

# ANNUAL REPORT 2001



NATIONAL SCIENCE FOUNDATION  
SRI LANKA

AR  
1237

National Science Foundation  
47/5, Maitland Place  
Colombo 7.

03.12.2002

Hon. Minister for Economic Reform  
Science and Technology  
Ministry for Economic Reform, Science & Technology  
561/3, Elvitigala Mawatha  
Colombo 05.

Dear Sir,

**Annual Report of the National Science Foundation  
for the period 1<sup>st</sup> January to 31<sup>st</sup> December 2001**

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, 2001 together with-

- (a) A copy of the Audited Income and Expenditure Accounts
- (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**

## ***Historical Background***

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 of Sri Lanka (NARESA) which was set up in 1982 by Parliament Act No. 78 of 1981. NARESA itself succeeded the National Science Council (NSC) which was established by Act No. 9 of 1968.

## ***Management***

The NSF is governed by a Board of Management which consists of the Chairman, Director and Members appointed by the Hon. Minister of Science and Technology. The Director functions as the Chief Executive of the institution.

## ***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 of Financial Status – 2001**

• Amount requested for consolidated funds	-	Rs. 50 191 481.00
• Amount approved by the Treasury	-	Rs. 42 000 000.00
• Amount requested for recurrent expenditure	-	Rs. 34 492 272.00
• Amount approved by the Treasury	-	Rs. 24 030 000.00
• Approved foreign aid estimate	-	Rs. 14 400 000.00

However, NSF was requested to save 10% of the budgetary provisions made for recurrent expenditure except for salaries & wages, and other allowances and manage operational expenses within the reduced provisions.

## Sponsorship of Scientific Research

### \* *Research Grants Scheme*

The award of research grants is one of the main activities of the NSF to promote scientific and technological research in the country. The NSF entertained applications for research grants throughout the year with a rolling deadline. This facilitated the scientists to obtain funds for their research activities as and when the need arose. In year 2001 NSF called applications for research grants through a newspaper advertisement also. During the year 109 applications were received to be considered for funding.

The applications are screened and evaluated by the NSF Working Committees. The Working Committees are made up of eminent scientists of different disciplines drawn from universities and public/private sector institutions. Based on their recommendations these applications are forwarded to the Board of Management for approval.

Research grants thus awarded are monitored regularly through half-yearly progress reports. In addition, progress review seminars are held where grantees make presentations based on the work carried out under the project. This gives them the opportunity to clarify problems faced by them and carryout the research work more effectively. Working Committee members visit the project sites in some cases with a view to ascertaining the work done by the grantees.

Once the research project is completed, a final report is submitted by the grantees 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.

Summary of information about the Research Grants Scheme for the year 2001 is given below. Details of grants awarded in year 2001 are given in the annexes.

On going grants as at 31.12.2001	-	149
Grants awarded in 2001	-	55
Amount allocated for new grants for the first year (2001)	-	Rs. 25 068 537.00
Grants Completed	-	35
Research Students appointed	-	24
No. of Research Students registered for postgraduate degrees	-	19
No. of publications & communications	-	73
Postgraduate theses received	-	08
	M. Phil	- 05
	Ph. D	- 03

\* ***Block Grants Scheme***

The block grants scheme was introduced in year 2000 and it provides funds upto Rs. 500,000/= for a period of one year to supplement the research funds of universities, research institutions and state organisations (details given in the annexes). The block grants awarded in year 2001 were approved in year 2000.

\* ***Support for Research Equipment***

Noting the fact that most of the research activities are held up due to the non-availability of research equipment, the NSF initiated a scheme to provide funds upto one million rupees to purchase laboratory equipment. Eleven grants were approved in the year 2000 and awards were made in 2001. (details given in the annexes).

***Newly Introduced Schemes***

*In year 2001 the NSF initiated several grant schemes with a view to fulfill the mandate of the NSF, to promote and strengthen capacity in the country to conduct research.*

\* ***Research Assistantship/Fellowship Programme (RAP)***

This scheme was introduced in 2001 to enhance research capacity in Research Institutions in Sri Lanka by facilitating recruitment of good scientists to work on identified research areas on contract basis. Award of assistantships/fellowships to be made available at three levels: for graduates, M.Phil and Ph.D. holders with monthly allowances of Rs. 10,000/-, 15,000/- and 20,000/- respectively.

Based on an aptitude test and subsequent interviews, fourteen Research Assistantships were awarded to following institutes:

1. Rubber Research Institute (RRI) – 04
2. Industrial Technology Institute (ITI) – 03
3. Horticulture Research & Development Institute (HORDI) – 02
4. Veterinary Research Institute (VRI) – 01
5. Rice Research & Development Institute (RRDI) – 02
6. Bandaranaike Memorial Ayurvedic Research Institute (BMARI) – 02

\* ***Research Studentship (Industry) Programme***

The purpose of this new programme is to create a significant impact on the Industry - Research Institute/ University partnerships. Under this programme, graduates who wish to work on local industry related problems are expected to submit a project proposal in consultation with a suitable industry partner and a supervisor from a recognized university or a research institute. Most of the research work is expected to be conducted at the industry premises although essential laboratory work could be done in the university/research institute. The results/ outputs of the project should be shared by the industry partner and the university/research institute. The NSF is to provide a maintenance allowance between Rs. 7,000/- to 10,000/- per month for the Research Student.

Two Research Studentships (Industry) were awarded under this programme:

1. ITI – Nimano Marketing (Pvt) Ltd, Hijra Farms Ltd and Aitken Spence Ltd (Industry partners).
2. Dept. of Geology, UOP – Foundation & Waterwell Engineering (Pvt) Ltd (Industry partner).

**\* Research Studentship Programme for Postgraduate Students in Universities and Postgraduate Institutes (RSP)**

The NSF initiated this scheme with a view to facilitating the postgraduate students who registered for postgraduate degrees. It was decided to award a limited number of studentships to postgraduate students to carry out their research projects. The studentship consists of a monthly allowance of Rs. 8,000 to 10,000 for 2 to 3 years and a grant for consumables/field expenses subject to the upper limit of Rs. 50,000/- per year.

Applications for 2001 were invited from Universities and Postgraduate Institutes, and 23 Research Studentships were awarded to following institutes:

1. Postgraduate Institute of Science (PGIS) - 05
2. Postgraduate Institute of Archaeology (PGIAR) - 05
3. University of Kelaniya (Science) - 05
3. University of Ruhuna (Agriculture) - 03
4. University of Peradeniya (Engineering) - 03
5. Eastern University (Science) - 01
6. Open University (Humanities & Social Science) - 01

**\* NSF Scheme to support young researches/inventors**

The NSF has initiated a scheme to extend its support for research by allocating funds to young researchers and innovators. The purpose of this scheme is to promote inventiveness and innovation among bright young students and research minded youngsters.

Applications are entertained on a regular basis from students, school leavers and others (under 25 years of age on the date of application) to provide support in respect of articles or services to be designed, developed or produced which may be considered as inventions or innovations. An amount generally not exceeding Rs. 25,000/= may be awarded based on the requirements of the project.

One grant was awarded under this scheme during year 2001.

Researcher - Mr. H. M. K. S. K. Wickramanayake  
University of Peradeniya

Supervisors- Prof. Kapila Gunasekera and Prof. R. Hoole  
University of Peradeniya

Amount - Rs. 15,000/=

Project Title- Development of an online data logger

## Seminars and Workshops

A number of seminars, workshops and conferences were organized by the NSF during the year 2001 in order to initiate interaction among scientists, researchers and policy makers. This would enable them to share experiences, update knowledge and at the same time pave the way for the NSF to emerge as a very strong platform for development of scientific dialogue and a channel for efficient dissemination of science and technology information.

### \* *Progress Review Seminars*

As part of the monitoring process of research projects, NSF held several Progress Review Seminars to evaluate the progress of ongoing projects in different disciplines. The Working Committee members of the relevant fields, grantees and invited scientists participated in them. The expert comments of eminent scientists are much valued in conducting research work more efficiently and effectively. The details of the progress Review Seminars held during year 2001 are given below.

<i>Discipline</i>	<i>Date</i>	<i>No. of Presentations</i>
<i>Biotechnology</i>	<i>05<sup>th</sup> November</i>	<i>08</i>
<i>Biological Sciences</i>	<i>20<sup>th</sup> September</i>	<i>05</i>
<i>Biological Sciences</i>	<i>09<sup>th</sup> November</i>	<i>08</i>
<i>Chemical &amp; Earth Sciences</i>	<i>27<sup>th</sup> July</i>	<i>07</i>
<i>Physical &amp; Mathematical Sciences</i>	<i>12<sup>th</sup> November</i>	<i>09</i>
<i>Science Education &amp; Popularization</i>	<i>04<sup>th</sup> January</i>	<i>04</i>

The Working Committee on Social Sciences held four progress review seminars during 2001 which were expanded to include presentations on proposed research projects of prospective grantees in addition to the presentations made on projects in progress. The Committee found this activity to be very beneficial in improving the quality and awareness of research practices among junior researchers while helping the Committee to gauge the quality of research more intensively using the expertise of social scientists outside the Committee.

<i>Date</i>	<i>No. of Presentations</i>
<i>11<sup>th</sup> June</i>	<i>05</i>
<i>27<sup>th</sup> August</i>	<i>05</i>
<i>25<sup>th</sup> October</i>	<i>05</i>
<i>20<sup>th</sup> December</i>	<i>07</i>

✱ **Training Workshops for Young Social Scientists**

The NSF Working Committee on Social Sciences continued to conduct the series of Training Workshops initiated in 1999 in collaboration with the section "F" of the Sri Lanka Association for the Advancement of Science. The objective is to provide young social scientists with a good background in the basics of social science research. Two workshops of the series were held during year 2001.

(1) *Workshop No. 7*

Date	-	30 – 31 March
Venue	-	NSF Auditorium
No. of Resource Persons	-	05
No. of participants	-	25

(2) *Workshop No 8*

Date	-	28 – 29 September
Venue	-	NSF Auditorium
No. of Resource Persons	-	05
No. of participants	-	22

✱ **"Hands on Science"**

The Working Committee on Science Education and Popularization organized a series of workshops for primary school teachers at main education zones of the districts. The main objectives of the workshops were to introduce new teaching strategies identified at the International Conference on Primary School Science and Mathematics education held in November 2000 in Beijing. Six workshops were held during the year.

Date	Venue	No. of Participants
06/04/2001	National Science Foundation, Colombo 07 (Colombo Education Zone)	94
09/06/2001	Sujatha Balika M.V., Matara (Matara Education Zone)	39
21/07/2001	Teachers' Centre, Kegalle (Kegalle Education Zone)	25
15/09/2001	Trinity College, Kandy (Kandy Education Zone)	169
03/11/2001	Anuradhapura M.M.V., Anuradhapura (Anuradhapura Education Zone)	94
04/11/2001	Polonnaruwa Royal College, Polonnaruwa (Polonnaruwa Education Zone)	51

\* **Theme Seminars, Workshops, Conferences...**

- Theme : **Training workshop on General Linear Models**  
Date : 02 – 03 March  
Venue : NSF

This workshop was organized by the NSF in order to provide knowledge and training on data analysis in surveys and experiments. Applications were called through a newspaper advertisement where the target group was researchers and mid career professionals in private and public sector institutions and universities.

Resource persons Prof. R. O. Thattai, Dr. S. Samitha of University of Peradeniya and Dr. Gamini de Silva of Dept. of Census & Statistics conducted the workshop which consisted of lectures and practical training on data analysis using SAS computer package. Number of participants were restricted to 20, and they were from various institutes such as SLIDA, National Museums, National Hospital, HARTI, CTC and Sampath Bank.

- Theme : **Workshop on Systematics of Ants**  
Date: : April 09 - 10  
Venue: : University of Kelaniya

The NSF Working Committee on Zoological Survey of Sri Lanka in collaboration with the University of Kelaniya organized the workshop. The principal resource person was Prof. Seiki Yamane of Kagoshima University, Japan. Twenty participants attended this workshop which consisted of lectures, laboratory sessions and a field trip. As a follow-up activity the participants were requested to start a collection of their own specimens of ants for six months to be handed over to supplement the existing collection at University of Kelaniya.

- Theme : **Workshop on "Problems faced by NSF grantees and methods of overcoming them"**  
Date: : April 24, 2001  
Venue: : NSF, Auditorium

The above workshop was organized by the Working Committee on Engineering and Built Environment with the objective of looking into the practical problems faced by grantees and research managers. The discussion group included NSF Staff, and members of the Working Committee on Engineering and Built Environment.

- Theme : **Seminar on Teaching Science through drama to popularize science**  
Date: : May 22, 2001  
Venue: : Trinity College, Kandy

The NSF Working Committee on Science Education and Popularisation organized this programme with the objectives of introducing the use of drama for teaching scientific concepts and to motivate students and teachers to produce science dramas. Three science dramas were presented by students. 90 students and 30 O/L and A/L drama teachers from 09 schools in Kandy education zone participated.

- Theme : **Workshop on Microbial Pesticides**
- Date : June 08, 2001
- Venue : NSF

Microbial pesticides/preparations are imported to the country for agricultural purposes and biodegradation etc. These are imported mostly by private sector organizations. The legal mechanisms for regulating the import of these products is not available in the country.

The NSF Working Committee on Biological Science was concerned about the impact of these microbial products on the environment. This workshop was held to discuss this issue and make recommendations to implement a suitable scheme for regulating the import of these products. Academics, researchers and representatives from law implementing institutes attended the workshop.

- Theme : **Globalization and its impact: economic, social and cultural dimensions**
- Date : July 06, 2001
- Venue : Sri Lanka Foundation Institute

The Working Committee on Social Sciences held a national seminar on Globalization, in collaboration with the Sri Lanka Foundation Institute. This was held in preparation for NSF participation in the regional symposium of the Asian Association of Social Science Research Councils (AASSREC). A country paper on the above theme was presented by Prof. P. V. B. Karunathilake (Member, NSF Working Committee on Social Sciences) at the 14<sup>th</sup> Biennial General Conference of ASSREC held in Vietnam in October, 2001.

- Theme : **Workshop on Research Priorities in Engineering and Built Environment**
- Date : August 11
- Venue : BMICH

The above seminar was organized by the NSF Working Committee on Engineering and Built Environment in order to identify research priorities in the field. Identified research priorities are being finalized by the Committee to be sent to the Research Institutions and the Industry with calls for research proposals on the topics.

- Theme : **Symposium on Mathematical Modeling**
- Date : September 15
- Venue : NSF

This symposium was organized by the NSF Working Committee on Physical and Mathematical Sciences with the objective at providing a forum to discuss problems in the local industries and other relevant field situations that require mathematical modeling, and to initiate a collaboration between the users of mathematical modeling in local industry and in other places and the mathematicians in the universities. Fifty two participants who had been nominated by their respective institutions attended this symposium. Presentations were made on mathematical modeling in meteorology, process control in tile manufacturing, use of software in mathematical modeling etc.

- Theme : **National seminar on "Garbage as a source of Energy and fertilizer**
- Date : September 29
- Venue : NSF

The above seminar was organized by the NSF Working Committee on Energy with the objective of creating awareness among researchers and users on the latest know-how in this field. Foreign resource persons and local scientists made presentations at the seminar which also included a field visit to a project site.

#### \* **Public Seminars**

A public seminar on "Science Education" was held on 23<sup>rd</sup> February for scientists partially funded by the International Contacts Fund of the NSF to attend Conferences/seminars/workshops/training programmes. The objective of this seminar was to share the knowledge and experience gained by the travel grantees with the others who did not have the opportunity to attend these events. Six travel grantees made presentations at this seminar.

## NSF Merit Awards for Scientific Research - 2001

The National Science Foundation awards prizes biennially to Sri Lankan scientists for research work of outstanding merit carried out on NSF funded projects. This scheme was initiated in 1986. The purpose of the award is to bestow on researchers the recognition they deserve for the contributions made for the advancement of science and thereby achieving one of the main objectives of the National Science Foundation. This award scheme is also meant to motivate NSF research grantees to maintain high standards of scientific research while at the same time helping to enhance their career prospects as recognized scientists.

Winners for 2001 were selected from the research projects completed during years 1999 and 2000. The Working Committees of the NSF recommended the scientists for the awards in respective fields.

The awards were presented at a ceremony held on 7<sup>th</sup> November 2001, in the NSF Auditorium. Each award consisted of a cash prize of Rs. 25,000, a certificate and a personalized plaque. The winners are given below.

### ♦ **Agricultural Science & Forestry**

Dr. P.L.A.G. Alwis, Faculty of Agriculture, University of Ruhuna

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

Dr(Ms) D.C.K. Illeperuma, Faculty of Agriculture, University of Peradeniya

*Project Title - Modified atmospheric storage (MAP) and its effect on biochemical changes of banana, avocado, pineapple and mango*

Dr. Shanthi de Silva, Dept. of Agricultural Engineering, Open University of Sri Lanka

*Project Title - Identifying optimum agro-well dimensions to sustainable irrigation in Anuradhapura district*

### ♦ **Chemical & Earth Sciences**

Dr. K.R.R. Mahanama & Dr. D.P. Dissanayake, Department of Chemistry, University of Colombo

*Project Title - Method development of analysis and control of organic pollutants in diesel exhaust*

### ♦ **Engineering & Built Environment**

Prof. G.E. Amirthanathan, Faculty of Engineering, University of Peradeniya,

Mr. J.M.J.C. Jayalath and Mr. J.P. Padmasiri, National Water Supply & Drainage Board

*Project Title - Suitability of dynamic roughing filters as pre-treatment systems for slow sand filters in Sri Lanka.*

Prof. W.P.S. Dias, Department of Civil Engineering, University of Moratuwa

*Project Title - The feasibility of using product models for representing building information*

### ♦ **Health Sciences**

Dr(Ms) S.M.D.N. Wickramasinghe, Faculty of Medicine, University of Sri Jayawardenepura

*Project Title - The effects of garlic on hepatocarcinogenesis in normal and hypercholesterolemic rats*

### ♦ **Physical & Mathematical Sciences**

Dr. C.A.N. Fernando, Department of Physics, University of Ruhuna

*Project Title - High efficiency photovoltaic cells related to P-CuSCN, P-CuI, n-TiO<sub>2</sub>, n-Cu<sub>2</sub>O sensitised with ordered and disordered molecular arrangements at low cost.*

## Publications

- ***Journal of the National Science Foundation***  
Volume 28, No. 1 & 2
- ***Sri Lanka Journal of Social Sciences***  
Volume 22, No. 1 & 2 (December)
- ***News update on Activities in Social Sciences***  
Recognizing the need to maintain a continuous dialogue with social scientists on research and other activities in social sciences the NSF Working Committee on Social Sciences initiated a news bulletin. The first issue of this was released during 2001 and it contained NSF activities in social sciences.
- ***Vidya – Newsletter***  
Volume 3, No. 1 - January, 2001  
Volume 3, No. 2 - April, 2001  
Volume 3, No. 3 - July, 2001  
Volume 3, No. 4 - October, 2001
- ***Vidurava***  
*Volume 20 (2) – Projects for learning (Sinhala, Tamil, English) – released*  
*Volume 20 (2) – Mosquito borne diseases (Sinhala) – released*  
*Volume 20 (2) – Mosquito borne diseases (English) – is in progress*  
*Volume 20 (2) – Mosquito borne diseases (Tamil) – is in progress*  
*Volume 21 (1) – Science Communication – in progress*
- ***Special Publications***
  - **Natural Resources of Sri Lanka 2000**  
The first copy of the publication "Natural Resources of Sri Lanka – 2000" published by the NSF was presented to Her Excellency the President at the Presidential Secretariat on 25/08/2001. Mr. Kingsley T. Wickremaratne the Advisor to the President on International Trade received the presentation on behalf of the President.  
  
"Natural Resources of Sri Lanka 2000" is a revision of the publication titled "Natural Resources of Sri Lanka – Conditions and trends" published by NARESA (now the NSF) in 1991. The new publication was compiled incorporating the most recent data on natural resources, policy changes and development approaches.
  - **Moles and Atoms**  
The Tamil translation of the book titled "Moles and Atoms" by C. Warakadeniya was published.

## International Scientific Activities

### \* *Sida/SAREC Programme*

Under the Sri Lanka – Sweden bilateral research co-operation, Sida/SAREC has approved SEK 4,900,000/- for the following projects to be funded during the period 2000 – 2002.

- *International Travel Fund*

Sri Lankan Scientists are supported for international travel to attend scientific meetings/workshops/short term training programmes. Applications are considered on the basis of three geographical regions, i.e. SAARC, Asia – Australia and Africa – America, Europe regions. During the year 2001, 166 applications were received and 62 travel grants were awarded.

- *Sida/NSF Research Grants*

A total number of 23 projects were operating during the year 2001 in the fields of Social Sciences, Energy and Biotechnology. Details are given in annexes.

- *Urgent Spare Parts Fund*

During year 2001, several requests from universities and research institutes for procurement of spare parts for their scientific equipment were forwarded to Sida/SAREC for consideration. In addition, the following training workshops were funded under this scheme:

- *Workshop on Microprocessors & Micro Controllers : Organized by Atomic Energy Authority.*
- *Workshop on 'Oscilloscopes'*

The NSF together with Arthur C. Clarke Centre for Modern Technologies (ACCIMT) has initiated a programme to enhance the technical capabilities of the technicians/technical officers in universities and research institutes, in the field of electronics under the spare parts scheme. As an initial step, a four-day training workshop on 'Oscilloscopes' was organized and conducted in August/September 2001 at the ACCIMT.

- *R & D Policy/S&T indicators*

Two Ph.D programmes and one MBA programme were sponsored during the year. The details are given under staff training.

The National Survey on R & D-2000" was initiated in March 2001. Data was gathered from research institutions, universities and private sector industries.

The study on " Mobility of S & T professionals" was completed and the country report based on the survey was submitted to COSTED in Chennai, India.

Web site on "R & D institutes in Sri Lanka" was updated.

✧ **Commonwealth Science Council**

● *Travel Grants Scheme*

The purpose of this travel grants scheme is to help scientists of member countries of the CSC to attend international conferences, major meetings and short technical in – service training courses. Grants cover the actual costs of the return airfare and registration fees upto a total of £ 1000.

During the year 2001, eighteen applications were received and processed. Nine travel grants were awarded by the CSC.

● *Fellowship Scheme*

This fellowship scheme provides opportunities for scientists from member Commonwealth developing countries, to enhance their professional skills and experience through short term attachments in other commonwealth countries.

Four applications were received and processed during the year. 03 fellowships were awarded.

● *Workshops*

Information on the following workshops sponsored by the CSC were circulated among relevant institutions and nominations were forwarded to the CSC.

- (a) Training workshop on "Sustainable mining practices in the Pacific Rim"  
February 4 – 8, 2001, Papua New Guinea
- (b) "Commquest: First science communication workshop" at Commonwealth Heads of Government meeting.  
May 1 - 5, 2001, Brisbane, Australia

✧ **International Mathematical Olympiad**

The 42<sup>nd</sup> International Mathematical Olympiad (IMO – 2001) was held in Washington, D.C. USA from 1<sup>st</sup> – 14<sup>th</sup>, July 2001. The organisers of the IMO – 2001 requested the National Science Foundation to send a team from Sri Lanka. The NSF Working Committee on Physical & Mathematical Sciences selected the team from among the candidates who obtained A's in Combination Mathematics at the G.C.E. (A/L) examination held in 2000. Eleven students underwent one week residential training at National Institute of Education at Maharagama. At the end of this programme a final selection test was conducted and four students who excelled were selected for the National Team (this test examined the students creativeness and innovativeness which are very essential for the International Mathematical Olympiad contest). The NSF provided the necessary funds towards airfare and incidental expenses of the team. In addition Tokyo Cement Ltd. gave assistance for Visa fees. The USA organizers met all other expenses.

*Contestants (listed according to order of merit)*

Mr. T.M.C. de Zoysa, Dharmashoka College, Ambalangoda  
Mr. G.I.N.W. Liyanage, St. Peter's College, Colombo  
Mr. I.H. Katugampala, Ananda College, Colombo  
Mr. C.M. Dissanayake, Royal College, Colombo

Team Leader - Dr. M.A.U. Mampitiya, Univ. of Kelaniya  
 Deputy Team Leader - Dr. C.J. Jayawardena, Univ. of Colombo  
 Mr. T.M.C. de Zoysa won a Bronze Medal.

✳ ***International Foundation for Science***

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

During the year 2001, five scientists submitted applications for research grants under the IFS research grants scheme.

On a communique sent by the IFS, NSF called for applications for the IFS Silver jubilee Award for year 2001, from current and previous IFS research grantees. One application was received and forwarded to the IFS for consideration.

✳ ***International Council for Science (ICS)***

ICSU is a non governmental organization which is mandated to promote international scientific activities in the different branches of science and their applications for the benefit of humanity. The NSF which is the national scientific member of the ICS, coordinates the activities related to Sri Lanka. NSF disseminated the information related to ICS grants programme- year 2002, to the relevant scientific personnel, requesting them to formulate research proposals for this programme.

✳ ***International Centre for Genetic Engineering & Biotechnology (ICGEB)***

The NSF being the National Scientific Focal Point for the ICGEB, sent 6 nominations for consideration under the Ph.D programme in Molecular genetics held at ICGEB, Trieste, Italy and New Delhi, India. Accordingly, one pre-doctoral fellowship was awarded to Ms Ruvini Tharanga Ariyadasa from the Department of Agricultural Biology, University of Peradeniya.

✳ ***Indo Sri Lanka S & T cooperation Biotechnology Programme***

Two project proposals were sent to the Department of Biotechnology, New Delhi, India seeking research collaboration under the S & T Cooperation.

- i. DNA typing of humans.  
*Dr. Maya Gunasekera, Department of Chemistry, Univ. of Colombo*
- ii. Immunopathogenesis of malaria.  
*Dr. Anura Weerasinghe, Medical Research Institute.*

✳ ***Committee on Science and Technology in Developing Countries (COSTED)***

COSTED, the ICSU (International Council for Science) Committee on Science and Technology in Developing Countries is mandated to promote science and technology in the developing countries. COSTED has been achieving its objectives by organising scientific meetings and training programmes of relevance and benefit to the developing countries.

- During year 2001, COSTED held a workshop on "Science Communication" from 19-23 November in Goa, India. This workshop was meant for science writers, science teachers and people involved in science popularization in South Asian countries. COSTED fully sponsored the participation of two Sri Lankan scientists at this workshop.

- *JNCASR – COSTED Fellowship Programme*

This Fellowship programme which is jointly instituted by the Jawahrlal Nehru Centre for Advanced Scientific Research (JNCASR) and COSTED, is meant to foster free mobility and exchange of scientists from developing countries. The fellowship covers short-term research, training or participatory research work in physical, chemical and biological sciences in reputed scientific institutions in India.

The information about this programme was disseminated among relevant institutions.

- \* *Asian Association of Social Science Research Councils (AASSREC)*

The NSF continued to function as the national focal point for AASSREC (Asian Association of Social Science Research Councils) and co-ordinated its activities with the Sri Lankan Social Scientists.

A member of the Working Committee represented the NSF at the 4<sup>th</sup> Biennial Conference of the AASSREC which took place in Vietnam in October 2001.

- \* *SAARC Activities*

SAARC Technical Committee on Science & Technology held its first meeting in New Delhi from January 23 – 25, 2001. Dr. (Ms) T. F. Dias and Dr. (Ms) N. Ediriweera (ITI) represented Sri Lanka at this meeting.

- The following two projects were sent to the SAARC Secretariat for their consideration.
  - i. Development of infrastructure facilities for the production of tissue culture based runners of certified strawberry varieties for commercial cultivation.  
*Dr. M. M. Nugaliyadde, Agricultural Research Station, Sita Eliya, Nuwara Eliya*
  - ii. Towards biotechnological approaches for conservation and sustainable use of medicinal plants in the SAARC region.  
*Dr. Y. M. H. B. Yapabandara, ITI*
- The NSF Working Committee on Biotechnology prepared a concept paper on "Vaccines and diagnostics for human health" and forwarded to the SAARC Secretariat.
- The requisite plan on human resources development was forwarded to the SAARC Secretariat.
- The following two draft documents were forwarded to the SAARC Secretariat to be circulated among other member countries.
  - i. Guidelines for the safe use of rDNA technology in the laboratory prepared by the NSF Working Committee on Biotechnology
  - ii. National guidelines for import and planned release of genetically modified organisms and products prepared by the Ministry of Environment.

**\* Visits of Foreign Delegates**

- January 2001 - Dr. Ken Lum  
Director, Science and Technology Division
- Dr. J.A.J Perera, Chief Programme Officer  
Commonwealth Science Council
- February 2001 - Dr. Ramanathan Rao  
Senior Scientist, International Plant Genetic Resources Institute (Regional  
Office), Malaysia
- Dr. Marieta Sakalian  
Scientist, International Plant Genetic Resources Institute (Rome)
- March 2001 - Dr. M. Swamiappan  
Registrar, Tamil Nadu Agricultural University, Coimbatore
- June 2001 - Dr. Mangesh Korgaonker  
Professor & Head, School of Management, IIT, Bombay
- August 2001 - Dr. G. Thyagarajan  
Scientific Secretary, COSTED
- September 2001 - Dr. J.C. Katyal  
Director  
Dr. D. Balaguru  
Principal Scientist  
National Academy for Agricultural Research Management, Hyderabad
- November 2001 - Prof. Malin Akerblom  
Director/International Programme in Chemical Sciences, (IPICS), Sweden

## **Other Activities**

### **\* *S & T Manpower Information System***

The Manpower Information System (MIS) is being developed under the Science & Technology Personnel Development Project of the Ministry of Science & Technology.

During the year, the computer system was installed, and staff was trained on "Manpower Research" and Development of Manpower-Information systems (Details are given under staff training programmes). National Consultant for the MIS commenced work for the initial 3 months in September 2001. The MIS has also concluded the tracer Study of graduates passed out in 1998/1999 of which the final part is being prepared. A study on Manpower requirements in ten selected industrial sectors was commenced to identify the demand for graduates in industrial sectors. The study is in progress.

Four Scientific Officers working under ADB/MIS project were trained overseas. Details are given under "Staff development & Training".

### **\* *Database on Natural Products Research carried out in Sri Lanka***

On a recommendation made by the Working Committee on Chemical & Earth Sciences to overcome the existing problems faced by scientists and researchers in the field of Natural Products Chemistry, the Board approved a project to set up a database on Natural Products research carried out in Sri Lanka.

The Committee was of the view that such a database is now timely since although Natural Products Research has been a major area for support from the NSF, much of the research results lie in proceedings of meetings and final reports. Further, the published data are scattered in various journals and is not easily accessible to a person seeking information on the work carried out in Sri Lanka on a given Sri Lankan plant.

### **\* *Policy and Guidelines for Recombinant DNA Technology***

The Working Committee on Biotechnology recommended preparing a Laboratory Policy and Guidelines for the safe use of Recombinant DNA Technology in Sri Lanka. The aim of the policy is to encourage the use of safe laboratory practices while promoting research in Biotechnology. As a preliminary step towards this, the current situation in the country with regard to research & development work involved in biotechnology was studied. The laboratories and the scientists conducting work in this field at present were also identified and information was compiled.

### **\* *Communiqués sent to Government Organizations***

The National Man & the Biosphere Committee has forwarded a resolution to Mr. R. Maligaspe, Additional Secretary to Her Excellency the President, expressing concern regarding the danger to which the Sinharaja World National Heritage site would be exposed if the areas of natural forest bordering the reserve (1437 ha of Illumbakanda Estate including 62 ha proposed for Organic Tea Project and 46.56 ha of Murakelawatta, Kudawa, Weddagala) were alienated for non forest uses.

\* ***Science & Technology Article Translation Competition***

The Working Committee on Science Education & Popularisation launched an island wide competition for school children in Grades 10 – 13 for translating articles on Science and Technology from English to Sinhala or Tamil. The final round was held in January 2001. Fourteen winners received cash awards and certificates while students who won the first places were also presented with plaques.

\* ***Participation at Exhibitions***

NSF participated in the Vidata (taking science and technology to the village) exhibitions held at the schools mentioned below by running a stall which displayed models and posters pertaining to NSF funded projects. A set of VIDURAVA and Science Education series publications were donated to the school where the exhibition was held.

- |                            |                  |
|----------------------------|------------------|
| 1. Nikaweratiya Mahasen MV | February 16 – 18 |
| 2. Mahanama MV, Monaragala | May 12 – 14      |
| 3. Badulla MV, Badulla     | July 27 - 29     |

## **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 2001 the following tasks were fulfilled to enhance the resources and services at SLSTIC.

### **Collection development**

During the year 2001, 404 books, 288 journals, 482 Newsletters, 36 Annual reports, 26 final reports, 50 gazettes, 10 CD ROMs were added to the collection.

### **Database Development**

Since 1996 SLSTIC has been actively engaged in database development, which was facilitated by Local Area Network. Since then the existing databases were strengthened with the addition of new records as follows: 961 records to Sri Lanka Science Index (SLSI); 760 to SLSTICAT (Library Catalogue) ; 1104 to Index to newspaper articles (NEWSP) ; 25 to Act & bills database and 15 records to the WEB; 275 records to NATURAL database.

### **Assistance in Utilization of IT**

**SLSTIC/NSF** contributed as the national distributor of the UNESCO software CDS, WINISIS Dos & Windows versions. As such WINISIS was distributed to 80 users during the year 2001

### **Seminars/Workshops/Meetings**

- A Regional Meeting on Interchange and Exchange of Scientific Information among S & T information centres/ libraries of the South Asia was held at NSF – 29<sup>th</sup> –30<sup>th</sup> January 2001. Representatives from India, Bhutan, Maldives, Nepal, and Bangladesh attended and were funded by UNESCO New Delhi Office.
- Five workshops on developing databases using WINISIS – 32 library personnel attended.
- A user seminar for WINISIS users & SLSTINET members - 62 library personnel participated.
- A workshop on Common Bibliographic Format - 30 librarians participated.
- D(I) & Library Assistant (Mr. J Weerawardena) attended as resource persons at a training workshops on WebISIS conducted by Sri Lanka Library Association and HELLIS.
- Six undergraduates were also provided in service training.

### **Staff Development**

During the year 2001 SLSTIC Staff was given the opportunity of attending International and national Workshops and conferences as given in "Staff Development & Training".

**Network activities**

The local Area Network was enhanced with the following:

- ◆ A new database server (a PC converted as a server) running on Windows NT was added.
- ◆ Six workstations were upgraded.
- ◆ 17 S & T institutional websites were hosted.
- ◆ In addition to the six databases developed by SLSTIC two databases on Sri Lankan Standards developed by SLSI and a Union Catalogue of Purna Users (contains more than 100,000 records) is also hosted online.
- ◆ Using new web interface on Windows NT operating system enhanced online database searching.

**Library Networks:**

SLSTIC contributed to the development of the following networks by participating in their cooperative activities.

- ◆ HELLIS: Health Literature and Library Information Services
- ◆ AGRINET: Agricultural Information Network
- ◆ ENLINET: Environmental library network

## Technology Watch Centre

The *Technology Watch Centre (TWC)* was established in May 2001, at the National Science Foundation under the auspices of the Science & Technology Personnel Development Project of the Ministry of Science and Technology. It is envisaged that this centre will serve the industries by facilitating local organizations to identify global developments in relevant and applicable technology and thereby be a partner in industrial growth and development. In its first year in operation the TWC will focus its activities on 3 thrust areas namely, Food science & technology, Aquaculture technology and Polymer science & Rubber technology. It has been planned to gradually expand its activities to other areas such as Environmental Science & Technology, Electronics & Telecommunications, Information Technology, Biotechnology, Mechanical, Civil & Manufacturing Engineering.

The main objective of the Technology Watch Centre is to assist in upgrading the technology status of local industries by providing information on technologies likely to be used. The centre acquires information on technological developments via links with local R & D institutions, foreign R & D institutions, institutions similar to the centre at the NSF and other sources, and disseminates such information to the industry.

### ***Inauguration ceremony cum workshop***

The Inauguration ceremony of the Technology Watch Centre followed by a workshop was held at BMICH on 21<sup>st</sup> of August 2001. There were 150 participants from state Institutions and Industries. This was very fruitful in terms of identifying industry needs and how this centre should operate to cater to technology needs of the industry.

### ***Tangible output as at present***

- Preparing and hosting databases on the web on industries related to each thrust area, specialists in each area, associations, local and foreign research and development centers as well as technology transfer organizations and making it freely accessible to the industries.
- Preparing and hosting data bases on the web on "Technology offers" (changes in technology) and making it freely accessible to the industries.
- "Tech Watch Lanka" the half yearly newsletter of TWC was published. Two issues for the 1<sup>st</sup> year were released.
- Questionnaire survey was carried out among four hundred industries related to three selected thrust areas listed in the database of the TWC to assess the technology level in Sri Lanka and to identify specific needs of the industries.

The industry technology information needs in the 3 thrust areas were identified by this survey. In addition the level of technical manpower and its future requirements within these 3 thrust areas were looked into.

Further, TWC works on following areas,

- Develop links with similar centers locally as well as internationally
- Dissemination of technology information via news articles on a regular basis
- Answering industry related queries through an expert panel
- In addition the Technology Watch Centre is planning:
  - to create a knowledge bank related to technological information.
  - perform techno-market surveys on industrial needs
  - to expand into other thrust areas

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

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

#### *Foreign*

11- 12 June - Workshop on Study on Mobility of S & T Professionals  
COSTED  
Chennai, India

#### *Local*

09 February - Meeting on Domestic legal measures on biosafety  
Ministry of Forestry & Environment

01 November - Presentation on "The R & D Scene in Sri Lanka" - Workshop on R & D  
Management  
SLF

16 November - Presentation on "Project based budgeting in Agricultural Research"  
Regional Training Workshop on Agricultural Research Management  
PGIA, Peradeniya

29 November - Presentation on "Funds for R & D through NSF"  
Workshop on Science: Practice and Perspectives  
Univ. of Moratuwa

#### *Attended Meetings:*

- As a Member of Board of Management of PGIS
- As a member of the IPR Committee of Medicinal Plants Project of the Ministry of Health & Indigenous Medicine
- As a member of the Agricultural Co-ordinating Committee of the Ministry of Agriculture
- Representing the Chairman - NSF on Project Technical Advisory Committee of the Ministry of Science & Technology.

### ***Other Staff Members***

#### **Ms. D. Talagala Director/ Information**

15 - 19 January - Training Course to Test the Training Package on Library Automation/ICT for  
developing Countries - Jakarta  
Attended as a resources person

19 - 23 February - Expert Meeting on the Preparation of a Training Package on Library Automation  
for Developing Countries held in Hua Hin, Thailand.

19 - 23 November - Advanced Workshop on WINISIS at AIT, Bangkok

*Attended Meetings:*

- LEARN Managemnt Committee
- National advisory group of the Information Network in Social Sciences (APINESS)
- Inter University Librarians Committee at the UGC
- NASTEC Study Group on establishing a Central Library of S & T

**Mr. A.W.J. Karunasinghe****ADSA**

Presented two research posters at the Global change open science conference held in RAI conference center in Amsterdam from 10 to 13 July 2001. The papers were on (a) Ambient air quality degradation by particulates from mobile sources in the city of Colombo and (b) Status of greenhouse CH<sub>4</sub> emissions caused by vehicle emissions in the city of Colombo.

Made a presentation in Sinhala on "Role, functions and programmes of NSF for Science and Technology Officers at a seminar organized by the Ministry of Science and Technology on 11 January 2001.

## Staff Development and Training

### *Foreign*

- \* Mr. R.P. Pathirage and Mr. B.H.P.K. Thilakaweera, Scientific Officers attended the International training programme on "Manpower Research" and short training programme based on "National Technical Manpower Information System (NTMIS)" at the Institute of Applied manpower Research (IAMR), India, from 17<sup>th</sup> January to 13<sup>th</sup> March 2001. The training programme was sponsored by the Asian Development Bank Project on S & T Personnel Development of MoST.
- \* Mr. R.M.W. Amaradasa studied at the University of Wollongong, Australia from 20<sup>th</sup> August – 20<sup>th</sup> December 2001 under the split PhD degree programme on "Univ. – Industry-research institute Linkages in Sri Lanka".
- \* Mrs. S. Wickremasinghe studied at the Sri Jawaharlal Neru Univ. in New Delhi, India, from 3<sup>rd</sup> July – 31<sup>st</sup> December 2002 under the split PhD degree programme on "Structure and evolution of National Agricultural Research System in India and its role on technologies in rice production".
- \* Mr. A. Hettiarachchi & Mrs. A. Gunawardena attended a training programme on "Development of Manpower Information System" at Asian Institute of Technology, Thailand from 4<sup>th</sup> June – 28<sup>th</sup> August 2001. This programme was sponsored by the ADB project on S & T personnel development.
- \* Training Course to Test the Training Package Library Automation/ICT for developing Countries - Jakarta  
Mr. B. H. Perera (Library Assistant)
- \* Training Workshop on ICT Applications, Manila, Philippines  
Mr. J. S. K. Weerawardena (Library Assistant)
- \* A visit to WHO library (SEARO), Delhi, India  
Ms. V. N. Dharmaratne (Information Officer)
- \* Masters in Library & Information Science (Associateship in Information Science) at INSDOC, India  
Ms. V. N. Perera (Information Officer)

### *Local*

- \* Ms. A. Pitadeniya (Scientific Officer) and two stenographers (Ms Ajantha Kanthi and Ms. Nandane Paranawidana) of the NSF participated in the Training Course on Desktop publishing (Page Maker Software) at the Sri Lanka Institute of Printing, Colombo – 08.

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Director, Postgraduate Institute of Science  
University of Peradeniya

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Director / National Science Foundation

Prof. Uma Coomaraswamy  
Prof. of Botany and Vice Chancellor  
Open University of Sri Lanka

Prof. A.D.V. de S. Indraratna  
Emeritus Professor of Economics  
University of Colombo

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Univ. of Sri Jayawardenepura

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Chief Executive Officer  
Central Industries Ltd.  
Colombo 7

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The following served as members of the Audit and Management Committee, appointed by the Board of Management.

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Prof. Uma Coomaraswamay  
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Prof. Kapila Dahanayake  
(From 01.01.2001 – 15.08.2001)

B.Sc. Hons (Cey.), Diploma (D.E.A) and  
Ph.D (Nancy)

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B.Sc. Agric.(Cey), M.Phil.(London)

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B.Sc.(RUH ), M.Sc.(CBO)

### ***Director, Information***

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B.A.(PDN), ASLLA, M.LSc. (CBO)

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B.Sc. (CBO)  
B.Sc. (Hons) (CBO)  
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B.Sc. Agric. (PDN)  
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**Administrative Assistant**

Mr. M.K. Rathnaweera (from 01.08.2001)	
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**Codes used for universities**

CBO	-	University of Colombo
KLN	-	University of Kelaniya
PDN	-	University of Peradeniya
RUH	-	University of Ruhuna
SJP	-	University of Sri Jayawardenepura

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Prof. Jayanthi Edirisinghe (Chairperson)  
Mr. Lyn de Alwis  
Prof. K.D. Arulpragasam  
Dr. Channa Bambaradeniya  
Dr. Renuka Bandaranayake  
Prof. J. Jinadasa  
Mr. Leslie Joseph  
Ms. Y. Mapatuna  
Mr. H.D. Ratnayake  
Mr. Anslem de Silva

**Grants Sponsored by the NSF**

**Status Summary - 2001**

Discipline Status	Agricultural Science & Forestry	Biological Sciences	Biotechnology	Chemical & Earth sciences	Energy	Engineering & Built Environment	Health Sciences	Information Science & Technology	Man & the Biosphere	Natural Resources	Physical & Mathematical Sciences	Science Education	Social Sciences	Traditional Medicine	Zoological Survey	Total
	No. of ongoing grants as at 01.01.2001	10	21	06	23	08	12	15	03	05	05	13	03	02	-	03
No of ongoing grants as at 31.12.2001	14	24	02	25	06	18	26	03	04	03	13	04	02	01	04	149
Total no of applications received in 2001	15	06	-	14	03	13	41	01	-	01	05	02	-	06	02	109
Total no of grants awarded during 2001	06	06	-	07	03	09	13	03	-	01	03	01	-	01	02	55
Funds requested for new grants for 1st year 2001	1710075	1729744	-	4449846	512950	5815294	7123198	299700	-	990000	1098000	50000	-	590000	699730	25068537
Amount allocated for ongoing grants for 2001 (Rs)	840613	2842980	-	3297460	-	2966198	3573618	230450	1071110	1620414	1789084	118000	-	-	762230	19112157
Grants completed	02	04	04	04	05	03	02	03	01	03	03	-	-	-	01	35
Grants withdrawn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grants terminated	-	-	-	-1	-	-	-	-	-	-	-	-	-	-	-	01
RS s appointed	01	03	-	04	01	06	02	01	-	-	02	01	-	-	03	24
Thesis (PG) received	02	-	-	02	-	-	02	-	-	-	02	-	-	-	-	08
RS s registered for PG	-	03	-	02	01	06	02	-	-	02	02	01	-	-	-	19
Communications Publications	05	-	15	10	-	-	08	-	-	02	-	02	-	-	-	42
Foreign	02	-	01	01	-	-	03	-	-	01	-	01	-	-	-	09
Local	07	-	04	02	-	-	-	-	-	02	05	02	-	-	-	22

## Grants Sponsored by Foreign Agencies

## Status Summary - 2001

Foreign Agency/Discipline Status	UNESCO/MAB	SIDA Social Sciences	SIDA Biotechnology	Total
Total no of ongoing grants as at 31.12.2001	01	11	12	24
Grants completed	-	-	01	01
Grants withdrawn	-	-	-	-
Grants terminated	-	-	-	-
RS s appointed	-	03	01 (not with SIDA funds)	04
RS s registered for PG	-	01	01	02
Thesis (PG) received	-	-	-	-
No of applications received during 2001	-	36	10	46
Amount allocated for 2001 (Rs)	214,725.00	657,735.00	2,039,291	2,911,751.00

### New Grants Awarded in year 2001

#### Agricultural Science & Forestry

Grant No	Grantee/s & Institution/s	Project Title & Duration	Total Allocation (Rs)
RG/2001/AG/01	Dr Deepthi Yakandawala Prof. C.V.S. Gunatilleke Univ. of Peradeniya	Composting of rice straw using inoculants of indigenous soil microorganisms 3 years	702,552.00
RG/2001/AG/02	Dr D.K.N.G. Pushpakumara Dr I.P. Wickremasinghe Univ. of Peradeniya	Identification of genetic variation and reproductive biology of <i>Garcinia quaesita</i> for its domestication 03 years	821,845.00
CRG/2001/AG/01a	Mr. G.M. Henegedera Mr. M.M. Aheeyar Mr. L.P. Rupasena HARTI	The factors affecting the cost of production of rice in Sri Lanka 01 Year	290,200.00
CRG/2001/AG/01b	Dr Mangala de Zoysa Dr Hemal de Kularatne Univ. of Ruhuna	The factors affecting the cost of production of rice in Sri Lanka 01 Year	270,000.00
CRG/2001/AG/01c	Dr S. Thiruchelvam Univ. of Peradeniya	The factors affecting the cost of production of rice in Sri Lanka 01 Year	270,000.00
CRG/2001/AG/01d	Dr A.N. Ahmed Dr P. Sivarajah Eastern University of Sri Lanka	The factors affecting the cost of production of rice in Sri Lanka 01 Year	305,960.00

## Biological Sciences

Grant No.	Grantee/s & Institution/s	Project Title & Duration	Total Allocation (Rs)
RG/2001/B/01	*Dr LA Samayawardhena Department of Zoology University of Ruhuna	An investigation of ecosystem-species relationships and reproductive system structure and function of ecologically important small mammals in Kekunadora Forest reserve in Mataara. 02 years	384,154.00
RG/2001/B/02	Prof. (Ms) J.P. Edirisinghe Dept. of Zoology Dr C.V.S. Gunatilleke Dept. of Botany Univ. of Peradeniya	Taxonomy and ecology of bee pollinators of Sri Lanka. 03 years	675,000.00
RG/2001/B/03	Prof. M.D. Dassanayake Dangolla, Kandy. Prof. V. Karunaratne Dept. of Chemistry, Univ. of Peradeniya. Dr Siril Wijesundara Royal Botanic Gardens, Peradeniya.	The diversity and distribution of Lichens in different forest communities of Horton Plains National Park. 03 years	360,000.00
RG/2001/B/04	A.M. Jayasekera O.M.C. Kumudinie National Aquaculture Development Authority Colombo 10.	Study of reproductive biology of exotic carnivorous species of <i>Chitala ornata</i> (Knife fish) which has been released accidentally to the local water bodies with the objective of controlling the population. 02 years	124,264.00
RG/2001/B/05	Dr(Mrs) N. Salim Dept. of Botany Univ. of Sri Jayewardenepura	Some studies on <i>Meloidogyne</i> infection in <i>Centella asiatica</i> and <i>Hyalocotyl</i> spp. and determination of possible control measures that are environmentally acceptable. 02 years	615,000.00
RG/2001/B/06	Dr Saman Abeysinghe Dr(Ms) P.D. Abeysinghe Dept. of Botany Univ. of Ruhuna	Isolation and characterization of rhizospheric bacteria for biological control of soil-borne pathogens of chili and tomato in Sri Lanka. 03 years	461,410.00

RG/2001/B/07	Dr. Wipula Yapa Prof. W.D. Ratnasooriya Dept. of Zoology Univ. of Colombo.	An eco-ethological study of the false vampire bats <i>Megaderma lyra</i> and <i>Megaderma spasma</i> in Sri Lanka. 03 years	873,678.00
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### Biotechnology

Grant No.	Grantee/s & Institution/s	Project Title & Duration	Total Allocation (Rs)
SIDA/99/BT/01 (follow up project)	Dr (Ms) Preethi V. Randeniya Univ. of Colombo	Studies on the antibody response in naturally infected individuals to purified proteins of <i>Plasmodium vivax</i> 1 year	317,000.00
SIDA/2001/BT/01	Dr (Ms) Nilanthi de Silva Univ. of Colombo	Genetic composition of <i>Plasmodium falciparum</i> in relation to drug resistance and disease transmission in Sri Lanka	2,548,249

### Chemical & Earth Sciences

Grant No	Grantee/s/Institution/s	Project Title/Duration	Total Allocation (Rs)
RG/2001/C/1	Dr. R.M.G. Rajapakse Dept. of Chemistry Prof. M.A.K.L. Dissanayake Dept. of Physics Univ. of Peradeniya	Research into structure property relations and optoelectronic applications of inorganic-organic self-assembled quantum well heterostructures 03 years	580,000.00
RG/2001/C/02	Dr.(Mrs) Radhika Samarasekera I.T.I. Dr(Mrs) Indra Weerasinghe M.R.I. Dr(Mrs) L.S.R. Arambewela I.T.I.	Synthesis studies of essential oils for development of insecticidal products against mosquitoes and houseflies 03 years	1,912,152.00

RG/2001/C/03	Dr. Kapila Seneviratne Dept. of Chemistry Univ. of Kelaniya	The analysis and the improvement of antioxidative properties of coconut oils	800,800.00
RG/2001/C/04	Prof. D.T.B. Tennakoon Prof. J.S.H.Q. Perera Prof. R.M.G. Rajapakse Dept. of Chemistry Univ. of Peradeniya	03 years Research into gas/odour sensing using electronically conducting polymer/clay systems	519,000.00
RG/2001/C/05	Dr. K.A.S. Pathiratne Dept. of Chemistry Univ. of Kelaniya	03 years Studies on polyaromatic hydrocarbon pollution in Bolgoda lake	1,000,000.00
RG/2001/C/06	Dr. Susil J. Silva Dept. of Chemistry Univ. of Sri Jayawardenepura	03 years Computer aided protein structure based molecular docking approach to discover and optimize new anti-malarial drug leads	649,000.00
RG/2001/IOG/01	Ms. D. Seneviratne HVA(PVT) Ltd, Colombo 08 Dr. Charitha K. Seneviratne Univ. of Sri Jayawardenepura Dr. A.M. Mubarak, ITI	03 years Deriving a methodology for formulating a liquid tea product from tea waste (Fluff), characterization and determining its health benefits	1,635,000.00

## Energy

Grant No	Grantee /s/ Institution /s	Project Title/Duration	Total Allocation (Rs)
RG/2001/EP/01	Dr. Senarath Alahakoon Dr. Sunil Abeyrathne Dept. of electronic & Electrical Eng. Univ. of Peradeniya	Design and construction of a low cost variable speed induction motor drive system for sri lankan industry	423,000.00
RG/2001/EP/02	Dr. J. R. P. Jayakody Dr. P. A. A. Perera Dr. M. A. Purnyasena Dept. of Physics, Univ. of Kelaniya	02 years A study of collecting and storing of solar energy in salt pan solar ponds in Sri Lanka	359,200.00
RG/2001/EP/03	Dr. Priyantha Wijethunga Dept. of Electrical Engineering Univ. of Moratuwa	02 years Solar energy in tea drying process	20,000.00

**Engineering & Built Environment**

Grant No	Grantee /s/ Institution /s	Project Title/Duration	Total Allocation (Rs)
RG/2001/E/01	Dr Swarna Piyasiri Dept. of Zoology <i>University of Sri Jayewardenepura</i> Dr K.D.W. Nandlalal Dept. of Civil Engineering Univ. of Peradeniya.	Reservoir modeling and application of GIS on Kotmale, Victoria, Randenigala and Rantambe Reservoirs for forecasting physical, chemical and Biological water quality parameters for monitoring against eutrophication, pollution etc. and for evaluation of the effects of land use patterns on water quality aspects.  03 years	890,160.00
RG/2001/E/02	Dr A.G.H. Edirisinghe Dr U.R. Ratnayake Dept. of Civil Engineering Univ. of Peradeniya.	Mitigation of natural disasters on Sri Lankan highways.  02 years	1,055,000.00
RG/2001/E/03	Prof. H.N. Seneviratne Dr P.B.R. Dissanayake Dr L.C. Kurukulasuriya Dept. of Civil Engineering Univ. of Peradeniya	A study of seismic hazard and seismic hazard mitigation in Greater Colombo, Sri Lanka.  01 year & 08 months	900,000.00
RG/2001/E/04	Prof. S.R. Hoole Dept. of Civil Engineering Univ. of Peradeniya.	Comparison of optimization methods in engineering design and development of a benchmark standard with software.  3 years	730,000.00
RG/2001/E/05	Dr A.G.H.J. Edirisinghe K.A.K. Karunaprema Dept. of Civil Engineering Univ. of Peradeniya.	Development and compare DCP/CBR correlation for Sri Lankan soils with some improvements.  01 year	170,284.00
RG/2001/E/06	Dr U.I. Dissanayake Dept. of Civil Engineering Univ. of Peradeniya. Dr A.N.S. Kulasinghe Batagama Estate, Batagama Dr. B. Ratnayake Link Engineering Ltd., Colombo 10.	Use of slip-formed load bearing wall panels in medium-rise buildings.  02 years	1,015,150.00

RG/2001/E/07	Dr S.P. Samarawickrama Dept. of Civil Engineering Univ. of Moratuwa.	Environmental management system for Sri Lankan Asbestos industry. 2 years	279,000.00
RG/2001/E/08	Dr B.C Liyanage Dr P.N. Wickramanayake Dept. of Civil Engineering Open University, Nawala. Ms M.S. Wickramaratne ITI	Quantification of the flux of Agro-chemicals into inland and coastal waters. 09 months	1,012,250.00
RG/2001/E/09	Mr K. N. Bandara Mr RMS Bandara Ms SAMI Senanayake NBRO Colombo 05.	Investigation on instability of the area around Kotmale reservoir and application of stabilization techniques to a selected soil mass. 3 years	986,625.00

#### Health Sciences

Grant No	Grantee/s/Institution/s	Project Title/Duration	Total Allocation (Rs)
RG/2001/M/01	Prof. M. I. Thabrew Head, Dept. of Biochemistry Faculty of Medicine University of Kelaniya	An investigation of the hypoglycaemic and toxic effects of palmyrah fruit pulp. 01 year	390,500.00
RG/2001/M/02	Prof. Preeni Abynayake Dr. Ramani Priyankarage Fac. of Vet. Medicine & Animal Sci. Univ. of Peradeniya	The establishment of detecting facility for chemical residues and their monitoring in livestock products 02 years	1,580,200.00
RG/2001/M/03	Dr. A. D. N. Chandrasiri VRI Gannoruwa	In vitro production of goat embryos using slaughter house ovaries 02 years	1,170,000.00
RG/2001/M/04	Prof. Lalitha Mendis Dean, Fac. of Medicine University of Colombo Kynsey Road Colombo 08	Sero-epidemiological characterization of human arboviral infections in the Gampaha district 01 year	520,500.00

RG/2001/M/05	Dr. Mohan de Silva Univ. of Sri J'pura Dr. S. Selliah Univ. of Kelaniya	Chronic pancreatitis in Sri Lanka: A clinical, biochemical and morphological assessment	420,000.00
RG/2001/M/06	Prof. Jennifer Perera Dept. of Microbiology Fac. of Medicine University of Colombo	02 Years Factors of risk to early childhood caries in a selected district in Sri Lanka	385,975.00
RG/2001/M/07	Prof. T. R. Weerasooriya Dept. of Anatomy Fac. of Medicine Univ. of Ruhuna	01 year Long term cryopreservation of oocytes	512,600.00
RG/2001/M/08	Prof. Kamani Tennekoon Dept. of Physiology Fac. of Medicine Univ. of Colombo	A study on insulin like growth factors I and II insulin like growth factor binding protein 1, and other major placental hormones during normal pregnancy	1,789,880.00
RG/2001/M/09	Dr. Nadira Karunaweera Dept. of Biochemistry Fac. of Medicine Univ. of Colombo	03 Years Field evaluation of a Rapid Whole Immunochromatographic test (ICT Malaria P.f/P.v.) for diagnosis of "Plasmodium falciparum" and "Plasmodium vivax" malaria	142,000.00
RG/2001/M/10	Prof. C. Pathirana Dr. K.A.P.W. Jayatilaka Dept. of Biochemistry Fac. of Medicine Univ. of Ruhuna	01 Year Antioxidative and hepatoprotective effects of some Sri Lankan medicinal plants in chemically induced hepatotoxicity in mice	884,580.00
RG/2001/M/11	Prof. Rohan Jayasekera Dept. of Anatomy Fac. of Medicine Univ. of Colombo Dr. P.H. Dissanayake Dept. of Anatomy Fac. of Medical Sciences Univ. of Sri Jayawardenepura	Morphological and morphometric study of the human renal vessels 02 years	227,000.00

RG/2001/M/13	Dr. P.V.R. Kumarasiri Dept. of Community Medicine Fac. of Medicine Univ. of Peradeniya	Evaluation of the community impact of an educational intervention programme directed at primary health care workers in the two selected MOH areas of Matale	493,548.00
RG/2001/M/14	Dr. P.L. Jayawardene Dept. of Community Medicine Fac. of Medicine Univ. of Colombo	The effect of physical activity and psychosocial stress on late pregnancy outcome	435,410.00

#### Information Science & Technology

Grant No	Grantee/s/Institution/s	Project Title/Duration	Total Allocation (Rs)
RG/2001/IS/01	Ms. D.C. Seneviratne Post Graduate Institute of Medicine Univ. of Colombo	Information seeking behaviour of medical scientists in Sri Lanka: a study of information needs and use of resources.	131,000.00
RG/2001/IS/02	Dr. N.D. Kodikara Ms. C. Fernando Dept. of Statistics & Computer Sci. Univ. of Colombo	Off-line handwriting recognition in Sinhala	156,200.00
R/2001/IS/03	Ms. P. Gamage Institute of Policy Studies	Usage of library software in Sri Lanka: historical development and present status (upto December 2000)	12,500.00

## Natural Resources

Grant No	Grantee/s & Institution/s	Project Title & Duration	Total Allocation (Rs)
RG/2001/NR/01	Mr T.S. Dharmaratne Mr S.M.S. Abeyweera <i>Gem &amp; Jewellery Training &amp; Research Institute</i> Ratnapura Mr G.W. Amarasiri Gem & Jewellery Authority Colombo 3	Exploration of in-situ gem deposits in and around Avissawella - Deyyagala 01 Year	1,809,390.00

## Physical &amp; Mathematical Sciences

Grant No	Grantee/s/Institution/s	Project Title/Duration	Total Allocation (Rs)
RG/2001/P/01	Prof. M.A.K.L. Dissanayake Prof. M.A. Careem Department of Physics University of Peradeniya Peradeniya	Development of novel electroactive polymers : (a) solid polymer electrolytes and (b) conducting polymer for possible applications in solid state devices 03 years	1,000,000.00
RG/2001/P/02	Dr. T.S.G. Peiris Biometry Division Coconut Research Institute Lunuwila.	Climate risk in agricultural planning : Change of rainy seasons 02 years	440,000.00
RG/2001/P/03	Dr. P. Wickramagamage Dr. S.N. Wickramaratne Department of Geography Dr. S.W. Nawarathne Dept. of Geology University of Peradeniya Peradeniya	Development of a Coastal Zone Geographic Information System (CZGIS) Phase II 01 year	438,000.00

**Science Education & Popularisation**

Grant No	Grantee/s/Institution/s	Project Title/Duration	Total Allocation (Rs)
RG/2001/SE/01	Dr Sunethra Karunaratne Ms ARGAM Abeykoon Menike Science Education Unit University of Peradeniya Peradeniya	Preparation of a hand book for teachers to teach chemical bonds at G.C.E. (A/L)  02 years	100,000.00

**Social Sciences/SIDA**

Grant No.	Grantee/s & Institution/s	Project Title & Duration	Total Allocation (Rs)
RG/2001/SIDA/01	Mr. S. Wijeratne University of Ruhuna	Geomorphological variation in the Western coastal plain of Sri Lanka 01 year	1,21,220.00
RG/2001/SIDA/02	Ms. Mala Salgado Mr. M.M.P. Kulatunga Alcohol & Drug Information Centre	Parental survey on drug use  01 year	215,842.50
Rg/2001/SIDA/04	Mr. Godwin Kodituwakku Open University of Sri Lanka	Metacognitive strategies used by secondary school children in writing  01 year	305,330.00

**Traditional Medicine**

Grant No	Grantee/s/Institution/s	Project Title/Duration	Total Allocation (Rs)
RG/2001/TM/01	Dr APG Amarasinghe Institute of Indigenous Medicine University of Colombo Prof. S Widanapathirana Dept of Microbiology University of Kelaniya, Kelaniya	Micro-organisms associated with Ayurvedic Products  02 years	100,000.00

**Zoological Survey**

<b>Grant No</b>	<b>Grantee/s/Institution/s</b>	<b>Project Title/Duration</b>	<b>Total Allocation (Rs)</b>
RG/ZSSL/2001/01	Ms Yasantha Mapatuna Dept. of National Museums Sir Marcus Fernando Mw. Colombo 07.	Establishment of a national reference collection and database of land snails for Sri Lanka.  03 years	513,000.00
RG/ZSSL/2001/02	Prof. J. Jinadasa Dept. of Zoology Univ. of Sri Jayewardenepura Nugegoda.	Species composition and population density of fish in lower Walawe river basin.  02 years	761,460.00

**BLOCK GRANTS (Although grants were approved in 2000, they were awarded in 2001)**

Grant No.	Applicant/Institution	Research Project/Investigator (s)	Total Allocation (Rs)
RG/2000/BG/01	Dean Fac. of Natural Sciences Open University of Sri Lanka	<i>Design and production of interactive media components for learning science to carry out evaluation of such components developed from the project</i> Prof. Uma Coomarswamy Dr Buddhi Weerasinghe, Dr L.S.G. Liyanage Dr A.S. Karunananda	315,000.00
RG/2000/BG/02	Director ITI	<i>Development of Bio-pesticides from neem</i> Dr L.S.R. Arambewela Dr Y.M.H.B. Yapa Bandara Dr S. Permakumara, Dr Kudagamage J.N.R. Bandara, Mr Danapala, Dr (Mrs) R. Samarasekera	490,000.00
RG/2000/BG/03	General Manager Ceramics Research & Development Centre	<i>Study of alternative resources for feldspar in Ceramic Industry</i> Mr E.S.K. Soysa, Ms I.G.E.I. Kularatna Miss M.D. Alwis Dissanayake	500,000.00
RG/2000/BG/04	Dean Faculty of Applied Science, Rajarata Univ., Polgolla.	1. <i>Investigation of increasing solubility of Eppawala phosphate mineral deposit by thermal treatment and other methods to use the mineral as a soluble fertilizer</i> Dr J. Ratnasekera  2. <i>Mixed species foraging flocks in knuckles region</i> Dr H.M.T.G.A. Pitawala, Dr B.A. Karunaratne Prof. R.M.G. Rajapakse	500,000.00
RG/2000/BG/05	Director Dept. of Meteorology	Research on Climate Change Mr N.A. Amaradasa, Mr T.K. Fernando Mr K.R. Abeyasinghe Bandara Dr B.R.S.B. Basnayake, Mr L. Chandrapala Dr B.V.R. Punyawardane	500,000.00
RG/2000/BG/06	Director Gampaha Wickramarachchi Ayurveda Institute	<i>Medicinal Plant Survey</i> Dr Dudley Dissanayake	500,000.00

RG/2000/BG/07	Executive Director Institute of Policy Studies	<p>1. <i>Public opinion and health care</i> Dr R.P. Ranan-Eliya, Mr V. Sumathiratne</p> <p>2. <i>Incidence of taxation and equity in financing of health care</i> Dr R.P. Ranan-Eliya, Mr T. Dorabawila, Ms. Suharshani de Silva</p>	500,000.00
RG/2000/BG/08	Director Post Graduate Institute of Science Univ. of Peradeniya	<p>1. <i>Preparation and Characterization of ZrSiO<sub>4</sub> based materials for fuel cell applications</i> Prof. B.S.B. Karunaratne</p> <p>2. <i>Species delimitation of the genus Stemonoporus (Family: Diptercarpaceae)</i> Dr D.M.D. Dissanayake</p> <p>3. <i>Diversity and distribution of macrodecapods in the mangroves and associated estuaries in the Puttalam and Negombo areas</i> Prof. M. De Silva</p> <p>4. <i>Modification of coconut based dietary fat in the Sri Lankan diet with Soya oil to reduce the risk of coronary heart disease : Analysis of serum lipids for guinea pigs fed with coconut and /or Soya base diets</i> Dr P.H.P. Fernando , Prof. F.P. Amarasinghe</p> <p>5. <i>Application of electronically conducting polymers</i> Prof. M.A. Careem</p> <p>6. <i>Synthesis and characterization of novel solid polymer electrolytes based on PEO (poly-ethylene oxide) and PAN (poly-acrylonitrile)</i> Prof. M.A.K.L. Dissanayake</p> <p>7. <i>Investigation of intermolecular interactions using molecular modeling techniques</i> Dr D. Jayawickrama</p>	500,000.00

RG/2000/BG/09	Dean Faculty of Veterinary Medicine & Animal Science Univ. of Peradeniya	<p>1. <i>Identification of the species and development of specific diagnostic test for Canine Ehrlichiosis</i> Dr D.D.N. de Silva, Dr I.S. Abeygunawardena Dr A. Arukanthan</p> <p>2. <i>Determination of bacteriological quality of milk with special reference to human pathogens transmitted through milk</i> Dr R. Priyankarage, Prof. M.C.L. de Alwis</p> <p>3. <i>Further studies on fertility in cattle : microbiology of reproductive tract, pharmacokinetics of chemotherapeutic agents, efficacy of antimicrobial treatment, and estimation of cost and benefits of veterinary interventions</i> Dr H. Aueygunawardena Dr P. Abeynayake Prof. M.C.L. de Alwis</p> <p>4. <i>Studies of mastitis : identification of pathogens, determination of antibiotics sensitivity and efficacy of antimicrobial treatment in dairy cows</i> Dr L.N.A. de Silva, Prof. M.C.L. de Alwis Dr P. Abeynayake</p> <p>5. <i>A study on abild cell morphology on thin smears of vertebrates endemic of Sri Lanka</i> Dr I. D. Silva</p>	500,000.00
RG/2000/BG/10	Director National Institute of Health Science (NIHS) Kalutara	<p><i>Evaluation of selected aspects of National Cervical Screening programme and to study the effectiveness of an educational intervention on utilization of cervical screening in Well Women clinics in Kalutara District</i> Dr (Mrs) D.T.P. Liyanage</p>	419,045.00

RG/2000/BG/11	Director Health Education Bureau	<i>Study on the effects of two different educational intervention programmes to promote knowledge, attitude and performance on primary eye care among public health midwives</i> Dr H.M.J.P. Vidanapathirana	356,910.00
RG/2000/BG/12	Dean Faculty of Engineering Univ. of Peradeniya	<i>Establishing the research infrastructure for the new computer science programme in the faculty of Engineering</i> Dr S.R.H. Hoole	500,000.00

**Equipment Grant Scheme 2000/2001**

Grant No.	Applicant/Institute	Equipment (Name, Make, Model)	Total Allocation (Rs)
RG/2000/EQ/01	Director ITI	Fat Analysis Equipment	780,000.00
RG/2000/EQ/02	Director MRI	Cooling Chiller Unit for Transmission Electron Microscope	1,250,000.00
RG/2000/EQ/03	Head/Dept. of Anatomy Fac. of Medicine Univ. of Colombo	Stereo Microscope with Accessories	462,375.00
RG/2000/EQ/04	Head/Dept. of Botany Fac. of Science Univ. of Peradeniya	Rotary Microtome	470,000.00
RG/2000/EQ/05	Dean /Faculty of Medicine Univ. of Kelaniya (Dept. of Physiology)	Potable Ultrasound Scanner Model : SSD-500 with 3.5 Mhz Electronic Linear Probe And a Video Printer	682,000.00

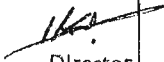
RG/2000/EQ/06	Head Dept. of Botany Fac. of Science Univ. of Sri Jayawardenapura	Micro-plate Reader 960 Metertech	456,000.00
RG/2000/EQ/07	Head/Dept. of Physics Fac. of Science Univ. of Peradeniya	UV – Visible Spectrophotometer with diode array and computer with diode array and computer Hewlett packard HP 8453	1,000,000.00
RG/2000/EQ/08	Head/Dept. of Forestry & Environmental Sciences Fac. of Science Univ. of Sri Jayawardenapura	Tele-relaskop with carrying case and instruction, aluminum tripod and thread adopter	483,560.00
RG/2000/EQ/09	Head Dept. of Chemical & Process Eng. Fac. of Engineering Univ. of Moratuwa	Steel Laboratory Fermenter system	950,000.00
RG/2001/EQ/01	Vice Chancellor Open University of Sri Lanka	Video interfaces	157,500.00
RG/2001/EQ/02	Head Dept. of Biochemistry Fac. of Medicine Univ. of Peradeniya	pH Meter	45,562.00

**NATIONAL SCIENCE FOUNDATION**  
**Balance Sheet as at 31-12-2001**

As at 31-12-00 (RS.)		RS.	RS.	RS.
	<u>Funds Employed</u>			
(36,328,203.94)	<u>NSF Fund</u>	(44,526,177.91)		
250,000.00	Add: Drawings from Treasury	135,000.00		
388,473.75	Acquisitions of assets	26,815.00		
(35,689,730.19)			(44,364,362.91)	
(8,636,447.72)	Less: Excess of Expenditure over Income		(5,690,052.33)	
(44,526,177.91)				(50,054,415.24)
8,160,357.32	<u>Documentation Unit Capital Fund</u>	9,231,692.58		
1,110,000.00	Add: Drawings from Treasury	900,000.00		
9,290,357.32			10,131,692.58	
58,664.74	Less: Net Expenditure Note 1-1		230,093.30	
9,231,692.58				9,901,599.28
5,690,305.69	<u>Research Grants Fund</u>	5,726,783.24		
13,119,000.00	Add: Drawings from Treasury	17,842,283.00		
1,397,159.43	Balance funds in the Scientific Manpower Project fund & Balance provisions		23,569,056.24	
20,206,465.11				
14,479,671.87	Less: Net Expenditure - Note 1-2		19,792,163.63	
5,726,793.24				3,778,892.61
1,908,118.62	<u>Man &amp; the Biosphere Fund</u>	1,911,497.05		
750,000.00	Add: Drawings from Treasury	570,000.00		
2,658,118.62			2,481,497.05	
746,618.57	Less: Expenditure - Note 1-3		505,593.63	
1,911,497.05				1,975,903.42
774,237.41	<u>Miscellaneous Funds</u>	1,798,999.53		
2,000,000.00	Add: Drawings from Treasury	3,921,737.00		
1,034,025.20	Balance funds in W/c fund A/C		5,720,736.53	
3,808,262.61				
2,009,263.08	Less: Net Expenditure - Note 1-4		2,495,073.67	
1,798,999.53				3,225,662.86
76,762,068.19	<u>Foreign Aid Fund</u>	71,788,898.92		
6,787,133.85	Add: Drawings from Treasury	14,400,000.00		
	Treasury Deposit	(2,909,451.84)		
84,549,201.84			83,279,447.08	
12,760,302.92	Less: Net Expenditure Note 1.5		11,440,441.07	
71,788,898.92				71,838,006.01
47,622,660.00	<u>Capital Reserves</u>			47,622,660.00
	<u>Current Liabilities</u>			
994,577.08	Creditors		3,894,730.17	
1,360,231.00	Accrued Charges		2,400,363.04	
5,628,300.00	Provisions for retiring gratuity		6,570,315.00	
5,960.22	Store-keepers refundable security deposits		6,638.70	
39,450.00	Tender Deposits			
8,228,518.28				12,871,046.91
101,762,881.69				101,159,255.85

## NATIONAL SCIENCE FOUNDATION

As at 31.12.2000 RS.		Cost as at 01.01.2001 RS.	Additions Disposals RS.	Accumulated Depreciation RS.	Net Balance RS.
	<b>Represented by Non Current Assets</b>				
42,328,515.45	Land	42,328,515.45	-	-	42,328,515.45
1,309,244.99	Buildings	4,078,292.50	13,906.00	2,917,352.51	1,174,845.99
5,195,840.26	Office Equipment & Furniture	23,516,256.42	245,491.63 (506,873.53)	20,498,261.16	3,263,486.89
2,961,143.25	Motor Vehicles	9,791,038.95	-	6,982,497.17	2,301,668.25
3,200.00	Motor Bicycles	263,951.14	(26,000.00)	235,551.14	2,400.00
-	Bicycles	13,170.50	-	13,170.50	-
-	Sports Equipment	1,324.00	-	1,324.00	-
170,375.76	Accessories & Miscellaneous	638,027.13	75,411.54 (15,557.17)	545,399.25	166,279.42
609,843.28	Library Books	1,713,742.10	145,356.48	1,126,308.33	717,233.08
1,075,257.76	Scientific & Laboratory Equipment out on loan	30,815,123.98	31,000.00	30,223,590.22	622,533.76
4,156,830.48	Documentation Equipment	10,028,067.88	577,800.00	6,559,463.38	4,046,384.48
57,810,251.23		123,187,510.03	538,774.95	69,102,937.66	54,623,347.32
13,953.64	Telephone Installation				13,953.64
13,953.64	<b>Current Assets</b>				
680,937.76	Stocks		2,195,307.40		
6,220,833.65	Debtors		7,124,201.75		
953,445.03	Prepayments		1,318,332.68		
70,109.45	Deposits		66,109.45		
24,376,950.52	Treasury Deposits		21,467,498.68		
10,033,038.55	Government Revenue A/C		10,033,038.55		
1,173,464.61	Balance at Bank - A/C Nos. 4530800224	108,154.30			
101,363.67	4530800232	27,186.91			
319,623.96	4530124768	2,606,435.78			
2,313.96	4530204966	-			
15,000.00	Petty Cash	15,000.00			
5,624.69	Cash in hand	1,554,150.69			
5,960.22	National Savings Bank A/C	6,538.70	4,317,466.38		
43,958,666.07					46,521,954.89
10.75	Suspense A/C				
101,782,881.69					101,159,255.85

  
 Director,  
 NATIONAL SCIENCE FOUNDATION

47/5, Maitland Place,  
Colombo 7.

**NATIONAL SCIENCE FOUNDATION**  
**Income and Expenditure Account as at 31-12-2001**

As at 31.12.00 (RS.)		RS.	RS.	RS.
20,063,000.00	<b>Drawings from Treasury</b>			22,352,312.00
	<b><u>Income for the year</u></b>			
207,905.93	Interest received		200,718.51	
316,547.00	Sundry Income		175,367.01	
362,701.45	Sale of Publications (Note 1.8)		176,183.17	
26,871.69	Photocopy receipts		44,545.00	
156,685.40	Receipts from printing outside jobs		83,810.37	
225,281.00	SLSTIC Income Note - 1.8a		593,136.00	
10,125.00	Profit on fixed Assets		2,068.00	
7,775.67	Cash Discount received		5,433.30	
6,000.00	Income on consultation		3,324.00	
21,382,893.14				1,284,585.36
	<b>Less: Expenditure for the year</b>			<b>23,636,897.36</b>
	<b><u>Office Expenditure</u></b>			
56,721.75	Travelling & Allowances for Board Members	57,834.00		
44,600.65	Refreshments for meetings	37,186.50		
52,859.88	Printing & Publications	32,589.97		
154,182.28			127,610.47	
	<b><u>Staff Emoluments</u></b>			
11,588,000.72	Salaries & Allowances	13,344,132.21		
1,578,502.07	Employees Provident Fund	1,493,730.80		
315,575.01	Employees Trust Fund	349,263.34		
595,715.00	Provisions for Retiring Gratuity	843,230.00		
237,875.78	Overtime	210,580.15		
26,703.01	Holiday Payment	19,239.26		
61,572.60	Uniforms	83,851.14		
65,518.42	Staff Training	66,450.00		
14,469,462.61			16,410,476.90	
	<b><u>Office Administration</u></b>			
164,659.00	Travelling (Official)	97,336.25		
590,480.18	Stationary & Consumables	664,829.59		
595,213.79	Electricity	481,131.18		
607,169.95	Telephone	630,153.21		
104,192.50	Postage	74,604.10		
246,980.00	Audit fees	410,997.00		
1,000.00	Legal fees	-		

15,520.00	Bank charges	16,980.00	
44,144.00	Medical expenses	45,408.20	
118,778.55	Advertising	70,204.07	
967,259.99	Maintenance of Motor Vehicles	973,292.80	
277,194.55	Maintenance of Office Equipment & Furniture	324,420.86	
131,811.47	Maintenance of Building	93,183.27	
113,000.00	Staff Welfare	114,000.00	
69,176.45	Insurance	94,564.12	
61,324.81	Water Consumption charges	81,207.07	
420,390.88	Security Services	451,904.48	
6,842,571.00	Depreciation	4,275,628.88	
65,262.34	Sundry Expenses	219,032.98	
48,074.68	Exhibitions & Publicity	182,251.87	
1,110.48	Provisions for doubtful debtors	2,670.23	
5,400.00	Loss from fixed assets	108.68	
81,075.50	House rent	16,500.00	
15.00	Loss of stocks	331.05	
713.28	Bad debts	4,883.07	
650,000.00	Donation to the Masuam		
12,222,518.40	Suspence A/C writtenoff	10.75	
	<b>Others</b>		9,325,633.71
474,070.11	Steering Committees Note 1.6	392,241.78	
931,624.28	Sri Lanka Scientific & Technical Information Center - Note 1.7	887,159.84	
1,380,920.82	Subscriptions to International Scientific Organizations	1,666,704.36	
23,793.02	Publications arising out of Steering Committees	9,530.00	
499,702.40	Special Scientific Fellowships	428,685.39	
-	Expenditure out of SLSTIC Income	15,000.00	
63,066.94	Expenditure out of NSF Journal Subscriptions	63,907.24	
3,373,177.57			3,463,228.61
(8,836,447.72)	Excess of Expenditure over Income		29,326,949.69
			5,690,052.33

## 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.

1.1 **Documentation Unit Capital Fund Expenditure**

	RS.
1. SLSTIC Equipment	577,800.00
2. SLSTIC Books	145,356.48
3. SLSTIC Workshops & Seminars	230,093.30
	953,249.78
Less : Cost of Equipment & Books 577,800 + 145,356.48	723,156.48
	230,093.30

1.2 **Grants for Research & Other Scientific Work**

	RS.
Actual expenditure for the year including Common Wealth Science council membership Fees and merit awards	19,677,462.52
Zoological Survey expenditure	648,094.72
	20,325,557.24
Less : Cost of Equipment	31,000.00
	20,294,557.24
Less: Prior year adjustments (Net)	502,393.61
	19,792,163.63

1.3 **Man & the Biosphere Expenditure**

	RS.
1. RG/98/MAB/02	4,500.00
2. RG/98/MAB/01	44,150.00
3. RG/99/MAB/01	61,200.00
4. RG/2000/MAB/01	279,375.00
5. RG/2000/MAB/02	59,765.00
6. MAB/1.3/03	56,603.63
	505,593.63

<b>1.4 <u>Miscellaneous Fund Expenditure</u></b>		<b>RS.</b>
1.	Participation in International Scientific Work	- 1,713.00
2.	Research Training	- 1,355,078.50
3.	Seminars & Symposia A/C	- 1,715,364.16
4.	Intellectual Property Rights	- 4,288.16
5.	Special Publications	896,819.19
	Less: Cost of checklist of Flowering plants	195,600.00
	Cost of Natural Resources of Sri Lanka	<u>680,869.24</u>
		20,349.95
		3,096,793.77
	Less: Prior year adjustment special Publications	- 601,720.10
		2,495,073.67
		=====

<b>1.5 <u>Foreign Aid Expenditure</u></b>		<b>RS.</b>
	SIDA Expenditure	- 11,785,471.77
	Less: Cost of Fixed Assets	- 160,929.38
	Less: Prior Year Adjustment	- 184,101.32
		-----
		11,440,441.07
		=====

<b>1.6 <u>Working Committees Expenditure</u></b>		<b>RS.</b>
1.	Agriculture & Animal Husbandry	- 19,730.00
2.	Biotechnology	- 47,066.79
3.	Biological Sciences	- 19,340.00
4.	Chemical Sciences	- 25,579.82
5.	Editorial Board of the JNSF	- 34,260.00
6.	Energy	- 18,960.80
7.	Engineering & Built Environment	- 31,681.78
8.	Health Sciences	- 27,555.00
9.	Natural Resources	- 11,518.11
10.	Physical & Engineering Sciences	- 37,817.90
11.	Social Sciences Research	- 35,268.66
12.	S & T Information	- 17,972.00
13.	Science Education	- 29,625.17
14.	Traditional Medicine	- 19,411.00
15.	Zoological Survey	- 16,323.50
16.	Eppawela Phosphate Committee	- 131.25
		-----
		392,241.78
		=====

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

		RS.
1.	SLSTIC Maintenance & repairs	-
2.	SLSTIC Periodicals	-
3.	SLSTIC Paper & Board	-
4.	SLSTIC Consumables	-
5.	SLSTIC Miscellaneous	-
6.	SLSTIC Publications & Publicity	-
7.	SLSTIC Services	-
		321,291.03
		117,755.66
		10,319.49
		284,312.71
		35,557.47
		117,834.48
		89.00
		-----
		887,159.84
		=====

1.8 **Sale of Publications**

		RS.
1.	NSF Journal	-
2.	<del>NSF</del> Other Publications	-
3.	SSR Journal	-
4.	Posters	-
5.	MAB Publication	-
6.	Vidurawa	-
7.	Horton Plains Video	-
8.	Food Security	-
9.	Tutor Package	-
10.	Checklist of Flowering Plants	-
11.	Natural Resources of Sri Lanka (2000)	-
		67,939.00
		138,809.44
		1,577.00
		5,390.00
		6,350.00
		16,438.00
		10,281.25
		(16,640.00)
		1,152.42
		(24,749.20)
		(30,364.74)
		-----
		176,183.17
		=====

1:8 a **SLSTIC Income**

		RS.
1.	Income received from WINISIS	-
2.	Other Income	-
3.	Internet membership fees	-
		333,709.00
		23,827.00
		235,600.00
		-----
		593,136.00
		=====

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**

		RS.
Total Debtors	-	7,196,183.82
Less: Provision for doubtful debts	-	71,982.07

Provision has been provided for the debts outstanding over 3 years.

### 3. Liabilities

#### 3:1 Creditors

Creditors amounting to RS. 3,894,730.17 Represents monies held by NSF as given below

	RS.
1. CSC A/C	27,299.72
2. Sundry Creditors	2,987.50
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. MAB Seminar A/C	150,254.12
7. Staff Creditors	412.80
8. Funds received for preparation of bio-diversity report A/C	11,648.08
9. Man Power Survey A/C	300,124.20
10. MAB News Letter	9,680.62
11. Research Project on energy - Ministry Of Science & Technology ~ year 2001	3,200,000.00
	-----
	3,894,730.17
	=====

#### 3:2 Employees Benefit

All employees are covered by EPF & ETF. 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. <u>101,215.00</u>
Provision for the year	-	RS. 843,230.00
		=====

4. Publications for the value of  
(Valued at selling price) is available with us. RS. 2,688,784.00  
=====

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

AT NSF	-	11
With Research Grantees -	-	5
		--
		16
		==

6. **Funds drawn from the Treasury during 2001**

Consolidated Funds	-	RS. 23,369,000.00 =====
Recurrent Funds	-	RS. 22,352,312.00 =====
Foreign Aid Funds	-	RS. 14,400,000.00 =====

**Funds drawn from the Treasury from 1968 to 2001**

Consolidated Funds	-	RS. 210,989,276.45 =====
Foreign Aids	-	RS. 235,029,164.13 =====



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**கணக்காய்வாளர் தலைமை அபிப்பதி திணைக்களம்**  
**AUDITOR-GENERAL'S DEPARTMENT**



මගේ අංකය  
எனது இல. }  
My No. }

EC/R/NSF/FA/01

ඔබේ අංකය  
உமது இல. }  
Your No. }

දිනය  
திகதி }  
Date }

October 2002

The Chairman,  
National Science Foundation.

**Report of the Auditor General on the accounts of the National Science Foundation for the year ended 31 December 2001 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 2001 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 will be furnished to the Chairman of the Foundation in due course.

**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 carried out in accordance with Sri Lanka 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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කොළඹ 07, ශ්‍රී ලංකාව

දුරකථන  
දුරකථන  
Telephones } 891151

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කොළඹ 07, ශ්‍රී ලංකාව

විද්‍යාත්මක විද්‍යාලය,  
පැකස් ඉ.ව. } 897451  
Fax No. }

INDEPENDENCE SQUARE,  
COLOMBO 07, SRI LANKA

ඉදිරිපත් කළ  
අ-විද්‍යාත්මක  
E-mail } oaggov@sfn.net.lk

## 2. Accounts

### 2:1 Audit Opinion

Except for the effects of the adjustments arising from the matters referred to in paragraph 2:3 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 2001 and the results of its operations for the year then ended, in accordance with Sri Lanka Accounting Standards.

### 2:2 Financial Results

The activities of the Foundation are being operated under the General Fund and 7 Special Funds. According to the accounts presented, the working of the General Fund of the Foundation for the year ended 31 December 2001 had resulted in a deficit of Rs.28,042,365 before taking into account the Government Grant for recurrent expenditure as compared with the deficit of Rs.28,899,448 for the preceding year.

The deficit was reduced to Rs.5,690,053 after taking into account the Government Grant of Rs.22,352,312 including foreign aid received for recurrent expenditure of the year under review. The deficit for the previous year was reduced to Rs.8,836,448 after taking into account the Government Grant of Rs.20,063,000 received for recurrent expenditure for that year.

The activities under special funds had resulted in a deficit of Rs.34,463,365 before taking into account the Government Grant and foreign aid for special funds as compared with the previous year's deficit of Rs.30,054,521. The deficit for the year under review was converted to a surplus of Rs.3,170,635 after taking into account the Government Grant of Rs.37,634,000 (including foreign aid) received for activities of the special funds as against the deficit of Rs.4,288,388 for the previous year after taking into account the Government Grant of Rs.25,766,134 (including foreign aid) received for activities of the special funds for the preceding year.

### 2:3 Comments on Accounts

#### 2:3:1 Accounting Policies

- (i) The policy of the Foundation is to debit purchase of fixed assets from foreign aid project funds to the project fund accounts and credit same to project funds accounts in capitalization of those assets instead of crediting to the general fund. This accounting policy had not been disclosed with the accounts. In consequence of the failure to debit the sum of Rs.24,617,164 being capital expenditure in respect of three

funds for the year under review and the preceding year to the respective Foreign Aid Project Accounts, the Project Fund Accounts balances had been overstated by similar amounts.

- (ii) Funds released to the relevant institutions and officers for implementation of projects are accounted for as expenditure at the time of release. As a result, the expenditure had been overstated due to the actual expenditure not being reflected. This accounting policy had not been disclosed with the accounts.

#### 2:3:2 Inappropriate Disclosures in the Accounts

The following observations are made.

- (i) The main telephone exchange which had been discarded from use about 16 years ago had been shown as a fixed asset at a value of Rs.13,954.
- (ii) The computer and the printer valued at Rs.61,999 purchased from funds of the National Apprentice and Industrial Training Authority which should have been returned to that Authority after the completion of the Project as per conditions stipulated, had been shown as a fixed asset of the Foundation.

#### 2:3:3 Understatements and Overstatements in the Accounts

- (i) Provision for gratuity amounting to Rs.44,490 in respect of 3 employees had not been made.
- (ii) Fully depreciated bicycles and 3 motor vehicles costing Rs.13,171 and Rs.592,439 respectively continued to be used had not been revalued and brought to accounts.

2:3:4 Non-compliance with Laws, Rules, Regulations and Management Decisions

Following instances of non-compliance were observed

Reference to Laws, Rules, Regulations etc.	Particulars
(a) Guidelines approved by the Foundation	Advances amounting to Rs.897,172 had been paid in respect of 19 Research Projects exceeding the limits specified in Section 1(6) of the Guidelines.
(b) Gazette Extra Ordinary No.945/15 of 6 November 1996 and No.1000/17 of 5 November 1997	Value of Rs.10 stamps, instead of Rs.100 stamps had been affixed to security bonds and agreements relating to payment of loans to employees.
(c) Circular No.PL/000/TNF dated 10 August 1983 and Section 8(3) of Finance Act No.38 of 1971	A budget had not been prepared on the format specified in the Circular.
(d) Treasury Circular No.44 of 25 September 1987	The accounts had not been prepared on the general format specified by the Treasury.
(e) Agreement dated 18 September 1997 signed with the Director of the Foundation.	A sum of Rs.180,360 being the amount recoverable from a Scientific Officer on breach of agreement had not been recovered.

### 3. Financial and Operating Review

#### 3:1 Transactions not supported by Adequate Authority

The following observations are made.

- (a) Since the Director of the Postgraduate Institute of Science of the University of Peradeniya had been appointed as the 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. However, a sum of Rs.350,000 had been paid at Rs.10,000 per month up to 30 September 2000 on the recommendation of the Administrative Secretary of the Foundation and at Rs.11,000 per month from 1 October 2000 to 31 July 2001 on the approval of the Director of the Foundation.
- (b) 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 amounting to Rs.289,068 and Rs.402,235 respectively had been paid for travelling between the residence and the place of work in the official vehicle. In addition, subsistence allowance of Rs.75,210 had also been paid.
- (c) Although the Chairman had been paid travelling expenses and mileage for travelling between his residence in Kandy and the place of work, a house at Elvitigala Mawatha, Narahenpita and a house at Havelock Road had also been taken on rent for his residences. House rent amounting to Rs.200,500 had been paid up to 30 April 2001.
- (d) According to Public Enterprises Circular No.95 of 14 June 1994, employees could be paid allowances only specifically approved by the Cabinet, Ministry of Public Administration or the Treasury with the approval of the Board of Management concerned. Further, according to the Management Services Department Circular No.13 of 21 November 2001, bonus can be paid only based on earning of profits and the institutions depend on recurrent and capital grants from the Government are not entitle to pay bonus. However, the officers and employees of the Foundation had been paid annual bonus amounting to Rs.943,120 balance medical leave allowances amounting to Rs.689,331 and medical grants amounting to Rs.45,408 during the year under review without specific approval.

- (e) Although resources of Corporations or Boards such as staff should not be utilized for objectives of the Ministry, a female stenographer of the Foundation had been detailed for service in the Ministry from 1994 to 2001. This officer had been paid salaries and allowances amounting to Rs.434,911, annual bonus amounting to Rs.70,000 and Rs.32,080 on account of unavailed medical leave by the Foundation for the relevant period.

3:2 Idle Assets

Equipment valued at RS.348,904 purchased out of Foreign Funds had been lying idle since the year 1989. They were found unserviceable.

4. Systems and Controls

Deficiencies in the operations of Systems and Controls will be reported to the Chairman of the Foundation in my report on Section 13(7)(a) of the Finance Act.



(S.C. Mayadunne)  
Auditor General.



**Response of the NSF to the Report of the Auditor General on the accounts of the  
National Science Foundation for the year ending 31<sup>st</sup> December 2001**

**2:3 Comments on Accounts**

**2:3:1 Accounting Policies**

- (1) We adopted this policy in 1986, of not treating the cost of assets purchased as expenditure in the relevant fund accounts, as there should be an investment corresponding to the assets purchased in the relevant fund account.

We disclosed this change of policy in 1986 to the auditors. Prior to 1986, we have treated the assets purchased as expenditure in the respective fund accounts and had credited the NARESA fund account, with the cost of assets purchased.

The policy adopted in year 1986, has been consistently applied. We will state this accounting policy in our notes on accounts in the future.

We have explained this in our replies dated 22.10.2001 and 20.12.2001 to Audit Reports 14 (2) (c) & 13 (7) (a) respectively for the year 2000, and on 11.09.2002 in reply to Audit Report 14(2), (C) for the year 2001.

The Audit and Management Committee of NSF has also decided to obtain an outside opinion on this matter. The Accountant has also been instructed to clarify disagreements on accounting practices with the Audit and to adopt a mutually acceptable procedure in future.

**(II) Research Grants**

Policy of the National Science Foundation in funding research grants as formulated in the Research Grants Contractual agreement, is to transfer the funds to the institution where the grantee is employed in installments, and if there is an unused balance of funds with the relevant institution, after completion of the project, the balance has to be refunded to NSF.

Hence since 1992, we treat the funds transferred to the institution as expenditure and at the end of the project, if there remain unutilized funds, we create a debtor for that amount. This is done in accordance with the conditions of the Research Grants contractual agreement. Any funds released to grantees are treated as Cash advances/Cash imprest and not as expenditure as reported.

We will state this accounting policy in our notes on accounts in the future.

### **2:3:2 Inappropriate Disclosures in the Accounts**

- (i) Telephone system: - This has been written off in the year 2002.
- (ii) Computer and Printer – These items have been purchased out of funds received from National Apprentice and Industrial Training Institute (NAITA) for a survey conducted by Mr. Gamini Senevirathne a consultant for this project at the NSF at that time. These items were purchased in 1999. NSF made the decision in year 2000 to hand over these items to NAITA. We capitalized these items at the time of purchase in 1999. Director and Administrative Officer have been instructed to take legal action immediately to recover the item from Mr. Senevirathne who has since left the NSF. Once the items are handed over to NAITA, we will make the necessary entries in our books of accounts.

### **2:3:3 Understatements and overstatements, in the Accounts**

- (i) The employments of these employees were initially on casual basis and then converted into contract basis. Due to this change they have not been taken to the list of provision for gratuity. However it has already been noted to correct this error in the next preparation as the relevant employees are now in permanent cadre.
- (ii) It has already been noted to revalue the motor vehicles and the bicycles and to record the values in the accounts.

### **2:3:4 Non Compliances with Laws, Rules, Regulations and Management decisions**

- (a) The grant numbers reported are for research grants, awards where we transferred the funds to University of Peradeniya, where the research is carried out. We expect the relevant institution to disburse funds according to prevailing financial regulations. See also 2:3:1 (II)
- (b) Since the audit had pointed out this matter earlier, arrangements were made to get instructions from Inland Revenue Department and to apply the proper procedure. However we did not proceed with that as the stamp duty was cancelled subsequently.
- (c) The budget was prepared according to the formats specified by the Ministry / General Treasury according to the circular issued in year 2000.
- (d) Final Accounts – The accounts have been prepared in the standard format which we have been using since 1987.

- (c) The relevant scientific officer (Mrs. G N Ulluwishewa) initially agreed to pay the dues to NSF since she failed to serve the obligatory period as per the agreement. She has not responded to the reminders sent by NSF and it has now become difficult to contact her as she is in New Zealand. The Director and Administrative Officer have been instructed to take legal action against Mrs. Ulluwishewa immediately to recover the dues.

### 3. Financial and Operating Review

#### 3.1 Transactions not supported by adequate authority

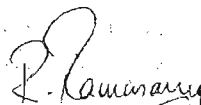
- (a) The remuneration and other conditions and benefits applicable to the then Chairman Prof. K. Dahanayake was not given in the particular appointment letter. These issues were discussed at the time with the Ministry of Science & Technology. It was decided by the NSF administration to pay an allowance of Rs. 10,000/= per month (half of the allowance applicable to the full time Chairman as per the circular PED 122 dated 27.06.1997) on the verbal instructions of the then Secretary to the Ministry Mr. H A Wimalagunawardena.
- (b) In addition to the fuel allowance, payments were made for subsistence and travel expenses of the then Chairman Prof. K. Dahanayake as per the order of the then Minister of Science & Technology (Ex-Minister B. Weerakoon) and instructed by the then Acting Secretary of the Ministry Mr. A W C Perera ( on 29.10.1998).
- (c) Payments were made as house rent of the house used by the then Chairman Prof. K. Dahanayake as per the decision taken by the then Board of Management in 1998 in response to a request made by Prof. Dahanayake (refer NSF Board minute 98-11-180).

The Ministry of Economic Reform, Science & Technology, has also raised the validity of above payments. The Secretary to the Ministry, Mr. G Hewagama wrote to present Chairman NSF asking him to take action to recover the relevant sums. The present NSF Board decided to write to Mr. Hewagama giving full details and the sequence of authorizations and asking the Ministry to take appropriate legal action through the Attorney General if the Ministry deems it suitable.

- (d) The then Board of Management decided to pay an annual payment to the staff as an incentive payment for the year 2001 utilizing funds for overheads from foreign grants awarded to the NSF, and not government funds. The un-utilized medical leave of the employees are encashed at the end of the year. This has been done since 1983. The Secretary, Ministry of Science & Technology has informed the Ministry of Finance regarding the need of payment of annual payment and the reimbursement of un-utilized medical leave (refer letters dated 20.11.1998). The reimbursement of normal medical bills of the employees (up to a limit of Rs. 500/= per annum) is allowed as an extension of the NSF medical scheme, which was originally operated through the Insurance Corporation of Sri Lanka.
- (e) On the request of the then Secretary to the Ministry, Mr. H A Wimalagunawardena, the Stenographer Miss N S S Silva had been released to the Ministry on 23.09.1993. However she has reported back to NSF on 05.08.2002 after action was taken by the present NSF management.

### 3:2 Idle Assets

The service of the micro photographer/audio visual operator was terminated and no recruitment was done (with new technologies microfilming became outdated). However some of the audiovisual equipment were taken over by the Ministry of Science & Technology in 1990, in the process of taking over the other NSF assets and office rooms. These equipment were returned on 11.11.1994 in very poor condition. Arrangements have already been made to auction the relevant equipment, as they are outdated and unusable.



Chairman  
National Science Foundation

12-11-2002