

National Science Foundation  
47/5, Maitland Place  
Colombo 07.

25.07.2002

Hon. Minister for Economic Reform, Science and Technology  
Ministry for Economic Reform, Science and Technology  
320, T B Jayah Mawatha  
Colombo 10.

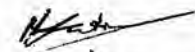
Dear Sir,

**Annual Report of the National Science Foundation for  
the period 1<sup>st</sup> January to 31<sup>st</sup> December, 1999**

In terms of Section 40(3) of Science and Technology Development Act. No. 11 of 1994, I have the honour to submit the Annual Report of the National Science Foundation for the period 1<sup>st</sup> January to 31<sup>st</sup> December, 1999 together with

- (a) A copy of the Audited Income and Expenditure Account
- (b) A copy of the Audited Balance Sheet
- (c) Auditor General's Report

Yours sincerely,



M Watson  
Director  
**National Science Foundation**

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## **Introduction**

The National Science Foundation (NSF) is a state funded institution established by the Science and Technology Development Act, No. 11 of 1994 on 01/04/1998, under the Ministry of Science and Technology. It is the successor to the Natural Resources Energy and Science Authority (NARESA) which was set up in 1982 by Act No. 78 of Parliament of 1981. NARESA earlier succeeded the National Science Council (NSC) which was established by Act No. 9 of 1968.

The Board of Management of the NSF consists of the Chairman, Director and other Members appointed by the Hon. Minister of Science and Technology. The Director functions as the chief executive of the NSF.

### **Objectives.....**

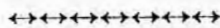
- (a) to initiate, facilitate and support basic and applied scientific research by universities, science and technology institutions and scientists, with a view
  - (i) to strengthening scientific research potential, including research in the social sciences, and science education programmes;
  - (ii) 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 information for policy formulation on science, technology and other fields;
- (e) to popularise science amongst the people by funding programmes for that purpose.

### **Summary Financial Status - 1999**

- ◆ The request for Consolidated Funds was Rs. 36,128,912/=. The Treasury approved only Rs. 22M. The Recurrent Estimate was Rs. 20.7M.
- ◆ However, subsequently a 2% of total provision on recurrent expenditure other than the

financial provision for personal emoluments, pensions and interest payment on public debt was frozen.

- ◆ The approved Foreign Aid Estimate for the year was Rs. 30.5M.



## Sponsorship of Scientific Research

### *The Research Grants Scheme*

As opposed to the previous practice of calling applications for Research Grants annually, the NSF initiated the current scheme of entertaining applications throughout the year with no fixed deadline. The response has been encouraging and now scientists are able to seek funds for their research activities as and when the need arises.

Applications received for research grants are screened and evaluated by the Working Committees and recommendations are made on a priority basis for approval by the Board of Management. The grants awarded are monitored regularly through half-yearly progress reports and progress review seminars. In addition, visits to project sites are made by Working Committee members with a view to ascertaining the work done by the grantees. Once the research project is completed, a final report is submitted by the grantee, which is evaluated by a specialist appointed by the Working Committee. The evaluation takes into account any postgraduate degrees awarded to personnel associated with the project and also the intrinsic scientific contributions made towards widening the horizons of knowledge and/or application of science and technology for development.

Details of grants awarded during the year are given in the Tables annexed. A summary of the Research Grants Scheme during 1999 is given below.

On going grants as at 31.12.1999	-	205
Grants awarded	-	58
Amount allocated for new and ongoing grants -		Rs. 20,459,525
Grants completed	-	43
Grants withdrawn	-	01
Research Students(RS) appointed	-	34
No. of Research Students Registered for postgraduate degrees -		26
Post Graduate theses received	-	03

### *Progress Review Seminars*

As part of the process of monitoring and evaluation, NSF held progress review seminars to evaluate the progress of projects in different disciplines. In addition to Working Committee members and grantees, guest scientists participated in these seminars by invitation and contributed their expert opinions. The details of these seminars are given below.

<i>Discipline</i>	<i>Date</i>	<i>No. of Presentations</i>
Biological Sciences	27 May	07
Agricultural Science & Forestry	16 July	08
Chemical & Earth Sciences	10 August	10
Physical & Mathematical Sciences	14 September	11
Health Sciences	24 September	05

## Seminars and Workshops

### *Theme Seminars, Workshops, Panel Discussions, Conferences*

The following seminars, workshops, panel discussions and conferences were held during 1999, in order to enable scientists/researchers to share experiences, to update knowledge and also to provide fora for discussions.

- Theme - **“Science day workshop for Advanced Level Science Students”**  
Date - 30 June 1999  
Organized by - Working Committee on Science Education and Popularization  
Venue - National Institute of Education, Maharagama  
No. of Resource Persons - 05  
No. of Participants - 175

This workshop was organized as a pilot project following a decision of the Working Committee on Science Education and Popularization to organise district level science popularization programmes where problems of local scientific interest will be discussed with the active participation of competent resource persons and selected G.C.E. A/L Science students of the area. For this workshop students from the Homagama and Sri Jayawardanepura Education Zones were selected. In addition to the presentations by the resource persons, there was a “Science Magic”- a novel programme where useful chemical experiments were demonstrated and the chemical reactions involved in the experiments were explained to the students in a humorous way.

- Theme - **“History of Science”**  
Date - 9<sup>th</sup> July 1999  
Organized by - NSF and UNESCO  
Venue - NSF  
No. of Participants - 47

This conference on history of science was organized as a prelude to launching a project on science history in the country. Hon. Batty Weerakoon, Minister of Science & Technology inaugurated the conference. There were 11 presentations on various aspects of “Sri Lanka’s heritage in Science and Technology”, and “Developing a plan for the study of history of Science and Technology”. This conference was well attended with the participation from key officials of different associations and institutes dealing with science, medicine, technology, and history.

- Theme - **“Liquid Chromatography”**  
Date - 20 - 24<sup>th</sup> July 1999  
Sponsored by - NSF (SAREC Urgent Spare Parts Fund)  
Organized by - PGIS and Department of Chemistry, Univ. of Peradeniya

This training workshop provided hands on experience to the participants on the operation, maintenance and trouble shooting of the equipments used for high pressure liquid chromatography, medium pressure liquid chromatography and centrifuge counter current chromatography. Two scientists from Sweden and the USA served as the resource persons.

- Theme - **"Plant Tissue Culture Browning and Contamination Problems"**  
Date - 30<sup>th</sup> July 1999  
Organized by - Working Committee on Biotechnology  
Venue - NSF  
No. of Participants - 30

Browning and contamination, especially in callus cultures of woody plants is a significant obstacle to continuous progress of research work carried out by plant tissue culturists/scientists. This panel discussion was specially for NSF grantees giving them an opportunity to share their knowledge and experience in the field.

- Theme - **"Pesticide poisoning - present knowledge and urgency for future research"**  
Date - 04 August 1999  
Organized by - NSF, Sri Lanka Pesticide Manufacturers Association, Department of Agriculture  
Venue - PGRC, Gannoruwa  
No. of Participants - 80

This seminar was organized on an initiative by Dr(Ms) Tara de Mel, Advisor to H.E. the President, as a sequel to recommendations made by the Presidential Task Force on Prevention of Suicide. There were 10 presentations on various aspects of the use of pesticides. The areas for future research were identified during the discussion sessions.

- Theme - **"Science for the 21<sup>st</sup> Century : Sri Lankan perspective"**  
Date - 11<sup>th</sup> August 1999  
Organized by - NSF and Ministry of Science and Technology  
Venue - Hotel Galadari, Colombo

This seminar was organized as a follow up to the UNESCO World Conference on Science, held in June 1999 in Budapest. The participants which consisted of eminent Sri Lankan scientists discussed the Budapest declaration and the areas relevant to Sri Lanka.

- Theme - **"NSF Research Policy"**  
Date - 3<sup>rd</sup> September 1999  
Venue - NSF  
No. of Participants - 20

This consultative meeting was held with a view to discussing the funding policy of NSF with particular reference to prioritization of research, and the proportion of funds allocated to basic and applied research. The participants were chairmen and representatives of Working Committees, members of the Board of Management and scientific staff of the NSF. Hon. Batty Weerakoon, the Minister of Science and Technology addressed the gathering. Prof. Kapila Dahanayaka, Chairman, NSF presided over the proceedings and delivered the welcome address. Mr. M. Watson, Director, NSF explained the research grants scheme of NARESA/NSF. The scientists who participated in this meeting also expressed their views.

- Theme - **"Identification of Researchable Issues in the Social Sciences"**  
Date - 28 September 1999  
Organized by - Working Committee on Social Sciences  
Venue - NSF  
No. of Participants - 17

This workshop was organized by the working Committee on Social Sciences with a view to draw up a list of priorities in researchable issues for the use of social scientists.

- Theme - **"Polymerase Chain Reaction (PCR) and its Applications"**  
Dates - 5 - 9 October 1999  
Organized by - Working Committee on Biotechnology  
Sponsored by - NSF (SAREC Urgent Spare Parts Fund)  
Venue - Faculty of Science, Univ. of Colombo  
No. of Participants - 18

This workshop was organized with the objective of providing hands on experience on polymerase chain reaction and its applications to Sri Lankan scientists. The workshop consisted of theoretical and practical courses conducted by eminent resource persons from universities and research institutions.

- Theme - **"Taxonomy of land snails of Sri Lanka"**  
Date - 14<sup>th</sup> and 15<sup>th</sup> October 1999  
Organized by - Working Committee on Zoological Survey  
Venue - NSF, Department of Zoology, University of Sri Jayawardenepura  
No. of Resource Persons - 04  
No. of Participants - 30

This workshop was organized with a view to supporting Sri Lanka's desire to meet its obligations under the International Biodiversity Convention (and to facilitate the work of the Zoological Survey of Sri Lanka). The three year Darwin Initiative Programme which focuses on the diversity and distribution of selected groups of organisms is a leading project of the Zoological Survey. Special literature facilities, computer equipment and analytical - geographical software to support surveys and research will be provided under this study. Provision of training and help in setting up reference collections of specimens are important aspects of the study.

- Theme - **"Science and Technology to meet the Challenges of Globalization"**  
Date - 10<sup>th</sup> December 1999  
Organized by - Ministry of Science and Technology and the NSF  
Venue - Auditorium, Department of Meteorology  
No. of Participants - 200

The above seminar was organized to commemorate the second death anniversary of Mr. Bernard Soysa, late Minister of Science and Technology, who passed away on 30<sup>th</sup> December 1999. Hon. Batty Weerakoon, the Minister of Science and Technology graced the occasions and addressed the participants. Three eminent professionals made presentations on key issues of globalization.

This seminar was well attended by scientists and university academics, family members and political colleagues of the late Minister and staff of the institutions coming under the purview of the Ministry of Science and Technology.

***Public Awareness Seminar Series - "Science for Everyday Life"***

In keeping with its policy to create public awareness and interest among school children and the general public, a series of seminars was organized by the Working Committee on Science Education and Popularization on the central theme of "Science for Everyday Life". The main objective of the programme was to create a general awareness on problems of local scientific interest relevant to their areas among the youth of suburban and village areas. These are short seminars of 2 - 3 hours duration.

***Environmental Conservation***

(a) 15 March 1999

Venue	-	Uduwaka Siddartha Maha Vidyalaya, Gattahetta
No. of Resource Persons	-	02
No. of Participants	-	164

(b) 29 March 1999

Venue	-	Nugadanda Vidyalaya, Kalatuwawa, Ratnapura
No. of Resource Persons	-	02
No. of Participants	-	120

(c) 09 June 1999

Venue	-	Yapahuwa Maha Vidyalaya, Yapahuwa
No. of Resource Persons	-	03
No. of Participants	-	302

***Climatic Changes and Environment***

(a) 13 September 1999

Venue	-	Mahiyangana Jathika Pasela, Mahiyanganaya
No of Resource Persons	-	03
No of Participants	-	152

***Training Workshops for Young Social Scientists***

The Working Committee on Social Sciences having appreciated the strongly felt need for researchers of high quality in the context of the many social problems faced by society at present and those envisaged in the future, decided to provide young social scientists with a good

background in the basics of social science research.

With this objective, the Committee launched a series of two day workshops to train young social scientists to conduct social science research. Three workshops in this series were held during the year. The workshops also enabled the Committee to gauge the areas in which further and advanced training was required.

(a)	26 - 27 June 1999		
	Venue	-	NSF
	No. of Resource Persons	-	04
	No. of Participants	-	24
(b)	24 - 25 September 1999		
	Venue	-	NSF
	No. of Resource Persons	-	05
	No. of Participants	-	27
(c)	12 - 13 December 1999		
	Venue	-	NSF
	No. of Resource Persons	-	05
	No. of Participants	-	17

***Seminars based on research grants awarded by the NSF***

The National Building Research Organization (NBRO) and the National Science Foundation (NSF) jointly organized a public awareness seminar on the theme "Landslide disaster mitigation" on 12<sup>th</sup> October 1999 at the Yatiyanthota Cultural Centre. This seminar was based on the NSF funded research project (RG/97/NR/01) titled "Risk Assessment and Environmental Protection in Landslide Prone Areas". Which indicated the Vulnerability of Bulathkohupitiya and Yatiyanthota areas to frequent landslide disasters. 125 persons participated in this seminar.

***Sponsorship of External Seminars and workshops***

In keeping with its mandate to foster the interchange of scientific information, the NSF provides limited financial assistance towards meeting the cost of seminars and workshops on important topics. During the year 14 events received support from the NSF.

### Important Research Findings by NSF Grantees

- **Relationship between microalbuminuria and dyslipidaemia, serum glucose, fructosamine and the antioxidants status in Sri Lankan diabetics**

The following conclusions and recommendations have been made based on the study.

#### Conclusions

- Elevated concentrations of serum lipids and glucose had been observed in Sri Lankan diabetics. Altered lipid metabolism and increased serum glucose are not directly related to the development and progression of microalbuminuria. Fructosamine was found to correlate well with the serum glucose concentration and hence could be used as a tool to assess glycaemic status of diabetics. Results of studies on antioxidant levels in Sri Lankan diabetics provide supportive evidence for the view that the antioxidant status in diabetics is abnormal. Concentrations of red cell glutathione, serum uric acid were decreased whereas serum ceruloplasmin was elevated. The decrease in the above antioxidant concentrations mean that the total antioxidant capacity is low in diabetics.

The study clearly showed that the serum glucose concentration in diabetics is directly related to the levels of serum triglyceride and cholesterol. Furthermore, the glucose concentration tend to increase with increase in duration.

#### Recommendations

- It is important that the concentrations of other antioxidants such as vitamins C and E are kept well within the normal range so as to nullify the effect brought about by the decreasing concentrations of uric acid and glutathione. Vitamins E and C are obtained through the diet and hence the diabetic subjects should be encouraged to consume foods containing these vitamins.

It is necessary to exercise tight glycaemic control to prevent elevations in serum lipids which are proven risk factors of cardiovascular diseases. The diabetic individuals should be urged to assess their glycaemic status including the previous two to three weeks by the fructosamine estimation.

( Prof. R. Sivakanesan, Dr. V.U.L. Illangasekera - RG/96/M/01)

- **A cross sectional community based study on the prevalence of glaucoma**

The overall aim of this study which was carried out in the Colombo Municipal Council area, was to determine the prevalence of Primary Open Angle Glaucoma. The following recommendations are made by the grantee based on results obtained from the study.

All persons above 40 years should be screened for Glaucoma. This can be done by forming a central coordinating committee consisting of professionals and voluntary organizations.

Health Education is the key element in the prevention of blindness due to Glaucoma. The focus should be on increasing awareness about the disease.

The target group should be the population at risk:

- All adults above 40 years
- Family history of Glaucoma
- Diabetics
- Hypertensives

The methods for Health Education may be:

- Posters in Public areas and transport
- Mass media - Television, Radio and Newspapers
- Hand out leaflets at all Hospitals

Posters and leaflets should be simple, clear and easy to understand.

Printouts should be large and preferably in colour

Training programs for Medical Officers and Ophthalmic Technologists by means of seminars and workshops.

Increase the facility for screening by providing equipment, training and manpower.

( Dr. U.H.R. Rawoof - RG/96/M/06)

• **Pesticide Residue trials on Selected Vegetable Crops**

The research was aimed at monitoring the residue levels in some common vegetables, 0 days and 14 days after spraying with insecticides at recommended and double the recommended dosage.

The results suggest that if vegetables are sent to the market immediately after spraying, specially with high dosage, the residue levels will be well above the FAO recommended Maximum Residue Levels (MRLs) for fruits and vegetables. Further, simple cooking processes such as washing and heating will induce only a marginal reduction in residue levels from vegetables studied.

On the other hand if farmers harvest the vegetables 14 days after spraying, a significant reduction in residue levels can be expected, which will greatly reduce the health risk to consumers.

Even with excessive dosage of insecticides on the vegetables studied (except gotukola) health risk to consumers can be minimized if a pre harvest interval of 14 days is maintained. Since gotukola retains a significant amount of profenfos residues particularly with high dose, the use of profenfos on gotukola should be discouraged.

( Dr. A.M. Mubarak - RG/95/C/04)

- **Design and Construction of a low cost colorimeter suitable for use in GCE Advanced Level Teaching.**

This study shows that simple colorimeters can be fabricated at a reasonably low-cost. The performances of these colorimeters are comparatively the same as the conventional colorimeters and these can be used for secondary and tertiary education at a minimum cost.

Three models of low cost colorimeter have been developed under this project. The cost of the developed colorimeters with options is given below.

Model	Total Cost (Rs)
CDV	6000/-
LAT	6200/-
LDT/A	8000/-

When compared with the market price of the imported colorimeter which ranges between Rs. 30,000/- and Rs. 50,000/- the production cost of this instrument is very low.

Based on the recommendations made by the Working Committee on Chemical and Earth Sciences, the NIE has been notified of the development of this instrument in order to look into possible introduction of it at A/L Teaching.

(Dr. S.A. Fernando - RG/97/C/07)

- **The habitat preferences and the status of amphibians, reptiles and their habitats at Horton Plains National Park**

The objectives of the survey were to identify the herpetofaunal species, their relative abundance, population status, inter species associations, habitat features, distribution within the park, identify the threats to these animals and to their habitats.

During the survey six (06) species of reptiles and sixteen (16) species of amphibians were located and identified.

Anuran tadpoles (n=6880) belonging to three species: (*Polypedates eques*, *Limnonectes greenii*, *Microhyla zeylanica*) were observed and studied. Of the sixteen species of amphibians observed during the survey six (06) have not been recorded before and are not described in the available literature, these six species may be new to science.

The results of this survey make clear the urgent need to conduct detailed studies on the following three major aspects.

1. To quantify and take steps to minimize threats faced by amphibians and reptiles and to their habitats in this unique ecosystems.
2. To mount *in situ* and *ex situ* breeding programmes for *Ramanella palmata* (Anura:Microhylidae), *Cophotis zeylanica* (Reptilia:Agamidae) and the undescribed amphibian species.

3. To study the ecology and the status of the amphibian species inhabiting the canopy

(Mr. Anslem de Silva - ZSSL/98/01)

- **Future direction of rubber wood industry in Sri Lanka: supply and demand, technology, constraints and investment opportunities**

Despite the global importance of the rubber wood industry, not much research has been done or documented in Sri Lanka with respect to key issues such as supply, demand, technological status, constraints and investment opportunities. The above study attempted to redress this deficiency and has brought the stream of information up to date.

The supply potential of rubber wood in Sri Lanka was estimated from a random sample of rubber small holdings using a pre tested questionnaire. The sample consisted of 1200 rubber small holdings selected from eight major rubber growing districts viz: Kegalle, Kalutara, Ratnapura, Galle, Matara, Gampaha, Colombo and Kandy. The similar data pertaining to the estate sector were gathered from 16 Plantation Management Companies using a combination of procedures; a mail questionnaire, personal visits to management companies/estates and through records available at the Plantation Reconstruction Unit of the Ministry of Plantation Industries. A field census on rubber wood based processing/manufacturing units was conducted to collect information on plant capacity, present output levels, status of technology, recovery rates, employment generation, constraints, product type and marketing.

The results indicate that potential yearly production of sawable rubber logs is around 325,000m<sup>3</sup>. Yet, 40% of sawable rubber logs end up as fuel wood and the balance is converted into sawn timber and veneer products. More than 90% of the total saw dust generated from rubber wood based processing is not utilized industrially. Rubber wood based industries provide direct and indirect employment for over 42,000 people.

A conceptual and analytical model of the rubber wood industry has also been developed by this project. Major constraints faced by the rubber wood industry and investment opportunities have been identified. The study also has suggested some insight into policy implications, which would be useful to the government.

(Mr. I.N. Samarappuli, Dr. K.G.K. de Silva, Dr. L.M.K. Tillekeratne - RG/95/AG/04)

- **Development of swinging lugs reversible cage wheels for small and medium power tractors**

A folding type cage wheel for small and medium power tractors were designed and developed to provide facility for road transportation and to improve performance in wetland operation.

Two pairs of cage wheels have been constructed under this project, for small and medium power tractors after testing the first wheel mentioned above.

The main advantage of these cage wheels was the efficiency of road transportation since the cage wheel diameter is smaller than the tyre in the retracted situation. In the expanded position, the cage wheel diameter is greater than the tyre improving the traction while puddling, because the

lugs can touch the hard pan of mud before the tyre.

The results of field trials show that the effective field capacity and travelling speed of designed cage wheel were 0.36 ha/hr and 2.05 m/s respectively. Above observations of the conventional cage wheel were 0.23 ha/hr and 1.6 m/s respectively. The developed folding type cage wheel has efficient performance compared to the conventional cage wheel.

( Dr. P.L.A.G. Alwis - RG/97/AG/02)

## Publications

### ***Regular Publications***

- *Journal of the National Science Foundation*  
Vol 27, No. 1,2 and 3 - printed and distributed  
Vol 27, No. 4 - processing of manuscripts
- *Sri Lanka Journal of Social Sciences*  
Vol 21, No. 1 and 2 - work was in progress
- *Newsletters*  
Printed on a new format under the title "VIDYA" since January 1999.  
Vol 1, No. 1,2 and 3 & 4 were printed and distributed
- *Vidurava - Science News Bulletin*  
Vol 19, No. 3 and 4, Solar Energy (Sinhala) - released  
Vol 19, No. 3 and 4, Solar Energy (English) - type setting and preparation of articles  
Vol 19, No. 1, Indigenous Knowledge (English) - at dummy stage  
Vol 20, No. 1, Projects for Learning (English and Sinhala) - Work was in Progress

At their requests, copies of Vidurava (191 Nos) and Science Education publications (164 Nos) were sent to 04 institutions/organisations and 15 schools, for reference. Details are given in Annexure 1.

The copies of published volumes were sent to schools having advanced level classes.

### ***Natural Resources Series***

#### ***"Natural Resources of Sri Lanka 2000"***

The text on "Natural Resources of Sri Lanka" published by NARESA in 1991 was revised incorporating latest information. The new version will consist of the following chapters:

1. Introduction
2. Population Profile
3. Economic Conditions & Trends
4. Energy Resources
5. Land Resources
6. Water Pollution
7. Mineral Resources
8. Biological Diversity

9. Coastal & Marine Resources
10. Inland Aquatic Resources
11. Forest Resources
12. Legal Framework
13. Water Resources
14. Towards Sustainable Development

***Special Publications***

- *Water Resources of Sri Lanka* - by Palitha Manchanayake and C.Madduma Bandara
- *A checklist of aphids and their host plants from Sri Lanka* - by M.A.P. Wijerathna and Jayanthi P. Edirisinghe
- *Plant based antimalarials of the indigenous herbal traditions of Sri Lanka* - by J. S. Edirisinghe

***Proceedings of seminars***

The proceedings of the Regional Seminar on "Forests of the Humid Tropics of South and South East Asia" held in Kandy in March 1996 were published.

## Awards for Scientific Excellence

### *NSF Merit Awards for Scientific Research*

This scheme of awards was instituted in order to bestow on researchers who have attained a high level of excellence in their research work, the recognition they deserve for their contribution to the advancement of science. These awards are also meant to motivate recipients of research grants from the NSF to achieve and maintain high standards of scientific research.

Merit Awards are made biennially for research work of outstanding merit carried out on NSF supported grants. The Award consists of a cash prize of Rs. 10000 and a certificate.

Those who were eligible for awards in 1999 were the grantees who had completed their projects during the years 1997 and 1998 and submitted comprehensive final reports. Selection of winners were made by the respective Working Committees based on;

- (a) originality of material presented
- (b) intrinsic scientific merit of the findings
- (c) inventive and innovative features of the work
- (d) possible impact of the findings on the national development programme

The award ceremony was held on the 10<sup>th</sup> September 1999 in the NSF Auditorium. Hon. Batty Weerakoon, Minister of Science and Technology, was the Chief Guest on this occasion and gave away the awards. Winners presented their work to an audience of Board Members, Heads of Scientific Institutions, Vice Chancellors of Universities and eminent scientists.

The List of Winners - 1999:

#### (1) *Physical and Mathematical Sciences*

Prof. W.P. Siripala, Department of Physics, University of Kelaniya

Grant No - RG/94/P/03

Title - Electro-deposited Cuprous Oxide for solar cell applications

#### (2) *Biotechnology (Joint Winners)*

(a) Dr(Ms) Maya B Gunasekera, Mr. B.G.D.N..K. de Silva, Department of Chemistry, University of Colombo

Grant No - RG/93/BT/02

Title - Characterization of *Anopheles culicifacies* complex in Sri Lanka: identification of sibling species using DNA probes, studies on vectorial competence

- (b) Prof. U. Samarajeewa, Department of Food Science and Technology, Faculty of Agriculture, University of Peradeniya.

Prof. T.S.G. Fonseka, Faculty of Agricultural Sciences, Rajarata University of Sri Lanka.

Ms. Sujeewa Gunaratne, Research Student

Grant No - RG/95/BT/10

Title - A study of histamine production in fish and dried fish and the effect of processing on histamine.

(3) ***Biology (Joint Winners)***

- (a) Dr(Ms) P.H. Amerasinghe and Prof. F.P. Amerasinghe, Department of Zoology, University of Peradeniya.

Grant No - RG/93/B/02

Title - Multiple feeding in two vectors of malaria in Sri Lanka

- (b) Dr. S.H.P.P. Karunaratne and Dr(Ms) P.H. Amerasinghe, Department of Zoology, University of Peradeniya.

Grant No - RG/95/B/06

Title - Insecticide resistance in anopheline vectors of malaria

(4) ***Science Education and Popularization***

- (a) Dr. S.A. Fernando, Department of Chemistry, University of Colombo

Grant No - RG/95/SE/02

Title - Development of a suitable teaching method on environmental pollution for tertiary level education.

(2) ***NSF- TWAS (Third World Academy of Sciences) Prize for Young Scientists***

NSF - TWAS prize for young scientists is awarded annually to talented young researchers who have attained a high level of excellence in research work in the fields of Biology, Chemistry, Mathematics and Physics. Each award consists of a cash prize of the equivalent of US \$ 500 granted by the Third World Academy of Science (TWAS) and a certificate.

For 1999 only one award was made which was in the field of Biology to,

Dr S.H.P.P. Karunaratne, Department of Zoology, University of Peradeniya.

Title - The control of the vectors of dangerous human diseases,  
cockroaches and agricultural pests in Sri Lanka.

The presentation ceremony was held on 10<sup>th</sup> September 1999 at the NSF Auditorium.  
Hon. Batty Weerakoon, the Minister of Science and Technology presented the award to  
the winner.

## International Scientific Activities

### *Research Cooperation between Sri Lanka and Sweden*

#### ● *Buffalo Information Dissemination Project*

On the request of the Department of Animal Production and Health (DAPH), one thousand copies each of the following were reprinted for distribution among the farmers and veterinary extension workers.

- Health and diseases of buffaloes and cattle
- Breeding of buffaloes and cattle
- Reproduction in buffaloes and cattle
- Body condition scoring system for assessing the nutritional status of buffaloes
- Fibrous feeds and their utilization
- Urea - molasses, mineral multi-nutrient feed supplement
- Management of buffalo and dairy cattle
- Feed formulation for cattle and buffaloes
- Crop - livestock integration for maximizing small holder farm income
- Use of tree fodder in ruminant feeding.

The following books were published during the year.

- Compendium on "Water buffalo research in Sri Lanka"
- Diseases of the Buffalo
- Cattle and Buffalo farming - Handbook for Veterinarians

The Training Manual for veterinary extension officers was distributed free of charge among the veterinary extension officers attached to the Department of Animal Production and Health.

#### ● *Marine Science Programme*

A sub-committee was appointed in June 1999 to monitor the Marine Science Programme. This committee focussed its attention on the ongoing projects. The Committee felt that the performance of the current research activities could be improved. Consequently a seminar was organized to present the work done by researchers with a view to suggest improvements. The seminar was held on 17<sup>th</sup> & 30<sup>th</sup> December 1999 at the NSF. Members of the sub-committee and all researchers of the programme attended.

Research proposals from NARA and the Department of Fisheries Biology of the University of Ruhuna were submitted to Sida/SAREC for funding during the period 2000-2002.

#### ● *Sida Programmes for years 2000 - 2002*

The proposal submitted by the NSF, comprising of the following programmes was approved by Sida for funding.

- International travel fund
- Sida/NSF Research Grants
- Urgent Spare Parts Fund
- Policy Studies
- Marine Science Programme

Under the project on Policy Studies, NSF has developed links with the Swedish Natural Sciences Research Council (NFR) to exchange research managers between the NFR and the NSF.

- *International Contacts Fund*

With a view to encourage more requests from young scientists to attend regional/Asian scientific meetings a new set of guidelines was formulated for the award of grants under this programme.

Over 195 applications were received during the year for consideration of grants to attend meetings/workshops/seminars and conferences. The NSF awarded 112 grants.

- *Urgent Spare Parts Fund*

Fifteen requests for spare parts from research institutes and universities amounting to US \$ 20,300/- were forwarded to Sweden.

In addition a mechanism was established to promote supply of spare parts through local agents. Also, an allocation was received from Sida to sponsor training workshops on maintenance and repair of research equipment. The objective of these training workshops is to enhance the knowledge of the technicians in the maintenance and the repairs of sophisticated equipment available in laboratories in Sri Lanka. Workshops on Liquid Chromatography and PCR technology were sponsored from this allocation (Details are given under the heading "Seminars and Workshops").

- *Visit of Sida delegation*

Dr Afzal Sher and Dr Per Einar Troften visited Sri Lanka from 14<sup>th</sup> - 19<sup>th</sup> June 1999. The purpose of the visit was to discuss matters pertaining to the proposals for the period, year 2000- 2003, under the Sweden / Sri Lanka bilateral research cooperation. The delegates had discussions with the project leaders of ongoing projects and applicants who had submitted new proposals.

### *Commonwealth Science Council*

- *Travel Grants Scheme*

The Purpose of this travel grant scheme is to help scientists of member countries of the Commonwealth Science Council to attend international conferences, major meetings and short technical in - service training courses. Grants cover the actual costs of the return airfare and registration upto a total of £ 1000.

Two applications were received and processed during the year.

- *Fellowship Scheme*

The Fellowship Scheme of the Commonwealth Science Council was established in 1980 to provide opportunities for scientists and engineers from member Commonwealth developing countries to enhance their professional skills and experience through short-term attachments in other Commonwealth countries.

Two applications were received and processed during the year.

- *Workshops*

Information on the following workshops sponsored by Commonwealth Science Council were circulated to institutions and nominations were forwarded to the Commonwealth Science Council.

- Regional training workshop on Cleaner Production in Leather Sector, 14-18 , June 1999, Chennai, India
- Training workshop on Environmental Impact of Air Pollution, 19-24 July 1999, Brisbane, Australia

- *Science Forums*

First Commonwealth Science Forum - Access, Bioprospecting, Intellectual Property Rights (IPR) and Benefit Sharing and the Commonwealth was held from 23-24 September, 1999 in Goa, India. Three scientists from Sri Lanka attended this Forum.

- *Commonwealth Knowledge Network (CKN) - Biological Diversity and Genetic Resources (BDGR) Clearing House Mechanism Networks*

This is an internet-based programme for sharing of information, knowledge and expertise as well as seeking solutions to common problems on the conservation and sustainable use of biological diversity and the fair and equitable sharing of its benefits.

Fifteen national experts for the following thematic networks were nominated by the NSF.

- Forest Biological Diversity
- Agricultural Biological Diversity
- Marine and Coastal Biological Diversity
- Inland Waters and Wetlands Biological Diversity
- Invasive Alien Species
- Access to Genetic Resources
- Benefit-Sharing
- Indigenous and Intellectual Property Rights
- Medicinal Plants
- Bioprospecting

### ***International Centre for Genetic Engineering and Biotechnology***

ICGEB is an international, intergovernmental organization conceived as a Centre of Excellence for research and training in genetic engineering and biotechnology with special attention to the needs of the developing world. Sri Lanka is a full member of this organization and the NSF is the national scientific focal point.

Prof. S. Widanapathirana, Department of Microbiology, University of Kelaniya continued to function as the Appointed Governor from Sri Lanka for ICGEB. The following nominations were made during the year 1999.

- Dr. Thamara F. Dias, Scientific Officer, NSF was designated as the Liaison Officer
- Prof. J.M.R.S. Bandara, a member of the Working Committee on Biotechnology was nominated as the country's representative in the ICGEB Biosafety Forum
- Prof. E.H. Karunanayake, a member of of the Working Committee on Biotechnology was nominated as the Sri Lankan candidate for the ICGEB Council of Scientific Advisors.
- Mrs. G.H.C.M. Hettiarachchi, Research Officer, Agro and Food Technology Division of ITI was offered a predoctoral fellowship at ICGEB, New Delhi

Information with respect to the ICGEB Programmes (Predoctoral, Postdoctoral, Meetings, Courses, Workshops and Symposia) were distributed among the Universities and Research Institutions.

### ***Indo-Sri Lanka Science & Technology Cooperation***

#### ***Biotechnology Programme***

- A three member delegation, Dr(Ms) Manuja Sharma (Secretary, Department of Biotechnology, Government of India), Dr. B.M. Gandhi (Director) and Dr(Ms) Renu Swarup (Principal Scientific Officer) visited Sri Lanka from 17-19 May 1999. They had discussions with Sri Lankan scientists at a meeting held at the NSF and also visited some of the main laboratories of Universities and research institutions in Colombo and Kandy during their stay in Sri Lanka. The two countries agreed to promote, develop and facilitate collaborative activities in the field of biochemistry.
- According to the agreed work plan, a three-day joint workshop on 'Agriculture and Plant Biotechnology including Fisheries and Livestock' was held at the PGRC Conference Hall, Gannoruwa, Peradeniya from 26-28 October 1999.

It was a well planned and organized scientific meeting which gave an opportunity for much needed interaction among the scientists in the field. More than 40 scientists participated in this workshop. There were 4 lead papers presented by the two sides. Apart from the lead papers 12 country papers were presented by the eminent resource persons from various research institutions and universities.

The scientists presented their preproposals (12) on the third day of the workshop, to be considered for funding, under this programme.

### ***International Foundation for Science (Sweden)***

The NSF is a member organization of the International Foundation for Science, which is an international, non-governmental organisation based in Sweden which supports young scientists in developing countries in their research efforts in the agricultural and biological sciences as well as the management, conservation and sustainable use of natural resources.

During the year 1999, seven scientists from Sri Lankan Universities and Research Institutes submitted applications for Research Grants from the IFS (Sweden).

Nominations were called from IFS grantees for the Sixth Sven Brohult Award and the IFS Silver Jubilee Award. The applications received were scrutinized by the relevant working committees and on recommendations made, two applicants (Sven Brohult Award) and a five applicants (Silver Jubilee Award) were nominated by the NSF for these awards.

### ***Participation in international events by Committee Members***

- 13th Biennial Conference of the Association of Asian Social Science Research Councils, Seoul, Korea, 18 - 22 October 1999 - Prof. Ranjith Amarasinghe (Member, Working Committee on Social Sciences)
- Consultative Meeting of the International Social Science Council, Phitsanulok, Thailand, 19 - 20 November 1999 - Prof. S.T. Hettige (Chairman, Working Committee on Social Sciences)
- World Renewable Energy Conference, United Kingdom, 4 - 10th September, Mr. Victor Mendis (Member, Working Committee on Energy)

### ***Visits of Foreign scientists***

January 1999	-	Prof. Olof Linden, Stockholm University, Sweden
February 1999	-	Dr. Simon Ernst & Dr. Paul Bargon, University of Wollongong, Australia
February 1999	-	Mr. Ronny Dvell, Stockholm University, Sweden
May 1999	-	Dr. Love Ekenberg, Stockholm University, Sweden
May 1999	-	Dr. H. Tawaka, Sumitomo Corporation, Japan
June 1999	-	Dr. Shantha Liyanage, University of Queensland, Australia
July 1999	-	Dr. G. Gijsbers, ISNAR, Netherlands & Dr. A. Springer - Heinze, GTZ, Germany
August 1999	-	Dr. J.A.J. Perera, Commonwealth Science Council, UK
September 1999	-	Mr. Sun Chun Ye, 1 <sup>st</sup> Secretary, Chinese Embassy, Colombo

## Other Activities

### *S & T Indicators Unit*

- Database on Ongoing Research

The first draft of the directory on ongoing research was prepared for publication in early 2000. The directory covers the research activities in the country during the period 1998/1999.

- Directory on Scientific Instruments in Sri Lanka

The directory on scientific instruments in Sri Lanka was finalized and given for printing. This gives information on major instruments available in laboratories of research institutions and universities.

- S & T Personnel (STP) database

More than one thousand records are available in this database which provides information on Sri Lankan scientists. Arrangements have been made to publish these records as an interim report.

- Handbook on S & T Indicators - 1996

The handbook on S & T indicators, 1996 was published. This handbook covers the indicators related to the S & T disciplines for the year 1996.

### *Studentships and Internships Programme*

The above programme of sponsoring postgraduate Studentships and Internships for local scientists working on research projects, received the approval of the NSF Board in August 1998 and came into operation in the year 1991. The objective of the programme is to encourage scientists in public and private sector organizations and others to undertake research in selected areas. Another facet of the objectives is the strengthening of the local post-graduate training capacity and enhancing the research capability of the country.

The institutions for the award of Internships are selected on the basis of the project proposals submitted by them to the NSF Board. Selection of students for Studentships is done by the institutions concerned.

The total value of a Studentships at present is Rs. 192,000 - 240,000 and covers a period of two years. The value of an Internship is in the range of Rs. 168,000 - 240,000 and also extends over a period of two years.

During the year 1999, two Studentships and two Internships were awarded under this programme.

It is the intention of the NSF to undertake this sponsorship annually and to expand the programme

depending on the availability of funds.

### ***Asian Development Bank Project***

Under the ADB project on S & T manpower development, NSF has been identified as the focal point for the development of a Manpower Information System (MIS) on S & T. Under this programme, NSF will be supported with equipment, training, consultants and additional staff to run the MIS. Background preparations have been made to place orders for equipment. New staff has been selected for recruitment in the year 2000.

### ***History of Science in Sri Lanka***

A programme to investigate the History of Science in Sri Lanka was launched. A seminar on "History of Science & Technology in Sri Lanka - Some Glimpses" was held on 9<sup>th</sup> July to gather the basic information and prepare a draft outline of the action plan. As a follow up action preparation of a bibliography on published material on HSSL, translation of books, formation of a group who are interested in HSSL were identified.

### ***Participation in Exhibitions***

NSF organized a stall at the 55<sup>th</sup> Annual Sessions of the Sri Lanka Association for the Advancement of Science (SLAAS) held at the Open University and the following exhibits were displayed.

- Models on NSF funded projects
  - Buffalo farming
  - Biogas from vegetable garbage to produce electricity
  - Salvinia control
- Posters on NSF funded research projects
- Video films on NSF funded projects
- NSF publications (made available for sale)

### ***Science and Technology Poster Competition***

The Working Committee on Science Education and Popularization, organized and conducted an islandwide poster competition as part of the Science and Technology popularization programme of the Ministry of Science and Technology. This competition consisted of two categories, namely the school competition meant for students and the open competition which had no age limit. The themes for the posters were

- Science and Technology for the progress of humankind
- Ozone layer and environment
- Environmental pollution and public health
- Universe and space travel
- Energy saving and alternatives
- Computer and globalization

The prize giving and the ceremonial opening of the exhibition of science and technology posters

were held at the NSF on 28<sup>th</sup> October 1999, under the patronage of Hon. Batty Weerakoon, Minister of Science and Technology, who presented the cash awards and certificates to the winners. The Minister also inaugurated the exhibition held at the auditorium where the posters of the winners were displayed. School children and the general public visited the exhibition which was held from 28 - 30 October 1999.

### ***Tree Planting Ceremony***

A Tree planting ceremony was held on 8<sup>th</sup> January at the NSF premises to commemorate the 100<sup>th</sup> birth anniversary of the late Prime Minister Mr. S.W.R.D. Bandaranaike. Prof. Kapila Dahanayake, Chairman, Mr. M. Watson, Director, and the Staff Members of the NSF participated in the ceremony.

### ***Inter-Ministerial Meetings***

- A meeting was held at the Ministry of Fisheries and Aquatic Resources Development on 26 February 1999 at 3.00 p.m. The issues related to the establishment of a Genebank for fish were discussed at this meeting. The Hon. Minister Mr. Mahinda Rajapaksha, higher officials and scientists were present at this meeting.
- A meeting was held at the Ministry of Health and Indigenous Medicine on 16 February 1999 at 1.30 p.m. to discuss matters in connection with the implementation of the project on medicinal plants, the practice of indigenous knowledge and IPR issues. The Hon. Minister of Health Mr. Nimal Siripala de Silva and a distinguished gathering were present at this meeting.

### ***Participation in Parliament Consultative Committee Meetings***

NSF officials participated in five Parliament Consultative Committee meetings held at the Parliament on 09-03-1999, 08-07-1999 and 07-10-1999, At these meetings, the Annual Reports and the performance of scientific institutions under the Ministry of Science and Technology were discussed.

## SRI LANKA SCIENTIFIC & TECHNICAL INFORMATION CENTRE (SLSTIC)

SLSTIC established in 1979 has been the focal point for dissemination of Science and Technology information in Sri Lanka. During the year 1999 the following tasks were fulfilled to enhance the resources & services at SLSTIC.

### *Collection development of the NSF library*

During the year 359 books, 301 journals, 383 Newsletters, 121 Annual reports, 40 final reports, 64 bibliographies, 65 acts & bills, 16 CD ROMs were added to the collection

### *Database development*

Since 1996 SLSTIC has been actively engaged in database development which was facilitated by the Local Area Network. Since then the existing databases were strengthened with the addition of new records as follows: 3323 to SLSI (Sri Lanka Science Index); 368 to RGRA (Research Grants database); 847 to SLSTICAT (Library catalogue). In addition the Current List of Periodicals database was updated including holdings and 505 entries were edited. Two new databases were also developed namely; Directory of Sri Lankan web sites (WEB) with 503 records and Index to newspaper articles (NEWSP) with 2904 records.

### *Assistance in utilisation of IT*

As the national distributor of CDS/ISIS software on library automation developed by UNESCO, SLSTIC/NSF has played a major role in enhancing library automation. Accordingly during 1999, the DOS & Windows versions of ISIS were distributed to 24 & 49 libraries respectively. SLSTIC was also engaged in providing training to 82 library personnel on database development using this package. Five workshops on WINISIS, and one on PURNA (Integrated Information System) was held. PURNA was also distributed to 12 libraries during the year. In addition SLSTIC organised seminars on retrieval of information through Internet & CD- ROMs which were attended by about 265 personnel in the field of Science and Technology.

### *Network activities*

The local area network was enhanced with the following:

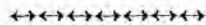
- A new workstation at the printing division was added.
- New server and two high performing SGI computers were also added
- A training centre with 10 computers having full internet connectivity & CD ROM access were established. This centre is being used by undergraduate & post graduate students & researchers. In addition this is used for training programmes for the NSF staff; library personnel & S & T community.
- Tea Research Institute and the Labour Department obtained remote access to Internet and e-mail through NSF
- NSF web site was redesigned
- 15 S & T Institutional web sites were hosted of which ADB, Ministry of S & T project,

- Industrial Development Board, and Post Graduate Institute of Science were newly added.  
● Extension of LAN along Vidya Mawatha project was completed and will be implemented in the year 2000 by laying fibre optic lines to connect CARP, NIBM & ITI.

***Library Network activities***

SLSTIC staff participated in the activities of the following networks:

HELLIS - Health Literature and Library Information Services Network  
AGRINET - Agricultural Information Network



**Seminars, Conferences, Meetings attended by Staff**

*Prof. Kapila Dahanayake, Chairman*

*Foreign*

- 09 - 13 May - WIPO Asian Regional Symposium on the Role of Universities and Research Institutions in the Intellectual Property System in the 21<sup>st</sup> Century - Beijing, China
- 19 - 26 June - Visit to Sida/Sarec, Swedish Research Council and Universities in Stockholm & Uppsala, Sweden
- 29 - Sept.- 1<sup>st</sup> October- 26<sup>th</sup> General Assembly of the International Council for Science (ICSU) Cairo, Egypt
- 28 - 30 November - Chairperson of the session on "Role of the Media", International Conference on Disaster Management: Cooperative Networking in South Asia, Indira Gandhi National Open University, New Delhi, India

*Local*

- 04 March - Lecture on "Landslides" at Science Day Kegalu M.M.V., Kegalle
- 09 March - Chief Guest- Science Day of Bandaranaike M.M.V., Gampaha
- 24 March - Meeting with Lime Kiln Owners, Rest House, Matale
- 11 July - Lecture on "Science Popularization" at meeting to establish Science Clubs organized by Ministry of S & T - Homagama M.M.V.
- 20 July - Joint PGIS/NSF Workshop on "Liquid Chromatography" "Le Kandyan" Hotel, Kandy
- 30 July - NSF Workshop for A/L Science Students, N.I.E., Maharagama
- 04 August - Welcome Address at Seminar on "Pesticide Poisoning - Present Knowledge and Urgency for Future Research" organized by NSF SLAAS, SLCPA at Gannoruwa, Peradeniya
- 07 August - Lecture on "Geology and Astronomy", at Subodhi Institute, Piliyandala.
- 22 September - Chief Guest, Official Opening of Multimedia Centre, British Council, Colombo

- 12 October - Lecture on "Landslides - How to live with them" at Yatiyantota Cultural Centre organized by National Building Research Organization (NBRO) and the NSF.
- 15 October - Participation at Rajawella - Digana ITI sponsored Lime Kiln Commissioning
- 18 October - Lecture on "Possible Natural Disasters". Workshop for medial personnel on Disaster Management organized by the National Disaster Management Centre, Hotel Lanka Oberoi
- 05 November - Lecture on "Landslides" at NBRO Seminar held at Polgolla Cooperative School
- 12 November - Lecture on Landslides at Kuruwita- Organized by National Disaster Management Centre
- 02 December - "Towards a better understanding of the Mineralogy and geochemistry of Eppawala Phosphate Deposit" - Section D - Presidential Address of SLAAS, 55<sup>th</sup> Annual Sessions, Open University, Nawala
- 15 December - Lecture on "Landslides at Ayagama, Ratnapura - Organized by National Disaster Management Centre.
- 20 December - Lecture on Minerals at the Workshop on "Marine Geology and Marine Ecology for A/L Teachers" organized by SLAAS and Faculty of Science, University of Ruhuna at Wellamadama, Matara

*Attended Meetings*

1. As a Member of Board of Management of the National Library and Documentation Services Board.
2. As a Member of Sri Lanka Council for Agricultural Research Policy (CARP).

***Mr. M. Watson, Director***

*Foreign*

- 24 - 26 February - 16<sup>th</sup> Meeting of the SAARC Technical Committee on S & T - New Delhi, India
- 27 - 28 February - Commonwealth Science Council Regional Consultation Meeting - Dhaka, Bangladesh.

21 - 26 November - 7<sup>th</sup> General Conference of the Third World Academy of Sciences -  
Dakar, Senegal

*Local*

05 November - Multipurpose Tree Research Network Seminar on Fruits for the  
Future - Gannoruwa

*Attended Meetings*

1. Legal Task Force on Access to Genetic Resources, Benefit Sharing and Biosafety -  
Ministry of Forestry & Environment
2. Board of Management of Postgraduate Institute of Science, Peradeniya
3. Organizing Committee for the Workshop on Estuarine Modelling and Coastal Zone  
Management - Ministry of Forestry and Environment
4. TRI Fertilizer Think Tank - Tea Research Institute
5. IPR Committee on Medicinal Plants Project - Ministry of Health & Indigenous Medicine
6. Project Technical Advisory Committee of the ADB Project - Ministry of Science &  
Technology
7. ADB Project Task Force on Cost Recovery Measures by R & D Centres - Ministry of  
Science & Technology
8. Sub-Committee for National Technical Guidelines for Biosafety - Ministry of Forestry &  
Environment'

*Other Staff Members*

*Foreign*

- 11 March - Meeting of Research Collaborators under the Sweden/Sri Lanka  
Bilateral Research Cooperation, Stockholm, Sweden. - Mr. W.  
Amaradasa
- 19 - 21 May - International Conference on Implications of new IPR Regime  
under TRIPS for developing countries, New Delhi, India - Dr. T.F.  
Dias
- 26 - 30 April - Workshop on Science and Policy in Risk Assessment of  
Transgenic Plants, Trieste, Italy - Dr. T. Dias
- 10 - 12 May - Conference on Electronic Publishing, Sweden - Mrs. D. Talagala
- 15 - 21 August - NIT 99 ASCA Workshop, Taiwan - Mrs. D. Talagala

- 14 - 18 June - RCA workshop on Website Development, Malaysia, Mrs. R.P.S. Sugathadasa
- 26 May - 02 June - Workshop on Renewable Energy for the Developing World, Carbondale, USA - Dr. S. Fernando

*Local*

- 31 January-3 February- Workshop on National Planning of Libraries, Resources and Sciences, Hotel Renuka - Mrs. D. Thalagala
- 04 August - Seminar on "Pesticide poisoning: present knowledge and urgency for future research", Kandy - Mrs. S.I. Wickremasinghe
- 15 October - Workshop on Train the Trainers, American Centre, Colombo - Mrs. D. Talagala
- 17 - 23 October - Networking for effective libraries and Information Service, IFLA/SLLA Workshop for South Asia, Hotel Galadari - Mrs. D. Talagala, Ms. N. Perera
- 14 July - Progress Review Seminar of the Sida/SAREC Programme, Hotel Taj Samudra - Prof. K. Dahanayake, Mr. M. Watson, Mr. W. Amaradasa
- 25 - 26 November - WIPO National Seminar on the Patent Cooperation Treaty, Hotel Taj Samudra - Mrs. C.G. Yapa
- 02 March - Workshop on Intellectual Property Rights, NSF - Dr. T.F. Dias
- 24 February - National Symposium and Workshop on the Status of Systematics and Biorepositories in Sri Lanka, Suwasiripaya - Mrs. R. Wijeratne
- 03- 09 January - Workshop for Editors and Publishers of Academic Journals in Sri Lanka and South - East Asia, Kandy - Mrs. C.G. Yapa

*Staff Training*

- 19 April - 08 May - Training Programme on Research Assessment and Evaluation, Wollongong, Australia - Ms. H.A.U. Amarasinghe, Ms. C.G. Yapa
- 06 - 15 October - Advanced course on CDS/ISIS & WIN ISIS, New Delhi, India - Mrs. A. Tennakoon
- 19 Nov.-15 December- Training Programme on Science, Technology and Research Management, Brisbane, Australia - Mr. A.W.J. Karunasinghe, Mrs. S.I. Wickremasinghe

Nov. 1999 - Jan.2000 - SAARC Training Programme on Information Technology, India - Mrs. V. Dharmaratne

**Staff Presentations/Publications/Communications**

“Managing Access to Genetic Resources - Sri Lankan Scenario” - Paper presented at the Commonwealth Science Forum on Access, Biosprospecting, DNA Fingerprinting, IPR and Benefit Sharing - Goa, India, 23 - 25 September - M. Watson

“Research sponsorship by the National Science Foundation” - Paper presented at the International Brain Research Organization (IBRO) Lecture Team Programme, Colombo, 06<sup>th</sup> December - M. Watson

“Research Funding” - Presentation made at the Seminar on Research Funding, Rajarata University, Mihintale, 25 November - W. Amaradasa.

“An Investigation on the status of atmospheric SO<sub>2</sub>, THC, NMHC, CH<sub>4</sub> pollution by vehicle emissions in the city of Colombo” - Paper accepted for presentation at the 7<sup>th</sup> International Conference of the Israel Society for Ecology and Environmental Quality Sciences, Jerusalem, 13 -18 June - A.W.J. Karunasinghe and J.A.P. Mathes

“Public Awareness seminars/workshops on “Science for Everyday Life” - a new approach in non-formal learning interactions” - Paper accepted for presentation at the EURECO'99, 8<sup>th</sup> European Ecological Congress, The European Dimension in Ecology, Perspectives and Challenges for the 21<sup>st</sup> century, Halkidiki, Greece, 18 - 23 September - A.W.J. Karunasinghe

A.W.J. Karunasinghe (1999). “Planning Energy and Environment for sustainable development” (in Sinhala) - *Vidurava*, 19(3/4), pp 38-41

A.W.J. Karunasinghe (1999). “Indigenous knowledge and patents for scientific achievements”, *Vidurava*, 19(1), pp 12 - 14

Dr. M.S. Ramasamy & Mrs. R. Wijeratne (1999). “The role of the National Science Foundation in promoting biological sciences research”. *Journal of the National Science Foundation*, 27(3), 137 - 148

**Participation in Committees by Staff Members**

- National Advisory Committee on Social Science Information Network - Mrs.D.D.D. Thalagala
- LEARN Management Committee - Mrs. D.D.D. Thalagala
- National correspondent for the ABD Journal published by ACCU/UNESCO - Mrs. D.D.D. Thalagala
- Working group on Tolerance limits for effluent waters at the Sri Lanka Standards Institution - Miss H.A.U. Amerasinghe
- Editorial and Publicity Committee of the Institute of Chemistry - Mrs. C.G. Yapa

**Board of Management**

***Board of Management of the NSF***

Prof. K. Dahanayake (Chairman - NSF)  
Senior Professor of Geology, Univ. of Peradeniya  
Director/Postgraduate Institute of Science  
Univ. of Peradeniya  
Peradeniya

Mr. M. Watson (Director - NSF)

Prof. Uma Coomaraswamy (Member)  
Professor of Botany & Dean/Faculty of Science  
Open University  
Nawala

Prof. A.D.V. de S. Indraratna (Member)  
No. 355, Park Road  
Colombo 5

Eng. A.N.P. Wickremasuriya (Member)  
Chief Executive Officer  
Central Industries Ltd.  
10 1/1, Albert Crescent  
Colombo 7.

Prof. P.A.J. Ratnasiri (Member)  
27, Sadharshana Mawatha  
Rajagiriya

Prof. Vijay Kumar (Member)  
Senior Professor of Chemistry, Univ. of Peradeniya  
Dept. of Chemistry  
Univ. of Peradeniya  
Peradeniya

Dr. W.W.D. Modder (Member)  
Director  
T.R.I.  
ST. Coombs  
Talawakele.

Prof. M.T.M. Jiffry (Member)  
Member, University Grants Commission (UGC)  
Dean/Fac. of Medicine,  
Univ. of Sri Jayawardenepura, Nugegoda.

Ms. S.C. Perera (Member)  
Director  
Macro Economic Planning Division  
National Planning Department  
General Treasury,  
Colombo.

**Principal Staff of NSF**

**Chairman**

Prof. Kapila Dahanayake  
B.Sc.Hons(Cey.), Diploma and PhD  
(Nancy)

**Director-NSF**

Mr. M. Watson  
B.Sc.(Cey), MPhil(London)

**Director, Scientific Affairs**

Mr. R.M.W. Amaradasa  
B.Sc.(S.L.),M.Sc.(S.L.)

**Director, Information**

Mrs. D.D. Deepali Talagala  
B.A.(Cey), M.L.S. (S.L), ASLLA

**Assistant Director, Scientific Affairs**

Miss. H. Anusha U. Amarasinghe  
(Director,S/A from 17/12/99)  
B.Sc.(S.L.), M.Sc.(S.L.)

**Scientific Officers**

Mrs. C.Geethika Yapa  
(Asst. Director, S/A from 17.12.1999)  
B.Sc.(Hons)(S.L.)

Mr. A.W.J. Karunasinghe  
Mrs. G. Nandanie Ulluwishewa  
B.Sc. (S.L.), M.Phil (S.L.)  
M.Sc(Hons)(U.S.S.R.), M.Sc(Japan)  
(Resigned on 01.10.1999)

Mrs. Seetha Wickramasinghe  
Mrs. Rohini Wijayaratne  
Dr. Tamara F. Dias  
Dr. R.S. Fernando  
Miss. Amela Ekanayake  
(From 01.04.1999)  
B.Sc.(Hons)(S.L.)M.Sc. (S.L.)  
B.Sc.(Hons)(S.L.)  
M.Sc.(Hons)(U.S.S.R.) Ph.D. (Russia)  
M.Sc.(U.S.S.R.) Ph.D. (U.S.S.R.)  
B.Sc.(Hons)(S.L.)

Mr. R.P. Pathirage  
(From 01.04.1999)  
B.Sc.(Hons)(S.L.)

Mr. S.W.A.M. Anuruddha  
(From 01.09.1999)  
B.Sc.(Hons)(S.L.)

**Scientific Officer( Publicity)**

Miss. Manoja Jayasekera  
(From 15.10.1999)  
B.Sc.(S.L.)



**Scientific and Technical Committees (1999 - 2000)**

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Prof. Ranjith Senaratne  
Dr. H.M. Manthritilleka  
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Prof. Ranjith Arthenayake  
Prof. L. Balasuriya  
Prof. S.S.L. Hettiarachchi  
Dr. V. Muttukumaraswamy  
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Mr. Anslem de Silva  
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Prof. R.N. de Fonseka  
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Dr. J.M.P.K. Jayasinghe  
Mr. H.M. Bandaratileke  
Dr. Ranjen Fernando  
Mr. R. Algama  
Dr. Premadasa Udagama



Table I - Grants sponsored by NSF

Status summary during 1999

Discipline	Agricultural Science & Forestry	Biological Science	Chemical & Earth Sciences	Energy	S & T Information	Health Sciences	Physical & Mathematical Sciences
Total No. of ongoing grants as at 31.12.99	13	27	34	09	04	19	17
Grants awarded - 1999	01	08	08	02	03	07	03
Amount allocated for 1999(new and ongoing Rs.)	2,623,787	3,675,354	4,659,518	188,000	617,000	2,692,095	1,074,234
Grants completed - 1999	03	05	04	-	-	13	04
Grants withdrawn - 1999	-	-	-	-	-	-	1
Grants terminated - 1999	-	-	01	-	-	-	02
RA's appointed - 1999	-	05	05	02	01	01	01
PG Thesis received - 1999	-	01	-	-	-	-	-
Registered for PG - 1999	-	04	02	1(1, pending)	-	-	01
No. of new applications received during 1999	03	02	08	04	01	07	01

Cont'd..... 2

Table 1(Cont'd) - Grants sponsored by NSF

Status summary during 1999

Discipline	Social Sciences	Biotechnology	Science Education & Popularization	Natural Resources	Engineering & Built Environment	Man & the Biosphere	Zoological Survey	Total
Total No. of ongoing grants as at 31.12.99	11	16	03	06	16	04	03	182
Grants awarded - 1999	-	-	03	02	07	01	03	48
Amount allocated for 1999 (new and ongoing Rs.)	-	536,820	380,000	914,884	1,581,588	537,500	978,745	20,459,525
Grants completed - 1999	02	01	-	02	03	-	02	40
Grants withdrawn - 1999	-	-	-	-	-	-	-	-
Grants terminated - 1999	-	-	-	-	-	-	-	03
RA's appointed - 1999	-	-	02	02	07	01	03	30
PG Thesis received - 1999	01	-	-	-	01	-	-	03
Registered for PG - 1999	-	-	01	-	07	-	01	18
No. of new applications received during 1999	-	-	01	-	09	-	02	38

Table 2 - Grants sponsored by Foreign Agencies

Status summary during 1999

Total No. of ongoing grants as at 31.12.1999	Sida - Buffalo Research Programme	Sida - Coastal Ecology Research Programme	Sida - Social Sciences	Sida - Biotechnology	Total
Total No. of ongoing grants as at 31.12.99	-	04	10	04	22
Grants awarded - 1999	-	-	08	02	10
Amount allocated for 1999 new and ongoing Rs.)	Rs. 300,000	Rs. 900,000	Rs. 542,292	Rs. 3,117,808	3,669,390
Grants completed - 1999	01	02	-	-	03
Grants withdrawn - 1999	-	-	01	-	01
Grants terminated - 1999	-	-	-	-	-
RA's appointed - 1999	-	-	02	02	04
PG Thesis received - 1999	-	-	-	-	-
Registered for PG - 1999	-	-	08	-	08
No. of new applications received during 1999	-	02	12	02	16

Annexe I

Institutions/schools	Vidurava	Science Education Series
Ministry of Science and Technology - for science clubs and other	15	
SUBOTHI Institute	14	7
Green Forest Association	10	10
SLAAS, Colombo	13	26
Girigollagama Vidyalaya, Talawa	05	05
Wegalla Junior School, Wegalla	05	05
Nakanda Midigama Vidyalaya, Ahangama	05	05
Kelediulweva Vidyalaya, Mahailuppallama	05	05
Kagamayaya Vidyalaya, Kattiyawa	05	05
Siddartha Maha Vidyalaya, Pemaduwa	05	05
Sri Bodiyanigama Daham School, Diulapitiya	15	07
Yapahuwa Maha Vidyalaya, Yapahywa	12	09
Nugadanda Maha Vidyalaya, Kalatuwawa	19	12
St. Mary's School, Hambanthota	10	10
Arukoda Sri Parakrama Maha Vidyalaya, Alubomulla	10	10
Sripathi Maha Vidyalaya, Wathugedara	10	10
Padagoda Maha Vidyalaya, Beruwala	13	13
Rajapaksha Maha Vidyalaya, Ahungalla	10	10
Ampe Vidyalaya, Balapitiya	10	10
<b>Total</b>	<b>191</b>	<b>164</b>

New Grants awarded in 1999

Discipline - Agricultural Science & Forestry

Grant No.	Grantee/Institute	Project Title/Duration	Total Allocation
RG/99/AG/01	Dr R.P. Mahaliyanaarachchi Ms. D.A.M. de Silva Faculty of Agric. Sciences Sabaragamuwa University Boralanda	Factors affecting market failures in vegetable sector in Welimada area  01 year.	Rs. 3,42,000/-

Discipline - Biotechnology

Grant No.	Grantee/Institute	Project Title/Duration	Total Allocation
SIDA/99/BT/01	Dr (Ms) Preethi V. Randeniya Dept. of Zoology Univ. of Colombo	Studies on the antibody response in naturally infected individuals to purified proteins of <i>Plasmodium vivax</i>  02 years	Rs. 168,000
SIDA/99/BT/02	Prof. P.A.J. Perera Faculty of Medicine Univ. of Peradeniya	Folate studies in anaemic and control groups and their diets  02 years	Rs. 202,000

Discipline - Biological Sciences

Grant No.	Grantee/Institute	Project title/Duration	Total Allocation
RG/99/B/01	Dr S.H.P.P. Karunaratne Dept. of Zoology Univ. of Peradeniya.	Insecticide resistance in anopheline vectors of malaria - an island wide survey. 03 years	Rs. 956,000/-
RG/99/B/02	Prof. W.D. Ratnsooriya Ms Mayuri Wijesinghe Dept. of Zoology University of Colombo	A study on the ecological relationships between endemic plants and vertebrates as an aid to the conservation of biodiversity in Sri Lanka. 03 years	Rs. 227,480/-
RG/99/B/03	Mr D.M.U.B. Dhanasekera Ms S.A. Krishnarajah Royal Botanic Gardens Peradeniya.	Sustainable use of wild flora to develop the Floriculture industry. 03 years	Rs. 461,300/-
RG/99/B/04	Dr S.C. Wijeyaratne Dept. of Botany Univ. of Sri Jayewardenepura.	Studies on diversity and distribution of Lichens and air quality on Ritigala mountain and its vicinity. 03 years	Rs. 759,000/-
RG/99/B/05	Dr(Ms) H.C.E. Wegiriya Dept. of Zoology Univ. of Ruhuna.	Isolation and identification of mycopathogens of insects from Southern part of Sri Lanka. 02 years	Rs. 158,450/-
RG/99/B/06	Ms A.M. Karunaratne Dept. of Botany Univ. of Peradeniya.	Developing a biocontrol method to increase shelf-life of Embul banana. 03 years	Rs. 552,000/-
RG/99/B/08	Dr M.P. de Silva Mr W.P. Sapumohotti Dept. of Botany Univ. of Ruhuna	A study of the distribution patterns of Algae on the Southern coast of Sri Lanka with special reference to Anthropogenic effects. 02 years	Rs. 504,840/-
RG/99/B/09	Dr D.S.A. Wijesundera Royal Botanic Gardens, Peradeniya. Dr Buddhi Marambe Dept. of Crop Sciences Dr K.U. Tennekoon Dept. of Botany Univ. of Peradeniya.	Eco-physiological studies on the invasive behaviour of Cuscuta spp. in Sri Lanka and their impact on host plants. 03 years	Rs. 696,880/-

Discipline - Chemical & Earth Sciences 1999

Project No.	Grantee/Institute	Project Title/Duration	Total Allocation (Rs)
RG/99/C/01	Dr A. Wickramasinghe Dr V. Karunaratne Dr R.M.G. Rajapakse Dept. of Chemistry Univ. of Peradeniya	Investigation of Novel Method Based on Photogenerated Singlet Oxygen for Control of Dengue Mosquito Larve and Environmental Pollution Abatement. 03 years	1318440
RG/99/C/02	Dr G.K. Manuweera Dept. of Agriculture Gatambe, Peradeniya	Chemical Study of Insecticidal Activity of Euphorbia Antiquorum 02 years	287500
RG/99/C/03	Prof. E.R. Jansz Dept. of Biochemistry Univ. of Sri Jayawardenapura	Correlation of Palmyrah Fruit Morphology with Flabelliferins and Debittering techniques 2 years	181000
RG/99/C/04	Prof. K.T.C. de Silva Dept. of Physics Univ. of Colombo	Research and Development of Solar Cells Based on CdS/CuInSe <sub>2</sub> and Cu <sub>2</sub> O/CuInSe heterojunctions 02 years	281000
RG/99/C/05	Dr M.S.W. de Silva Dept. of Chemistry Univ. of Ruhuna	Identification of the Involvement of singlet Oxygen in atmospheric oxygenation of Polycyclic Aromatic Hydrocarbons 03 years	510000

RG/99/C/06	Dr Namal Priyantha Dr Ayanthi Navaratne Dr Dimuthu Jayawickrema Dept. of Chemistry Univ. of Peradeniya	Development of Electroanalytical and Chromatographic Methodologies for the Detection of Selected Pesticides used in Sri Lanka 03 years	1335360
RG/99/C/07	Dr (Mrs) Karnika de Silva Dr L. Karunanayaka Champa Wellapilli RRJ Ratmalana	Protective Measures for the Current Latex Protein Allergy Problem - A solution to a serious threat to natural rubber industry 03 years	1155756
RG/99/C/08	Prof. O.A. Ileperuma Dept. of Chemistry Univ. of Peradeniya	Development of solar Cells based on dye - sensitized titanium dioxide with solid electrolytes 03 years	425000

Discipline - Energy

Grant No	Grantee/Institute	Project Title/Duration	Total Allocation
RG/99/EP/01	Eng. M.W. Leelaratne Mr. D.D. Ananda Namal NERD Centre Ekala Ja-Ela	Guidelines for improving commercial energy utilization efficiency in the Sri Lankan domestic sector  01 Year	250,000
RG/99/EP/02	Dr. Priyatha D C Wijayatunga Department of Electrical Engineering Dr. R. Attalage Department of Mechanical Engineering University of Moratuwa	Estimation of daylight availability in Colombo and energy saving potential through the use of natural daylight in building design  02 Years	756,000

Discipline – Engineering & Built Environment

Grant No.	Grantee/Institute	Project title/Duration	Total Allocation (Rs.)
RG/1999/E/001	Dr SMNA Senanayake Ms KMS Liyanage Dept. of Mathematics University of Peradeniya	Design and implementation of neural-ware system for prediction, optimization and control. <b>02 years</b>	307100/-
RG/1999/E/002	Dr Amal S. Kumarage Dr J.M.S.J. Bandara Dept. of Civil Engineering Univ. of Moratuwa.	Development of a Bus Routing and Scheduling Plan for Colombo Metropolitan Region. <b>02 years</b>	617000/-
RG/1999/E/003	Dr J.B. Ekanayake Dept. of Electrical & Electronic Engineering Univ. of Peradeniya.	Monitoring, analysis and mitigation of power quality problems in the power distribution system in Sri Lanka. <b>03 years</b>	719250/-
RG/1999/E/004	Prof. S.S.L. Hettiarachchi Dr S.P. Samarawickrama Dept. of Civil Engineering Univ. of Moratuwa.	Investigations of wave-structure interaction of porous coastal structures. <b>03 years</b>	594,000/-
RG/1999/BE/01	Dr Ranjith Dayaratne Ms Priyanthi C. Wijeratne Dept. of Architecture Univ. of Moratuwa.	A study of object bias design and it's implication to place. <b>06 months</b>	21500/-
RG/1999/BE/02	Dr K.A.R. Dayaratne D.S.H. Pathirana Dept. of Architecture Univ. of Moratuwa.	Housing condition in refugee camps in Puttalam : Coping with loss of sense of home. <b>01 year</b>	29500/-
RG/1999/BE/03	Dr L.S.R. Perera B.H.M.P. Wijesinghe Dept. of Architecture Univ. of Moratuwa.	A study of social malaise and its implications on the built environment – with special reference to urban neighbourhood. <b>06 months</b>	21700/-

Discipline - Health Sciences

Grant No	Grantee/Institute	Project Title/Duration	Total Allocation
RG/99/M/01	Mrs. D. Rajapakse Mrs. S. Jayasinghe ITI	Rice based oral rehydration therapy for acute childhood diarrhoea. <b>01 year</b>	155,000
RG/99/V/01	Dr. Omala Wimalaratne M.R.I. Dr. Mangala Gunatilake Univ. of Colombo	Determination of efficacy and virus neutralizing antibody levels in canines before and after immunization with antirabies vaccine. <b>02 years</b>	478,195
RG/99/M/02	Prof. Shanthi Mendis Dr. Y.M. Arseculeratne Univ. of Peradeniya Dr. Nalini Withana M.R.I.	Serological evidence of an association between <i>Chlamydia pneumoniae</i> infection and coronary heart disease in Sri Lanka. <b>01 year</b>	143,000
RG/99/M/03	Dr. A.C.M. Faizal V.R.I. Dr. R.P.V.J. Rajapakse Univ. of Peradeniya	A study of nematode trapping fungi active against caprine gastrointestinal nematodes in Sri Lanka. <b>01 year</b>	66,000

RG/99/M/04	Dr(Mrs) Siromani Abeyratne Ministry of Health & Indigenous Medicine Dr. S. Fernando Univ. of Sri Jayawardenepura	A study to determine the occupational exposure to mercury, and Hepatitis B virus amongst the dental care workers in Sri Lanka. <b>02 years</b>	994,250
RG/99/M/05	Dr. Deepal Weerasakera Dr. Sirimali Fernando Dr. Sriyani Ekanayake Univ. of Sri Jayawardenepura	A study to determine the prevalence of congenital infection among new-borns and the proportion of women at risk of giving birth to babies with congenital infection at the Colombo South Teaching Hospital. <b>02 years</b>	585,000
RG/99/M/06	Dr. H. Peiris Dr. U.C.L. Hewage Univ. of Sri Jayawardenepura	Evaluating the validity of a simple test for Microalbuminuria. <b>02 years</b>	242,400

Discipline - Information Science

Grant No	Grantee/Institute	Project Title/Duration	Total Allocation
RG/99/IS/01	Dr. Lareef Zubair IFS	Preparation of a bibliography on the climate of Sri Lanka 06 months	118,000
RG/99/IS/02	Mr. P.E. Harrison Perera Sri Lanka Library Association	Cooperative practices in Sri Lankan Libraries and Information Centres. 03 months	88,000

Discipline : MAB

Grant No.	Grantee/Institute	Project Title/Duration	Total Allocation
RG/99/MAB/01	Dr G.I. Seneviratne Dept. of Botany Univ. of Colombo Colombo 3.	Exploitation levels of indigenous aquatic plants and fish in Sri Lanka  02 years	Rs 487600.00

Discipline : Natural Resources

Grant No.	Grantee/Institute	Project Title/Duration	Total Allocation
RG/99/NR/01	Dr M.P.de Silva Dept. of Botany Univ. of Ruhuna Matara	Study of seasonal variations in the water quality of Walawe river with reference to effluent discharges from paper and sugar industries  2 years	Rs. 709764.00
RG/99/NR/02	Mr N.M.S.I. Arambepola NBRO 99/I, Jawatta Road Colombo 5	Monitoring of landslide movements using geophysical methods  2 years	Rs. 491767.50

Discipline : Physical & Mathematical Sciences

Grant No	Grantee/Institute	Project Title/Duration	Total Allocation
RG/99/P/01	Dr B.R.S.B. Basnayake Meteorological Office Bandaranaike International Airport Katunayake	Introduction of a meso-scale numerical model in Sri Lanka, firstly to overcome data sparseness (A major constraint in local weather forecasting) and secondly to use model out put as a forecasting tool. (1 year)	Rs. 317,000/-
RG/99/P/02	Dr.D.U.J. Sonnadara Prof. T.R. Ariyaratne Department of Physics University of Colombo	Implementation of an Automated Lightning Detection Network for Sri Lanka. (3 years)	Rs. 658,552/-
RG/99/P/03	Dr Asiri Nanayakkara Department of Physics University of Sri-Jayawardenapura	Development of computer software and hardware system for blind persons (03 years)	Rs. 560,964/-

Discipline : Science Education

Grant No.	Grantee/Institute	Project Title/Duration	Total Allocation Rs.
RG/99/SE/01	<b>Dr Dushayanthi Hoole</b> Senior Lecturer Dept of Chemistry <b>Mr S R H Hoole</b> Information Technology Unit Open University Nawala	A suite of web-based compact disks and practical home-kit aids for teaching chemistry  <i>03 years</i>	396,000/-
RG/99/SE/02	<b>Dr S A Fernando</b> Senior Lecturer Dept of Chemistry University of Colombo	Preparation of educational package compatible with international standards(ISO-25) to upgrade skills of laboratory personnel in chemical laboratories  <i>02 years</i>	280,000/-
RG/99/SE/03	<b>Dr(Ms) Sunethra Karunaratne</b> Senior Lecturer Science Education Unit Faculty of Science University of Peradeniya	Implementation of School based assessment (SBA) in environmental studies in sixth grade classrooms in nine selected schools  <i>1 1/2 years</i>	100,000/-

Discipline - Social Sciences

Grant No.	Grantee/Institution	Project Title/Duration	Total Allocation
SIDA/99/SS/01	Prof. (Mrs.) Anoja Wickramasinghe Head/Dept. of Geography, Univ. of Peradeniya, Peradeniya	Bio-diversity conservation from the perspective of Gender and food security  01 year	291,880.00
SIDA/99/SS/03	Dr.(Ms) U A D P Gunawardena Univ. of Sri Jayawardenepura Gangodawila Nugegoda.	Economic evaluation of domestic biodiversity in selected lowland areas of Sri Lanka  01 year and 06 months	88,450.00
SIDA/99/SS/04	Miss W W T K Rajaguru 104, Watte Walawwa, Ranawana, Katugastota	The role of middle and small scale industries in the rural economy of Sri Lanka  01 year	95,259.00
SIDA/99/SS/05	Ms. N P Gunasekera Ph.D Student Univ. of Sri Jayawardenepura Gangodawila Nugegoda.	Women in relocated communities: A case study of problems encountered by low-income women in the CMR (Colombo Metropolitan Region)  01 Year	122,000.00

SIDA/99/SS/06	Ms. M P G G Piyaratne M.Phil Student Univ. of Peradeniya Peradeniya.	Environmental problems in the Matale Town	54,975.00
SIDA/99/SS/07	Ms. D A L Ranasinghe M. Phil. Student Faculty of Education, University of Colombo Colombo.	01 year Junior secondary school curriculum in Sri Lanka - a critical study on the need for innovations, present reforms and future trends	20,000.00
SIDA/99/SS/08	Mr. T W M T W Bandara Dept. of Geography Univ. of Peradeniya Peradeniya.	01 Year Socio-economic implications of land use changes and land degradation of upper Kotmale catchment	80,463.00
SIDA/99/SS/09	Ms. N J Mendis M.Phil Student Univ. of Kelaniya Kelaniya.	02 years Suicide in Sri Lanka	199,350.00

NATIONAL SCIENCE FOUNDATION

Balance Sheet as at 31-12-1999

As at 31-12-98 (RS.)		RS.	RS.	RS.
(28,094,833.77)	<b>Funds Employed</b>			
400,000.00	NSF Fund	(32,372,856.62)		
407,462.50	Add: Drawings from Treasury	697,000.00		
(27,227,371.27)	Acquisitions of assets	768,646.33	(30,907,210.27)	
(5,145,485.35)	Less: Excess of Expenditure over income		(5,420,993.67)	(36,328,203.94)
(32,372,856.62)				
6,414,386.97	<b>Documentation Unit Capital Fund</b>	6,772,695.34		
405,000.00	Add: Drawings from Treasury	1,500,000.00		
6,820,386.97			8,272,695.34	
47,591.63	Less: Net Expenditure Note 1-1		92,338.02	
6,772,695.34				6,180,357.32
3,946,472.53	<b>Research Grants Fund</b>	4,578,666.90		
18,165,970.00	Add: Drawings from Treasury	17,903,000.00	22,481,666.90	
22,114,442.53			16,779,561.22	
17,535,575.63	Less: Net Expenditure - Note 1-2			5,690,305.68
4,578,866.90				
1,899,261.70	<b>Man &amp; the Biosphere Fund</b>	1,898,096.90		
379,000.00	Add: Drawings from Treasury	250,000.00	2,148,096.90	
2,278,261.70			239,981.28	
380,164.80	Less: Expenditure - Note 1-3			1,908,115.62
1,898,096.90				
796,004.45	<b>Miscellaneous Funds</b>	772,790.06		
650,000.00	Add: Drawings from Treasury	1,489,000.00	2,261,790.06	
1,446,004.45			1,491,492.67	774,237.41
675,274.37	Less: Net Expenditure - Note 1-4			
772,790.08				
155,497.94	<b>Scientific Man Power Project Fund</b>	153,497.94		
	Add: Drawings from Treasury		153,497.94	
155,497.94	Less: Expenditure			155,497.94
155,497.94				

1,034,025.20	Working Committee Fund	1,034,025.20		
-	Add: Drawings from Treasury	-		
1,034,025.20	Less: Expenditure	1,034,025.20		1,034,025.20
1,034,025.20				
74,562,839.57	Foreign Aid Fund	80,588,192.78		
27,017,528.00	Add: Drawings from Treasury	19,732,730.00		
-	Treasury Deposit	1,015,217.00		
101,580,367.57			101,336,159.78	
20,992,174.79	Less: Net Expenditure Note 1.5		25,574,091.59	
80,588,192.78				75,762,068.19
47,982,660.00	Capital Reserves			47,622,660.00
1,523,182.99	Current Liabilities			
438,401.76	Creditors		1,533,996.11	
6,562,064.05	Accrued Charges		826,369.34	
4,559.86	Provisions		7,049,846.55	
37,450.00	Store-keepers refundable security deposits		5,575.11	
	Tender Deposits		39,450.00	
5,947.25	Suspense A/C			9,455,237.11
119,979,514.43				5,842.25
				114,258,142.78

NATIONAL SCIENCE FOUNDATION

As at 31.12.98 RS.	Cost as at 01.01.99 RS.	Additions Disposals RS.	Accumulated Depreciation RS.	Net Balance RS.
<b>Represented by Fixed Assets</b>				
42,325,515.45	42,325,515.45			42,325,515.45
1,385,271.30	3,855,063.81	203,901.55	2,619,960.51	1,438,404.85
6,488,115.39	17,255,609.55	(9,098.00) 5,564,782.17 (637,109.62)	14,529,015.16	8,211,281.56
1,891,513.35	6,890,773.87	7600	5,489,645.70	1,011,618.35
31,130.00	259,951.14		244,386.14	15,565.00
2,200.00	15,170.50		12,070.50	1,100.00
	1,504.00	(180.00)	1,324.00	
119,784.13	440,710.40	(67,897)	391,405.37	190,041.55
540,195.97	1,574,335.79	(74.00)	1,070,908.82	581,269.91
2,396,678.31	30,342,217.53	344,481.45	28,950,300.22	1,776,998.76
2,707,732.85	7,516,683.23	(211,180.00)	5,240,624.38	3,797,895.35
57,847,596.75	110,655,515.27	7,248,214.51	58,549,640.80	59,349,088.78
650,000.00			650,000.00	
13,953.64			13,953.64	
663,953.64				663,953.64
734,147.62			764,376.04	
4,872,902.59			6,615,895.14	
705,354.75			3,517,218.40	
70,109.45			70,109.45	
46,570,196.42			38,433,855.42	
6,552,419.74		2,782,214.30		
1,551,696.00		1,329,278.22		
560,330.96		291,897.96		
7,991.46		5,691.46		
12,500.00		15,000.00		
24,403.19		14,188.86		
4,599.86		5,575.11		
			4,443,645.91	
119,979,514.43				54,245,100.36
				114,258,142.78

Director,  
NATIONAL SCIENCE FOUNDATION  
47/5, Mainland Place,  
Colombo 7.

NATIONAL SCIENCE FOUNDATION

Income and Expenditure Account as at 31-12-1999

As at 31.12.98 (RS.)		RS.	RS.	RS.
19,419,140.00	<u>Drawings from Treasury</u>			20,150,000.00
	<u>Income for the year</u>			
155,342.78	Interest received		203,893.39	
66,975.50	Stundry Income		68,085.40	
411,678.75	Sale of Publications		442,466.05	
44,985.00	Photocopy receipts		82,551.00	
136,137.48	Receipts from printing outside jobs		295,877.53	
96,144.00	SISTIC Income <i>Note - I.B</i>		511,900.96	
-	Profit on sale of fixed Assets		99,780.00	
1,000,000.00	10% Administration cost - Foreign Aid		1,500,000.00	
-	10% Administration cost - RG/95/MAF Grant		87,291.41	
27,578.19	Excess provisions re doubtful debtors		-	
9,664.12	Cash Discount received		874.50	
21,419,615.82	Less: Expenditure for the year		3,228,020.24	
	<u>Authority Expenditure</u>		23,388,020.24	
48,124.00	Travelling & Allowances for Authority members	36,554.00		
99,207.50	Entertainment	34,515.41		
-	Printing & Publications	25,609.63		
	<u>Staff Emoluments</u>		96,878.04	
10,080,891.88	Salaries & Allowances	10,991,261.27		
1,423,213.93	Employees Provident Fund	1,451,701.90		
278,870.19	Employees Trust Fund	290,902.93		
1,032,767.00	Provisions for Retiring Gratuity	519,232.50		
178,587.16	Overtime	214,827.26		
13,902.81	Holiday Payment	60,286.04		
100,298.00	Uniforms	50,051.25		
31,698.80	Staff Training	49,512.70		
			19,021,875.85	



**Cash Flow for the year - 1999**

**Source of Funds**

	<b>RS.</b>
Contribution from Government	- 21,843,000
Foreign Aids	- 19,732,750
Money received from sale of fixed assets	- 255,902
	----- 41,831,652

**Application of funds**

Outflow from activities - Note - 1	- 33,340,381
Fixed Assets purchased during 1999	- 7,972,945

**Movement in Working Capital items**

	<i>Source</i>	<i>Application</i>		
Stocks	-	30,228		
Debtors	-	1,749,190		
Prepayments	-	3,211,854		
Creditors	10,813	-		
Accured charges	387,968	-		
Other Liabilities	2,910	-		
	-----	4,991,272	4,589,581	45,902,907
	-----	-----	-----	-----
				(4,071,255)
Cash & Cash equivalents as at 01.01.99.				8,514,901
				-----
Cash & Cash equivalents as at 31.12. 99				4,443,646
				-----

**Note - 1**

		<b>RS.</b>
<b>Excess of expenditure over Income</b>	-	5,830,993.67
<b>Add:</b> Gratuity paid during 1999	-	31,550.00
Cash Imprests written off from Doubtful debtors	-	287.50
Profit on sale of fixed assets	-	39,780.00
		-----
		71,617.50
		-----
		5,902,611.17
<b>Less:</b> Depreciation	-	6,255,385.00
Loss from sale of fixed assets	-	286.00
Provisions for Gratuity	-	519,332.50
Assets purchased from Recurrent Funds	-	768,646.35
Provisions for Doubtful Debts	-	6,485.15
		-----
		7,550,135.00
		-----
		(1,647,523.83)
<b>Add:</b> Prior year adjustments		50,000.00
		-----
		(1,697,523.83)
Research Grants Expenditure	-	16,791,561.22 (1)
Documentation Unit expenditure	-	92,338.02 (3)
MAB	-	239,981.28 (1)
Miscellaneous	-	1,491,492.67
Foreign Aid	-	16,422,531.59 (2)
		-----
		33,340,380.95
		-----

**NOTES ON ACCOUNTS**

1. **General Accounting** - The Financial Statements have been prepared in accordance with generally accepted accounting principles on a historical cost basis. The fundamental accounting assumptions and policies relevant in accounting have been adhered to on a consistent basis as in the previous year.

The ten- percent of foreign donor funds received which is for covering overheads, has been taken Credit in the Income and Expenditure Statement.

1.1 **Documentation Unit Capital Fund Expenditure**

1.	SLSTIC Equipment	1,633,004.50
2.	SLSTIC Books	78,556.94
3.	SLSTIC Workshop & Seminars	92,338.02
		<hr/>
		1,803,899.46
	Less : Cost of Equipment & Books	1,711,561.44
		<hr/>
		92,338.02
		<hr/>

1.2 **Research Grants Expenditure**

	Actual expenditure for the year	15,001,578.04
	Zoological Survey expenditure	105.94
	Market Garbage	2,938,901.71
		<hr/>
		17,940,585.69
	Less : Cost of Equipment	318,731.45
		<hr/>
		17,621,854.24
	Less: Prior year adjustments (Net)	830,293.02
		<hr/>
		16,791,561.22
		<hr/>

1.3 **Man & the Biosphere Expenditure**

1.	MAB/98/02	2,901.00
2.	MAB/98/03	141,400.00
3.	MAB/99/01	74,550.00
4.	MAB/1.3/3	24,768.28
		<hr/>
		243,619.28
	Less: Prior year adjustments (Net)	3,638.00
		<hr/>
		239,981.28
		<hr/>

1.4	<b><u>Miscellaneous Fund Expenditure</u></b>		<b>RS.</b>
1.	Participation in International Scientific Work	-	78,573.17
2.	Research Training	-	345,033.00
3.	Seminars & Symposia A/C	-	897,417.96
4.	Special Publications A/C	-	160,590.54
5.	Local expenditure for Foreign Aid	-	9,878.00
			-----
			1,491,492.67
			-----
1.5	<b><u>Foreign Aid Expenditure</u></b>		<b>RS.</b>
	SAREC Expenditure	-	20,981,003.24
	Less: Cost of Equipment	-	4,366,841.39
			-----
			16,614,161.85
	Add : Prior year adjustment (Net)	-	9,086,750.90
			-----
			25,700,911.85
	Less : Money received from sale of buffaloes & milk	-	126,820.26
			-----
			25,574,091.59
			-----
1.6	<b><u>Steering Committees Expenditure</u></b>		<b>RS.</b>
1.	Agriculture & Animal Husbandry S/C	-	27,912.00
2.	Biotechnology S/C	-	20,715.90
3.	Biological Sciences S/C	-	40,347.77
4.	Chemical Sciences S/C	-	30,674.00
5.	Editorial S/C	-	58,476.50
6.	Energy S/C	-	9,066.00
7.	Engineering & Built Environment S/C	-	4,588.00
8.	Medical & Vet. Sciences S/C	-	23,514.37
9.	Natural Resources S/C	-	25,911.00
10.	Physical & Engineering Sciences S/C	-	41,909.16
11.	Social Sciences Research S/C	-	22,672.00
12.	S & T Information S/C	-	27,656.50
13.	Zoological Survey S/C	-	25,264.25
14.	SERC S/C	-	26,225.00
15.	Eppavala Phosphate S/C	-	10,524.25
			-----
			395,456.70
			-----

1:7 **Sri Lanka Scientific & Technical Information Center Expenditure**

		<b>RS.</b>
1.	SLSTIC Maintenance & repairs	59,659.71
2.	SLSTIC Periodicals	122,143.64
3.	SLSTIC Paper & Board	34,677.55
4.	SLSTIC Consumables	422,900.10
5.	SLSTIC Miscellaneous	144,103.41
6.	SLSTIC Publications & Publicity	307,486.78
		1,090,971.19

1:8 **SLSTIC Income**

		<b>RS.</b>
1.	Income received from Purna	225,614.96
2.	Income received from WINISIS	139,875.00
3.	Other Income	15,411.00
4.	Internet membership fees	131,000.00
		511,900.96

2. **Assets & the basis of their valuation**  
**Depreciable assets & Depreciation**

Depreciation has been provided on original cost or at valuation on a straight-line basis consistent with that of the previous year and is calculated to write off the assets over their estimated useful lives.

2:1 **Debtors**

		<b>RS.</b>
Total Debtors		6,688,099.56
Less: Provision for doubtful debts		72,204.42

3. **Liabilities**

3:1 **Creditors**

Creditors amounted to RS. 1,533,996.11 Represents monies held by NSF as given below

		<b>RS.</b>
1.	CSC A/C	45,609.52
2.	Staff Creditors	101,971.19
3.	CSC funds received for Remote Sensing Seminar	24,098.13
4.	Fauna & Flora Project A/C	63,410.00
5.	Genetic Resources A/C (CSC funds)	104,815.00
6.	Mobile Science exhibition A/C	5,491.46
7.	MAB Seminar A/C	560,507.33
8.	RC/89/IS/03 A/C	65.75
9.	Staff Creditors	25,481.00
10.	Funds received for preparation of bio-diversity report A/C	11,648.08
11.	Man Power Survey A/C	590,898.65
		1,533,996.11

3:2 **Employees Benefit**

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

3:3 **Retiring Gratuity**

Provisions have been made in the accounts in respect of liability for retiring gratuity.

Amount paid for the year	RS. 31,550.00
Provisions for the year	RS. 519,332.00
	-----

6. Publications for the value of (Valued at selling price) is available with us.	RS. 2,301,893.50
	-----

7. NSF owns 16 vehicles. They are located as follows

AT NSF	-	9
With Research Grantees	-	7
		---
		16
		==

6. Funds drawn from the Treasury during 1999

Consolidated Funds	-	RS. 21,843,000.00
		=====

Recurrent Funds	-	RS. 20,150,000.00
		=====

Foreign Aid Funds	-	RS. 21,232,750.00
		=====

**Schedule - 1**

**Provisions**

	<b>RS.</b>
1. Provisions for Research Grants	1,243,661.49
2. Provisions for Retiring Gratuity	5,232,585.00
3. Provisions for Foreign Aid	573,600.06
	<u>7,049,846.55</u>

**Schedule - 2**

**Accrued Charges**

	<b>RS.</b>
1. Audit fees 96,97,98 & 99	390,050.00
2. Overtime	20,464.99 ✓
3. Sundry Expenses	19,070.19 ✓
4. Exhibition A/C	729.48 ✓
5. Seminars & Symposia	4,212.91 ✓
6. SAREC expenditure	288,557.60
7. Research Grant Expenditure	33,844.69 ✓
8. SAREC / Gen	585.10 ✓
9. Holiday Payment	357.12 ✓
10. Maintenance of Building	1,624.62 ✓
11. Telephone	48,491.37 ✓
12. Special Scientific Fellowship	1,174.85 ✓
13. House Rent, Water & Electricity Bill A/C	119.80 ✓
14. Water Consumption Charges A/C	17,086.62 ✓
	<u>826,369.34</u>

**Schedule - 3**

**Stocks**

			<b>RS.</b>
1.	Stationary & Consumables - Stores	-	636,301.04
	Printing	-	13,905.00
2.	Coral Reef Posters	-	109,670.00
3.	Research Grants	-	4,000.00
4.	Stamps	-	500.00
			<u>764,376.04</u>

**Schedule- 4**

**Sundry Debtors**

			<b>RS.</b>
1.	Research Grants Cash Imprest - Schedule 4-1	-	57,799.50
2.	SERC Cash Imprests - Schedule 4.2	-	1,573.00
3.	Miscellaneous Cash Imprest - Schedule 4.3	-	233,247.95
4.	SAREC Cash Imprest - Schedule 4.4	-	333,481.02
5.	Sundry Debtors	-	820,899.81
6.	Staff Debtors	-	85,424.28
7.	Loans to staff - Distress Loan - Schedule 4.5	-	4,018,933.00
8.	- do - - Motor bicycle - Schedule 4.6	-	963,633.00
9.	- do - - Bicycle loan - Schedule 4.7	-	3,108.00
10.	- do - - Vehicle loan - Schedule 4.8	-	128,000.00
11.	Festival Advance - Schedule 4.9	-	42,000.00
			<u>6,688,099.56</u>
Less:	Provisions for doubtful Debts	-	72,204.42
			<u>6,615,895.14</u>

**Schedule - 5**

**Prepayments**

		<b>RS.</b>
1.	Insurance charges	- 27,091.63
2.	Maintenance of Motor vehicles	- 27,890.23
3.	Maintenance of office equipment	- 40,721.40
4.	SLSTIC Books	- 1,610.00
5.	Miscellaneous & Accessories	- 4,490.00
6.	Postage A/C	- 16,643.10
7.	Subscriptions to International Scientific Unions CSC	- 498,514.50
8.	SLSTIC - Maintenance & Repairs	- 14,411.83
9.	SLSTIC - Periodicals	- 94,988.76
10.	SLSTIC - Miscellaneous	- 2,814.21
11.	SAREC	- 3,188,042.74
		<u>3,917,218.40</u>
		*****

**Schedule - 6**

**Deposits**

		<b>RS.</b>
1.	Government Publications Bureau	- 929.45
2.	Ceylon Oxygen Ltd.	- 4,000.00
3.	Felix Perera & Son	- 42,000.00
4.	Postmaster General	- 1,730.00
5.	Ministry of Industries	- 1,000.00
6.	Director of Telecommunication	- 450.00
7.	Telecom	- 5,000.00
8.	Ceylon Electricity Board	- 10,000.00
9.	Telecom - I.D.D facilities	- 5,000.00
		<u>70,109.45</u>
		*****

**Schedule - 7**

**Depreciation**

		<b>RS.</b>
1.	Building 5%	150,168.00
2.	Office equipment & furniture 20%	3,790,616.00
3.	Miscellaneous & Accessories 20%	70,839.00
4.	Bicycles 25%	1,100.00
5.	Motor Vehicles 20%	682,295.00
6.	Motor Bicycles 20%	15,565.00
7.	Documentation equipment 10%	542,844.00
8.	Scientific equipment out on loan 10%	964,761.00
9.	Library books 5%	37,197.00
		-----
		<b>6,255,385.00</b>
		=====



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**கணக்காய்வாளர் துறைமறை அநிபதி திணைக்களம்**  
**AUDITOR GENERAL'S DEPARTMENT**



මගේ අංකය  
எனது இல  
My No. }

EC/R/NSF/FA/99

ඔබේ අංකය  
உமது இல  
Your No. }

දිනය  
திகதி  
Date }

12 June 2001

The Chairman,  
National Science Foundation.

**Report of the Auditor General on the accounts of the National Science Foundation for the year ended 31 December 1999 in terms of Section 14 (2) (c) of the Finance Act No. 38 of 1971.**

The audit of accounts of the National Science Foundation for the year ended 31 December 1999 was carried out under my direction in pursuance of provisions in Article 154 (1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13 (1) of the Finance Act No. 38 of 1971. My observations which I consider should be published with the annual report of the Foundation in terms of Section 14 (2) (c) of the Finance Act appear in this report. A detailed report in terms of Section 13 (7) (a) of the Finance Act was furnished to the Chairman of the Foundation on 29 August 2000.

**1:2 Scope of Audit**

Audit opinion, comments and findings in this report are based on a review of the financial statements presented to audit and substantive tests of samples of transactions. The scope and the extent of such review and tests were such as to enable as wide an audit coverage as possible within the limitations of staff, other resources and time available to me. The audit was planned and carried out in accordance with generally accepted auditing standards, methods and practices to obtain reasonable assurance as to whether the financial statements are free of material misstatements. The audit included examination of evidence supporting the amounts and disclosures in financial statements and assessment of accounting principles and significant estimates and judgements made in the preparation of financial statements, evaluation of their overall presentation and determining whether accounting policies adopted, were appropriate, consistently, applied and adequately disclosed. Sub-Sections (3) and (4) of Section 13 of the Finance Act No. 38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the audit.

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கோலம்பி 7.

මහරගම අඟුරුකොටුව,  
கொழும்பு 7

INDEPENDENCE SQUARE,  
COLOMBO 7

රෂ්ටකය  
தொலைபேசி  
Telephone }

691151

ෆැක්ස් අංකය  
பெக்ஸ் இல  
Fax No. }

697451

ඉලෙක්ට්‍රොනික් තැපෑල  
✉ செய்தி  
E-Mail }

oaggov@slinet.lk

EC/R/NSF/FA/99

12 June 2001

The Chairman,  
National Science Foundation.

**Report of the Auditor General on the accounts of the National Science Foundation for the year ended 31 December 1999 in terms of Section 14 (2) (c) of the Finance Act No. 38 of 1971.**

---

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1:2 Scope of Audit

---

Audit opinion, comments and findings in this report are based on a review of the financial statements presented to audit and substantive tests of samples of transactions. The scope and the extent of such review and tests were such as to enable as wide an audit coverage as possible within the limitations of staff, other resources and time available to me. The audit was planned and carried out in accordance with generally accepted auditing standards, methods and practices to obtain reasonable assurance as to whether the financial statements are free of material misstatements. The audit included examination of evidence supporting the amounts and disclosures in financial statements and assessment of accounting principles and significant estimates and judgements made in the preparation of financial statements, evaluation of their overall presentation and determining whether accounting policies adopted were appropriate, consistently, applied and adequately disclosed. Sub-Sections (3) and (4) of Section 13 of the Finance Act No. 38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the audit.

## 2. Accounts

---

### 2:1 Audit Opinion

---

Except for the effects of the adjustments arising from the matters referred to in paragraph 2:2 of this report, I am of opinion that the financial statements have been satisfactorily prepared to present fairly in all material respects, the financial position of the Foundation as at 31 December 1999 and the results of its operations for the year then ended in accordance with generally accepted accounting principles.

### 2:2 Financial Results

---

The activities of the Foundations are being operated under the general fund and 7 special fund accounts. According to the accounts presented, the financial result of the general fund of the Foundation for the year ended 31 December 1999 had resulted in a deficit of Rs.25,980,994 before taking into account the Government grant for recurrent expenditure as compared with the deficit of Rs.24,945,167 for the preceding year.

The deficit was reduced to Rs.5,830,994 after taking into account the Government grant received for recurrent expenditure of the year under review amounting to Rs.20,150,000 and the foreign aid. The deficit for the previous year was reduced to Rs.5,526,027 after taking into account the Government grant received for recurrent expenditure for that year amounting to Rs.19,419,140.

The financial results of the activities under special funds had resulted in a deficit of Rs.44,189,465 before taking into account the Government grant and foreign aid for special funds as compared with the previous year's deficit of Rs.39,630,882. The deficit for the year under review was Rs.2,295,498 after taking into account the Government grant (including foreign aid) for activities of the special funds amounting to Rs.41,893,967 as against the surplus of Rs.6,986,616 for the previous year after taking into account the Government grant (including foreign aid) for activities of the special funds amounting to Rs.46,617,499.

2:2:1 Comments on Accounts

---

(a) Provision for Bad Debts

---

Although a provision of Rs.72,204 had been made in the year under review in respect of bad debts, the basis of estimating was not disclosed in the accounts.

(a) Purchase of Fixed Assets

---

- (i) Fixed assets valued at Rs.768,646 purchased in the year under review debiting maintenance expenditure while being capitalized at end of the year had been debited to the Fixed Assets Account and credited to the General Fund Account without eliminating from the expenditure account resulting in the overstatement of the deficit in the income and expenditure account by Rs.768,646.
- (ii) Purchase of fixed assets from project funds had been debited direct to Fixed Assets Accounts without debiting the Project Fund Accounts resulting in the overstatement of the balance of the Project Fund Account by Rs.6,397,133.

2:2:2 Accounting Deficiencies

---

The following accounting deficiencies were observed.

- (a) Whilst rectifying, in the year under review, the error in debiting expenditure and crediting debtors in the respective years of the expenditure aggregating Rs.15,511 incurred in prior years on behalf of the Ministry of Science and Technology, the Expenditure Account had been credited, instead of debiting debtors and crediting Prior Year Adjustment Account resulting in the understatement of expenditure for the year under review by a similar amount.

- (b) Whilst rectifying, in the year under review, the sum of Rs.12,000 debited to Scientific Equipment Account and credited to SAREC Expenditure Control Account, the SAREC Expenditure Control Account had been credited instead of being accounted for as prior year adjustments resulting in the SAREC Expenditure Control Account being understated by a similar amount.
- (c) Whilst rectifying, in the year under review, the error in charging a fixed asset (Purna Package) valued at Rs.50,000 purchased from an outside party in the preceding year to the income without being capitalized, the Prior Year Adjustments Account had been credited and the Income Account debited resulting in the understatement of income and fixed assets by Rs. 50,000.
- ✓ (d) Five vehicles costing Rs.1,125,312 purchased for use of the projects which had been fully depreciated had been detailed for use of the projects and those vehicles had not been revalued and a reasonable value shown in the accounts.
- ✓ (e) Service charges amounting to Rs.137,000 paid in respect of the internet for 1998 had been accounted for as expenditure of the year under review.
- ✓ (f) Charges amounting to Rs.11,855 in respect of telephone used by the consultant in a project of the Ministry of Science and Technology had been accounted for as expenditure of the Foundation.
- (g) Payments amounting to Rs.573,557 made to officers and employees of the Foundation on account of leave unavailed of had been accounted for as salaries and wages.

- (h) The annual bonus of Rs.888,989 paid to officers and employees of the Foundation for administration of foreign aid funds had been shown under recurrent expenditure as administration expenditure.
- (i) In spite of the condition that the computer and printer valued at Rs.61,999 purchased from funds of the National Apprentice and Industrial Training Authority should be returned to that institution after completion of the project, these had been shown in the accounts as fixed assets of the Foundation.
- (j) The balance of Rs.573,600 transferred in preceding years from foreign aid fund to the general fund for administrative expenses in respect of operation of foreign aid projects had been shown in the accounts as provisions instead of being credited to the Foreign Aid Funds Account.
- (k) Of the sum of Rs.21,232,750 received from the Treasury for foreign aid for the year under review, only a sum of Rs.19,732,750 had been credited to the Foreign Aid Funds Account and Rs.1,500,000 had been credited as income to the Income and Expenditure Account resulting in the understatement of receipts in the Foreign Aid Account by Rs.1,500,000 and overstatement of income in the Income and Expenditure Account by a similar amount whilst the income over administrative costs amounting to Rs.22,440 had resulted in the understatement of the deficit by a similar amount.
- (l) Expenditure of Rs.46,431 incurred for installation of 2 new telephones had been accounted for as recurrent expenditure under telephone expenses.
- (m) A prepayment of Rs.1,685 as diesel tax in respect of vehicles had been accounted for as expenditure of the year under review.

- (n) A sum of Rs.159,680 due from an officer who had left the service to join service in another institution before completion of the period of compulsory service in the Foundation in accordance with the agreement had not been brought to account.
- (o) A sum of Rs.10,033,039 credited by the Treasury as foreign aid had not been brought to account.
- (p) A cheque valued at Rs.3,567 received in 1992 for publications sold to foreign countries had been presented to the bank without entering in the cash book and had been shown under sundry debtors as an unrealized cheque. Action had not been taken to recover this amount.

#### 2:2:3 Assets based on Book Value

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A physical verification of fixed assets had not been carried out during the year under review or at end of the year under review and the fixed assets had been shown in the accounts on book value.

#### 2:2:4 Suspense Account

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The suspense account balance of Rs.5,842 which is being brought forward over several years had not been cleared even during the year under review.

#### 2:2:5 Unreconciled Control Accounts

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Balances in 3 Control Accounts aggregating Rs.39,000,584 had not been reconciled with the balances aggregating Rs.25,632,390 as per relevant subsidiary records.

**2:2:6 Lack of Evidence for Audit**

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Fifteen items of assets and liabilities aggregating Rs.29,150,702 could not be satisfactorily vouched or accepted in audit in the absence of required evidence.

**2:2:7 Non-compliance with Laws, Rules, Regulations and Management Decisions**

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The following instances of non-compliance were observed in audit.

Reference to Laws,  
Rules, Regulations, etc.

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Particulars

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(a) **Finance Act No. 38 of 1971**

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(i) **Section No. 8 (3)**

A draft income and expenditure account and a projected balance sheet had not been prepared for the budget for 1999. -

(ii) **Section No. 13(5) (b)**

Reports on stocks, debtors and creditors as prescribed by the Auditor General had not been furnished.

(iii) **Section No. 13 (6)**

The report on accounts had not been furnished along with the annual accounts.

(b) Science and Technology  
Advancement Act No. 11 of 1994

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Sections 27 (2) and (3)

The Director of the Corporation should be appointed by the Minister in consultation with the Board taking into consideration the qualifications and recruitment procedure specifically referred to under sub - section (3). Although an Acting Director should be appointed by the Minister for the vacancy due to the resignation of the first Director of the Foundation, the Acting Director had been appointed by the Chairman.

Applications had been invited by public advertisement in a newspaper, 23 applications had been received and 6 of the applications had been rejected since the age specified for the post should have been below 50 years. Although 6 of the others had been called for the interviews, a person over the age of 50 years had been appointed for the post. It was observed that his application was one among the applications rejected for being over the age of 50 years.

Section 27 (3)

Although the Board should, with the concurrence of the Minister, specify the qualifications and recruitment procedure for the post of Director, qualifications and recruitment procedure had not been specified.

Section 28 (1)

Although every member of the Board or its committee and every member of the Corporation should sign a declaration of oath of secrecy in respect of all matters relating to activities of the Corporation before accepting his assignment of work, it had not been done accordingly.

Section 43 (2) (a)

Although all officers and employees of a Corporation concerned holding posts on the date prior to the specified date should be given employment in the corresponding Corporation on terms and conditions not less favourable than the terms and conditions relevant to posts they held on the date prior to the specified date, action had not been taken accordingly.

- (c) Stamps Duty Act No. 43 of 1982 and Gazette Extra ordinary No. 89612 of 8 November 1995

Although stamped receipts should be obtained from the payee in respect of payments over Rs.100, stamped receipts aggregating Rs.1,002 had not been obtained for 74 payments.

- (d) Letter of the Commissioner of Inland Revenue (Services) 1996 March for recovery of Save the Nation Contributions

An under recovery of Rs.31,672 had been made in deducting Save the Nation Contributions due to not taking into account the allowances and holiday pay etc.

(e) **Financial Regulations**  
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(i) 757 (2) Copies of Boards of Survey reports had not been furnished to the Auditor General.

(ii) 1645 Log books had not been maintained in respect of vehicles.

(f) **Public Enterprises Circulars**  
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Circular No. 116 of  
24 January 1997

Although resources of Corporations or Boards such as staff should not be utilized for objectives of the Ministry, a female stenographer of the staff of the Foundation had been detailed for service in the Ministry for 5 years. This officer had been paid salaries and allowances amounting to Rs.274,915, bonus amounting to Rs.50,000 and Rs.5,790 on account of leave unavailed of from funds of the Foundation for the relevant period.

(g) Circular No. PI/000/T/NF dated 10 August 1983 and Section 8 (3) of Finance Act No. 38 of 1971

Budget had not been prepared on the format specified in the Circular.

(h) **Public Administration Circulars**  
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(i) No. 41/90 of  
10 October 1990

Fuel consumption of vehicles of the Foundation had not been tested.

(ii) No. 47/97 of  
3 February 1997

Staff officers had been allowed to work on holidays and paid Rs.33,654 without prior approval of the Secretary to the Ministry.

(iii) No. 19/89 of  
23 March 1989

Although overtime before office hours from 8.30 am should not be counted, overtime amounting to Rs.3,520 had been paid treating hours before 8.30 am as overtime work.

(i) Establishments Code

(i) Chapter VI Section 2:10

Although particulars of interdictions, disciplinary proceedings, resignations from service, retirements, deaths, etc should be reported to the Auditor General as per this Section, action had not been taken accordingly.

(ii) Chapter VIII Section 10:3

The Foundation had not maintained a register showing work done on week-ends and public holidays as per requirements in the Establishments Code.

(j) Treasury Circulars

No. 44 of 25 September 1987

Accounts had not been prepared on the general format specified by the Treasury.

(k) **Agreements**  
-----

Agreement dated  
18 September 1997 signed  
with the Director

A sum of Rs.159,680 to be  
recovered for breach of  
agreement signed for proceeding  
abroad by a scientific officer had not  
been recovered.

(l) **Sri Lanka Accounting Standards**  
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(i) No. 9

The cash flow statement had not  
been prepared as per requirements  
shown in Sri Lanka Accounting  
Standard No. 9.

(i) No.21

Receipts in foreign currency  
had been banked and brought to  
account as debtors until realization  
even though transactions in foreign  
currency should be converted to the  
currency used for recording such  
transactions on the basis of the  
exchange rate effective on the date  
on which the transaction takes place.

2:2:8 Transactions not supported by adequate authority

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The following observations are made.

- (a) According to Public Enterprises Circular No. 95 of 14 June 1994, employees could be paid as allowances only in respect of the benefits specifically approved by the Cabinet, Ministry of Public Administration or the Treasury with the approval of the Boards of Control concerned. However, the officers and employees of the Foundation had been paid a bonus amounting to Rs.888,989, medical leave allowances amounting to Rs.573,557 and medical grants amounting to Rs.52,006 during the year under review without specific approval.
- (b) A sum of Rs.20,000 had been paid for publication of a magazine of the Geological Association outside the objectives of the Foundation.
- (c) Since the Director of the Post Graduate Institute of Science of the University of Peradeniya has been appointed as Chairman of the National Science Foundation in addition to his substantive post, remuneration payable to him should be decided with the concurrence of the Treasury. A sum of Rs.120,000 had been paid for the year under review at Rs.10,000 per month on the recommendation of the Administrative Secretary of the Foundation without Treasury concurrence.
- (d) In spite of assigning an official vehicle to the Chairman and providing a fuel allowance of Rs.9,000 per month, travelling expenses and mileage had been paid for travelling between residence and the place of work. Mileage amounting to Rs.188,045 and travelling expenses amounting to Rs.40,320 had been paid during the year under review.
- (e) The Chairman had been paid travelling expenses and mileage for travelling between the residence and the place of work and a house at Narahenpita - Elvitigala Mawatha had also been taken on rent for his residence. House rent amounting to Rs.98,000 had been paid in the year under review.

### 3. Financial and Operating Review

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#### 3:1 Adjustment of Financial Results

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Adjustments to the financial results and financial position disclosed in the accounts for a certain accounting period had been made by the Foundation as a regular feature for accounting errors, omissions etc. observed in subsequent years. As an example, the net deficit for the previous year had been adjusted by Rs.50,000 during the year under review. Such adjustments made during the past 6 years are shown below.

Year	Financial results as per accounts (deficit)	Adjustments during subsequent year	(Deficit) after adjustment
	Rs.	Rs.	Rs.
1992	(3,800,520)	(63,901)	(3,864,421)
1993	(4,364,152)	(379,802)	(4,743,954)
1994	(4,789,206)	(1,597,228)	(6,386,434)
1995	(2,232,285)	(228,947)	(2,461,232)
1996	(7,040,619)	61,925	(6,978,694)
1997	(5,326,854)	114,958	(5,211,896)

Such adjustments in respect of the financial results for the year under review in ensuing years cannot be ruled out. The financial results and the financial position disclosed in the accounts would, therefore, be questionable.

### 3.2 Project Administration

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The following deficiencies were observed at a test check carried out in relation to research projects carried out by the Foundation.

The Foundation had released funds for research activities to the Universities and the Institutes of Research. But, in the cases where research work completed action had not been taken to refund the balances to the Foundation. The Foundation had not made any efforts during a period of 2 to 7 years to obtain refunds. A few instances disclosed at the test check are given below.

University / Research Institute	Balance Amount
	Rs.
University of Ruhuna	54,923
University of Peradeniya	3,597
University of Kelaniya	62,932
Open University	10,000
University of Colombo	65,000
Cancer Institute	5,725
Medical Research Institute	107,364

### 3:3 Control Over Assets

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Although assets purchased for research projects should be returned to the institution concerned after completion of research activities, several instances where such assets had been retained by the Project Officers for private use instead of returning them are given below.

#### (a) University of Ruhuna

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Project	Nature of Assets	Value	Comments
-----	-----	-----	-----
		Rs.	
SAREC/CE/4	Nissan Double Cab motor vehicle	1,250,000	Although the project had been completed the project officer had retained the vehicle for private use without handing over to the University. This vehicle remained outside the control of the University.
SAREC/CE/10	Computer Laser Printer	53,000	Although project activities had been completed, the asset had not been transferred to the University.
RG/95/B/8	Turbidity Meter	163,215	Although project activities had been completed, the asset had not been transferred to the University.

(b) Purchase of Assets  
-----

The following vehicles and equipment had been purchased from the foreign aid fund.

Vehicle / Equipment -----	Value -----
	Rs.
Van	1,870,000
Motor Car	1,275,000
Mobile telephone	8,900

The following matters were observed in audit:

The motor car and the mobile telephone had been taken for use by the Chairman which is extraneous to the objectives of the Project.

(c) Settlement of Imprests  
-----

Instances of making provision for bad debts without taking action for settlement of imprests granted over 10 years ago to officers in charge of research projects were observed. According to a test check, value of imprests not so settled amounted to Rs.46,827.

(d) International Air Travel  
-----

The International Air Project operated as SAREC 15 under Swedish aid had incurred an expenditure of Rs.134,177, in respect of 50 foreign trips during the year under review. The following matters were observed in audit.

- (i) Discussion and seminars had not been conducted at the end of the tour to share the knowledge gained therefrom.
- (ii) Certain officers had not furnished even reports to be furnished after completion of the tour.

### 3:4 Identified Losses

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- (a) A sum of Rs.30,000 only had been recovered instead of Rs.66,000 recoverable in respect of the hire of the auditorium to the Library Association resulting in a loss of Rs.36,000.
- (b) An expenditure of Rs.27,583 had been incurred over several years on account of licence fees, diesel tax and insurance due to the failure to dispose of the vehicle in time or to obtain exemption from licence fees.
- (c) A stock of sea shells not relevant to objectives of the institution had been purchased for Rs.650,000 and kept idling in stores for a period of 3 years.

### 3:5 Idle and Under-Utilized Assets

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A sum of Rs.2,436,674 received from the Treasury for research activities remained idling due to retaining in allocations without being used over a period of 3 to 13 years and non-implementation of projects.

### 3:6 Uneconomic Transactions

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Due to cancellation of research projects operated by the Foundation halfway for various reasons, the expenditure incurred upto that stage had become a loss whilst the anticipated objectives of the projects had also not been achieved. According to a sample, the loss incurred due to cancellation of projects amounted to Rs.633,368.

### 3:7 Corporate Plan

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A corporate plan had not been prepared in terms of Section 7 (1) of the Finance Act and Treasury Circular No. 1 of 16 June 1989.

3:8 Budgetary Control

Significant variations were observed between the estimated and actual income and expenditure. It was observed that the budget had not been made use of as an effective instrument of management control during the year under review.

3:9 Liquidity

The current liabilities as at end of the year under review represented 13.93 % of the current assets as compared with 17.43 % for the preceding year.

4. Systems and Controls

Deficiencies observed during the course of audit were brought to the notice of Chairman of the Foundation by my detailed report in terms of Section 13 (7) (a) of the Finance Act.

(S.C. MAYADUNNE)  
AUDITOR GENERAL.

31/.

2.2.1 **Comments on Accounts**

- (a) Provisions for bad debts - We will state the basis of estimation in our notes on accounts in the future.

(a) **Purchase of Fixed Assets**

- (1) There is no over statement/ deficit in the Income & Expenditure account. Our practice is to debit the relevant asset account and credit the NSF Fund account, when capitalizing assets purchased out of recurrent budget items such as special scientific fellowships vote. As such the actual expenditure of the relevant vote is stated in the income and expenditure account. If we debit the asset account and credit the relevant account actual expenditure of the relevant vote will not be shown in the income and expenditure account. Our Income and Expenditure account shows the actual deficit/ surplus. Maintenance expenditure accounts have not been debited as reported by the Auditors.
- (II) When an asset is purchased out of a capital Budget vote at the time of purchasing the item, we debit the relevant vote so as to show the actual expenditure in the General Ledger and at the end of the year we transfer the cost of assets purchased to the fixed asset account by crediting the relevant capital Budget item. We do not debit the asset account directly as reported. We give the details of expenditure in our notes on accounts. The assets purchased are represented in the Fixed Assets account, as per the accepted policy.

2:2:2 **Accounting Deficiencies**

- (a) We have followed the Sri Lanka Accounting Standard – 1997 SLAS 10 of the Institute of the Chartered Accountants of Sri Lanka.
- (b) We have followed the Sri Lanka Accounting Standards SLAS 10 year 1997 of the Institute of Chartered Accountants of Sri Lanka.
- (c) Cannot be Capitalized, as it is a Computer Software. We have followed the Sri Lanka Accounting Standards – 1997, SLAS 10 of the Institute of the Chartered Accountants of Sri Lanka.
- (d) Relevant vehicles were used by the Research grantees and action was taken to transfer the ownership of the vehicles to the institution of the grantees, after the project period.
- (e) We have followed the Sri Lanka Accounting Standards SLAAS – 10, Yr. - 1997 of the Institute of Chartered Accountants of Sri Lanka.
- (f) Rectified in year 2000

- (g) Our practice is to pay for unavailed leave under salaries & allowances vote.
- (h) We do not pay our employees an annual bonus. We make an annual payment for our employees out of the funds received for Administering the foreign funds. Hence we debit the Administration account with this annual payment.
- (i) These items have been purchased in 1999. NSF had made the decision to hand it over to NAITA in year 2000. We have capitalized these items at the time of purchase in 1999. Once the items are handed over to NAITA, we will make necessary entries in our books of Accounts.
- (j) These are funds received for Administering the foreign grants. Hence the balance funds have been transferred to the Foreign Aid provision account.
- (k) This is the procedure we have been following for more than 10 years. From year 2000 the procedure has been changed.
- (l) As stated in our reply to 13(7) (a) & 14 (2) (c) reports, these two telephones are the property of Telecom, hence did not capitalize in our books, we will do it in the future.
- (m) Rectified in year 2000
- (n) Relevant officer has given resignation from her post after the no pay leave period. However she has been informed to settle the dues in order to accept the resignation. This has been brought to account in year 2000.
- (o) As stated in our reply to 13 (7) (a) & 14(2)(c) reports We came to know about this transfer only when we received the letter dated 19.05.00 of the Department of State Accounts in reply to our letter requesting for confirmation on Foreign Aid balance at the General Treasury. Hence we could not make the necessary entries in our books of accounts in year 1999.
- (p) Sale of Publications  
We do enter the receipt number in our cash book at the time we receive the Foreign Currency cheques-RS. 2848/= has been rectified in year 2000

### 2.2.3 **Assets based on Book Value**

We have received the board of survey report for,

1. Equipment and Furniture
2. Telephones & Vehicles
3. SLSTIC – Computer & accessories
4. Miscellaneous & Accessories

5. Documentation equipment
6. Stock
7. Library Books

#### 2.2.4 **Suspense Account**

Though the total amount had not been identified. We have made adjustments since 1995. Now the balance is only RS. 10.75 in the suspense account.

#### 2.2.5 **Un reconciled Control Accounts**

Miscellaneous cash imprest & SAREC cash advances- RS.36,091/=

Every year we reconcile the cash imprest / cash advance registers with the General ledger figure as at 31<sup>st</sup> December Hence there cannot be differences as reported.

Treasury Deposit – RS. 13,332,103/=

RS. 10,033,138/= We were informed by the General Treasury only in May 2000 that RS. 10,033,038/= in our Foreign Aid deposit a/c had been credited to Govt. Revenue a/c. Hence we could not make the necessary adjustments in our books of account in year 1999.

RS. 3,298,965/= - We requested in January 2000 to confirm our Consolidated fund deposit. But we received the Confirmation only in October 2000.

#### 2.2.6 **Lack of Evidence for Audit**

We have sent a copy of the Board of Survey Report to the Auditor General.

**Fixed Assets Registers** - We maintain Fixed Assets Registers since 1983, according to Kalamazoo system. These registers have been checked by the Govt. Auditors.

Long Outstanding Cash Imprests - We have requested the grantees to settle them. For others we have requested for confirmations.

#### **Sundry Debtors**

We have requested the long outstanding debtors to settle the dues. Others we have requested for confirmations.

2:2:7 **Non compliance with Laws, Rules, Regulations & Management decisions**

**(a) Finance Act**

- (I) Budget - Budgets are prepared according to the Circulars issued by the Treasury/ Ministry each year & according to the formats needed by them.
- (II) We have given details of Stock, Debtors & creditors along with our Final account as in previous years.
- (III) Annual Report had been sent on 28.04.2000 to Auditor General.

**(b) Science & Technology Advancement act No. 11 of 1994**

There are no provisions in the Act to appoint a Acting Director. As the post was vacant, the Board decided to appoint Mr. M. Watson the senior most Director (Scientific Affairs) to act in the Post. Also his extension to act in the post was approved by the Ministry of Science & Technology vide letter No. ST dated 24.02.1999.

Applications were called for the post of Director. However a selection was not made at the interview since there was no suitable candidate. Also it was recommended not to consider the age limit for those who are in Service. The Board had subsequently recommended the acting Director to be appointed to the post of Director, by the Hon. Minister vide his letter No. ST/NSF/163 of 26.04.1999.

Ministry of Science & Technology and the Board of Management had formulated the requirements for the post of Director.

It was noted to attend to 28(1) and 43 (2) (a)

- (c) **Stamps** - We do not release the payment to individuals unless the proper stamp is fixed. But most Institutions do not put stamps on their receipts. The payments reported are payments made for suppliers. The payments reported includes a cheque which has not been released. Action has been taken to rectify this.
- (d) **Save the Nation Fund** - Now we are taking into account allowances & holiday pay etc.

**(e) Financial Regulations**

- (i) Board of Survey Report - Copies have been sent to the Auditor General.
- (ii) Log Books - Comprehensive files are maintained for each vehicle. Now rectified.

**(f) Public Enterprises Circulars**

Institution Resources - On the instructions of the Ministry of Science & Technology, the relevant employee was released for their service. This will be brought to the notice of the Ministry.

- (g) Budget-** Budgets are prepared according to the Circulars Issued by the Treasury/ Ministry each year, according to the formats needed by them.

**(h) Public Administration Circulars**

- (i) **Fuel Consumption** - It has been noted to attend to this matter.
- (ii) **Staff Working on Holidays** - Due to unavoidable circumstances few employees were detailed to work on weekends. But it has now been restricted. Comment has been noted. Corrective action will be taken in the future.
- (iii) **Overtime** - Referred employees are working in the Printing Department. They have been detailed for very urgent work. Also the minor employees have attended office early to do the key duty too. This will be rectified in the future.

**(i) Establishment Coce**

- (j) i. Copies of relevant documents had been sent to Auditor General.
- ii. Comprehensive file is maintained to record all details

**(J) Treasury Circular**

We have prepared our accounts in the format, we have been preparing for the last so many years. We will rectify in the future.

- (k) Agreement** - Relevant employee is abroad and we are trying to trace her.

**(I) Sri Lanka Accounting Standards**

- i. No. 9 - We have been preparing our cash flow according to standard No. 9 since 1996. We incorporate our activities as much as possible into the format given.

- ii. Std. 21 - Is titled 'The Effect of changes in Foreign Exchange Rates'. Sri Lanka Accounting Standards are not intended to apply to immaterial items. We do not deal with foreign currency, so as to follow the standard 21. In the year 1999 we have received only U\$ 1280.62. It is mostly U\$ 80 per subscriber as journal subscriber. We follow the method of creating a debtor, so that we could identify the subscriber.

**2:2:8 Transactions not supported by adequate authority**

- (a) Payments were made on Board approvals. Following the procedure applied in past years, Secretary to the Ministry of Science & Technology had informed the Secretary to the Treasury re. this payments (see 2:2:2 H Above) ( Annual Payment & Medical leave.) The medical grant was paid on the system established in 1980, and approved by the Board.
- (b) This RS. 20,000/= was released for the purpose of Dissemination of information, and interchange of Scientific Information.
- (c) The Chairman had accepted the appointment on part time basis. Hence the payment was decided based on the Government Circular after consulting the Secretary to the Ministry of Science & Technology.
- (d) As the relevant fuel allocation was not sufficient for the travel of Chairman, the Minister of Science & Technology had approved to pay the travelling and subsistence.
- (e) The Board had granted approval to pay for accommodation (up-to a limit of RS. 10,000/= per month) of Chairman as his presence is required in Colombo for consecutive days.

**3. Financial and Operating Review**

**3.1** This was the accepted practice in 1999. Such an adjustment had not been made in year 2000.

**3:2 Project Administration**

The Statement, The Foundation had not made any efforts during a period of 2 to 7 years to obtain refunds is incorrect. The earliest completion date of the grants as given by the Auditors in the 13(7) ( ) report is December 1996. Hence it is only three years and not as seven years as at December 1999. When we are informed that a grant has been completed u make as written request to the relevant institution to refund the unutilized funds to NSF and thereafter we send reminders. Hence it is incorrect to state that we do not take any effort.

Only the following amounts have to be now (September 2001) refunded to NSF from the grants reported.

<b>University/ Research Institute</b>	<b>Balance Amount As at Sept. 2001 RS.</b>
University of Ruhuna	15,666.00
University of Peradeniya	NIL
University of Kelaniya	NIL
Open University	10,000.00
University of Colombo	40,000.00
Cancer Institute	5,725.00
	(Cheque received but returned)
Medical Research Institute	NIL

3:3 **Control Over Assets**

(a) **University of Ruhuna**

SAREC/CE/04 - Vehicle No. 56/ 4364 is not registered under NSF.

SAREC/CE/10 & RG/95/B/08 - These items have been purchased out of funds transferred to the University. These are direct purchases by the University hence transfer of ownership does not arise.

(b) **Purchase of Assets**

Mobile T\* phone, and Motor Car

Comment incorrect. As stated in our reply to 13(7) (a) and 14 2 (c) report Mobile Telephone was purchased out of consolidated funds and not from Foreign Aid funds as reported. This vehicle was purchased with the approval of the donor agency for NSF, and not for a specific project.

(c) **Settlement of Cash Imprest**

As stated in our reply to 13 (7) (a) & 14 (2) (c) reports, Cash imprests for the value of RS. 5,299.00 have been settled in year 2000 and there balances amounting to RS. 13,947.00 are not in our books of accounts. Another RS. 500/= has been settled in year 2001, and we have written off 03 cash imprests amounting to RS. 1,500/= in year 2000.

Though we make provision for bad debts we take action to recover the outstanding amounts.

( d) **International Air Travel**

- (i) It has been observed from Seminars/ Lectures which was held in the past the number of outside persons who attend these Seminars are minimal. Hence it has been observed that it is uneconomical, & unproductive to hold these Seminars etc. Hence a decision has been made in year 2000 not to arrange such Seminars/ Workshops. Instead we have decided to include all details of travel under SIDA International Contacts in our News letter, which is published quarterly. Any individual interested in obtaining information on the Seminar/ Workshop could contact our grantee.
- (ii) Grantees to whom funds are released from the International Contacts fund, have to submit a report to NSF on the Seminar/ Workshop, if the report is not submitted it will affect them, when another award is requested. If they have not submitted they will be black listed .

3:4 **Identified Losses-**

- (a) Rent for the Auditorium - A concession has been given to the Sri Lanka Library Association when hiring the Auditorium as the event held was relevant to NSF functions.
- (b) Disposal of Vehicles - NSF Board had decided to dispose the vehicle (31/4750). But in the meantime a new system had been introduced by the Govt. to follow regarding unusable vehicles and equipment. The delay was due to the following of the new system. Hence the additional payment was unavoidable.
- (c) Sea Shells Collection - The statement is incorrect. Seashells did not remain in the stores for a period of 3 years. The collection has been identified scientifically and a computerized data base has been prepared during this period. The Board and the Ministry of Science & Technology decided to hand over this collection to the National Museum for the use of scientists and to be displayed for the General Public.

3.5 **Idle and under – Utilized Assets**

- (a) RS. 1,243,661/= we have made the necessary entries in year 2000. We did not have liquid cash. Hence there is no loss.
- (b) RS. 1,034,025/= - There is no loss. This is only a book balance. We don't have liquid cash. Necessary entries were made in year 2000.
- (c) RS. 153,497/= -
- (d) RS. 5491/= - Comment is incorrect. At 31.01.98 the reconciled balance has been RS. 7,991.46. Reconciled Balance as at 31.12.99 is RS. 5,491.46. We are still utilizing this money for mobile train exhibition expenditure.

3:6 **Uneconomical Transactions**

(a) **Research Grants**

Grants are terminated on the recommendation of the relevant working Committee. The Committee recommends the termination after considering all facts forwarded by the grantee. However if NSF or the committee finds that the grantee's conduct is not good or there is misuse of funds, the committee do recommend the refund of funds utilized for the conduct of the research project.

3.7 **Corporate Plan**

The existing Corporate Plan is for the period 2001 – 2005 & has been prepared according to the requirements of the Ministry of Science & Technology.

3.8 **Budgetary Control**

The Budget is prepared almost one year before the expenditure is incurred. As far as possible we use the Budget as an instrument of control.

04. **Systems and Controls**

Auditor General's Comments on Section 13 (7) (a) of the Finance Act received our attention. Our reply to these Comments were forwarded to the Auditor General on 29th Nov. 2000.