Ireland), M.Sc. (MIS) (Colombo)* Information Officer

Ms K N Samanthi, *M.A (Kelaniya), B.A (Peradeniya)* Information Officer

Ms N A H Priyadarshani,  
*Diploma in Library & Information Science* Junior Information Officer

## Printing Unit

Mr K P Senanayake, *M.SL.IOP* Printing Manager

## Administration Division

Mr Johnson Solomon (*AMA, MCPM, AIH*) Head/ Administration & Finance up to 26.05.2019

Mr P Sapumohotti, *B.Sc. (Peradeniya), MPM (SLIDA)* Senior Administrative Officer

Ms B T Wickremasinghe, *B.Sc. (Sri Jayewardenepura)* Procurement & Transport Officer

Mr Saman Sujeewa, *ANDHRM, Diploma in Public Mgt.* Human Resource Development Officer

## Finance Division

Ms T D P P Samaranayake, <i>Professional Part II of ICASL</i>	Senior Accountant
Ms E M P Bamunendra, <i>B.Com. (Sri Jayewardenepura) Licentiate Certificate of ICASL</i>	Accountant

## Internal Audit Unit

Ms M M Jayajeewani, <i>B.Sc., B.Ad. Special (Sri Jayewardenepura)</i>	Internal Auditor
Ms D L Sirimathie	Internal Audit Officer up to 15.10.2019

## IT Unit

Mr H M M Perera, <i>MBCS</i>	IT Manager
Mr W A B Fernando, <i>B.Sc. (Networking) (Wolverhampton)</i>	Network Administrator

## Confidential Secretaries

Ms Sobitha Wijenayake, <i>B.Com. Special (Sri Jayewardenepura)</i>	(Chairperson's Office) up to 30.06.2019
Ms Ayomi Palihawadana	

## Recruitments during the year 2019

Ms A H D Radeeka Monali	Telephone Operator/Receptionist	From 07.01.2019
Mr G D Nilantha Ranjan	Driver	From 01.02.2019
Ms N H Uvini Chamathka Dias	Graphic Design Assistant	From 27.05.2019
Mrs Shehani Imalka Ranasinghe	Library Assistant	From 01.08.2019
Mr P J M C Perera	Office Aide	From 30.09.2019
Mr M A R Bandara	Office Aide	From 07.10.2019
Mr R D S D Wijesurendra	Driver	From 16.10.2019

## Resigned during the year 2019

Mr Sanjaya M Amarathunga	Machine Operator	From 31.01.2019
Dr Priyanwadha Warakagoda	Scientific Officer	From 29.04.2019
Mr Johnson Solomon	Head Administration/Finance	From 26.05.2019
Mr W Ajantha Sanjeewa	Graphic Design Assistant	From 23.06.2019
Ms H H S M R Wijenayake	Confidential Secretary	From 30.06.2019
Ms K D Nimali Keeragala	Office Aide	From 05.07.2019
Mr D M Dilan Rasika	Scientific Officer	From 07.11.2019
Ms I T Edirisinghe	Management Assistant	From 01.08.2019
Mr Madunka S Kottahachchi	Graphic Design Assistant	From 05.12.2019

## Retired during the year 2019

Mr M L Cooray	Office Aide	From 10.04.2019
Mr M L Gunapala	Driver	From 05.05.2019
Mr R P D T Rajapaksha	Management Assistant (Technical)	From 15.07.2019
Ms H Siriwardena	Management Assistant	From 12.09.2019
Mrs D L Sirimathi	Internal Audit Officer	From 15.10.2019

## Working Committee on Agriculture & Food Science

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2019/AG/01	<b>Dr Anupama P. Halmillawewa</b> Department of Microbiology Faculty of Science University of Kelaniya	Bacteriophage-mediated biocontrol of soft rot in carrots ( <i>Dacus carota</i> ) caused by <i>Pectobacterium</i> spp. in Sri Lanka  02 Years	2,155,258/-
2.	RG/2019/AG/02	<b>Prof. Kapila Seneviratne</b> Department of Chemistry Faculty of Science University of Kelaniya	Effect of virgin coconut oil selected edible oils on the intestinal absorption of chlorogenic acid: an <i>in vivo</i> and <i>in vitro</i> study  03 Years	4,949,000/-

## Working Committee on Basic Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2019/BS/01	<b>Dr Gayan Bowatte</b> Department of Basic Sciences Faculty of Allied Health Sciences University of Peradeniya  <b>Dr Sachith P. Abeyesundara</b> Department of Statistics & Computer Science Faculty of Science University of Peradeniya  <b>Prof. Rohan Weerasooriya</b> University of Peradeniya	Building a 3D air pollution model for the city of Kandy: a platform to evaluate health outcome  03 Years	4,526,000/-
2.	RG/2019/BS/02	<b>Dr W M D G B Wijyaratne</b> Department of Microbiology Faculty of Medicine University of Ruhuna	Evaluation of anti- <i>Candida</i> activity of selected medicinal plants in Sri Lanka against oral candidiasis in cancer patients  02 ½ Years	2,915,000/-

## Working Committee on Biotechnology

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2019/BT/01	<b>Prof. Rupika Rajakaruna</b> Department of Zoology Faculty of Science University of Peradeniya	Tick borne spotted fever group rickettsioses in the Central province: type of pathogens, vertebrate reservoir host community composition and tick species involved in circulation and maintenance of pathogens  03 Years	4,988,000/-

2.	RG/2019/BT/02	<b>Dr Thusitha Wickramasinghe</b> Department of Biochemistry & Clinical Chemistry Faculty of Medicine University of Kelaniya	Optimization of bead-based SELEX for selection of aptamers and evaluation of a novel real time PCR based approach for monitoring SELEX  02 Years	1,497,000/-
3.	RG/2019/BT/03	<b>Dr R N Attanayake</b> Department of Botany Faculty of Science University of Kelaniya	Genetic Dissection of polyethylene degradation ability of <i>Perenniporia</i> sp isolated from decaying hard woods in Sri Lanka  02 Years	1,595,000/-

### Working Committee on Engineering, Architecture & ICT

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2019/EA&ICT/01	<b>Dr S H P Gunawardena</b> <b>Dr S A D T Subasinghe</b> Department of Chemical & Process Engineering Faculty of Engineering University of Moratuwa	Optimization of biorefinery processes for conversion of rice straw extracted cellulose to platform chemicals  02 years	3,416,000/-
2.	RG/2019/EA&ICT/02	<b>Dr M A Wijewardena</b> <b>Dr M M I D Manthilake</b> <b>Dr R A C P Ranasinghe</b> Department of Mechanical Engineering Faculty of Engineering University of Moratuwa	Design, Development and Modeling of a Thermo-Acoustic generator for low grade heat recovery  03 Years	3,380,000/-

### Working Committee on Health Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2019/HS/01	<b>Dr R N Mohamed Jalaldeen</b> Department of Zoology and Environment Sciences Faculty of Science University of Colombo	Identifying colorectal cancer specific autoantibodies and their role in diagnosis, prognosis and prediction of colorectal cancer  01 years	1,000,000/-
2.	RG/2019/HS/02	<b>Prof. S Nobel Surendran</b> Department of Zoology Faculty of Science University of Jaffna	Dengue transmission intervention using lure-based adult suction traps and gravid <i>Aedes</i> traps (GAT): A cluster randomized trial approach in Jaffna municipal area  02 years	4,165,000/-

## Working Committee on Social Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2019/SS/01	<b>Mr S Wijerathne</b> Department of Geography University of Ruhuna	Risk Analysis of Landslides in the Morawaka "Kanda" Area in Matara District of Sri Lanka  02 years	939,775/-

## NSF-NSFC Collaborative Research Grants Awarded

### Working Committee on Basic Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	ICRP/NSF-NSFC/2019/BS/01	<b>Dr Meththika Suharshini Vithanage</b> Faculty of Applied Sciences University of Sri Jayewardenepura  <b>Dr Dhammika Magana-Arachchi</b> National Institute of Fundamental Studies  <b>Dr Rasika Pabodani Wanigatunge</b> Department of Botany Faculty of Science University of Kelaniya  <b>Dr Anushka Upamali Rajapaksha</b> Faculty of Applied Sciences University of Sri Jayewardenepura	Enrichment mechanisms of CKDu-risk factors in groundwaters, their uptake pathways and potential remedies  03 ½ Years	33,300,000/-
2.	ICRP/NSF-NSFC/2019/BS/02	<b>Prof. Rohana Chandrajith Dr N H Korallengedara</b> Department of Geology University of Peradeniya  <b>Prof. S K Gunatilake</b> Department of Natural Resources Sabaragamuwa University of Sri Lanka	Assessment of aquifer quality in relation to chronic kidney disease with unknown aetiology in dry zone of Sri Lanka through an integrated approach using isotopes and water chemistry  03 ½ Years	29,641,000/-



3.	<b>ICRP/NSF-NSFC/2019/BS/03</b>	<p><b>Dr K B S N Jinadasa</b> Department of Civil Engineering University of Peradeniya</p> <p><b>Dr S K Weragoda</b> National Water Supply and Drainage Board Katugastota</p> <p><b>Dr K G N Nanayakkara</b> Department of Civil Engineering University of Peradeniya</p> <p><b>Dr H M A M C Herath</b> Faculty of Applied Sciences Rajarata University of Sri Lanka</p>	<p>Membrane fouling mechanism and control of high pressure membrane processes (NF/RO) and electro dialysis (ED) purifying groundwater with DOM and high hardness in CKDu affected areas of Sri Lanka</p> <p>03 ½ Years</p>	<b>34,912,000/-</b>
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### Working Committee on Health Science

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	<b>ICRP/NSF-NSFC/2019/HS/01</b>	<p><b>Prof. Chandu de Silva</b> <b>Prof. Dilani Lokuhetty</b> Department of Pathology</p> <p><b>Prof. Upul Senerath</b> Department of Community Medicine</p> <p><b>Dr Niranthi Perera</b> Department of Pathology Faculty of Medicine University of Colombo</p>	<p>Pathogenesis of fibrosis in chronic kidney disease of known and unknown origin in Sri Lanka</p> <p>03 ½ Years</p>	<b>33,502,650/-</b>
2.	<b>ICRP/NSF-NSFC/2019/HS/02</b>	<p><b>Prof. Kamani Wanigasuriya</b> Department of Medicine</p> <p><b>Dr P P RasikaPerera</b> Department of Biochemistry Faculty of Medical Sciences University of Sri Jayewardenepura</p>	<p>Novel urinary biomarkers for early detection of Chronic Kidney Disease of Unknown Aetiology (CKDu) in Sri Lanka</p> <p>03 Years</p>	<b>29,112,271/-</b>

## Research Equipment Grants Awarded

Annex 3

No	Grant No.	Grantee/Designation & Institute	Responsible Officer for the Equipment	Equipment	Approved Amount (Rs.)
1.	RG/2019/EQ-NSFC/01	Dean Faculty of Applied Sciences University of Sri Jayewardenepura Nugegoda	Dr Meththika Vithanage Ecosphere Resilience Research Center Faculty of Applied Sciences University of Sri Jayewardenepura	High Performance Liquid Chromatograph	7,548,798/-

## Ongoing Grants Status

### Ongoing Research Grants

#### Working Committee on Agriculture & Food Science

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2016/AG/01	<b>Dr T H P S Fernando</b> <b>Dr K V S Kudaligama</b> <b>Mr M K R Silva</b> <b>Dr P Senevirathne</b> Rubber Research Institute	Investigation on biological control measures for white root disease of rubber to improve integrated disease management strategies  03 Years	4,358,232/-
2.	RG/2016/AG/02	<b>Dr Ilmi G N Hewajulige</b> <b>Dr W W P Rodrigo</b> <b>Ms D U Rajawardana</b> Industrial Technology Institute  <b>Dr Chandrika M. Nanayakkara</b> Department of Plant Science Faculty of Science University of Colombo	Biodiversity and technological potential of micro-flora from selected Sri Lankan dairies  02 ½ Years	2,000,500/-
3.	RG/2017/AG/01	<b>Dr K V V S Kudaligama</b> <b>Dr T H P S Fernando</b> <b>Dr V H L Rodrigo</b> <b>Dr P Senevirathne</b> Rubber Research Institute  <b>Prof. K M E P Fernando</b> Department of Botany Faculty of Applied Sciences University of Sri Jayewardenepura	Development of in-country ethephon formulations to promote low cost harvesting systems for rubber plantations in Sri Lanka  03 Years	3,355,000/-
4.	RG/2017/AG/02	<b>Prof. C V L Jayasinghe</b> Department of Food Science & Technology Faculty of Livestock Fisheries & Nutrition Wayamba University of Sri Lanka  <b>Prof. D Chamara K. Illeperuma</b> Department of Food Science & Technology Faculty of Agriculture  <b>Prof. A N Navaratne</b> Department of Chemistry Faculty of Science University of Peradeniya	Industrial fruit waste derived ingredients for commercial food production.  02 Years	2,331,000/-

5.	RG/2017/AG/04	<b>Dr W M P B Weerasinghe</b> Veterinary Research Institute Peradeniya  <b>Dr Ariyanthilaka Manawadu</b> Department of Animal Science Faculty of Agriculture University of Ruhuna  <b>Dr Kumara Mahipala</b> Department of Animal Science Faculty of Agriculture University of Peradeniya	<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  03 Years	3,985,823/-
6.	RG/2019/AG/01	<b>Dr Anupama P. Halmillawewa</b> Department of Microbiology Faculty of Science University of Kelaniya	Bacteriophage-mediated biocontrol of soft rot in carrots ( <i>Dacus carota</i> ) caused by <i>Pectobacterium</i> spp. in Sri Lanka  02 Years	2,155,258/-
7.	RG/2019/AG/02	<b>Prof. Kapila Seneviratne</b> Department of Chemistry Faculty of Science University of Kelaniya	Effect of virgin coconut oil selected edible oils on the intestinal absorption of chlorogenic acid: an <i>in vivo</i> and <i>in vitro</i> study  03 Years	4,949,000/-

#### Working Committee on Basic Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2016/ BS/01	<b>Prof. R M G Rajapakse</b> Department of Chemistry Faculty of Science University of Peradeniya  <b>Prof. G R A Kumara</b> National Institute of Fundamental Studies	Photon upconversion as a tool to harvest infrared radiation for direct illumination in the dark and to fabricate dye-sensitized solar cells to generate electricity under illumination as well as in the dark  03 years	5,235,000/-
2.	RG/2016/ BS/05	<b>Dr C V Hettiarachchi</b> <b>Dr I R Perera</b> Department of Chemistry Faculty of Science University of Peradeniya	Development of metal organic frameworks as semiconductor materials for dye sensitized solar cells  03 Years	4,319,500/-
3.	RG/2016/ BS/02	<b>Prof. Anura Wickramasinghe</b> <b>Dr Susanthi Jayasinghe</b> Department of Chemistry Faculty of Science University of Peradeniya	Synthesis of biologically active natural product libraries of 3b - [a-L arabinopyranosyl) oxy] olean-12-en-28-oic acid  03 Years	4,407,000/-
4.	RG/2017/ BS/01	<b>Dr D S Gunasekera</b> <b>Prof. Veranja Karunathne</b> <b>Dr Dhanushi Welideniya</b> Sri Lanka Institute of Nanotechnology	Design and synthesis of novel pullulan and chitosan-based nano-polyplexes for gene therapy  02 Years	1,682,099/-

5.	RG/2017/ BS/02	<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	Synthesis and characterization of ionic liquid-based gel polymer electrolytes to be used for rechargeable cells and supercapacitors  03 Years	2,841,600/-
6.	RG/2017/ BS/03	<b>Prof. R M G Rajapakse</b> Department of Chemistry Faculty of Science  <b>Prof. R P V J Rajapakse</b> Department of Veterinary Pathobiology Faculty of Veterinary Medicine & Animal Science  <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  03 Years	3,420,000/-
7.	RG/2017/ BS/04	<b>Dr Sutharsini Ubenthiran</b> Department of Physics Faculty of Science University of Jaffna	Fundamental Studies on Y-TZP ceramics and mechanisms for enhancing the hydrothermal ageing resistance  02 Years	3,813,000/-
8.	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	4,490,656/-
9.	RG/2017/ BS/06	<b>Prof. U L B Jayasinghe</b> <b>Prof. N S Kumar</b> National Institute of Fundamental Studies	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	3,086,300/-
10.	RG/2018/ BS/01	<b>Dr Chamanei Sandamali Perera</b> Department of Physics Faculty of Science University of Peradeniya	Synthesis of colloidal quantum dots for infra-red photo detection and solar cells  01 Year	885,000/-
11.	RG/2018/ BS/02	<b>Dr R Senthilnithy</b> Department of Chemistry Faculty of Natural Sciences Open University of Sri Lanka	Computational studies on inhibition of epigenetic modifications of cancer codes  03 Years	3,813,000/-
12.	RG/2018/ BS/03	<b>Prof. G R A Kumara</b> Research Professor National Institute of Fundamental Studies	Development of highly efficient and environmentally stable perovskite solar cells and perovskite solar panels by industrially viable methods for power generation  03 Years	5,977,000/-

13.	RG/2019/BS/01	<p><b>Dr Gayan Bowatte</b> Department of Basic Sciences Faculty of Allied Health Sciences</p> <p><b>Dr Sachith P. Abeysundara</b> Department of Statistics &amp; Computer Science Faculty of Science University of Peradeniya</p> <p><b>Prof. Rohan Weerasooriya</b> National Institute of Fundamental Studies</p>	<p>Building a 3D air pollution model for the city of Kandy: a platform to evaluate health outcome</p> <p>03 Years</p>	4,526,300/-
14.	RG/2019/BS/02	<p><b>Dr W M D G B Wijayaratne</b> Department of Microbiology Faculty of Medicine University of Ruhuna</p>	<p>Evaluation of anti-<i>Candida</i> activity of selected medicinal plants in Sri Lanka against oral candidiasis in cancer patients</p> <p>02 ½ Years</p>	2,915,000/-
15.	ICRP/NSF-NSFC/2019/BS/01	<p><b>Dr M S Vithanage</b> Office of the Dean Faculty of Applied Sciences University of Sri Jayewardenepura</p> <p><b>Dr D Magana Arachchi</b> National Institute of Fundamental Studies</p> <p><b>Dr R P Wanigatunge</b> Department of Botany Faculty of Science University of Kelaniya</p> <p><b>Dr A U Rajapaksha</b> Faculty of Applied Sciences University of Sri Jayewardenepura</p>	<p>Enrichment mechanisms of CKDu-risk factors in groundwaters, their uptake pathways and potential remedies</p> <p>03 ½ Years</p>	33,300,000/-
16.	ICRP/NSF-NSFC/2019/BS/02	<p><b>Prof. Rohana Chandrajith</b> <b>Dr N H Koragedara</b> Department of Geology University of Peradeniya</p> <p><b>Prof. S K Gunatilake</b> Department of Natural Resources Sabaragamuwa University of Sri Lanka</p>	<p>Assessment of aquifer quality in relation to chronic kidney disease with unknown aetiology in dry zone of Sri Lanka through an integrated approach using isotopes and water chemistry</p> <p>03 ½ Years</p>	29,641,000/-

17.	ICRP/NSF-NSFC/2019/BS/03	<p><b>Dr K B S N Jinadasa</b> Department of Civil Engineering University of Peradeniya</p> <p><b>Dr S K Weragoda</b> National Water Supply and Drainage Board Katugastota</p> <p><b>Dr K G N Nanayakkara</b> Department of Civil Engineering University of Peradeniya</p> <p><b>Dr H M A M C Herath</b> Faculty of Applied Sciences Rajarata University of Sri Lanka</p>	<p>Membrane fouling mechanism and control of high-pressure membrane processes (NF/RO) and electro dialysis (ED) purifying groundwater with DOM and high hardness in CKDu affected areas of Sri Lanka</p> <p>03 ½ Years</p>	34,912,000/-
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### Working Committee on Biotechnology

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2015/BT/05	<p><b>Prof. JP Eeswaran</b> <b>Dr WMT Madhujith</b> Department of Crop Science Faculty of Agriculture University of Peradeniya</p> <p><b>Dr PMCK Bandaranayake</b> Agriculture Biotechnology Centre University of Peradeniya</p> <p><b>Dr K Ketapearchchi</b> Horticulture Research Unit II Department of Agriculture</p>	<p>Biochemical and molecular characterization and rapid multiplication of 5 selected accession of <i>Aegle marmelos</i> (Lin.) Correa (Bale)</p> <p>03 Years</p>	4,733,343/-
2.	RG/2016/BT/03	<p><b>Dr A Arulkathan</b> <b>Dr S S S De Jagoda</b> Centre for Aquatic Animal Disease Diagnosis and Research Faculty of Veterinary Medicine and Animal Science University of Peradeniya</p>	<p>Studies on mycobacteria in freshwater ornamental fish: identification of risk factors, and clinic -pathology features, and development of rapid diagnostic technique</p> <p>03 Years</p>	3,759,000/-
3.	RG/2016/BT/04	<p><b>Prof. R S Dassanayake</b> Department of Chemistry Faculty of Science University of Colombo</p> <p><b>Prof. Y I N S Gunawardena</b> Molecular Medicine Unit Faculty of Medicine University of Kelaniya</p>	<p>Transgenic reconstitution of RNA interference pathway in <i>Pichia pastoris</i> yeast model system</p> <p>04 Years</p>	4,534,000/-

4.	RG/2019/BT/01	<b>Prof. Rupika Rajakaruna</b> Department of Zoology Faculty of Science University of Peradeniya	Tick borne spotted fever group rickettsioses in the Central province: type of pathogens, vertebrate reservoir host community composition and tick species involved in circulation and maintenance of pathogens  03 Years	4,988,000/-
5.	RG/2019/BT/02	<b>Dr Thusitha Wickramasinghe</b> Department of Biochemistry & Clinical Chemistry Faculty of Medicine University of Kelaniya	Optimization of bead-based SELEX for selection of aptamers and evaluation of a novel real time PCR based approach for monitoring SELEX  02 Years	1,497,000/-
6.	RG/2019/BT/03	<b>Dr R N Attanayake</b> Department of Botany Faculty of Science University of Kelaniya	Genetic Dissection of polyethylene degradation ability of <i>Perenniporia</i> sp isolated from decaying hard woods in Sri Lanka  02 Years	1,595,000/-

### Working Committee on Engineering, Architecture & ICT

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2015/ EA & ICT/01	<b>Prof. R Shanthini</b> Department of Chemical and Process Engineering Faculty of Engineering University of Peradeniya	Optimization of the processing parameters used in the traditional sesame oil production unit (sekku) and in the screw - press oil expeller used in Sri Lanka [to enhance the quality and the consistency of the quality of sesame oil produced]  04 Years and 03 months	4,125,704/-
2.	RG/2017/ EA & ICT/01	<b>Dr H M I Prasanna</b> <b>Dr M D E K Gunathilake</b> <b>Dr D R Welikanna</b> Department of Survey and Geodesy Faculty of Geomatics Sabaragamuwa University of Sri Lanka	Development of a unified vertical reference framework for land & hydrographic surveying in Sri Lanka  02 ½ Years	1,773,280/-
3.	RG/2017/ EA & ICT/02	<b>Prof. R U Halwatura</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	4,471,015/-
4.	RG/2017/ EA & ICT/03	<b>Prof. L W P R Udayanga</b> Department of Electronic and Telecommunication Engineering Faculty of Engineering University of Moratuwa  <b>Dr Y A A Kumarayapa</b> Department of Electronics Faculty of Applied Sciences Wayamba University of Sri Lanka	Optical injection locking and characterization for direct modulation in optical communication  03 Years	4,686,750/-



5.	NSF-PSE/ICRP/ 2017/ EA&ICT/01	<b>Dr K Vignarooban</b> <b>Mr S Senthuran</b> <b>Mr K Prashanthan</b> Department of Physics Faculty of Engineering University of Jaffna	Novel materials for secondary sodium-ion batteries and proton exchange membrane fuel cells  03 Years	2,480,000/-
6.	NSF-PSE/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 acceptor materials for fabrication of efficient solar cells  02 Years	2,913,500/-
7.	NSF-PSE/ ICRP/ 2017/ EA&ICT/03	<b>Dr N Gunawardhana</b> <b>Dr B S Dassanayake</b> Department of Physics Faculty of Science University of Peradeniya	Novel nanoparticle (M=Ti/V/CdS/CdTe)- graphene based material for lithium ion batteries and solar cells  02 Years	3,689,000/-
8.	NSF-PSE/ 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	Development of carbon-based nanomaterial for counter electrodes in dye sensitized solar cells  03 Years	3,100,000/-
9.	RG/2018/ EA&ICT/01	<b>Dr M P B Ekanayake</b> <b>Dr G M R J Godaliyadda</b> <b>Prof. J B Ekanayake</b> Department of Electrical and Electronic Engineering Faculty of Engineering University of Peradeniya	Development of novel predictive based Smart Distribution Management System (S-DMS) to maximize the rooftop PV absorption capacity of last mile networks  02 Years	2,183,289/-
10.	RG/2019/ EA&ICT/01	<b>Dr S H P Gunawardena</b> <b>Dr S A D T Subasinghe</b> Department of Chemical & Process Engineering Faculty of Engineering University of Moratuwa	Optimization of biorefinery processes for conversion of rice straw extracted cellulose to platform chemicals  02 Years	3,415,500/-
11.	RG/2019/ EA&ICT/02	<b>Dr M A Wijewardena</b> <b>Dr M M I D Manthilake</b> <b>Dr R A C P Ranasinghe</b> Department of Mechanical Engineering Faculty of Engineering University of Moratuwa	Design, Development and Modelling of a Thermo-Acoustic generator for low grade heat recovery  03 Years	3,380,350/-

### Working Committee on Environment & Biodiversity

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2011/NRB/02	<b>Dr R Gnanaswaran</b> Department of Zoology Faculty of Science University of Jaffna  <b>Dr N A J P Karunaratne</b> Department of Zoology University of Peradeniya	The role of Mangrove Ecosystem in connecting other ecosystems by maintaining above ground Invertebrate biodiversity  03 Years	843,590/-

2.	RG/2014/EB/02	<b>Prof. Rupika Subashini Rajakaruna</b> <b>Dr Madhava Meegaskumbura</b> Department of Zoology Faculty of Science University of Peradeniya	Identifying the culprits threatening local amphibians: trematode induced deformities and toxicity to agrochemicals and ultraviolet radiation  03 Years	2,959,400/-
3.	RG/2014/EB/04	<b>Dr Suyama Meegaskumbura</b> <b>Dr Madhava Meegaskumbura</b> Department of Zoology Faculty of Science University of Peradeniya	Systematics and phylogenetic relationships of Murine rodents of Sri Lanka  03 Years	3,521,100/-
4.	RG/2015/EB/02	<b>Dr J W Damunupola</b> Department of Botany  <b>Prof. B M R Bandara</b> Department of Chemistry Faculty of Science University of Peradeniya	Screening selected invasive plant extracts/ compounds for antifungal action against pathogens of ornamental foliage plants  03 Years	3,713,210/-
5.	RG/2015/EB/04	<b>Dr Suresh P. Benjamin</b> National Institute of Fundamental Studies  <b>Dr Preminda Samaraweera</b> Department of Molecular Biology & Biotechnology Faculty of Medicine University of Peradeniya	Diversity of crab spiders of Sri Lanka based on morphology and DNA barcodes  03 Years	4,088,600/-
6.	RG/2016/EB/01	<b>Dr Sumudu C. K. Rubasinghe</b> Department of Botany Faculty of Science University of Peradeniya	Taxonomy and biogeography of Sri Lankan leafy liverworts ( <i>Jungermannidae</i> )  02 ½ years	2,613,500/-
7.	RG/2016/EB/02	<b>Dr Sisira Ediriweera</b> Department of Science & Technology Uva Wellassa University  <b>Prof. B M P Singhakumara</b> Department of Forestry & Environment Sciences University of Sri Jayawardenepura	Systematics and phylogenetic relationships of Murine rodents of Sri Lanka  03 Years	2,225,000/-
8.	RG/2016/EB/03	<b>Dr Pamoda B. Ratnaweera</b> Department of Science & Technology Uva Wellassa University	Antibacterial drug leads and insecticidal agents from endophytic fungi of a selected <i>Cyperus</i> species  02 Years	2,370,000/-
9.	RG/2016/EB/04	<b>Prof M M Pathmalal</b> Department of Zoology University of Sri Jayawardenepura	Detection and removal of geosmin and MIB (2-methylisoborneol) in drinking water by native bacteria; Bioremediation approach for green solution  03 Years	4,094,219/-

10.	RG/2016/EB/05	<b>Dr W A A Priyanka de Silva</b> <b>Prof. S H P Parakrama Karunaratne</b> Department of Zoology Faculty of Science University of Peradeniya	Species diversity and the potential vector status of frog-biting mosquitoes in selected localities in the wet dry zones of Sri Lanka  02 Years	1,424,120/-
11.	RG/2017/EB/02	<b>Prof. L D Amarasinghe</b> Department of Zoology Faculty of Science University of Kelaniya	Micro-fauna and micro-flora diversity in mosquito breeding habitats and their effects on mosquito larvae  02 ½ Years	2,264,030/-
12.	RG/2017/EB/04	<b>Dr Maheshi Danthurebandara</b> Department of Chemical & Process Engineering Faculty of Engineering University of Peradeniya	Environmental and economic assessment of rehabilitation of waste dumpsite at Biyagama Export processing zone  01 Year	995,000/-
13.	RG/2017/EB/05	<b>Dr N P S Kumburegama</b> <b>Prof. K B Ranawana</b> Department of Zoology Faculty of Science University of Peradeniya	Distribution of terrestrial gastropod pests, their seasonal abundance and degree of damage to crops in agricultural lands in Nuwara-Eliya  02 Years	2,565,600/-
14.	RG/2017/EB/01	<b>Dr Chandima D. Dangalle</b> Department of Zoology Faculty of Science University of Colombo  <b>Mr Yahas W. Mallwarachchi</b> SLIIT Malambe	Diversity, distribution and habitat type of arboreal tiger beetles (Coleoptera cicindelidae) of Sri Lanka  03 years	4,267,505/-
15.	RG/2017/EB/03	<b>Prof. M D Amarasinghe</b> <b>Dr R M C S Ratnayake</b> Department of Botany Faculty of Science University of Kelaniya	Studies on ecology of Typha angustifolia, its current and potential uses to develop a community-based management strategy to control its invasion in the Man & Biosphere (MAB) wetland reserve at Bundala  03 Years	4,336,500/-
16.	RG/2018/EB/01	<b>Prof. Deepthi Yakandawala</b> Department of Botany Faculty of Science University of Peradeniya  <b>Dr Kapila Yakandawala</b> Department of Horticulture & landscape Gardening Faculty of Agriculture & Plantation Management Wayamba University of Sri Lanka	Taxonomic study of the Sri Lankan species, belonging to Family Elaeocarpaceae  03 years	5,552,492/-

## Working Committee on Health Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2014/HS/08	<b>Prof. Mangala Gunatilake</b> Department of Physiology Faculty of Medicine University of Colombo  <b>Dr Susilakanthi Nanayakkara</b> Department of Rabies Research and Vaccine Quality Control Medical Research Institute	Pattern of immunogenicity in domestic dogs following primary and subsequent booster vaccination against rabies in Dehiwala Municipality area  03 Years	7,328,975/-
2.	RG/2015/HS/01	<b>Prof. Preethi V. Udagama</b> Department of Zoology Faculty of Science  <b>Prof. Sumedha Wijeratne</b> Department of Obstetrics and Gynaecology  <b>Prof. Preethi Soysa</b> Department of Biochemistry and Molecular Biology Faculty of Medicine University of Colombo	Proliferative, differentiation and toxicological effects of selected herbal / sponge extracts tested on in house established mesenchymal and haematopoietic stem cell lines  03 Years	4,009,109/-
3.	RG/2015/HS/05	<b>Dr Sulochana Wijetunga</b> <b>Dr Rasika Kotakadeniya</b> Department of Pathology Faculty of Medicine University of Peradeniya	Applicability of multilayered epithelium and squamous islands in determining the oesophageal origin of endoscopic biopsies obtained from the gastro-oesophageal junction, in assessing gastro-oesophageal reflux induced metaplastic changes  02 Years	1,854,000/-
4.	RG/2015/HS/07	<b>Prof. Charitha Lakshini Goonasekara</b> Department of Pre-Clinical Sciences Faculty of Medicine General Sir John Kotelawala Defence University	The effect of vaccination against Japanese Encephalitis virus on the severity of Dengue disease.  03 Years	3,325,500/-
5.	RG/2016/HS/01	<b>Dr Lochana C. Menikarachchi</b> Department of Pharmacy Faculty of Allied Health Sciences University of Peradeniya	Development of a software platform for fully automated chemical structure identification in metabolomics  02 Years	1,924,000/-

6.	RG/2016/HS/02	<b>Dr A P de Silva</b> <b>Dr Rashan Haniffa</b> National Intensive Care Surveillance Castle Street Hospital for Women Colombo 08	Develop, implement and assess effectiveness of a Rapid Response System (RRS) utilizing an Early Warning Score (EWS) for Moneragala District General Hospital  01 Year	3,266,000/-
7.	RG/2016/HS/03	<b>Dr A P Attanayake</b> <b>Prof. K A P W Jayatilaka</b> Department of Biochemistry  <b>Prof. L K B Mudduwa</b> Department of Pathology Faculty of Medicine University of Ruhuna	Protective effects of selected medicinal plant extracts in rats with chemically induced nephropathy  02 ½ Years	1,545,000/-
8.	RG/2016/HS/04	<b>Dr Nilupa R.</b> <b>Amarasinghe</b> Department of Pharmacy Faculty of Allied Health Sciences University of Peradeniya	Investigation of acetylcholine esterase inhibitory activity of Sri Lankan grown spices as potential therapeutic agents for Alzheimer's disease  03 Years	2,475,000/-
9.	RG/2016/HS/05	<b>Prof. Neelika Malavige</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayawardenepura  <b>Dr Ananda Wijewickrama</b> Infectious Disease Hospital	Determining the functionality and phenotype of T cell responses that associate with protection in acute dengue infection  02 Years	6,305,000/-
10.	RG/2017/HS/01	<b>Prof. P R Jayasooriya</b> Department of Oral Pathology Faculty of Dental Sciences  <b>Dr R P Illeperuma</b> Department of Medical Laboratory Science Faculty of Allied Health Sciences University of Peradeniya	Evaluation of "senescence associated secretory phenotype" and the role of senescent fibroblasts in oral submucous fibrosis  02 Years	2,963,070/-
11.	RG/2017/HS/03	<b>Dr Prasanna Galhena</b> <b>Dr Yasanandana</b> <b>Supunsiri</b> Department of Biochemistry & Clinical Chemistry Faculty of Medicine University of Kelaniya	<i>In-vitro</i> assessment of insulin sensitization and anti-adipogenic effects of selected antidiabetic plant extracts  02 Years	2,366,500/-

12.	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 pharmacy interventions on management outcomes in Chronic Kidney Disease of uncertain etiology patients undergoing hemodialysis in Sri Lanka</p> <p>02 Years</p>	3,785,750/-
13.	NSF -PSF / ICRP/2017/HS/01	<p><b>Dr Dhammika N Magana-Arachchi</b> National Institute of Fundamental Studies</p> <p><b>Dr Dushantha Madegedara</b> Teaching Hospital Kandy</p>	<p>Genetic characterization of drug resistant <i>Mycobacterium tuberculosis</i> isolates from Sri Lanka and Pakistani TB patients and identification of associated biomarkers</p> <p>03 Years</p>	3,190,650/-
14.	NSF -PSF / ICRP/2017/HS/02	<p><b>Prof. G M Kamal B Gunaherath</b> Department of Chemistry</p> <p><b>Dr K Hector Jayewardena</b> Department of Zoology</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>03 Years</p>	3,720,000/-
15.	NSF-NSFC/ICRP/2019/HS/01	<p><b>Prof. Chandu de Silva</b> <b>Prof. Dilani Lokuhetty</b> Department of Pathology</p> <p><b>Prof. Upul Senerath</b> Department of Community Medicine</p> <p><b>Dr Niranthi Perera</b> Department of Pathology Faculty of Medicine University of Colombo</p>	<p>Pathogenesis of fibrosis in chronic kidney disease of known and unknown origin in Sri Lanka</p> <p>03 ½ Years</p>	33,502,650/-
16.	NSF-NSFC/ICRP/2019/HS/02	<p><b>Prof. Kamani Wanigasuriya</b> Department of Medicine</p> <p><b>Dr P P Rasika Perera</b> Department of Biochemistry Faculty of Medical Sciences University of Sri Jayewardenepura</p>	<p>Novel urinary biomarkers for early detection of Chronic Kidney Disease of Unknown Aetiology (CKDu) in Sri Lanka</p> <p>03 Years</p>	29,112,271/-

17.	RG/2019/HS/01	<b>DR R N Mohamed Jalaldeen</b> Department of Zoology and Environment Sciences Faculty of Science University of Colombo	Identifying colorectal cancer specific autoantibodies and their role in diagnosis, prognosis and prediction of colorectal cancer  01 Year	1,000,000/-
18.	RG/2019/HS/02	<b>Prof. S Nobel Surendran</b> Department of Zoology University of Jaffna	Dengue transmission intervention using lure-based adult suction traps and gravid <i>Aedes</i> traps (GAT): A cluster randomized trial approach in Jaffna municipal area.  02 Years	4,165,000/-

### Working Committee on Oceanography & Marine Resources

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2016/OMR/01	<b>Dr M D S T de Croos</b> Department of Aquaculture & Fisheries Faculty of Livestock Fisheries & Nutrition Wayamba University of Sri Lanka	Taxonomic identification and present status of jellyfish resource in the coastal waters of Sri Lanka  02 Years	3,121,168/-

### Working Committee on Social Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2019/SS/01	<b>Dr S Wijeratne</b> Senior Lecturer, Department of Geography, University of Ruhuna	Risk Analysis of the Landslides at Morawaka Kanda Area in Matara District  1.5 Years	Rs. 939,775/-

# National Thematic Research Programme

## Climate Change and Natural Disasters

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	NTRP/2017/CC&ND/TA-04/P-02/01	<p><b>Prof. Pradeepa Silva</b>  <b>Prof. C M B Dematawewa</b>  <b>Dr J Sinniah</b>                      Department of Animal Science                      University of Peradeniya</p> <p><b>Prof. D K N G Pushpakumara</b>  <b>Prof. Chandi Rajapakshe</b>  <b>Dr Lalith Suriyagoda</b>                      Department of Crop Science                      University of Peradeniya</p> <p><b>Prof. Jeewika Weerahewa</b>                      Department of Agricultural Economics and Business Management                      University of Peradeniya</p> <p><b>Dr U Vitharana</b>                      Department of Soil Science                      University of Peradeniya</p> <p><b>Prof. Terrence Madujith</b>                      Department of Food Science                      University of Peradeniya</p> <p><b>Dr K S Hemachndra</b>                      Department of Environmental Technology                      University of Peradeniya</p>	<p>Comparative Analysis of Climate-Resilient Biodiversity of Homegarden ecosystems in different Agro-ecological Regions of Sri Lanka</p> <p>04 Years</p>	29,384,000/-
2.	NTRP/2017/CC&ND/TA-02/P-02/01	<p><b>Prof. Jagath Edirisinghe</b>  <b>Prof. Udith K Jayasinghe</b>  <b>Dr. Keminda Herath</b>                      Department of Agribusiness Management                      Wayamba University of Sri Lanka</p> <p><b>Dr Wasana Wijesuriya</b>                      Rubber Research Institute                      Agalawatte</p> <p><b>Dr Senani Karunaratne</b>                      Department of Environment and Energy                      Western Sydney University                      Australia</p>	<p>Assessment of Spatial Impacts of Climate Change on Geographic, Economic and Social Vulnerability on the Plantation Sector in Sri Lanka</p> <p>03 years</p>	12,000,000/-



3.	NTRP/2017/CC&ND/ TA-05/P-01/01	<p><b>Dr P N Ranasinghe</b> Department of Oceanography and Marine Geology University of Ruhuna</p> <p><b>Prof. A L T Hewawasam</b> Department of Geography University of Peradeniya</p> <p><b>Dr C H E R Siriwardene</b> Geological Survey and Mines Bureau Sri Jayewardenepura Kotte</p> <p><b>Ms S Premalal</b> <b>Ms S Jayawardana</b> Department of Meteorology Colombo 07</p> <p><b>Prof. D Wang</b> South China Sea Institute of Oceanography China</p> <p><b>Prof. J D Ortiz</b> Kent State University USA</p>	<p>Understanding the long-term influence of Indian Ocean Warm Pool and Indian Ocean Dipole on the monsoon variability of Sri Lanka</p> <p>03 years</p>	14,500,000/-
4.	NTRP/2017/CC&ND/ TA-04/P-01/01	<p><b>Prof. W A J M De Costa</b> <b>Dr K W L K Weerasinghe</b> Department of Crop Science University of Peradeniya</p> <p><b>Mr Anura Sathurusinghe</b> Department of Forest Conservation</p> <p><b>Dr H I U Caldera</b> Institute of Biology</p> <p><b>Dr Kanishka D B Ukuwela</b> Department of Biology Sciences Rajarata University of Sri Lanka</p>	<p>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</p> <p>04 years</p>	27,000,000/-
5.	NTRP/2017/CC&ND/ TA-01/P-01/01	<p><b>Prof. Indrika Rajapaksha</b> <b>Dr Upendra Rejapaksha</b> Department of Architecture University of Moratuwa</p> <p><b>Prof. Saroj Jayasinghe</b> Department of Medicine University of Colombo</p> <p><b>Dr Shreenika De Silva</b> Department of Community Medicine University of Colombo</p> <p><b>Dr S S N Perera</b> Department of Mathematics University of Colombo</p>	<p>Assessment of vulnerabilities and challenges on Quality of Life (QoL) of national ageing population due to climate change risks</p> <p>04 years</p>	6,000,000/-

## Ongoing Technology Grants

No	Grant No.	Grantee/Affiliation	Duration	Total Budget (Rs.Mn)
1.	TG/2015/Tech-D/ 08	<b>Mr Jagath Vithanachchi</b> Samson Compund (Pvt) Ltd	02 years	3.965
2.	TG/2016/Tech-D/ 02	<b>Prof. Karunaratne</b> Faculty of Engineering University of Peradeniya	03 years	21.150
3.	TG/2016/Tech-D/ 04	<b>Mr S K Seneviratne</b> ART Logistic Pvt Ltd Holcim Pvt Ltd University of Peradeniya	12 months (two six-month extensions)	1.940
4.	TG/2016/Tech-D/ 05	<b>Mr Thilak Dharmaratne</b> Gem & Jewellery Research & Training Institute	03 years	8.975
5.	TG/2016/Tech-D/ 06	<b>Mr Sunil Rodrigo</b> Lilly Cheese (Pvt) Ltd.	18 months (One-year extension)	3.742
6.	TG/2017/Tech-D/ 02	<b>Dr Udayanga Galappaththy</b> Department of Mechanical and Manufacturing Engineering University of Ruhuna	18 months	4.850
7.	TG/2017/Tech-D/ 03	<b>Prof. Navaratne</b> Food Science & Technology Department University of Sri Jayewardenepura	02 years (Six-month extension)	3.747
8.	TG/2017/Tech-D/ 05	<b>Mr G G N Gunewardena</b>	18 months (Four-month extension)	10.764
9.	TG/2017/Tech-D/ 06	<b>Prof. Jayasundera Bandara</b> National Insitute of Fundamental Studies	03 years	8.323
10.	TG/2017/Tech-D/ 07	<b>Mr Susantha Priyadarshana</b>	12 months (Six, two and one-month extensions)	2.189
11.	TG/2018/Tech-D/ 01	<b>Dr Nanda Senanayake</b>	03 years	4.919

## Grants Completed

### Research Grants Completed

#### Working Committee on Agriculture & Food Science

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)-
1.	RG/2014/AG/01	<b>Dr L D B Suriyagoda</b> Department of Crop Science Faculty of Science University of Peradeniya  <b>Mr D N Sirisena</b> Rice Research and Development Institute Bathalagoda	Growth and Phosphorus (P) nutrition diversity of Sri Lankan and introduced rice varieties at variable soil P supply and adaptations to increase the P uptake and use-efficiency when grown in P impoverished soils  03 Years	4,151,078 /-
2.	RG/2015/AG/03	<b>Prof. Kapila Seneviratne</b> <b>Prof. Nimanthi Jayathilaka</b> Department of Chemistry Faculty of Science University of Kelaniya	Identification and quantification of previously unexplored chemical and nutritional information about coconut oil and coconut cake  03 Years	3,856,000 /-
3.	RG/2016/AG/03	<b>Prof. W A M Daundasekera</b> Department of Botany  <b>Prof. M Y Udugala Ganeheneg</b> Department of Chemistry Faculty of Science University of Peradeniya	Efficacy of soluble silicone in inducing disease resistance against postharvest fungal pathogens in banana  03 Years	2,456,862 /-
4.	RG/2017/AG/03	<b>Dr L J P A P Jayasooriya</b> <b>Dr D A Satharasinghe</b> <b>Dr W M A P Wanigasekera</b> Department of Basic Veterinary Sciences  <b>Prof. R P V J Rajapakse</b> Department of Veterinary Pathobiology  <b>Prof. S P Gunarathne</b> Department of Farm Animal Production & Health	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  01 Year	1,432,700 /-

## Working Committee on Basic Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2014/BS/02	<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 six plants used in indigenous medicine in Sri Lanka: Possible applications in health and Agriculture  03 years	2,493,268/-
2.	RG/2015/BS/01	<b>Dr M T Napagoda</b> Department of Biochemistry Faculty of Medicine University of Ruhuna	A comprehensive study on the anti-inflammatory and antimicrobial secondary metabolites in selected medicinal plants  03 years	1,929,968/-
3.	RG/2015/BS/02	<b>Dr G A S M Ganehiarachchi</b> Department of Zoology Faculty of Science University of Kelaniya	Investigation of biological & ecological aspects of sand flies (Diptera: Psychodidae) in their natural breeding habitats and evaluation of their reproductive behaviour, fecundity and larval survival under laboratory conditions  03 years	2,382,600/-
4.	RG/2016/ BS/03	<b>Dr Thusitha Nanda Etampawala</b> Department of Science & Technology Faculty of Applied Sciences Uwa Wellassa University  <b>Dr Dilru Rathnaweera</b> Department of Chemistry Faculty of Applied Sciences University of Sri Jayawardenepura  <b>Prof. Veranja Karunathne</b> Department of Chemistry Faculty of Science University of Peradeniya	Synthesis and characterization of structurepropertycorrelationofbiomass (lignin) based polyurethane foams as a replacement for petrochemical based foams use in Sri Lanka  02 years	1,297,900/-
5.	RG/2016/ BS/04	<b>Dr W M C J Wijekoon</b> <b>Prof. G Y Jayasinghe</b> <b>Prof. S D Wanniarachchi</b> Department of Soil Science Faculty of Agriculture University of Ruhuna	Applications of ultrasound technology for energy efficient water purification  02 years	5,235,000/-

## Working Committee on Biotechnology

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2015/BT/01	<b>Dr P K G S S Bandara</b> Department of Genetics and Plant Breeding Rubber Research Institute  <b>Prof. V A Sumanasinghe</b> Department of Agricultural Biology University of Peradeniya  <b>Dr S P Withanage</b> Rubber Research Institute	Analysis of antioxidant genes expression in tapping panel dryness (TPD) affected rubber trees ( <i>Hevea brasiliensis</i> Muell.Arg.) and effect of exogenous application of ascorbic acid on alleviating TPD  03 Years	1,423,000/-
2.	RG/2015/BT/02	<b>Dr Nimanthi Jayathilaka</b> Department of Chemistry Faculty of Science University of Kelaniya	Evaluating the expression changes of non-coding RNA in Dengue Hemorrhagic Fever  02 ½ Years	2,786,000/-
3.	RG/2015/BT/03	<b>Dr Inoka C. Perera</b> Department of Zoology Faculty of Science University of Colombo	Investigation of GntR Transcriptional regulators of <i>Pseudomonas aeruginosa</i> as potential  03 Years	3,977,000/-
4.	RG/2016/BT/01	<b>Dr S Nimali Tharagani De Silva</b> Department of Biotechnology Faculty of Agriculture and Plantation Management Wayamba University of Sri Lanka  <b>Prof. D P S T G Attanayake</b> Department of Biotechnology Faculty of Agriculture and Plantation Management Wayamba University of Sri Lanka	Characterization and expression of raw starch hydrolyzing alpha amylase gene from <i>Thielaviopsis ethacetia</i> in <i>E.coli</i>  03 Years	2,019,000/-
5.	RG/2016/BT/02	<b>Prof. Kamani Tennekoon</b> Institute of Biochemistry Molecular Biology and Biotechnology Cumaratunga Munidasa Mawatha Colombo - 03	Possible anti-carcinogenic mechanisms of novel cytotoxic compounds isolated from <i>Campnosperma zeylanica</i> on breast cancer cells: Evaluation of molecular mechanisms and validation of anti-breast cancer pathway/s  02 Years	3,571,000/-

## Working Committee on Engineering Sciences, Architecture & ICT

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2015/ EA & ICT/02	<b>Prof. R U Halwatura</b> Department of Civil Engineering Faculty of Engineering University of Moratuwa	Investigation of mud concrete for in-situ cast load bearing walls  03 Years	3,122,550/-

2.	RG/2016/ EA & ICT/01	<b>Dr G M R J Godaliyadda</b> <b>Dr M P B Ekanayake</b> <b>Prof. J B Ekanayake</b> Department of Electrical and Electronic Engineering Faculty of Engineering University of Peradeniya	Non-intrusive load monitoring for flexible demand estimation and management  02 Years	1,462,768/-
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### Working Committee on Environment & Biodiversity

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2015/EB/03	<b>Prof. R K Sriyani Dias</b> Department of Zoology & Environment Management University of Kelaniya	Survey on occurrence and nest density of <i>Aneuretus simony Emery</i> (Family: Formicidae) and associated ant fauna in a selected forest in Colombo and Kegalle Districts and preparation of a preliminary ant inventory of each forest  03 years	2,718,000/-
2.	RG/2014/EB/05	<b>Dr J D S Dela</b> PROBE for Nature (Pvt.) Ltd.  <b>Dr U K G K Padmalal</b> Department of Zoology Faculty of Natural Science Open University of Sri Lanka	Study of ecology and behavior of forest living western purple-faced langur ( <i>Semnopithecus vetulus nester</i> ) and identification of innovative means to support its conservation with local people  03 years	3,129,000/-
3.	RG/2011/NRB/07	<b>Dr Sevvandi Jayakody</b> Department of Aquaculture & Fisheries Wayamba University of Sri Lanka  <b>Ms R. M G N Thilakaratne</b> Department of Oceanography and Marine Geology Faculty of Fisheries and Marine Sciences and Technology University of Ruhuna	Preparation of a national collection and evaluation of the current distribution and species diversity of regular and irregular Echinoid (Class: Echinoidea, Phylum: Echinodermata) in Sri Lanka and determining the diet composition of <i>Stomopneustes variolaris</i>  03 years	2,339,000/-

## Working Committee on Health Sciences

No	Grant No.	Grantee(s)/Institute	Project Title/Duration	Total Allocation (Rs.)
1.	RG/2014/HS/03	<p><b>Prof. Deepika Fernando</b> Department of Parasitology Faculty of Medicine University of Colombo</p> <p><b>Dr R G Premaratne</b> Anti Malaria Campaign Colombo 5</p> <p><b>Dr Shiroma Handunetti</b> <b>Dr O V D S J Weerasena</b> Institute of Biochemistry Molecular Biology and Biotechnology</p> <p><b>Prof. Sunil Premawansa</b> Department of Zoology Faculty of Science University of Colombo</p>	<p>Monitoring the management response following the detection of malaria cases during the phase of malaria elimination in Sri Lanka</p> <p style="text-align: right;">03 Years</p>	3,975,000/-
2.	RG/2014/HS/09	<p><b>Dr Pulani Lanerolle</b> Department of Biochemistry &amp; Molecular Biology</p> <p><b>Dr Angela de Silva</b> Department of Physiology</p> <p><b>Dr Tharanga Thoradeniya</b> Department of Biochemistry and Molecular Biology Faculty of Medicine University of Colombo</p>	<p>Micronutrient status, obesity related biomarkers of inflammation, cardiometabolic risk markers and body composition in pre-pubertal school children</p> <p style="text-align: right;">03 Years</p>	5,360,000/-
3.	RG/2015/HS/02	<p><b>Dr Rajiva de Silva</b> Department of Immunology Medical Research Institute Colombo - 08</p> <p><b>Prof. Sriyani Dias</b> Department of Zoology &amp; Environment Management University of Kelaniya</p>	<p>Immunochemical characterization of Hymenopteran (<i>Apis dorsata</i> and <i>Vespa affinis</i>) insect venom and its cross reactivity with venom from European species</p> <p style="text-align: right;">03 Years</p>	2,163,000/-
4.	RG/2015/HS/04	<p><b>Dr K Gajapathy</b> <b>Prof. S N Surendran</b> Department of Zoology Faculty of Science University of Jaffna</p>	<p>Gross morphological and molecular analysis to characterize members of the <i>Phelbotomus argentipes</i> complex – the potential vector of leishmaniasis in Sri Lanka</p> <p style="text-align: right;">02 Years</p>	2,112,000/-
5.	RG/2015/HS/09	<p><b>Prof. Pujitha Wickramasinghe</b> Department of Paediatrics</p> <p><b>Dr Dulani Samaranayake</b> Department of Community Medicine Faculty of Medicine University of Colombo</p> <p><b>Dr Navodha Atapattu</b> Lady Ridgeway Hospital Colombo 08</p>	<p>Prevalence of vitamin D deficiency and its association to metabolic derangements among obese children and effects of vitamin D supplementation on obesity</p> <p style="text-align: right;">02 ½ Years</p>	4,417,000/-

6.	RG/2017/HS/02	<b>Prof. Renu Wickremasinghe</b> Department of Parasitology Faculty of Medical Sciences University of Sri Jayewardenepura  <b>Dr Dulani Samaranayake</b> Department of Community Medicine Faculty of Medicine University of Colombo	Evaluation of a community-based intervention to re-orient parasitological screening for malaria during prevention of re-introduction phase  01 Year	1,593,000/-
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## Technology Grants Completed

No	Grant No/ Category	Grantee	Project Title/Duration
1.	TG/2015/ Tech-D/05 State Sector	<b>Dr Neelika Malawage</b> Faculty of Medicine University of Sri Jayawardenapura	T cell-based assay for the detection of serotype specific immunity to dengue infection and comparison of PRINT  18 months (Two six-month extensions)
2.	TG/2016/ Tech-D/08 Individuals	<b>Mr Nihal Dharmasiri</b>	Manufacturing of compost blocks using invasive freshwater plants and introduce to the market  06 months
3.	TG/2013/ Tech-D/11 State Sector	<b>Dr Nuwan Dayananda</b> University of Moratuwa	Medical device development for commercialization  03 years (six- month extension)
4.	TG/2016/ Tech-D/07 Individual	<b>Mr Shantha Kumara</b>	Making an improved screen-printing machine  09 months
5.	TG/2015/ Tech-D/03 State Sector	<b>Dr Boteju</b> Tea Research Institute	Development of a Control System for Trough Withering  02 years
6.	TG/2017/ Tech-D/08 Individual	<b>Mr Nilan Mihindukulasuriya</b>	System for driving behavior analysis  13 months
7.	TG/2017/ Tech-D/04 State Sector	<b>Dr Gayan Yasantha</b> Anti Leprosy Campaign Ministry of Health	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
8.	TG/2014/ Tech-D/04 State Sector	<b>Prof. R M G Rajapaksha</b> University of Peradeniya	Scaling up studies of developing intelligent textiles by introducing several intelligent functionalities to cotton and polyester-cotton textiles and integrating flow process to local textile industries for value addition.  03 years



## NSF Awards

### Support Scheme for Supervision of Research Degrees (SUSRED) 2018

No	Names and affiliations of Supervisory Team	Title of the thesis	Student & awarding University
<b>MPhil</b>			
1.	<p><b>Dr H M V G Herath</b> Department of Agricultural Biology Faculty of Agriculture University of Peradeniya</p> <p><b>Dr K K D V Jayatilake</b> Department of Agricultural Biology Faculty of Agriculture University of Peradeniya</p>	Functional and comparative genomics of grain number, plant height and heading date 7 ( <i>Ghd 7</i> ) in Sri Lankan rice varieties and its role in conferring abiotic stress tolerance	<b>Mr I M A D Nagalla</b> University of Peradeniya
2.	<p><b>Prof. Neelika Malavige</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayewardenepura</p> <p><b>Dr Ananda Wijewickrama</b> National Institute of Infectious Diseases Angoda</p>	Investigation of factors that lead to liver injury in acute dengue infection	<b>Dr B S M Fernando</b> University of Sri Jayewardenepura
3.	<p><b>Prof. Neelika Malavige</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayewardenepura</p>	Investigating the mechanisms by which cytokines, chemokines and lipid mediators modulate cellular immune responses in dengue infection	<b>Ms H E Jayaratne</b> University of Sri Jayewardenepura
4.	<p><b>Dr T D C P Gunasekara</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayewardenepura</p> <p><b>Prof. S S N Fernando</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayewardenepura</p> <p><b>Dr M M Weerasekera</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayewardenepura</p>	The association of HLA alleles, cytokines and selected host factors with <i>H. pylori</i> infection and disease severity	<b>Ms A M P S Arachchi</b> University of Sri Jayewardenepura

5.	<p><b>Prof. H A Hemachandra Jayasena</b> Department of Geology Faculty of Science University of Peradeniya</p> <p><b>Prof. Deepthi Yakandawala</b> Department of Botany Faculty of Science University of Peradeniya</p> <p><b>Prof. R L Rohana Chandrajith</b> Department of Geology Faculty of Science University of Peradeniya</p>	Palynological investigations on Gondwana flora from Sri Lanka: Palaeoenvironmental and palaeogeographical implications	<b>Mr W A P Weerakoon</b> University of Peradeniya
<b>PhD</b>			
1.	<p><b>Prof. N A K P J Seneviratne</b> Department of Chemistry Faculty of Science University of Kelaniya</p> <p><b>Prof. Nimanthi Jayathilaka</b> Department of Chemistry Faculty of Science University of Kelaniya</p>	Development of commercially important plant-based antioxidant preparations to stabilize and improve the nutritional quality of selected foods	<b>Dr C M Senanayake</b> University of Kelaniya
2.	<p><b>Prof. S H P P Karunaratne</b> Department of Zoology Faculty of Science University of Peradeniya</p> <p><b>Prof. S N Surendran</b> Department of Zoology Faculty of Science University of Jaffna</p>	DNA barcoding, genetic diversity, genetic structure and age structure of selected mosquito species of Sri Lanka	<b>Dr T C Weeraratne</b> University of Peradeniya
3.	<p><b>Dr Radhika Samarasekera</b> Industrial Technology Institute Colombo 07</p> <p><b>Dr O V D S Jagathpriya Weerasena</b> Institute of Biochemistry, Molecular Biology and Biotechnology University of Colombo</p> <p><b>Prof. Shiroma Handunnetti</b> Institute of Biochemistry, Molecular Biology and Biotechnology University of Colombo</p>	Isolation, characterization and <i>in vitro</i> bioactivity studies on the constituents of <i>Dipterocarpus zeylanicus</i> and <i>Vateria copallifera</i>	<b>Dr S P Samaradivakara</b> University of Colombo
4.	<p><b>Dr D S M De Silva</b> Department of Chemistry Faculty of Science University of Kelaniya</p> <p><b>Prof. K A S Pathiratne</b> Department of Chemistry Faculty of Science University of Kelaniya</p>	Development of electrodeposition protocols for growth of CdS, CdTe semiconductor thin films and fabrication of low cost CdS/CdTe solar cells	<b>Dr H Y R Atapattu</b> University of Kelaniya

5.	<p><b>Prof. Mangalika Hettiarachchi</b> Department of Zoology and Environmental Management Faculty of Science University of Kelaniya</p> <p><b>Prof. U P K Epa</b> Department of Zoology and Environmental Management Faculty of Science University of Kelaniya</p>	Sustainable export oriented shrimp ( <i>Penaeus monodon</i> ) culture through disease prevention, compliance to food safety regulations	<b>Dr K R P S Kumara</b> University of Kelaniya
6.	<p><b>Dr Sudarshane Geekiyana</b> Department of Agricultural Biology Faculty of Agriculture University of Ruhuna</p> <p><b>Prof. Gamini Senanayake</b> Department of Agricultural Biology Faculty of Agriculture University of Ruhuna</p> <p><b>Prof. Saman Seneweera</b> National Institute of Fundamental Studies Kandy</p>	Investigation of genetic basis for variation in flowering time among Sri Lankan traditional rice varieties	<b>Dr E U U Rathnathunga</b> University of Ruhuna
7.	<p><b>Prof. R G N Meegama</b> Department of Computer Science Faculty of Applied Science University of Sri Jayewardenepura</p>	Real time translation of Sinhala to Sinhala sign language	<b>Dr M Punchimudiyanse</b> University of Sri Jayewardenepura

### NSF Technology Awards - Certificate of Commendation

No	Name & affiliation of the award winner	Grant No.	Project title
1.	<p><b>Prof. K P Hewagama</b> <b>Dr Yamaya Ekanayaka</b> University of Colombo School of Computing</p> <p><i>Research Student</i> <b>F Fazeena Jamaldeen</b></p>	TG/2013/Tech-D/02	Enhance English Language Learning through m-Learning in Different Learning Communities

## NSF Research Awards 2017

No	Name & affiliation of the award winner	Grant No.	Project title
1.	<p><b>Prof. Shiroma Handunnetti</b> Institute of Biochemistry Molecular Biology and Biotechnology University of Colombo</p> <p><b>Prof. Senaka Rajapakse</b> Department of Clinical Medicine Faculty of Medicine University of Colombo</p> <p><b>Prof. Sunil Premawansa</b> Department of Zoology and Environment Sciences Faculty of Science University of Colombo</p> <p><b>Prof. Janaka de Silva</b> Department of Medicine Faculty of Medicine University of Kelaniya</p> <p><i>Research Student</i> <b>Dr Roshan Niloofa Mohamed Jalaldeen (PhD)</b></p>	RG/2011/HS/19	Studies on comparing immunodiagnostic methods and immune status of leptospirosis patients in Colombo and Gampaha Districts
2.	<p><b>Prof. Senaka Rajapakse</b> Department of Clinical Medicine Faculty of Medicine University of Colombo</p> <p><b>Prof. Sunil Premawansa</b> Department of Zoology and Environment Sciences Faculty of Science University of Colombo</p> <p><b>Prof. Janaka de Silva</b> Department of Medicine Faculty of Medicine University of Kelaniya Research Student</p> <p><b>Dr Roshan Niloofa Mohamed Jalaldeen (PhD)</b></p>	RG/2012/NRB/01	Isolation of antimicrobial compounds from endophytic fungi of endemic flora of Sri Lanka

## Commendation Certificates 2017

No	Name & affiliation of the award winner	Grant No.	Project title
1.	<p><b>Dr J W Damunupola</b> Department of Botany Faculty of Science University of Peradeniya</p> <p><b>Prof. W A M Daundasekera</b> Department of Botany Faculty of Science University of Peradeniya Dr S A Krishnarajah Royal Botanical Gardens Peradeniya</p> <p><b>Prof. D S A Wijesundara</b> National Institute of Fundamental Studies Kandy</p> <p><i>Research Student</i> <b>Ms S M K H Wijayabandara</b> (MPhil)</p>	RG/2012/AG/03	Growth responses of <i>Ophiopogon japonicus</i> (Silver dragon or Mondo grass) for differential potting media, plant growth hormones and fertilizer treatment
2.	<p><b>Prof. N S Kottearachchi</b> Department of Biotechnology Faculty of Agriculture and Plantation Management Wayamba University</p> <p><b>Dr W L G Samarasinghe</b> HORDI Gannoruwa</p> <p><i>Research Student</i> <b>Ms. Buddhika A. Dahanayaka</b> (MPhil)</p>	RG/2011/BT/02	Molecular mapping for improved salinity tolerance in rice
3.	<p><b>Prof. Kamani Tennekoon</b> Institute of Biochemistry Molecular Biology and Biotechnology (IBMBB)</p> <p><b>Dr. Shamy de Silva</b> Department of Paediatrics Faculty of Medicine University of Colombo</p> <p><i>Research Student</i> <b>Dr Tharmini Sundralingam</b> (PhD)</p>	RG/2011/BT/03	Characterization of mutations and sequence variants of Growth Hormone (GH) and Growth Hormone Releasing Hormone Receptor (GHRH-R) in a cohort of Sri Lankan children with GH deficiency

## NSF Research Awards 2018

No	Name & affiliation of the award winner	Grant No.	Project title
1.	<p><b>Dr B S Dassanayake</b>  <b>Dr C P Jayalath</b>  <b>Dr V A Seneviratne</b>                      Department of Physics                      University of Peradeniya</p> <p><i>Research Student (NSF funded)</i>  <b>None</b></p>	RG/2012/BS/03	Synthesis and characterization of thin films based on Group II and VI elemental compounds for fabricating solar cells
2.	<p><b>Prof. Charitha Lakshini</b>                      Goonasekara                      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><i>Research Student (NSF funded)</i>  <b>Dr Mahesha Nadugala (PhD)</b></p>	RG/2014/BT/03	Development of a vaccine candidate with a broadly reactive neutralizing immune response against dengue
3.	<p><b>Prof. J B Ekanayake</b>                      Department of Electrical &amp;                      Electronic Engineering                      Faculty of Engineering University                      of Peradeniya</p> <p><b>Dr J V Wijayakulasooriya</b>                      Department of Electrical &amp;                      Electronic Engineering                      Faculty of Engineering University                      of Peradeniya</p> <p><i>Research Student (NSF funded)</i>  <b>Ms A H Wijethunge (PhD)</b></p>	RG/2014/EA&ICT/01  Dynamic rating of power distribution lines	

## Certificates of Commendation 2018

No	Name & affiliation of the award winner	Grant No.	Project title
1.	<p><b>Prof. K P Vidanapathirana</b>                      Department of Electronics                      Faculty of Applied Sciences                      Wayamaba University of Sri Lanka</p> <p><b>Prof. G A K S Perera</b>                      Department of Electronics                      Faculty of Applied Sciences                      Wayamaba University of Sri Lanka</p> <p><i>Research Student (NSF funded)</i>  <b>Mr W A D S S Weerasinghe (PhD to be completed)</b></p>	RG/2014/BS/01	Development of Energy Storage Devices using conducting polymers

2.	<p><b>Prof. Namal Priyantha</b> Department of Chemistry Faculty of Science University of Peradeniya</p> <p><i>Research Student (NSF funded)</i> <b>Mr M U S Wickramasooriya</b> (MPhil)</p>	RG/2012/BS/02	Kinetics and Equilibrium Aspects of Interaction of Heavy Metal Ions and Peat in Natural Modified Forms
3.	<p><b>Prof. W S S Wijesundera</b> Department of Biochemistry &amp; Molecular Biology Faculty of Medicine University of Colombo</p> <p><b>Dr N V Chandrasekharan</b> Department of Chemistry Faculty of Science University of Colombo</p> <p><b>Prof. R L C Wijesundera</b> Department of Plant Sciences Faculty of Science University of Colombo</p> <p><i>Research Student (NSF funded)</i> <b>Dr G H I M Wickramasinghe</b> (PhD)</p>	RG/2012/BT/02	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
4.	<p><b>Prof. S N Surendran</b> Department of Zoology Faculty of Science University of Jaffna</p> <p><i>Research Student (NSF funded)</i> <b>Ms Kokila Sivabalakrishnan</b> (MPhil)</p>	RG/2011/BT/04	Development of DNA based techniques to differentiate <i>Anopheles culcifacies</i> species B from species E and <i>An. subpictus</i> from <i>An. sundaicus</i>

### TWAS/NSF Young Scientist 2018

1.	Feild -Biology	<p><b>Dr Ranil Jayawardena</b></p> <p>Department of Physiology Faculty of Medicine University of Colombo</p>
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## Grants Awarded Under Support Scheme for Scientific Meetings and Events

No	Applicant and the Event	Organization	Category	Date of the event
1.	<b>Mr M Sugirtharan *</b> 2 <sup>nd</sup> International Symposium on Agriculture 2019	Faculty of Agriculture Eastern University of Sri Lanka	Agriculture	9 <sup>th</sup> January 2019
2.	<b>Dr W M C J Wijekoon</b> International Symposium on Agriculture and Environment (ISAE - 2019)	Faculty of Agriculture University of Ruhuna	Agriculture	28 <sup>th</sup> February 2019
3.	<b>Dr Mrs Wasana Wijesuriya</b> 7 <sup>th</sup> Symposium on Plantation Crop Research	Rubber Research Institute of Sri Lanka	Agriculture	4 <sup>th</sup> - 6 <sup>th</sup> November 2019
4.	<b>Dr A J Mohotti</b> 31 <sup>st</sup> Annual Congress of the Postgraduate Institute of Agriculture (PGIA)	Postgraduate Institute of Agriculture (PGIA) University of Peradeniya	Agriculture	21 <sup>st</sup> - 22 <sup>nd</sup> of November 2019
5.	<b>Dr A J Mohotti</b> 39 <sup>th</sup> Annual Sessions of the Institute of Biology (IOB)	Institute of Biology Sri Lanka	Biology	27 <sup>th</sup> September 2019
6.	<b>Dr G Asha Sewwandi</b> Materials Engineering Symposium on Innovations for Industry 2019	Faculty of Engineering University of Moratuwa	Engineering	18 <sup>th</sup> January 2019
7.	<b>Dr A G B P Jayasekara</b> Moratuwa Engineering Research Conference 2019 (MERCon 2019)	Faculty of Engineering University of Moratuwa	Engineering	3 <sup>rd</sup> - 5 <sup>th</sup> July 2019
8.	<b>Dr Varuni Jayasooriya</b> 24 <sup>th</sup> International Forestry and Environment Symposium 2019	Faculty of Applied Sciences, University of Sri Jayewardenepura	Environment and Forestry	25 <sup>th</sup> - 26 <sup>th</sup> of October 2019
9.	<b>Prof. M P K S K de Silva</b> 6 <sup>th</sup> Ruhuna International Science and Technology Conference - 2019	Faculty of Science University of Ruhuna	General Sciences	30 <sup>th</sup> January 2019
10.	<b>Dr Jayaranjani Sutha</b> International Research Conference 2019 - Uva Wellassa University of Sri Lanka	Uva Wellassa University of Sri Lanka	General Sciences	7 <sup>th</sup> - 9 <sup>th</sup> February 2019
11.	<b>Prof. Preethi Udagama</b> 75 <sup>th</sup> Annual Sessions of the Sri Lanka Association for Advancement of Science	Sri Lanka Association for Advancement of Science	General Sciences	2 <sup>nd</sup> - 6 <sup>th</sup> December 2019
12.	<b>Dr A W Chamindri Witharana</b> Research for Impact: March of the Sri Lankan Young Scientists - Sri Lanka Academy of Young Scientists	Sri Lanka Academy of Young Scientists	General Sciences	17 <sup>th</sup> - 18 <sup>th</sup> September 2019



13.	<b>Dr H M K N H Koralegedara</b> 35 <sup>th</sup> Annual Technical Sessions of the Geological Society of Sri Lanka	Department of Geology University of Peradeniya	Geology	22 <sup>nd</sup> February 2019
14.	<b>Dr A P R Wickramaarachchi</b> International Research Conference on Smart Computing and Systems Engineering (SCSE) 2019	Faculty of Science University of Kelaniya	IT	28 <sup>th</sup> March 2019
15.	<b>Dr Samantha Iddamaldeniya</b> Sixth Annual Scientific Sessions of Sri Lanka Association for Laboratory Animal Sciences (SLALAS)	Sri Lanka Association for Laboratory Animal Science	Medical Sciences	24 <sup>th</sup> - 25 <sup>th</sup> January 2019
16.	<b>Prof. Jithangi Wanigasinghe</b> Improving child neurology through early intervention	Faculty of Medicine University of Colombo	Medical Sciences	29 <sup>th</sup> September 2019
17.	<b>Dr Anula Wijesundara*</b> 132 <sup>nd</sup> Anniversary International Medical Congress	Sri Lanka Medical Association	Medical Sciences	24 <sup>th</sup> - 27 <sup>th</sup> July 2019
18.	<b>Prof. Ajith Nagahawatte</b> International Conference on Infectious Diseases and Infection Control and Prevention	Sri Lanka College of Microbiologists	Medical Sciences	13 <sup>th</sup> - 15 <sup>th</sup> August 2019
19.	<b>Dr Dulangi Dahanayake</b> 3 <sup>rd</sup> Biennial Conference of the Sri Lanka College of Child & Adolescent Psychiatrists	Sri Lanka College of Child & Adolescent Psychiatrists	Medical Sciences	20 <sup>th</sup> - 21 <sup>st</sup> December 2019
20.	<b>Prof. Lakmini Mudduwa</b> Annual Academic Sessions 2019 - College of Pathologists of Sri Lanka	College of Pathologists of Sri Lanka	Medical Sciences	23 <sup>rd</sup> - 24 <sup>th</sup> August 2019
21.	<b>Dr Nishara Fernando</b> Capacity building for Research & innovation for Disaster Resilience	Department of Sociology University of Colombo	Multidisciplinary	15 <sup>th</sup> - 16 <sup>th</sup> January 2019
22.	21 <sup>st</sup> Annual Scientific Sessions and Annual General Meeting of the Population Association of Sri Lanka	Population Association of Sri Lanka	Population Studies	02 <sup>nd</sup> March 2019

\*Grants not utilized

## Support Scheme for Publication Fees

No	Authors /Institutions	Title of the Research Paper	Name of the Journal and 2018 Journal Impact Factor	Indexing Database (Clarivate Analytics)	Grant Amount (Rs.)
1.	<b>Dr D P Chandima S R A Bolonne</b> Department of Electrical Engineering Faculty of Engineering University of Moratuwa	Narrow Band State of Charge (SOC) Control Strategy for Hybrid Container Cranes	Energies  3.244	SCIE	78,186/-
2.	<b>Prof. Suresh Benjamin Ms Nilani Kanesharatnam</b> National Institute of Fundamental Studies Hantana Road Kandy	Multilocus genetic and morphological phylogenetic analysis reveals a radiation of shiny South Asian jumping spiders (Araneae, Salticidae)	Zookeys  1.031	SCIE	150,000/-
3.	<b>Ms Malshani Lakshika Pathirathna</b> Department of Nursing Faculty of Allied Health Sciences  <b>Kuruppu M S Wimalasiri</b> Department of Food Science and Technology Faculty of Agriculture University of Peradeniya  <b>Kayoko Sekijima Mieko Sadakata Naoshi Fujiwara Yoshiyuki Muramatsu</b> Niigata University Japan	Effects of physical activity during pregnancy on neonatal birth weight	Scientific Reports  4.122	SCIE	137,517/-
4.	<b>Dr D P Chandima S R A Bolonne</b> Department of Electrical Engineering Faculty of Engineering University of Moratuwa	Sizing an energy system for hybrid Li-ion battery - supercapacitor RTG Cranes based on state machine energy controller	IEEE Access  3.557	SCIE	79,149.25/-
5.	<b>Prof. W S S Wijesundera</b> Department of Biochemistry and Molecular Biology Faculty of Medicine University of Colombo  <b>Dr N V Chandrasekharan Prof. C M Hettiarachchi Ms Kirushanthi Kajendran</b> Department of Chemistry Faculty of Science University of Colombo	Molecular characterization and expression of $\alpha$ - gliadin genes from wheat cultivar Dacke in Bg 250 rice variety	GM Crops & Food Biotechnology in Agriculture and the Food Chain  3.333	SCIE	130,945.10/-

6.	<p><b>Prof. L Dinithi C Peiris</b>  <b>Ms Thilina Gunathilake</b>  Department of Zoology  University of Sri  Jayewardenepura</p> <p><b>Dr Kalpa Samarakoon</b>  Senior Scientist  NASTEC</p> <p><b>Dr Pathmasiri Ranasinghe</b>  Deputy Director  Industrial Technology  Institute</p>	In - vitro antioxidant, hypoglycemic activity, and identification of bioactive compounds in phenolic - rich extract from the Marine Red Algae <i>Gracilaria edulis</i> (Gmelin) Silva to combat obesity and type 2 diabetes	Molecules  3.06	SCIE	<b>194,202.75/-</b>
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\* SCIE – (Science Citation Index Expanded)

## Ten National Winners of SRPC

Annex 09

No	Name of Student/s	School	Title
1.	S Sachin Ravinath De Silva H L Chanuth Denuwan Hashela R Sandalu Ransika Senavirathna	Gnanodaya Maha Vidyalaya, Kaluthara	Effect of acidity on seed germination of selected varieties of paddy
2.	Januka Indusara Dharmarathna	Nalanda College, Colombo 10	Anti-diabetic properties of selected traditional rice varieties from Sri Lanka
3.	Isumi Methasa Uthsali Hettiarachchi Hansanadini Muthumalki Pragharatna	Sirimavo Bandaranaike Vidyalaya, Colombo 07	Production of a light weight and eco-friendly brick using waste plastic
4.	Thambipillai Thinojan Kanesamoorthy Abinaya Kamalanathan Padanjaly	Paddiruppu Madya Maha Vidyalayam, National School, Kaluwanchikudy,	Green synthesis of iron oxide particles for the removal of cadmium ions in water
5.	M Chamithri Malsha Vidumini Silva	Mahamaya Balika Vidyalaya, Nugegoda	Formulation of natural, eco-friendly anti-mealy bug lotion (NEAL)
6.	Nidha Faatin Abu Ubaidha Ann Dharahaa Narendran Ahanya Pushparajah	BT. St. Cecilya's Girls College, Batticaloa	Assessment of the repetitive safety usage of various cooking oils used in Sri Lanka
7.	Binudi Goonathilake Hasindie Dissanayake Sonali Elabada Arachchige	Musaeus College, Colombo 07	A microbial consortium to accelerate the decomposition of biodegradable polythene
8.	Dinera Susiriwardana	Nalanda College, Colombo 10	Investigation of the antibacterial properties of the root extract and leaf extract of <i>Asparagus falcatus</i> (Mahahathawariya)
9.	Keshani Sajeena Booso Helani Dulanya Balasuriya Vinma Wettasinghe	Musaeus College, Colombo 07	The development of a risk assessment tool for the screening of non-communicable diseases among school children in Sri Lanka
10.	Rathnayaka Mudiyansele Udittha Ishan Rathnayake Maligasingakkarage Dulshan Pradeep Jayalath	Thambuththegama Central College, Thambuththegama	Evaluation of repellent activity of botanicals for controlling red coconut weevil ( <i>Rhynchophorus ferrugineus</i> Olivier)

## Grants awarded under Science Education and Popularization Programme

No	Grant No.	Grantee	Event	Approved Amount (Rs.)
1.	NSF/SPD/04/SEPP/2019/01	Chemical Society of University of Colombo	Inter-School Chemistry Quiz 2019	95,000/-
2.	NSF/SPD/04/SEPP/2019/02	Electronics Club (E-Club) of University of Moratuwa	Sri Lankan Robotics Challenge, October 2018	200,000/-
3.	NSF/SPD/04/SEPP/2019/03	Science Society of WP/GM/Yasodara Devi Balika Maha Vidyalaya	Science Day 2019	95,000/-
4.	NSF/SPD/04/SEPP/2019/04	Student Chapter of Royal Aeronautical Society of General Sir John Kotelawala Defence University	Workshop on Aeronautical and Aerospace Engineering Applications for Sustainable Development of Sri Lanka	199,750/-
5.	NSF/SPD/04/SEPP/2019/05	Information & Communication Technology and Computing Society of Vavuniya Campus of University of Jaffna	Hackintra 2019	175,000/-
6.	NSF/SPD/04/SEPP/2019/06	Biotechnology Society of Wayamba University of Sri Lanka	Biotechnology Day 2019	200,000/-

## Research Scholarships Awarded

Annex 11

No	Grant No. & Duration	Scholar and Institution	Supervisors	Title
01.	NSF/ SCH/2019/01  1.5 years	<b>Ms W L B P Abhayawickrama</b> Department of Biotechnology Faculty of Agriculture & Plantation Management Wayamba University of Sri Lanka	<b>Prof. N S Kottearachchi</b> <b>Dr D R Gimhani</b> <b>Dr Venura Herath</b>	QTL map-based candidate gene discovery for salt tolerance in rice ( <i>Oryza sativa</i> )
02.	NSF/ SCH/2019/02  3 years	<b>Ms F S Thathsarani</b> Hewavitharana Construction Management Division Department of Civil Engineering University of Moratuwa	<b>Prof. A A D A J Perera</b> <b>Prof. C Jayasinghe</b>	Digital Transformation of Construction Industry
03.	NSF/ SCH/2019/03  1 year	<b>Ms M S K Rabindrakumar</b> Department of Biochemistry and Molecular Biology Faculty of Medicine University of Colombo	<b>Dr Tharanga Thoradeniya</b> <b>Prof. Pujitha Wickramasinghe</b> <b>Prof. Veranja Karunaratne</b>	Iron, Vitamin A and folate status and the distribution and effects of un-metabolized folic acid among pregnant women and their offspring in an urban area of Sri Lanka
04.	NSF/ SCH/2019/04  3 years	<b>Ms R W M G Kumari Kapukotuwa</b> Postgraduate Institute of Science University of Peradeniya	<b>Mrs Krishni Chanika Weerakoon</b> <b>Prof. Rupika S. Rajakaruna</b> <b>Prof. Charmalie L. Abayasekara</b>	Effect of physicochemical properties and faecal indicator bacteria on the distribution, diversity and abundance of freshwater fishes in Rawan Oya, a tributary of the Mahaweli River in Kandy District
05.	NSF/ SCH/2019/05  2 years	<b>Mr Senthuran Sivasubramaniam</b> Department of Physics Faculty of Science University of Jaffna	<b>Prof. M A K L Dissanayake</b> <b>Prof. G K R Senadeera</b>	Fabrication and characterization of nanostructured TiO <sub>2</sub> photoanode for dye-sensitized solar cells
06.	NSF/ SCH/2019/06  2 years	<b>Ms Lakna L. Warnapura</b> Department of Transport & Logistics Management University of Moratuwa	<b>Prof. Amal S Kumara</b>	An integrated strategy for reviving rail freight in Sri Lanka
07.	NSF/ SCH/2019/07  1 year	<b>Mr Uvindu D. A. Anthony</b> Department of Parasitology Faculty of Medical Sciences University of Sri Jayewardenepura	<b>Prof. Renu Wickremasinghe</b> <b>Prof. Preethi Udagama</b> <b>Prof. Deepika Fernando</b>	A sero-epidemiological study to provide supportive evidence to establish Malaria elimination in Sri Lanka
08.	NSF/ SCH/2019/08  2 years	<b>Ms Sara Mariyam Abdulla</b> Industrial Technology Institute	<b>Dr Pathmasiri Ranasinghe</b> <b>Prof. M S Samantha Weerasinghe</b> <b>Dr G A S Premakumara</b> <b>Dr Chandani Udawatte</b>	In-silico and bio-assay based study on natural compounds isolated from Sri Lankan medicinal plants as drug leads for management of dyslipidaemia
09.	NSF/ SCH/2019/09  2 years	<b>Ms Madushika M. K. Galabadage</b> Postgraduate Institute of Science University of Peradeniya	<b>Prof. A N Navaratne</b> <b>Prof. K B Ranawana</b>	Biochemical Assessment of quality of feeding resources and milk of cattle dependent on saltmarsh pastures of Mannar District, Sri Lanka

## Ongoing Research Scholarships

Annex 12

No	Grant No. & Duration	Scholar and Institution	Supervisors	Title
1.	<b>NSF/ SCH/2015/01</b>  3.5 years	<b>Ms R W P Madhushika Rajapaksha</b> Wayamba University of Sri Lanka	<b>Prof. D P S T G Attanayake</b>	Molecular detection of quarantine important microbial pathogens in imported seed potato
2.	<b>NSF/ SCH/2015/07</b>  3.5 years	<b>Mr Nimesh Madushanka Deneththi</b> Department of livestock production Faculty of Agricultural Sciences Sabaragamuwa University of Sri Lanka	<b>Dr Manjula P. Sumith Magamage Dr H A D Ruwandeepika</b>	Effect of angiogenic VEGF isoforms and Anti-angiogenic VEGF165B during development of porcine follicles originating from ovaries of newborn piglets and adult ovaries with cystic follicles in-vitro
3.	<b>NSF/ SCH/2016/02</b>  3 years	<b>Mr Ashoka Ranjeewa Deegoda Gamage</b> Faculty of Science University of Colombo	<b>Prof. Devaka Weerakoon Dr Prithiviraj Fernando</b>	The Asian elephant male: behavior and life stages of male Asian elephant in Udawalawa, Sri Lanka
4.	<b>NSF/ SCH/2016/03</b>  2 years and 3 months	<b>Ms Abiramy Thurairajah</b> Faculty of Agriculture University of Jaffna	<b>Dr Nalina Gnanavelraja Dr Renuka R. Ratnayake</b>	Isolation of denitrifying bacteria and their potential use in nitrate removal from well water of Jaffna district
5.	<b>NSF/ SCH/2016/05</b>  2 years	<b>Mrs D M C M Kumari Dassanayake</b> Department of Food Science & Technology Faculty of Livestock Fisheries and Nutrition Wayamba University of Sri Lanka	<b>Prof. C V L Jayasinghe Dr M A Wijewardana</b>	Energy efficiency and renewable energy potential in the fruits and vegetable value chain in Sri Lanka
6.	<b>NSF/ SCH/2017/02</b>  2 years and 4 months	<b>Dr Thavarajah Vijayakumar</b> Department of Biochemistry Faculty of Medicine University of Jaffna & Siddha Teaching Hospital Kaithady Chavakachcheri	<b>Dr S Balakumar Dr T Thayalini</b>	Safety evaluation of hepato, nephron, neuro and hemato; and antioxidant activity of Sinna Sivappu Maathirai a siddha herbo mineral drug
7.	<b>NSF/ SCH/2017/04</b>  2 years	<b>Mrs Fathima Sabrina Nazeer</b> Department of Building Economics Faculty of Architecture University of Moratuwa	<b>Dr Sachie Gunatilake Dr Thanuja Ramachandra</b>	Developing a capability framework to integrate sustainability in Facilities Management (FM) practice
8.	<b>NSF/ SCH/2017/05</b>  1 year and 3 months	<b>Ms N G L Nadee Nanayakkara</b> Faculty of Fisheries and Marine Science & Technology University of Ruhuna	<b>Dr Nalaka Ranasinghe Prof. K R Ranjith Mahanama Prof. Tilak Hewawasam</b>	Reconstruction of the quaternary climate variability in Sri Lanka using marine proxies
9.	<b>NSF/ SCH/2017/10</b>  2 years	<b>Mrs M Dhanusha Nirmani</b> Department of Zoology and Environment Sciences Faculty of Science University of Colombo	<b>Dr Gayani Galhena</b>	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/2018/07  1 year	<b>Mrs K A A Dilhari</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayawardenapura	<b>Dr Manjula M. Weerasekera</b> <b>Dr T D C P Gunasekara</b> <b>Prof. S S N Fernando</b>	Molecular Profiling, Biofilm Architecture and Investigation of Microbiota Associate in Diabetes Chronic Wound Infection
11.	NSF/ SCH/2018/09  1 year	<b>Ms M M K Peiris</b> Department of Microbiology Faculty of Medical Sciences University of Sri Jayewardenepura	<b>Prof. S S N Fernando</b> <b>Dr T D C P Gunasekara</b> <b>Prof. P M Jayaweera</b>	Biological synthesis, characterization and assessment of antimicrobial properties of silver and titanium dioxide nanoparticles
12.	NSF/ SCH/2019/09  2 years	<b>Madushika Maduwanthi</b> Kumari Galabadage Postgraduate Institute of Science (PGIS) Peradeniya	<b>Prof. A N Navaratne</b> <b>Prof. K B Ranawana</b>	Biochemical Assessment of quality of feeding resources and milk of cattle dependent on saltmarsh pastures of Manner District, Sri Lanka
13.	NSF/ SCH/2016/01  4 years	<b>Dr Lalindra Sanjaya</b> Kaththiriarachchi Faculty of Graduate Studies, USJP	<b>Prof. S W Wimalasekara</b> <b>Prof. A L S Mendis</b> <b>Dr D C Hewage</b>	Cognitive functions and associated psychosocial determinants among peri-urban adolescents in Sri Lanka
14.	NSF/ SCH/2016/04  3 years	<b>Ms Joanne Tiphania Kotelawela</b> Institute of Biochemistry, Molecular Biology and Biotechnology University of Colombo	<b>Prof. Kamani H. Tennekoon</b> <b>Dr Kanishka De Silva</b>	Characterization of mitochondrial DNA mutations in the D-loop and mtDNA haplogroups in Sporadic Breast Cancer
15.	NSF/ SCH/2017/01  3 years	<b>Ms Maduja V. M. Divarathna</b> Department of Microbiology Faculty of Medicine University of Peradeniya	<b>Dr F Noordeen</b> <b>Dr A J Morel</b>	Characterization of respiratory syncytial and human metapneumo viruses causing acute respiratory tract infection in a selected cohort of hospitalized children in Sri Lanka
16.	NSF/ SCH/2017/03  3 years	<b>Mr Saminda C. Premaratne</b> University of Colombo School of Computing	<b>Dr Lakshman Jayaratne</b>	Entity Resolution in Multimedia Databases
17.	NSF/ SCH/2017/09  3 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> <b>Dr A K Karunarathna</b>	Development of interactive mathematical expressions for biochemical transformation kinetics
18.	NSF/ SCH/2017/11  3 years	<b>Ms S Arudchutha</b> Department of Computer Engineering Faculty of Engineering University of Peradeniya	<b>Dr R G Ragel</b> <b>Dr I B Nawinne</b>	Hardware accelerated coherence aware cache design space exploration in Multiprocessor System-on-Chips (MPSoCs)
19.	NSF/ SCH/2018/01  2 years	<b>Mrs Sathees Sasrubi</b> Department of Biochemistry Faculty of Medicine University of Jaffna	<b>Prof. V Arasaratnam</b> <b>Dr M G Sathiadas</b>	Growth, neurodevelopment and behavioral outcome of pre-term babies born at a tertiary care center, Jaffna
20.	NSF/ SCH/2018/02  3 years	<b>Ms V Umayangana Godakanda</b> Department of Chemistry Faculty of Science University of Colombo	<b>Prof. K M Nalin de Silva</b> <b>Dr Rohini M. de Silva</b>	Smart fabrics for healthcare
21.	NSF/ SCH/2018/03  2 years	<b>Mr H M I Chandralal Herath</b> Industrial Technology Institute	<b>Dr T D C M K Wijayasiriwardene</b> <b>Dr G A S Premakumara</b>	Pharmacognostical investigation of <i>Curcuma albiflora</i> Thw. (Harankaha)



22.	NSF/ SCH/2018/04  3 years	<b>Mr Jaseetharan Thillainathan</b> Post Graduate Institute of Science Peradeniya	<b>Prof. M A K L Dissanayake Prof. G K R Senadeera</b>	Semiconductor quantum dots for applications in solar cells and infra-red detectors
23.	NSF/ SCH/2018/05  2 years	<b>Dr Sivarangini Sivagnanam</b> Department of Biochemistry Faculty of Medicine University of Jaffna	<b>Prof. Vasanthy Arasaratnam Prof. Mangala Gunatilake</b>	In vitro lithontriptic effect of selected basin drugs on urinary calculi occurring in various locations of urinary system with and without different <i>Anupaanam</i> and the predisposing factors
24.	NSF/ SCH/2018/06  2 years	<b>Ms H M K Madhushani Premaratne</b> Department of Geology University of Peradeniya	<b>Dr R L R Chandrajith Prof. N P Ratnayake</b>	Millennial and sub-millennial-scale variability of northeast monsoon and its impact on terrestrial ecosystems in Sri Lanka
25.	NSF/ SCH/2018/10  1 year	<b>Ms A K I U Kapuge</b> Department of Oceanography and Marine Geology University of Ruhuna	<b>Dr Pradeep Nalaka Ranasinghe Prof. A L Tilak Hewawasam</b>	Studying paleoclimatic and paleoenvironmental changes in Ratnapura Basin during the quaternary period
26.	NSF/ SCH/2018/11  3 years	<b>Ms K Prabodha M. Weerathne</b> Post Graduate Institute of Science University of Peradeniya	<b>Prof. H M T G A Pitawala Prof. H R D Pieris</b>	Reconstructing the Prehistoric human diet using stable, palaeoproteomics and chemical analysis of human and faunal skeletal remains recovered from Pallemalala shell midden, Sri Lanka
27.	NSF/ SCH/2018/12  2 years	<b>Ms Sujanthe Rasakulendran</b> Department of Zoology and Environment Sciences University of Colombo	<b>Dr I C Perera Dr N T Perera</b>	Ligand responsive MarR homologs as novel drug targets against <i>Mycobacterium tuberculosis</i>
28.	NSF/ SCH/2019/01  1.5 years	<b>Ms W L B P Abhayawickrama</b> Department of Biotechnology Faculty of Agriculture & Plantation Management Wayamba University of Sri Lanka	<b>Prof. N S Kottearachchi Dr D R Gimhani Dr Venure Herath</b>	QTL map-based candidate gene discovery for salt tolerance in rice ( <i>Oryza sativa</i> )
29.	NSF/ SCH/2019/02  3 years	<b>Ms F S Thathsarani Hewavitharana</b> Construction Management Division Department of Civil Engineering University of Moratuwa	<b>Prof. A A D.A J Perera Prof. C Jayasinghe</b>	Digital Transformation of Construction Industry
30.	NSF/ SCH/2019/03  1 year	<b>Ms M S K Rabindrakumar</b> Department of Biochemistry and Molecular Biology Faculty of Medicine University of Colombo	<b>Dr Tharanga Thoradeniya Prof. Pujitha Wickramasinghe Prof. Veranja Karunaratne</b>	Iron, Vitamin A and folate status and the distribution and effects of un-metabolized folic acid among pregnant women and their offspring in an urban area of Sri Lanka
31.	NSF/ SCH/2019/04  3 years	<b>Ms R W M G Kumari Kapukotuwa</b> Post Graduate Institute of Science University of Peradeniya	<b>Mrs Krishni Chanika Weerakoon Prof. Rupika S. Rajakarana</b>	Effect of physicochemical properties and faecal indicator bacteria on the distribution, diversity and abundance of freshwater fishes in Rawan Oya, a tributary of the Mahaweli River in Kandy District
32.	NSF/ SCH/2019/05  2 years	<b>Mr Senthuram Sivasubramaniam</b> Department of Physics Faculty of Science University of Jaffna	<b>Prof. M A K L Dissanayake Prof. G K R Senadeera</b>	Fabrication and characterization of nanostructured TiO <sub>2</sub> photoanode for dye-sensitized solar cells

33.	<b>NSF/ SCH/2019/06</b>  2 years	<b>Ms Lakna L. Warnapura</b> Department of Transport & Logistics Management University of Moratuwa	<b>Prof. Amal S Kumarage</b>	An integrated strategy for reviving rail freight in Sri Lanka
34.	<b>NSF/ SCH/2019/07</b>  1 year	<b>Mr Uvindu D. A. Anthony</b> Department of Parasitology Faculty of Medical Sciences University of Sri Jayewardenepura	<b>Prof. Renu Wickremasinghe Prof. Preethi Udagama Prof. Deepika Fernando</b>	A sero-epidemiological study to provide supportive evidence to establish Malaria elimination in Sri Lanka
35.	<b>NSF/ SCH/2019/08</b>  2 years	<b>Ms Sara Mariyam Abdulla</b> Industrial Technology Institute	<b>Dr Pathmasiri Ranasinghe Prof. M S Samantha Weerasinghe Dr G A S Premakumara Dr Chandani Udawatte</b>	In-silico and bioassay based study on natural compounds isolated from Sri Lankan medicinal plants as drug leads for management of dyslipidaemia

## Research Scholarships Completed

No	Grant No. & Duration	Scholar and Institution	Supervisor/s	Title	Postgraduate Degree Obtained
1.	NSF/ SCH/2017/07  01 year 09 months	Mrs Rashni Yasara Baragamaarachchi Industrial Technology Institute	Dr Radhika Samarasekara Dr Jagath Weerasena	Molecular and Biochemical characterization of <i>Bacillus thuringiensis</i> isolates with insecticidal activity in Sri Lanka	PhD
2.	NSF/ SCH/2013/07  4 years	Ms Nadhikala Muthiah Medical Research Institute	Dr P P S L Pathirana Dr G C S Galagoda Dr S M Hadunnetti	Study on measles, mumps & rubella antibody status in mothers & their newborn babies (in Colombo district)	PhD
3.	NSF/ SCH/2017/06  2 years	Ms G D Liyanaarachchi Industrial Technology Institute	Dr Radhika Samarasekara Prof. K R Ranjith Mahanama	Antioxidant and enzyme inhibitory phytochemicals for cosmetic application	PhD

## Oral Presentations

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
1.	<b>Mr J R Somarathna</b> Research Officer Rubber Research Institute Thalawala Road Ratmalana	Application of nano-scale zinc oxide and tetramethylthiuram disulphide as an effective preservative system for concentrated natural rubber latex	International Conference on Science and Technology Research (ICSTR)  National University of Singapore 15 <sup>th</sup> -16 <sup>th</sup> March, 2019
2.	<b>Dr A D Attanayake</b> Senior Lecturer Department of English Language Faculty of Arts University of Colombo	Post-colonial curriculum practices in South Asia: Building confidence to speak English	9 <sup>th</sup> International Conference on Education, Teaching & Learning (ICE19 New York Conference)  New York, USA 26 <sup>th</sup> - 28 <sup>th</sup> April, 2019
3.	<b>Ms W V W H Wickramaarachchi</b> Department of Chemical and Process Engineering Faculty of Engineering University of Moratuwa	Identification of the best blend composition of natural rubber-high density polyethylene blends for roofing applications	ICSPCMS 2019: International Conference on Synthetic Polymer Chemistry and Materials Studies  Singapore 02 <sup>nd</sup> - 03 <sup>rd</sup> May, 2019
4.	<b>Ms N F Sabrina</b> Post graduate Student University of Moratuwa	Significant sustainable facilities management practices in the Health Care sector	Central Europe Towards Sustainable Building 2019  Prague, Czech Republic 2 <sup>nd</sup> - 4 <sup>th</sup> July, 2019
5.	<b>Ms B L A N Karunathilake</b> Pricing Analyst Mountain Hawk Express (Pvt) Ltd. Wellampitiya	A framework for evaluating the potential for using air-maritime integration in modern supply chains	15 <sup>th</sup> World Conference on Transport Research  Mumbai, India 26 <sup>th</sup> - 31 <sup>st</sup> May, 2019
6.	<b>Prof. O Amerasinghe</b> President/Sri Lanka Forum for Small Scale Fisheries (SLFSSF)	Remodelling Sri Lanka's National Fisheries Policy	MARE Conference 2019; People and the Sea Conference  Amsterdam, Netherlands 26 <sup>th</sup> - 28 <sup>th</sup> June, 2019
7.	<b>Mr M U Mendis</b> Research Assistant Department of Physics Faculty of Science University of Colombo	Lightning transient on neighbourhoods of communication towers: a simulation case study	11 <sup>th</sup> Asia Pacific International Conference on Lightning  Hong Kong, China 12 <sup>th</sup> - 14 <sup>th</sup> June, 2019
8.	<b>Ms N A A B Nissanka</b> Research Student Department of Physics Faculty of Science University of Colombo	Probing structural variations of graphene oxide and reduced graphene oxide using methylene blue adsorption method	EMRS 2019 Spring Meeting Congress & Exhibition Centre  Acropolis, Nice, France 27 <sup>th</sup> - 31 <sup>st</sup> May, 2019
9.	<b>Ms J Anusha</b> Research Student Department of Biochemistry Faculty of Applied Science University of Sri Jayewardenepura	Vitamin D (25(OH)D) deficiency in a cohort of mothers and their offspring in Sri Lanka. Is it real	13 <sup>th</sup> Asian Congress of Nutrition 2019  Bali, Indonesia 04 <sup>th</sup> - 07 <sup>th</sup> August, 2019
10.	<b>Ms W A D L S Abeywardena</b> MPhil Candidate Sri Lanka Institute of Nano Technology	Structural characterization of Zinc doped Hydroxyapatite nanoparticles	World Summit on Advanced Materials and Engineering  Singapore 20 <sup>th</sup> - 21 <sup>st</sup> June, 2019

11.	<b>Ms S U Liyanarachchi</b> MPhil Candidate Sri Lanka Institute of Nanotechnology	Black seed oil incorporated polycraptolactone microspheres as effective oil encapsulation approach	World Summit on Advanced Materials and Engineering  Singapore 20 <sup>th</sup> - 21 <sup>st</sup> June, 2019
12.	<b>Mr K G Vidanapathirana</b> Temporary Instructor Faculty of Engineering University of Moratuwa	Development of a lightweight, low cost, self-balancing personal mobility vehicle for autonomous indoor navigation	2019 IEEE/ ASME International Conference on Advanced Intelligent Mechatronics (AIM)  Science Park, Hong Kong, China 8 <sup>th</sup> - 12 <sup>th</sup> July, 2019
13.	<b>Dr S M Vidanagamachchi</b> Senior Lecturer Department of Computer Science Faculty of Science University of Ruhuna	A Reconfigurable Architecture for Commentz-Walter Algorithm	International Conference on Continuous Optimization  Berlin, Germany 5 <sup>th</sup> - 8 <sup>th</sup> August, 2019
14.	<b>Ms K K L Hasini</b> Research Student Department of Agricultural Economics Faculty of Agriculture University of Ruhuna	A methodological approach for supply chain analysis with a practical application for tuna fish value chain in Sri Lanka	World Seafood Congress  Penang, Malaysia 9 <sup>th</sup> - 11 <sup>th</sup> September, 2019
15.	<b>Mr N C Sapumanage</b> Research Student University of Colombo	Assessment of varistor withstand capacity against CG generated transient voltages	Asian Electromagnetic Conference-2019  Xian, China 15 <sup>th</sup> - 20 <sup>th</sup> September, 2019
16.	<b>Dr J M J K Jayasinghe</b> Senior Lecturer Department of Food Science and Technology Faculty of Applied Sciences University of Sri Jayewardenepura	Fast food consumption and health status of students of a University in Sri Lanka	X International Agriculture Symposium, Agrosym 2019  Jahorina, Herzegovina 3 <sup>rd</sup> - 6 <sup>th</sup> October, 2019
17.	<b>Mr M G S N Thilakaratne</b> Research Assistant Postgraduate Institute of Science University of Peradeniya	Investigation of osteosarcoma (OS) cell response to biocompatible hydroxyapatite nano-particles synthesized via Calcium Sucrets Method	International Conference on Nanomedicine and Nanotechnology  Edinburgh, Scotland 12 <sup>th</sup> - 13 <sup>th</sup> September, 2019
18.	Prof. W A D P R Ratnasekera Head of the Department Faculty of Agriculture Department of Agricultural Biology University of Ruhuna	Genetic Structure and diversity of weedy rice populations in Sri Lanka	27 <sup>th</sup> Asian Pacific Weed Science Society Conference (APWSS)  Sarawak, Malaysia 3 <sup>rd</sup> - 6 <sup>th</sup> September, 2019
19.	<b>Ms M S Mendis</b> Research Assistant Department of Civil Engineering Faculty of Engineering University of Moratuwa	Unleashing the potentials of traditional construction technique in bio-climatic building designs; A case of Ambalam, Sri Lanka	4 <sup>th</sup> Asia Conference on Environment and Sustainable Development  Yokohama, Japan 9 <sup>th</sup> - 11 <sup>th</sup> November, 2019
20.	<b>Ms G H Galabada</b> Research Assistant Department of Civil Engineering Faculty of Engineering University of Moratuwa	Paving materials for urban heat island mitigation in tropics; A comparative study on mud concrete paving	4 <sup>th</sup> Asia Conference on Environment and Sustainable Development  Yokohama, Japan 9 <sup>th</sup> - 11 <sup>th</sup> November, 2019

21.	<b>Dr U Jayarajah</b> Registrar in Surgery Postgraduate Institute of Medicine University of Colombo	Irrigation tubes in the treatment of para rectal cavities in complex fistula-in-ano:a novel approach	14 <sup>th</sup> Asia Pacific Congress of Endoscopic and Laparoscopic Surgeons of Asia 2019  Chiang Mai, Thailand 21 <sup>st</sup> - 23 <sup>rd</sup> November, 2019
22.	<b>Ms H M T P Herath</b> Lecturer (Probationary) Department of Primary Health Care Faculty of Health Care Sciences Eastern University of Sri Lanka	Reasons to undergo screening for non-communicable diseases by apparently healthy people;A qualitative study from Sri Lanka	51 <sup>st</sup> Asia Pacific Academic Consortium for Public Health (APACPH)  Amari Watergate Bangkok, Thailand 20 <sup>th</sup> - 22 <sup>nd</sup> November, 2019
23.	<b>Dr S D Hapuarachchi</b> Senior Lecturer Institute of Indigenous Medicine University of Colombo	Development of quality control standards of selected indigenous medical plants	Global Congress on Advances and Scientific Merits in Food and Agriculture  Dubai, UAE 18 <sup>th</sup> - 20 <sup>th</sup> November, 2019
24.	<b>Mr S G S Perera</b> Research Assistant University of Moratuwa	Preparation of natural rubber-OMMT nanocomposites using mechanical mixing and acid free coagulation methods; Effect of processing method on mechanical properties	International Conference on Material Engineering and Nanotechnology (ICEMEN 2019)  Kuala Lumpur, Malaysia 2 <sup>nd</sup> - 5 <sup>th</sup> December, 2019
25.	<b>Ms W D R Fernando</b> Department of Physics Faculty of Science University of Colombo	Fourier analysis to understand temperature distribution patterns in adhesively bonded textile structure	3 <sup>rd</sup> Singapore International NDT Conference & Exhibition  Singapore 4 <sup>th</sup> - 5 <sup>th</sup> December, 2019
26.	<b>Prof. K D B Ukuwela</b> Senior Lecturer Department of Biological Sciences Faculty of Applied Sciences Rajarata University of Sri Lanka	origins of lizard diversity in the continental island of Sri Lanka; Insights from scincoid lizards	9 <sup>th</sup> World Congress of Herpetology  Dunedin, New Zealand 5 <sup>th</sup> - 10 <sup>th</sup> January, 2020

## Poster Presentations

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
1.	<b>Ms D Vidanage</b> Lecturer Department of Nursing & Midwifery Faculty of Allied Health Sciences General Sir John Kotelawala Defence University	Impact of aerobic exercises on hunger, satiety, and food intake in type 2 diabetes mellitus (T2DM)	9 <sup>th</sup> FAOPS Congress-2019  Kobe, Japan 28 <sup>th</sup> - 31 <sup>st</sup> March, 2019
2.	<b>Ms S Sathya</b> Research Assistant Department of Pharmacology Faculty of Allied Health Sciences University of Peradeniya	Alpha glucosidase inhibitors from mace ( <i>Myristica fragrans</i> )	Asian Network of Research on Anti-Diabetic plants (ANRAP)  Karachi, Pakistan 25 <sup>th</sup> - 27 <sup>th</sup> January, 2019

3.	<b>Mr H M A L P B Herath</b> Research Assistant Faculty of Science University of Colombo	Whole genome sequencing of <i>Setaria Digitata</i> : Towards an ideal model organism and eliminating nematodiasis	InnoLAE 2019, Innovations in Large Area Electronics Conference  Cambridge, UK 22 <sup>nd</sup> - 23 <sup>rd</sup> January, 2019
4.	<b>Ms H B P Sandani</b> PhD Student Board of Study in Agriculture Faculty of Graduate Studies University of Ruhuna	Biocontrol efficacy of two <i>Bacillus</i> species against chilli anthracnose causal agent <i>Colletotrichum truncatum</i>	22 <sup>nd</sup> Global Congress on Biotechnology  Berlin, Germany 28 <sup>th</sup> Feb - 02 <sup>nd</sup> March, 2019

### Invited Lecturers

No	Name & Address	Title of the Abstract	Title of the Event, Venue & Date
1.	<b>Prof. S N M W M P Wijekoon</b> Senior Professor Department of Statistics & Computer Science Faculty of Science University of Peradeniya	Prediction accuracy of recently improved biased estimators in the liner regression model	6 <sup>th</sup> African International conference on statistics  Arsi University, Ethiopia 27 <sup>th</sup> - 30 <sup>th</sup> May, 2019
2.	<b>Prof. R M G Rajapakse</b> Senior Professor in Chemistry Department of Chemistry Faculty of Science University of Peradeniya	Inorganic nanomaterials as carriers in targeted delivery of anticancer drugs	International Pharama Research & Drug Delivery Summit 2019  Brussels, Belgium 10 <sup>th</sup> - 12 <sup>th</sup> June, 2019

## OSTP Grants Awarded

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/2018/36</b> <b>Ms K A D D Kuruppu</b> Department of Aeronautical Engineering Faculty of Engineering General Sir John Kotelawala Defense University Ratmalana.	NSF Training Scholarship	Training on 'Development of light weight conducting nanocomposites based on a locally available natural mineral for drone materials applications'. University of Cambridge, United Kingdom.  01 <sup>st</sup> December 2018 - 31 <sup>st</sup> January, 2019	<b>USD 3,619</b>
2.	<b>OSTP/2018/42</b> <b>Ms E M D V Ekanayake</b> Department of Zoology, Faculty of Science, University of Ruhuna, Matara.	NSF Training Scholarship	Training Programme related to the MPhil Study. Fish Ecophysiology and Toxicology Laboratory, School of Marine Science, University of Maine, USA.  07 <sup>th</sup> January - 07 <sup>th</sup> April, 2019	<b>USD 3,179</b>
3.	<b>OSTP/2019/03</b> <b>Dr N C Ganegoda</b> Department of Mathematics, Faculty of Applied Sciences, University of Sri Jayewardenepura, Nugegoda.	NSF Training Fellowship	Research collaboration with the university of Koblenz, Germany.  15 <sup>th</sup> April - 11 <sup>th</sup> July, 2019	<b>USD 3,443</b>
4.	<b>OSTP/2019/04</b> <b>Prof. K P S C Jayaratne</b> President Sri Lanka Association for the Advancement of Science (SLAAS) Colombo 07.	NSF Travelling Fellowship	106 <sup>th</sup> Indian Science Congress, Jalandhar, India.  03 <sup>rd</sup> - 07 <sup>th</sup> January, 2019	<b>USD 416</b>
5.	<b>OSTP/2019/05</b> <b>Dr W A P J Premaratne</b> Joint Secretary Sri Lanka Association for the Advancement of Science (SLAAS) Colombo 07.	NSF Travelling Fellowship	106 <sup>th</sup> Indian Science Congress, Jalandhar, India.  03 <sup>rd</sup> - 07 <sup>th</sup> January, 2019	<b>USD 416</b>



6.	<b>OSTP/2019/09</b> <b>Ms Rashanthi Nadarajah</b> Research Assistant Department of Chemistry Faculty of Science University of Colombo Colombo 03.	NSF Training Scholarship	Workshop on 'Bioinformatics and Systems Biology' and Bioinformatics Training Programme, Birla Institute of Scientific Research, Jaipur, Rajasthan, India.  06 <sup>th</sup> March - 05 <sup>th</sup> April, 2019	<b>USD 628</b>
7.	<b>OSTP/2019/12</b> <b>Prof. R P Hewawasam</b> Department of Biochemistry Faculty of Medicine University of Ruhuna, Galle.	NSF Travelling Fellowship	International Workshop on 'Animal models and pre-clinical research 2019', The Centre for Genetic Engineering and Biotechnology of Havana (CIGB) and Cuban Society of Pharmacology, Varadero, Cuba.  05 <sup>th</sup> - 09 <sup>th</sup> May, 2019	<b>USD 1,569</b>
8.	<b>OSTP/2019/16</b> <b>Mr R H A N Hettiarachchi</b> Hardy advanced Technological Institute, Ampara.	NSF Training Scholarship	International Training Programme on DSSAT - 2019, University of Georgia, Griffin, Georgia, USA.  20 <sup>th</sup> May - 25 <sup>th</sup> May, 2019	<b>USD 1,243</b>
9.	<b>OSTP/2019/17</b> <b>Dr C S Lewangamage</b> Department of Civil Engineering University of Moratuwa Katubedda, Moratuwa.	NSF Training Fellowship	Academic research on 'Wind induced damage to domestic buildings and disaster risk reduction', Cyclone Testing Station (CTS), James Cooke University (JCU), Australia.  01 <sup>st</sup> August - 30 <sup>th</sup> September, 2019	<b>USD 2,709</b>
10.	<b>OSTP/2019/19</b> <b>Prof. D A L Leelamanie</b> Department of Soil Science Faculty of Agriculture University of Ruhuna, Mapalana, Kamburupitiya.	NSF Travelling Fellowship	Workshop on Soil & Water Conservation and Dry-land Farming, International Exchange Centre (IEC), Yanglin Agricultural Hi-tech industries demonstration zone, Shaanxi Province, China.  21 <sup>st</sup> August - 09 <sup>th</sup> September, 2019	<b>USD 365</b>
11.	<b>OSTP/2019/20</b> <b>Mr U I Samarawickrema</b> Department of Soil Science Faculty of Agriculture University of Ruhuna, Mapalana, Kamburupitiya.	NSF Training Scholarship	Workshop on Soil & Water Conservation and Dry-land Farming, International Exchange Centre (IEC), Yanglin Agricultural Hi-tech industries demonstration zone, Shaanxi Province, China.  21 <sup>st</sup> August - 09 <sup>th</sup> September, 2019	<b>USD 365</b>

12.	<b>OSTP/2019/21</b> <b>Ms H P C Sirithunga</b> Department of Electrical Engineering University of Moratuwa , Katubedda, Moratuwa.	NSF Training Scholarship	Advanced Course on Artificial Intelligence (ACAI) Summer School, School of Electrical and Computer Engineering Building, Kounoupidiana Campus, Technical University of Crete (TUG), Chania, Crete, Greece.  01 <sup>st</sup> - 05 <sup>th</sup> July, 2019	<b>USD 1,027</b>
13.	<b>OSTP/2019/22</b> <b>Dr M K D K Piyaratne</b> Computer Unit Faculty of Agriculture University of Ruhuna ,Mapalana ,Kamburupitiya.	NSF Travelling Fellowship	International Training Course on Technology of Cloud computing for Food Safety by Ministry of Science and Technology and Guizhou Academy of Sciences, China.  10 <sup>th</sup> - 25 <sup>th</sup> August, 2019	<b>USD 508</b>
14.	<b>OSTP/2019/23</b> <b>Dr K M G P Premadasa</b> Biomedical Engineering Section, Dept. of Electrical, Electronic and Telecommunication Engineering Faculty of Engineering, General Sir John Kotelawala Defence University Ratmalana.	NSF Travelling Fellowship	Laboratory Techniques in Biomaterials and Tissue Engineering, Department of Anatomy, School of Biomedical Sciences, University of Otago, New Zealand.  21 <sup>st</sup> October - 15 <sup>th</sup> November, 2019	<b>USD 2,494</b>
15.	<b>OSTP/2019/27</b> <b>Prof. T K Weerasinghe</b> Department of Botany The Open University of Sri Lanka Nawala, Nugegoda.	NSF Travelling Fellowship	Research based short time attachment, Faculty of Land and Food Systems, University of British Columbia, Canada.  01 <sup>st</sup> November - 15 <sup>th</sup> December, 2019	<b>USD 1,988</b>

No	Name & Institution	Title of the Training Programme, Venue and Dates
1.	<b>Dr H T S Wijesekara</b> Head of Division Crop Protection Division Coconut Research Institute	Development of molecular based diagnostic tool for early detection of Weligama Coconut Leaf Wilt Disease, CRI  11 <sup>th</sup> - 22 <sup>nd</sup> February 2019
2.	<b>Prof. N D Karunaweera</b> President National chapter for OWSD National Academy of Sciences of Sri Lanka	Symposium on Women in Science for the Developing World, Colombo  8 <sup>th</sup> March 2019
3.	<b>Dr C P Witharana</b> President Sri Lanka Academy of Young Scientists (SLAYS)	“Research for Impact: March of the Sri Lankan Young Scientists”-Sri Lanka Academy of Young Scientists (SLAYS) Open Forum  15 <sup>th</sup> - 16 <sup>th</sup> October 2019
4.	<b>Dr W A R T W Bandara</b> Department of Zoology and Environmental Management Faculty of Science University of Kelaniya	International Research Symposium on Pure and Applied Sciences (IRSPAS-2019), Faculty of Science, University of Kelaniya  25 <sup>th</sup> October 2019
5.	<b>Prof. Preethi Udagama</b> President Sri Lanka Association for the Advancement of Science	75 <sup>th</sup> Annual Session and the Theme Seminar of the Sri Lanka Association for the Advancement of Science  08 <sup>th</sup> - 13 <sup>th</sup> December 2019

## Staff Involvement in Awareness & Knowledge Enhancement and Process Improvement Activities (Local)

No	Programme	Duration	Staff Participation
<b>Short Term</b>			
1.	Workshop on Essentials of Public Procurement	17 <sup>th</sup> , 18 <sup>th</sup> & 24 <sup>th</sup> January 2019	<b>Dr L M N Nadugala</b> Senior Scientific Officer
2.	Ethics and Disciplines for Drivers	24 <sup>th</sup> & 25 <sup>th</sup> January 2019	<b>Mr U G Nuwan Nishantha</b> Driver
3.	Assets Management	29 <sup>th</sup> January 2019	<b>Ms M S Fathima</b> Management Assistant
4.	Workshop on Research Indicators, Scholarly Publication & Research Mgt.	12 <sup>th</sup> February 2019	<b>Mr Manuja Karunarathne</b> Principal Information Officer
5.	Official Bank Accounts & Cheques	14 <sup>th</sup> March 2019	<b>Ms C N Moragoda</b> Management Assistant <b>Mrs D M N Prishanthi</b> Management Assistant
6.	Ethics and Disciplines for Drivers & Minor staff	18 <sup>th</sup> & 19 <sup>th</sup> March 2019	<b>Mr G D Nilantha Ranjan</b> Driver
7.	Effective Telephone Skills & Front Desk Mgt.	3 <sup>rd</sup> April 2019	<b>Ms A H D R Monali</b> Management Assistant
8.	Present Office Systems & Office Mgt.	30 <sup>th</sup> & 31 <sup>st</sup> May 2019	<b>Ms N M Wickramasinghe</b> Management Assistant
9.	Workshop on Provisions of Audit Act	25 <sup>th</sup> June 2019	<b>Mrs E M P Bamunendra</b> Accountant <b>Mrs M M Jayajeewani</b> Internal Auditor
10.	Safe, Scientific and Economical Driving	29 <sup>th</sup> June 2019	<b>Mr G D Nilantha Ranjan</b> Driver
11.	Training Programme on Government Procurement	20 <sup>th</sup> July 2019 for 12 Saturdays	<b>Mrs D M R Ipalawatte</b> Management Assistant
12.	STIC's 4 <sup>th</sup> Biennial International Conference on Women in science, Technology and Innovation - Empowering Women through Technology	22 <sup>nd</sup> & 23 <sup>rd</sup> July 2019	<b>Ms R A A R Ranatunga</b> Scientific Officer <b>Ms M S K Meneripitiya</b> Scientific Officer <b>Ms G R P I Abesiri</b> Scientific Officer
13.	Training on Personal File Maintain	22 <sup>nd</sup> & 23 <sup>rd</sup> July 2019	<b>Mrs A J N Silva</b> Management Assistant
14.	Training Programme on "Be a 5S professional Auditor"	24 <sup>th</sup> July 2019	<b>Mr W A D L R Warnakula</b> Scientific Officer
15.	Telephone Etiquette	26 <sup>th</sup> July 2019	<b>Ms D W M S Dematagolla</b> Management Assistant
16.	Role & Responsibilities of Leave Clerks	25 <sup>th</sup> & 26 <sup>th</sup> July 2019	<b>Ms W H V Chandi</b> Management Assistant

17.	Project Management for Academic Research Projects	26 <sup>th</sup> & 27 <sup>th</sup> July 2019	<b>Mr D M D Rasika</b> Scientific Officer
18.	NACLIS 2019	27 <sup>th</sup> July 2019	<b>Mr S M Pannala</b> Information Officer <b>Ms K N Samanthi</b> Information Officer <b>Mr C A B Wickremasinghe</b> Library Assistant
19.	Positive Attitude & Motivation	5 <sup>th</sup> August 2019	<b>Ms D W M S Dematagolla</b> Management Assistant <b>Ms P H Hasni</b> Management Assistant <b>Ms W H V Chandi</b> Management Assistant <b>Ms M S Fathima</b> Management Assistant
20.	Maintenance of Govt. Vehicles	16 <sup>th</sup> August 2019	<b>Mr H K Amila Saman</b> Management Assistant
21.	Social Security Laws	27 <sup>th</sup> August 2019	<b>Mr S N P K Sapumohotti</b> Senior Administrative Officer <b>Ms B V I D Wimalarathna</b> Management Assistant
22.	Termination of Employment	3 <sup>rd</sup> September 2019	<b>Mr S N P K Sapumohotti</b> Senior Administrative Officer
23.	Consultant Development Training on Quantification of Carbon Footprint	3 <sup>rd</sup> , 4 <sup>th</sup> & 5 <sup>th</sup> September 2019	<b>Ms S C Samarasekara</b> Scientific Officer
24.	Income Tax	4 <sup>th</sup> September 2019	<b>Ms B V I D Wimalarathna</b> Management Assistant <b>Ms C N Moragoda</b> Management Assistant
25.	ICULA 2019	18 <sup>th</sup> September 2019	<b>Mr Manuja Karunaratne</b> Principal Information Officer <b>Mrs N A H Priyadarshani</b> Junior Information Officer <b>Mr C A B Wickremasinghe</b> Library Assistant
26.	Advance Certificate Course on Store Keeping, Supply Chain and Logistics Management	3 <sup>rd</sup> October 2019 for 10 days	<b>Mr E M D C B Ekanayake</b> Management Assistant
27.	Operation & maintenance of Generators	3 <sup>rd</sup> & 4 <sup>th</sup> October 2019	<b>Mr S C S Fernando</b> Technician
28.	The Importance of Intellectual Property Rights	10 <sup>th</sup> October 2019	<b>Mr K G J Karunasena</b> Principal Scientific Officer <b>Ms M S K Meneripitiya</b> Scientific Officer
29.	SLAYS International Conference 2019 Research for Impact : March of the Sri Lankan Young Scientists	16 <sup>th</sup> October 2019	<b>Mrs W L C Dasanayake</b> Senior Scientific Officer
30.	Business Writing for Professionals	17 <sup>th</sup> & 18 <sup>th</sup> October 2019	<b>Ms U T Karunaratne</b> Senior Scientific Officer <b>Ms G R P I Abeyesiri</b> Scientific Officer
31.	Seminar on Financial Statements (Final accounts)	24 <sup>th</sup> October 2019	<b>Mr K K Yohan Chandeeera</b> Bookkeeper

32.	The Art of Storytelling / A Creative Writing Course	16 <sup>th</sup> October - 4 <sup>th</sup> December 2019	<b>Mrs Chamika Dharmasena,</b> Scientific Officer
33.	7 <sup>th</sup> Symposium on Plantation Crop Research (SPCR 2019)	5 <sup>th</sup> November 2019	<b>Ms G G K P Sumudu Kumari</b> Scientific Officer <b>Ms S S Ediriweera</b> Scientific Officer
34.	7 <sup>th</sup> Symposium on Plantation Crop Research (SPCR 2019)	6 <sup>th</sup> November 2019	<b>Ms M S Weerasooriyagedara</b> Scientific Officer
35.	7 <sup>th</sup> Symposium on Plantation Crop Research (SPCR 2019)	5 <sup>th</sup> & 6 <sup>th</sup> November 2019	<b>Mr K G J Karunasena</b> Principal Scientific Officer <b>Ms M S K Meneripitiya</b> Scientific Officer
36.	Improving dengue diagnostics in Sri Lanka- Emerging Technologies	27 <sup>th</sup> & 28 <sup>th</sup> November 2019	<b>Dr K B Hasanthi</b> Scientific Officer
37.	Workshop on Sustainable Water	8 <sup>th</sup> November 2019	<b>Ms M S Weerasooriyagedara</b> Scientific Officer
38.	Research and Applications of Environmental Biotechnology in Sri Lanka	14 <sup>th</sup> November 2019	<b>Mr W A D L R Warnakula</b> Scientific Officer
39.	Preparation of Financial Statements and Annual Reports	26 <sup>th</sup> November 2019	<b>Dr Thamara F. Dias</b> Additional Director <b>Mrs M M Jayajeewani</b> Internal Auditor <b>Mr K K Yohan Chandeeda</b> Bookkeeper
40.	Secretarial Practices	25 <sup>th</sup> , 26 <sup>th</sup> & 29 <sup>th</sup> November & 2 <sup>nd</sup> December 2019	<b>Mrs K N R H D Mahapitiya</b> Management Assistant
41.	Seminar on Annual Stock Verification & Disposal of Unserviceable Items	29 <sup>th</sup> November 2019	<b>Mrs W A D A Perera</b> Management Assistant
42.	SLAAS Theme Seminar 2019	9 <sup>th</sup> December 2019	<b>Dr Thamara F. Dias</b> Additional Director <b>Dr S A Vinayagamoorthy</b> Principal Scientific Officer <b>Mrs D N Wickremaarachchi</b> Senior Scientific Officer <b>Mrs E M D C K Ekanayake</b> Senior Scientific Officer <b>Ms U T Karunaratne</b> Senior Scientific Officer <b>Dr H I Sandanayake</b> Scientific Officer <b>Ms R A A R Ranatunga</b> Scientific Officer <b>Ms K A T K G Kandanamulla</b> Scientific Officer <b>Ms M S K Meneripitiya</b> Scientific Officer <b>Ms G G K P Sumudu Kumari</b> Scientific Officer <b>Ms N L Muhandiram</b> Scientific Officer <b>Mr W A D L R Warnakula</b> Scientific Officer <b>Ms H M A J Herath</b> Scientific Officer
44.	Workshop for the E.B exam (Office Systems, FR, IT)	21 <sup>st</sup> February 2019	<b>Staff Participants of EB Exam</b>

45.	Workshop on General Filing,	26 <sup>th</sup> February 2019	<b>NSF Staff</b>
46.	Training Programme on Construction of Dashboards,	25 <sup>th</sup> March 2019	<b>NSF Executive Staff</b>
47.	Training on How to answer Audit Queries Effectively,	28 <sup>th</sup> March 2019	<b>NSF Staff</b>
48.	Awareness on Project Management - I	20 <sup>th</sup> August 2019	<b>NSF Executive Staff</b>
49.	Awareness on Project Management - II	27 <sup>th</sup> August 2019	<b>NSF Executive Staff</b>
<b>Long Term</b>			
1.	PT Session	Every Wednesday for 1 ½ hours	<b>Group Training for the entire staff</b>
2.	English Programme	Every Monday for 2 Hours	<b>Group Training</b>
3.	NVQ Certificate (Electrical) Registration fee	2019 Year	<b>Mr S C S Fernando</b> Technician
4.	Postgraduate Diploma in HRM	1 Year	<b>Mr I W Saman Sujeewa</b> Human Research Development Officer
5.	Advance National Diploma in Financial and Management Accounting	1 Year	<b>Mr K K Yohan Chandeera</b> Bookkeeper

## Staff Involvement in Awareness & Knowledge Enhancement and Process Improvement Activities (Foreign)

### Staff Development

No	Programme, Country & Duration	Awarding Agency	Staff Participation
1.	Elsevier Ebook Forum 2019 (South Asia) 21 <sup>st</sup> - 23 <sup>rd</sup> May, 2019, India	Elsevier, India & NSF	<b>Mr M P W Karunanayake</b> Principal Information Officer
2.	International Training Programme on Executive Leadership Development 30 <sup>th</sup> May - 5 <sup>th</sup> June, 2019, Malaysia	NSF	<b>Mr S N P K Sapumohotti</b> Senior Administrative Officer
3.	International Training Workshop on Policy Making in Popularization of STI 16 <sup>th</sup> - 20 <sup>th</sup> June, 2019, Teheran	NAM S&T Centre & NSF	<b>Dr P R M P Dilrukshi</b> Principal Scientific Officer
4.	International training Programme on Science, Technology & Innovation (STI) Policy and Management for Developing Countries 17 <sup>th</sup> - 21 <sup>st</sup> June, 2019, Malaysia	International Science, Technology and Innovation Centre (ISTIC) & NSF	<b>Dr H I Sandanayake</b> Scientific Officer
5.	ISTIC's 4 <sup>th</sup> International Conference on Women in Science Technology & Innovation 22 <sup>nd</sup> - 23 <sup>rd</sup> July, 2019, Malaysia	ISTIC, Malaysia & NSF	<b>Ms Pavani Abeyesiri</b> Scientific Officer
6.	ISTIC's 4 <sup>th</sup> International Conference on Women in Science Technology & Innovation 22 <sup>nd</sup> - 23 <sup>rd</sup> July, 2019, Malaysia	ISTIC, Malaysia & NSF	<b>Ms Sarani Meneripitiya</b> Scientific Officer
7.	ISTIC's 4 <sup>th</sup> International Conference on Women in Science Technology & Innovation 22 <sup>nd</sup> - 23 <sup>rd</sup> July, 2019, Malaysia	ISTIC, Malaysia & NSF	<b>Ms Abhimani Ranatunge</b> Scientific Officer



Official Representation of NSF

No	Programme, Country & Duration	Awarding Agency	Staff Participation
1.	Workshop on Grassroots Innovation Policymaking 28 <sup>th</sup> - 30 <sup>th</sup> January, 2019, India	United Nations Economic & Social Commission for Asia and Pacific (UNESCAP) & NSF	<b>Mr K G J Karunasena</b> Principal Scientific Officer
2.	Training Workshop on Developing Effective Science, Technology and Innovation Policy 6 <sup>th</sup> - 8 <sup>th</sup> March, 2019, India	UNESCO & NSF	<b>Dr S A V Moorthy</b> Principal Scientific Officer
3.	25 <sup>th</sup> Session of the ICGEB Board of Governors 21 <sup>st</sup> - 22 <sup>nd</sup> May, 2019, Italy	NSF	<b>Dr L M N S Nadugala</b> Senior Scientific Officer
4.	Meeting of the South & Central Asia MAB Network (SACAM) 25 <sup>th</sup> - 27 <sup>th</sup> April, 2019, Bhutan	UNESCO, New Delhi Office & NSF	<b>Mr J G Shantha Siri</b> Principal Scientific Officer
5.	Gender Summit 16 - Asia Pacific "Diversity & Gender in Science" 27 <sup>th</sup> - 30 <sup>th</sup> August, 2019, Singapore	NSF	<b>Ms K A T K G Kandanamulla</b> Scientific Officer
6.	2019 Man & Biosphere (MAB) Youth Forum 15 <sup>th</sup> - 18 <sup>th</sup> September, 2019, China	UNESCO, Beijing Office & NSF	<b>Mr D M Dilan Rasika</b> Scientific Officer
7.	Capacity Building Workshop for Managers of Internationally Designated Areas 30 <sup>th</sup> September - 3 <sup>rd</sup> October, 2019, Korea	Korean National Commission for UNESCO & NSF	<b>Mr J G Shantha Siri</b> Principal Scientific Officer
8.	9 <sup>th</sup> Global Research Alliance (GRA) Council Meeting & Science, Conference, 6 <sup>th</sup> - 11 <sup>th</sup> October, 2019, Indonesia	GRA Council & NSF	<b>Ms H D Nilushika Jayaweera</b> Scientific Officer
9.	5 <sup>th</sup> Anniversary Symposium of the Sakura Science Plan of JST 9 <sup>th</sup> - 12 <sup>th</sup> November, 2019, Japan	Japan Science & Technology Agency (JST) & NSF	<b>Mr J G Shantha Siri</b> Principal Scientific Officer
10.	Joint Capacity Workshop on Science, Technology & Innovation for the SDGs	UN DESA, MOST of China & ESCAP & NSF	<b>Mr K G J Karunasena</b> Principal Scientific Officer



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