

NATIONAL SCIENCE AND TECHNOLOGY COMMISSION



BICOST VI - 2010

develop an integrated action
plan for implementing the
National Science and
Technology Policy.



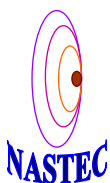
ANNUAL REPORT 2010



National Science and Technology Commission

No.223C, Nawala Road, Narahenpita, Colombo 5

ANNUAL REPORT 2010



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Annual Report 2010

A publication of the National Science
and Technology Commission (NASTEC)
Secretariat

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Commission
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Colombo 5

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ABOUT US

- ✧ The National Science and Technology Commission (NASTEC) was established by the Science and Technology Development Act No. 11 of 1994 and came into operation in August 1998.
 - ✧ It was formally inaugurated on 06 December 1998 and became a functional institute in January 1999.
 - ✧ NASTEC is the Apex policy formulating and Advisory body to the Government of Sri Lanka on Science and Technology policies and plans.
 - ✧ The seven members of the Commission including the Chairman are appointed by H.E. the President of the Democratic Socialist Republic of Sri Lanka.
 - ✧ NASTEC fulfills the need for a Science and Technology Policy formulating apex body which has been highlighted for a long time by the Sri Lankan scientific community.
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Our Vision

“... To enhance the well-being and prosperity of Sri Lanka through the potential of Science and Technology...”

Our Mission

*“... To furnish the Government
with policies, plans and mechanisms
for building a national capability
in Science and Technology,
and utilizing scientific personnel and institutions
to promote national economic development
with respect and regard
for humanity and environment...”*

Director's Statement

It is with great pleasure that I am presenting the 2010 Annual Report of NASTEC to its stakeholders. The activities of NASTEC during the Year 2010 were confined mainly to the Policy formulation activities and institutional review activities. Other activities include consultative fora activities such as Forum of Directors, and Young Scientists Forum.

One of the main achievement of NASTEC during the past few years, the acceptance of the Science and Technology Policy as the National Science and Technology Policy of the country, compelled NASTEC to develop an implementation plan for it. The 6th Sri Lanka Biennial Conference on Science and Technology (BICOST-VI) was held in this year was dedicated to develop an implementation plan for the policy. The output was an Integrated Institutional Action Plan (5 year) for the part implementation of the National S&T Policy. However, this action plan does not fulfill the desired implementation of the policy and hence the need of a comprehensive and enforceable implementation plan has not been materialized yet.

NASTEC continuous to act as the focal point for NAM S&T Center India, an intergovernmental organization that support the human resources development in developing countries through organizing training programs and providing fellowships. NASTEC also functions as the focal point for the technology sector of BIMSTEC. The concept paper on BIMSTEC Technology Transfer Facility was being discussed during this year. In addition to the usual focal point activities, NASTEC acted as one off focal point for a knowledge sharing programme organized by Kung Hee University, South Korea with the financial assistance of Asian Development Bank.


NASTEC conducted its first ever Annual National Review of S&T in the country this year. It was a qualitative review done based on information collected mostly from the Annual Reports of the S&T institutions. In addition to that two institutional reviews have been in progress during this year. The main obstacles that hinder the achievement of targeted institutional reviews are the obtaining of the Self-assessment Reports of the institutions to be reviewed in time and the time matching between the reviewers and reviewees. It is expected that these obstacles will be over with the end of the first review cycle.

Compared to the other consultative fora the Young Scientists Forum has been the most active. The activities of Senior Scientists Forum was confined only to the Annual General Meeting. This is because NASTEC did not have enough staff to coordinate the activities of the Senior Scientists Forum.

At the end of July this year NASTEC bid farewell to Dr. Ranil Guneratne, Director NASTEC as his contract period lapsed. With that I have been appointed as the Acting Director. This led to further staff constrains and made NASTEC mandated activities suffer more.

Finally, it is important to re-emphasize the fact that NASTEC to function in its full swing it needs more scientific staff than now. Moreover, it is the right combination of expertise of the staff and the use of modern policy analysis techniques that make NASTEC an effective policy advisory body. The superimposition of proactiveness and the political will to implement the policies on the aforementioned right combination would make NASTEC a more effective policy advisor.

Dr. Muditha Liyanagedara
Acting Director



Chairperson's Message

During the year 2010, the National Science and Technology Commission (NASTEC) continued to concentrate on the mandated activities of Science and Technology Policy matters, review of the status of Science and Technology in the country and the Science and Technology Institutions under the purview of the Ministry of Science and Technology. NASTEC also collaborated with the Regional Technical Assistance Programme of the Asian Development Bank (ADB - RETA) and the Center for Science and Technology of the Non - Aligned and other Developing Countries (NAM S&T Center).

The implementation of the Science and Technology Policy of 2009 was the main focus of the 2010 Sri Lanka Conference on Science and Technology. Towards achieving this, the Conference finalized an integrated plan of action in line with the policy goals, objectives and strategies to be undertaken by the institutions under the purview of the Ministry of Science and Technology.

Since availability of appropriately trained and skilled scientists and technologists is one of the important requisites for the implementation of the Science and Technology Policy the Commission also prepared a preliminary report on the relevant base line data. The report on the status of Science and Technology in the country covered the period 2006-2008.


The reviews of three institutions were scheduled to be completed in 2010. Due to unavoidable reasons this could not be realized and the year 2010 saw two of the three reviews being initiated.

In collaboration with ADB - RETA and the NAM S&T Center, NASTEC was instrumental in training and development of skills of many scientists, technologists and administrators in the Government departments and university sector in areas relevant to the economic development of the country.

I also wish to place on record the very significant roles played by the two consultative fora of NASTEC namely, the Senior Scientists Forum and the Young Scientists Forum who contributed to various skill development programmes for particularly young scientists in various parts of the country.

All this was possible due to the dedication and hard work of the small staff at NASTEC who were supported well by the scientists and technologists of the country. On behalf of the Commission I thank them all and look forward to their continued co-operation.

As in the past several years the commission made considerable effort in 2010 to improve the staff situation at NASTEC particularly the number of senior scientific officers without success. This has had a very negative effect on the output of the Commission.



Prof. Nalini B. Ratnasiri
Chairperson

Commission Members

Prof. Nalini B. Ratnasiri

Chairperson

Entomologist: Emeritus Professor of Zoology, Open University of Sri Lanka, Research Officer in Entomology, Department of Agriculture (1966 - 1974); Research Officer in Entomology, Forest Conservation Department (1974 - 1983); Professor of Zoology (1983 - 1986), Founder Dean, Faculty of Natural Sciences (1986 - 1992), and Senior Professor of Zoology (1986 - 2005), Open University of Sri Lanka; Member and Vice Chairperson, University Grants Commission (1993 - 1994); Chairperson, National Steering Committee on GEF/UNDP Small Grants Programme; Member, National Steering Committee on EU/UNDP Programme for Promoting Tropical Forests; Member, Standing Committee on University Education, National Education Commission; Member, National Science and Technology Commission (2003 - to date); Chairperson, National Science and Technology Commission (2005 - to date)

Vidya Jothi Prof. K.K.Y.W. Perera

Engineer, Professor of Electronic Engineering; Chairman, Arthur C. Clarke Centre for Modern Technologies; Founder Chairman, NERD Centre (1974 - 1977); Chairman, CEB (1977 - 1989); Secretary, Ministry of Power and Energy (1981 - 1990) and (2001 - 2003); President, Institution of Engineers, Sri Lanka (1985 - 1986); Emeritus Professor, University of Moratuwa; Director, ADB S&T Personnel Development Project (1997 - 2001).

Prof. H.P.M. Gunasena

Agronomist: Emeritus Professor of Crop Science, University of Peradeniya (1982); Executive Director, Council for Agricultural Research Policy (1982); Dean, Faculty of Agriculture, University of Peradeniya (1982 - 1994); Rector, Wayamba Campus (1996 - 1998); Director, Post Graduate Institute of Agriculture (1997 - 2002); Member, University Grants Commission (1999 - 2005); Fellow of the National Academy of Sciences; Advisor to the Minister of Agriculture (2007 - to date).

Prof. W.D. Lakshman

Economist: University of Colombo. Chairman, Social Scientists Association (1986 - 1988, 1994); President, Sri Lanka Association of Economists (1990 - 1993); Dean, Faculty of Graduate Studies (1992 - 1994); Sri Lanka Foundation Institute (1995 - 1997); Vice-Chancellor (1994 - 1999); Chairman, Council of Management, National Institute of Business Management; Vice-Chairperson, National Development Council; Board Member, NARESA (1997 - 1998); Visiting Professor, Ryukoku University, Japan (1999 - 2001); Senior Professor of Economics, University of Colombo and Professor of Economics, Saga University, Japan (2004 - 2005);

Dr. C.T.S.B. Perera

Industrialist: Managing Director, Samson Rajarata Tiles (Pvt) Ltd, Director, Piramal Glass (Ceylon) PLC., Director, Kelani Cables PLC; Director, Dankotuwa Porcelain PLC; Vice-chairman, Public Utilities Commission; Member of the Board, CRIB; Director, Lanka Puthra Development Bank

Dr. Palitha Abeykoon

Medical Practitioner; Senior Advisor to the World Health Organization and the Ministry of Health; Former Director of Health Systems Development and Health Technology (WHO)- South East Asia Region; Senior Takemi Fellow of Harvard University; Member, Board of Directors of the International Clinical Epidemiology Network, the South East Asian Association of Medical Education and the South East Asian Public Health Education Network of the WHO; President of the Aids Foundation of Lanka.

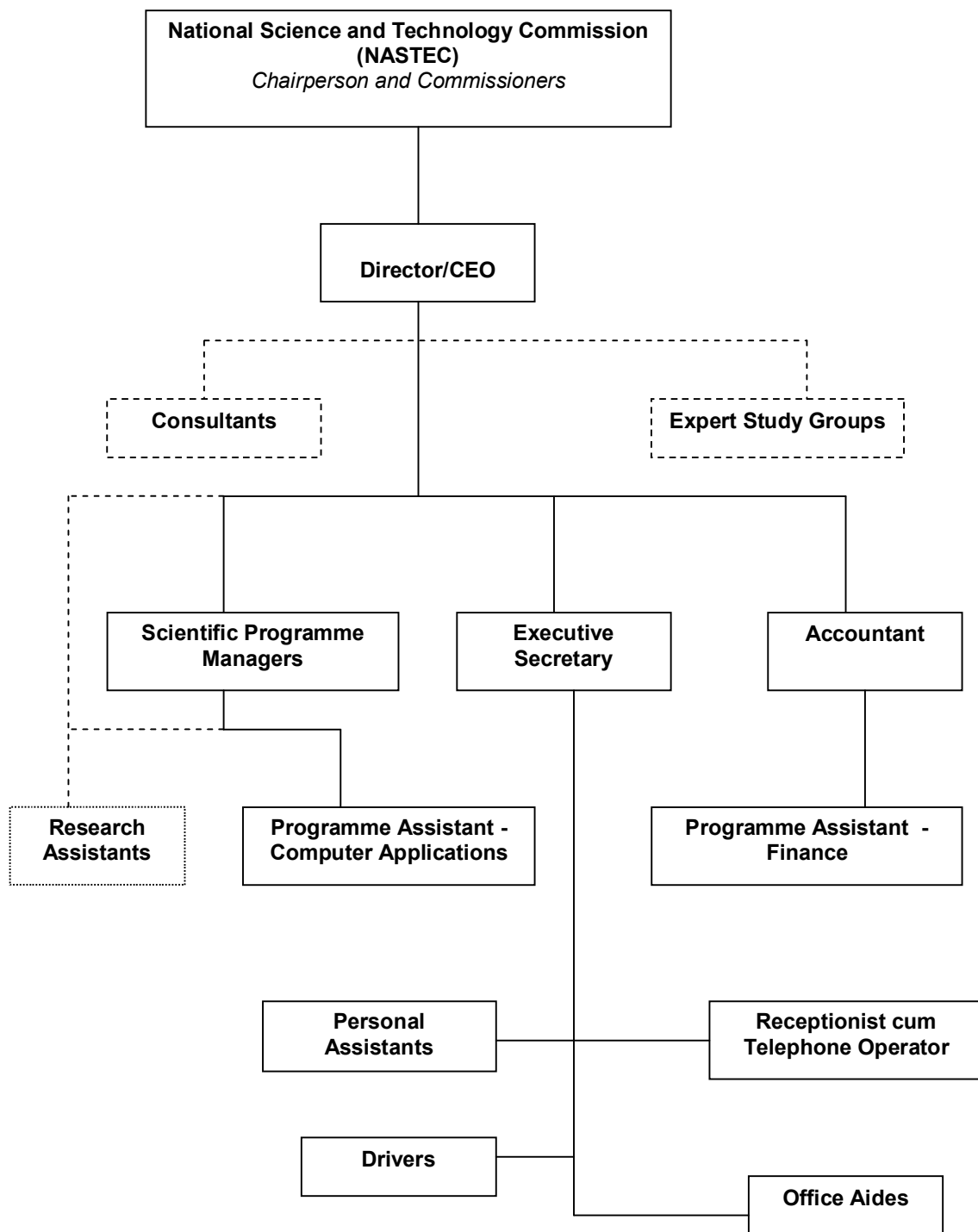
Mr. H.M. Gunasekera

Director General, Department of National Planning, Ministry of Finance and Planning.

Profile of the Organization

- The Chairman heads the Commission.
- The Director is the Chief Executive Officer
- The Scientific Programme Managers facilitate and manage Expert Study Groups and Consultative fora, which produce policies, plans, reports, and other NASTEC documents.
- The Executive Secretary is the secretary to the Commission and also functions as the Office Manager.
- The Accountant manages all financial matters.
- Research Assistants and Consultants hired on need-basis carry out specialized tasks and assignments as required by the Commission.

Organizational Structure



Solid lines (—) denote permanent positions.
Broken lines (- - -) denote temporary positions.

Our Staff



Executive Staff:

Director / Chief Executive Officer

Dr. R. D. Guneratne (up to July)
B.Sc. (Colombo), M.Sc., Ph.D. (Cornell), F.I.Chem.C.

Scientific Programme Managers

Dr. L.M.M.P. Liyanagedara
B.Sc., M.Phil (Peradeniya),
Ph.D. (Seoul).
Acting Director since August

Miss. Asha Pitadeniya
B.Sc., M.Sc. (Peradeniya)

Accountant

Mrs. G.C.K. Peiris
B.Com (Sri Jayawardenepura)

Executive Secretary

Mr. Rukman Cooray Bulathsinghala

Research Assistants

Miss Jeewani Hemathilake (up to May)
B.Sc. (Peradeniya)

Miss T. Yogeeswaran (up to April)
B.Sc (Colombo)

Miss. Brintha Arulananthan (up to November)
B.Sc (Kelaniya)

Miss. Avanthi Igalavithana (up to November)
B.Sc (Peradeniya)

Drivers

Mr. H.A. Anil Kumara Hettiarachchi
Mr. I.G. Jayashantha Prabath

Office Aides

Mr. A.D. Dhanapala
Mr. Nishantha Piyadasa



Supporting Staff:

Programme Assistants

- Computer Applications

Mrs. L.A.L.N. Liyanaarachchi
B.Sc. (Sabaragamuwa)

- Finance

Mr. R. M. Thusitha Rathnayake
M.A.A.T.

Personal Assistants

Mrs. Nilmini Perera
Miss. Saumi Wijesinghe (on contract)

Receptionist cum Telephone Operator

Mrs. Dakshini Karunathilake

Science and Technology Policy Matters

6th Sri Lanka Biannual Conference on Science and Technology (BICOST – VI)

The 6th Sri Lanka Biennial Conference on Science and Technology was organized by NASTEC and held at Hotel Suisse, Kandy from July 16th to 18th 2010. The theme for this year's conference was 'Planning for Economic Growth through Science and Technology'.

The objective of the conference was to develop an integrated action plan for implementing the National Science and Technology Policy. The Conference was attended by more than 100 participants from S&T institutions, various government departments and ministries, universities, private sector and industries.



Dr. R.D. Guneratne making the welcome address at the Conference

Hon. Prof. Tissa Vitarana Minister of Technology and Research presented the Science, Technology, and innovation Strategy 2011-2015 to the gathering of the conference to get its feedback to finalize this five-year strategy.

The following presentations were made by invited scientists and discussed at the conference.

- **Research and Development**
Prof. Veranja Karunaratne
Science Team Leader,
Sri Lanka Institute of Nanotechnology



A Section of Participants at the Conference

- **Support Services for S&T**
Dr. L. N. Senaweera
Director General,
Sri Lanka Standards Institution
- **Technology Transfer**
Dr. A.M. Mubarak
Director,
Industrial Technology Institute.
- **Human Resource Development**
Prof. S.B.S Abeykoon
Vice Chancellor,
University of Peradeniya
- **Energy Security**
Eng. Parakrama Jayasinghe
President
Bio Energy Association of Sri Lanka
- **Water Security**
Eng. D.S.D. Jayasiriwardena
Deputy General Manager
National Water Supply and Drainage Board

The conference also discussed the activities and plans of the S&T institutions that have been aligned with the National Science and Technology Policy under the following sectors.

Agriculture Sector S&T Institutions

Presented by: Prof. Rohan Rajapaksa
Former Chairman, Council for Agricultural Research Policy

S&T institutions under the Ministry of Technology and Research

Presented by: Dr. S.A.K. Abayawardana
Director, National Science Foundation

Plantation Sector S&T Institutions

Presented by : Dr. S.S.B.D.G. Jayawardane
Chairman, Tea Research Board of Sri Lanka

Group discussions were held to discuss the Science, Technology and Innovation Strategy for Sri Lanka and the Implementation plan of the National Science and Technology Policy.

As the output of the BICOST - VI an integrated institutional action plan (5 year) for implementing the National Science and Technology Policy was developed. This action plan is also comprised of future directions and initiatives to address the implementation of the National Science and Technology policy, and policy objectives and strategies that have not been adequately addressed by the S&T Institutions.

Strategies for Human Resources Development for S&T

In year 2009 the Commission identified human resource development for Science and Technology as an area that need attention as per the objective No. 3 of the National Science and Technology Policy. An Expert Study Group has been appointed to study the current situation of human resources in S&T and to prepare policy guidelines/recommendations for the development of human resources for S&T. A preliminary study has been conducted by NASTEC to obtain baseline data. A comprehensive study has been planned with the following objectives.

- To determine current and projected human resources need for S&T
- To identify existing and future problems in supply and demand aspects of human resources in Science and Technology. The output of the study will provide baseline information to prepare an action plan/strategies for human resources development.

Science and Technology Review



Annual Review of the Status of S&T in the Country

The final report of the National S&T Review which covered the period 2006-2008 had been submitted to NASTEC by the specialist consultant, Dr. Nobel Jayasuriya, and it was approved by the Commission. The consultant also completed and submitted a template for future reviews.

This review is the first annual review of the status of S&T in Sri Lanka conducted by NASTEC. The data/information for this review was collected mostly from the annual reports of the S&T institutions



Review of S&T Institutions

NASTEC is mandated by the Science and Technology Development Act No 11 of 1994 to review and report to the Government, the progress of Science and Technology institutions.

NASTEC has drawn up a 5-year schedule for the review of 13 S&T institutions (excluding the institutions in the Agriculture Sector). The schedule was finalized at a meeting of the Forum of Directors, held in 2010 with all the Directors agreeing to it. The institutions scheduled to be reviewed in 2010 were the Atomic Energy Authority (AEA), the Sri Lanka Standards Institute (SLSI), and the Sri Lanka Accreditation Board (SLAB).

Two institutional reviews were initiated in the year 2010. They were; Sri Lanka Accreditation Board for Conformity Assessment (SLAB) and the Atomic Energy Authority (AEA).

The review panel for SLAB was consisted of Mrs. Subadra Jayasinghe (Chairperson), United Nations Industrial Development Organization; Dr. Sukanya Devarajan, National Science Foundation and Dr. M.M.M. Najim, Department of Zoology, Faculty of Science, University of Kelaniya. The draft review report was submitted to NASTEC in December 2010.

Review Panel for Atomic Energy Authority (AEA) consisted of Prof. Mrs. Indra Dayawansa (Chairperson), Department of Electronics and Telecommunication Engineering, Faculty of Engineering, University of Moratuwa; Prof. Sivali Ranawana; Dr. R.D. Guneratna, Department of Chemistry, Faculty of Science, University of Colombo and Mr. Ananda Pannila, Industrial Technology Institute.

Having studied the self-assessment report submitted by the AEA, the review panel had an initial meeting with the Director and the executive staff of AEA. The 1st review visit was on 15th December. NASTEC expects the draft review report during the 1st quarter of 2011.

International Relations



Activities conducted in collaboration with NAM S&T Centre - India

1st Bureau Meeting of 12th Governing Council of the NAM-S&T Centre

The Centre for Science and Technology of the Non -Aligned and other Developing Countries (Nam S & T Centre) is an inter-governmental organization with a membership of 44 countries spread over Asia, Africa, Middle East and Latin America. The Centre was set up in 1989 in New Delhi, India in pursuance of recommendations of various NAM Summit meetings for the promotion of South-South and North-South cooperation in Science and Technology. The National Science and Technology Commission is the Sri Lanka's National Focal Point of the Nam S & T Centre.

NASTEC hosted the above meeting from 8-9 November 2010 in Colombo. Four Bureau members from Egypt, South Africa, India and Cuba attended the meeting and it was successfully completed. Delegates from Sri Lanka, India and Malaysia also attended this meeting as observers.

The 4th Apex Committee Meeting of the project on “Sustainable Rainwater Harvesting and Ground Water Recharge in Developing Countries-HRD and Technology Transfer”

NASTEC also hosted the above meeting on 10th November 2010 in Colombo. This project is another NAM S&T Center initiative. This meeting was attended by the delegates from Sri Lanka, India, Egypt, and Indonesia.

After this meeting a workshop on the same topic was held on the same day afternoon at the National Science Foundation Auditorium. NASTEC organized this workshop in collaboration with the Lanka Rainwater Harvesting Forum. By organizing this workshop NASTEC was able to provide a platform for Sri Lankans to interact with experts on the subject of rain water harvesting from different countries. More than 100 participants attended this workshop

Training Opportunities Provided through NAM S&T Centre

Dr. Nalika Gunawardene, Faculty of Medicine, University of Colombo was nominated by NASTEC to represent Sri Lanka at the International conference on *Empowering*

Mr. M.A.M. Fernando, Senior Mechanical Engineer, (NERD Centre) was nominated to represent Sri Lanka at the International Advanced Training Course on *Intellectual Property Rights for NAM Centre countries*,+ held in New Delhi from 12th to 17th July 2010.

Ms. H.J. Gunaratne, Assistant Director, (Ministry of Technology and Research) was nominated to represent Sri Lanka at the International Workshop on *Application of Science and Technology for Occupational Villages Development*,+ held in Hanoi, Vietnam from 2nd to 5th August 2010.

Mr. K. G. Janaka Karunasena, Scientific Officer, NSF, attended the international workshop on *Science Centers in Promoting a Knowledge and Innovative Society for Sustained and Responsible Growth in Developing Countries*, Kuala Lumpur, Malaysia, 11 . 14 October 2010

Ms. B A M Champika Udayani, Research Officer, Industrial Technology Institute was awarded the Joint CSIR/CFTRI (Diamond Jubilee) . NAM S&T Center Fellowship, in December 2010.

Dr. Selvaluxmy Chelvendran, (Industrial Technology Institute) was nominated for the ICCBS Fellowship offered by the International Centre for Chemical and Biological Sciences (ICCBS) in Karachi.

Dr. S.K. Haputhantri, Head, Marine Biological Resources Division, National Aquatic Resources Research and Development Agency was nominated for the Bremen Fellowship in Tropical Coastal Marine Ecology and Biogeochemistry, offered by the University of Bremen, Germany.

ADB, RETA Knowledge Sharing Programme

Asian Development Bank Regional Technical Assistance (ADB-RETA) programme on Knowledge Sharing was held in Colombo on 28th and 29th of June 2010, at the Taj Samudura Hotel as a collaborative activity of NASTEC, the Asian Development Bank, and Kyung Hee University of South Korea. The objective was to convey to Sri Lankan officials the knowledge gathered on %Good Asian Practices on Innovation and Development,+and to seek input on future work on this project. There were a total of 55 participants from government Ministries, S&T institutions, universities, private enterprises including the resource persons from the ADB and Kyung Hee University.

The following Sri Lankan Resource Persons presented on how to adopt the good Asian innovation practices in the Sri Lankan context in the following fields.

- Mr.Nimal Athukorala, Additional Secretary (Ministry of Technology & Research): *Science & Technology*.
- Dr. Muditha Liyanagedara, Scientific Programme Manager (NASTEC): *Human Resource Development*.
- Mr. Susantha Perera, Director (Ministry of Finance & Planning): *Information and Communication Technology*.
- Mr. Aruna Bandara, Director (Ministry of Economic Development): *Trade and Investment*.

Other Resource Persons were Dr. Richard Vokes, ADB Country Director for Sri Lanka, Prof Keuk-jea Sung ,Prof. Jae-Sung Kwak. Project team leader from Kyung Hee University, and Dr. Hyujung Lee, from the ADB head office in Manila.

Other NASTEC Activities

Senior Scientists Forum (SSF)

SSF Annual General Meeting (AGM) and Guest Lecture



The AGM of the Senior Scientists Forum was held on 18th February 2010. At the Wimalasurendra Auditorium, the institution of Engineers, Sri Lanka.

A Steering Committee for year 2010 was elected at the Annual General Meeting.

The elected committee members are :

- Prof. Harsha Munasinghe (Chairman)
- Capt. Deepthi Peiris
- Dr. Seetha Wickremasinghe

- Dr. Saman Fernando
- Dr. Sadun Senarath
- Dr. Wasana Wijesuriya
- Dr. Mayuri Wijesinghe
- Dr. Shanthi Wilson
- Prof. Janitha Liyanage

The Annual General meeting was followed by a Guest lecture delivered by Dr. Harsha Aturupana, Lead Education Specialist, Human Development Unit, World Bank on Technology Education and Economic Growth in Sri Lanka+.

Young Scientists Forum (YSF)

YSF Annual General Meeting- 2009

The 2009 Annual General meeting (AGM) of the Young Scientists Forum (YSF) combined with a workshop on Leadership and Time Management + was held on 19th January 2010, at the Main Auditorium, Industrial Technology Institute and the following presentations were given at this workshop.

- **Leadership towards Productivity and Transformation**
Mr. Mevan Pieris,
General Manager, Research and Development, Associated Motorways
- **Time Management**
Mr. D.M.A. Kulasooriya,
Director, National Institute of Business Management

At the AGM a new Steering Committee for 2010 was elected. The members of the committee were:

Mr. A.K. Wickremasooriya (Chairman)
Mr. J.G. Shanthasiri, Mr. Mohan Lokuge,
Mr. Kasun Meegahakumbura, Mr. K.M.C.D. Hemachandra, Dr. Nisha Kottearachchi,
Mr. A.T.R. Fernando, Dr. M.M.M. Najim,
Ms. L.D.A.M. Arawwawala, Dr. P.I.P. Perera,
Dr. Rupika Abeyanayake, Ms. Menuka Udugama, Mr. M.C.M. Zakeel, Dr. P.R.M.P. Dilrukshi, Mr. Nevil Amunugoda

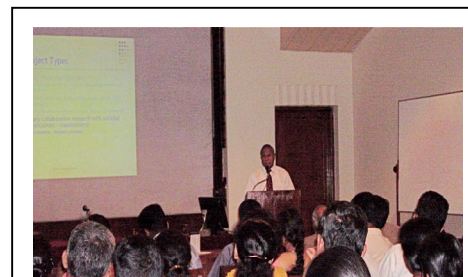
YSF Awards - 2009



The National Science and Technology Commission initiated the YSF awards in year 2006 in order to encourage young scientists and to recognize their achievements. These awards are presented annually at the YSF Annual General Meeting.

The awards are presented under two categories; Scientific Research+ and Popularization and Promotion of Science+ to YSF members who excelled in respective areas. Each award consists of a cash prize and a certificate.

The Following Young Scientists were selected for the awards (2009) after evaluating the applications received from the YSF members. Prof. Missaka Wijegunawardene, Department of Animal Science, Faculty of Agriculture, University of Peradeniya (Excellence in Scientific Research+) and Dr. M.M.M. Najim, Department of Zoology, Faculty of Science, University of Kelaniya (Popularization and Promotion of Science+).



Mr. Kulasooriya making his presentation

❑ Skills Development Workshop for Young Scientists

NASTEC organized two Skills Development workshops on 22nd and 23rd February, in collaboration with the University of Jaffna and the YSF. They were held in Vavuniya and Jaffna, respectively. The main audience targeted was young academics at the Vavuniya and Jaffna campuses of the University of Jaffna, but other young scientists from institutes in the area including officers from the local Vidatha Centers, also attended. The resource persons were Dr. R. D. Guneratne (presentation skills), Prof. V. Kumar (writing research papers), and Mrs. Deepali Talagala (surfing the Internet).

Subsequent to these workshops, over 70 new members from these areas joined the YSF and the SSF.

❑ Workshop on Numbers in Science: the Right Way to Handle Quantitative Data

This workshop was held on 13th May 2010 at the Postgraduate Institute of Science, University of Peradeniya. It was organized by the YSF in collaboration with SLAAS Section E2. The objective of the workshop was to give some insights to young scientists engaged in research and help them in statistical analysis of research data.

The workshop was attended by more than 100 participants from R&D institutions such as Veterinary Research Institute, Horticulture Crop Research and Development Institute, Plant Genetic Resources Center, University academics, postgraduate students and employees of the Department of Agriculture and Department of National Botanical Gardens.



Dr. Guneratne making his presentation



A section of participants at the Skills Development Workshop

Following presentations were made at this workshop:

- **Significant Figures: the Correct Reporting of Numerical Results**
Dr. R.D. Guneratne
Director, NASTEC
- **Errors in Measurements, Statistical Methods and Fitting Equations to Experimental Data**
Prof. Namal Priyantha
Dept. of Chemistry,
University of Peradeniya
- **Statistics and Data Handling in Life Sciences Research**
Prof. M.J.S. Wijeyaratne
Department of Zoology
University of Kelaniya
- **Uncertainty of Results of Measurements**
Mr. Rohan Perera
Director, Metrology
Sri Lanka Standards Institution

❑ YSF AGM 2010 and Skills Development Workshop

The 2010 Annual General Meeting (AGM) of the Young Scientists Forum was also held in this year. It was held on 14th December 2010 at the Wimalasurendra Auditorium, the Institution of Engineers, Sri Lanka.

A new Steering Committee for 2011 was elected at the AGM. The members elected for the 2011 Steering Committee are;

- ~ Prof. Udith Jayasinghe-Mudalige (Chairman)
- ~ Mr. Rohan Fernando
- ~ Mr. Nalaka Geekiyanage
- ~ Mr. Tharaka Gunawardena
- ~ Mr. Keminda Herath
- ~ Mr. Chinthan Manoratne
- ~ Dr. Sachie Panawala
- ~ Mr. Mahinda Sakalasooriya
- ~ Mrs. Geethani Samarasinghe
- ~ Ms. Inoka Suwandarathne
- ~ Ms. Menuka Udugama
- ~ Mr. Ashwin Wickramasooriya
- ~ Mr. M.C.M. Zakeel

A Skills Development workshop was also conducted along with the AGM. The following presentations were made at this workshop.

- **Personality and Leadership Development**
Dr. R.D. Guneratne, Department of Chemistry, Faculty of Science, University of Colombo, (Former Director, NASTEC)
- **Commercialization of R&D Work**
Mr. Rajitha Kariyawasam
Managing Director, Haycarb PLC.

❑ YSF Awards - 2010

✎ YSF Award for Excellence in Scientific Research

Prof. Sagarika Ekanayake
Faculty of Medicine
University of Sri Jayawardenapura

✎ YSF Award for Popularization and Promotion of Science

Mr. Ashvin Kamal Wickramasooriya
Faculty of Applied Sciences
South-Eastern University of Sri Lanka

✎ Merit Certificate for Scientific Research

Dr. Rupika S. Rajakaruna
Department of Zoology
Faculty of Science
University of Peradeniya

Acknowledgement

➤ Consultants

- i) Dr. M.C.N. Jayasuriya
- ii) Mr. G.A.K. Gajaweera

➤ Expert Study Group on Development of Human Resources in S&T

- | | |
|---|---|
| i) Prof. Dayantha Wijesekara
Tertiary and Vocational Education
Commission | iv) Mr. Mevan Pieris
Associated Motorways Pvt. Ltd |
| ii) Prof. Sam Karunaratne
Sri Lanka Institute of Information
Technology | v) Dr. Bandula Perera
Samson Rubber Industries (Pvt) Ltd |
| iii) Prof. Veranja Karunaratne
Sri Lanka Institute of Nanotechnology | vi) Prof. Gamini Samaranayake
University Grants Commission |

➤ Consultative Fora

❑ Steering Committee of the Forum of Directors

- | | |
|--|--|
| i) Dr. S.A.K. Abayawardana
National Science Foundation | v) Prof. R. Rajapakse
Sri Lanka Council for Agricultural
Research policy |
| ii) Dr. N.C. Kumarasinghe
Sugarcane Research Institute | vi) Dr. Mrs. L. Raschid
Medical Research Institute |
| iii) Eng. Mr. S. Panawennage
Arthur C. Clarke Institute for Modern
Technologies | vii) Dr. I. J. De Zoysa
Department of Agriculture |
| iv) Dr. Mrs. C. Amarasiri
National Aquatic Resources Research
and Development Agency | |

❑ Steering Committee of the Senior Scientists Forum

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- | | |
|---|---|
| i) Prof. Harsha Munasinghe (Chairman)
University of Moratuwa | vi) Dr. Shanthi Wilson
Industrial Technology Institute |
| ii) Prof. Janitha Liyanage
University of Kelaniya | vii) Dr. Sandun Senarath
University of Sri Jayewardenepura |
| iii) Capt. Deepthi Peiris
Sri Lanka Navy | viii) Dr. Saman Fernando
National Science Foundation |
| iv) Dr. Seetha Wickremasinghe
National Science Foundation | ix) Dr. M.R. Wijesinghe
University of Colombo |
| v) Dr. Wasana Wijesuriya
Rubber Research Institute | |

❑ Steering Committee of the Young Scientists Forum

- | | |
|---|---|
| i) Mr. A.K. Wickramasooriya (Chairman)
South-eastern University of Sri Lanka | xi) Dr. M.M.M. Najim
University of Kelaniya |
| ii) Dr. Rupika Abeyanayake
Wayamba University of Sri Lanka | xii) Dr. P.I.P. Perera
Coconut Research Institute |
| iii) Mr. Nevil Amunugoda
Industrial Technology Institute | xiii) Ms. L.D.A..M. Arawwawala
Industrial Technology Institute |
| iv) Dr. P.R.M.P. Dilrukshi
National Science Foundation | |
| v) Mr. J.G. Shanthasiri
National Science Foundation | |
| vi) Mr. A.T.R. Fernando
National Building Research
Organization | |
| vii) Mr. K.M.C.D. Hemachandra
National Building Research
Organization | |
| viii) Dr. Nisha Kottearachchi
Wayamba University of Sri Lanka | |
| ix) Mr. Mohan Lokuge
Unilever Sri Lanka | |
| x) Mr. Kasun Meegahakumbura
Coconut Research Institute | |

❑ Review Panel Members – Sri Lanka Accreditation Board for Conformity Assessment

- | | |
|--|--|
| i) Mrs. Subadra Jayasinghe
(Chairperson)
United Nations Industrial
Development Organization | iii) Dr. M.M.M. Najim
Department of Zoology
Faculty of Science
University of Kelaniya |
| ii) Dr. Sukanya Devarajan
National Science Foundation | |

❑ Review Panel Members - Atomic Energy Authority

- | | |
|---|---|
| i) Mrs. Indra Dayawansa (Chairperson)
Department of Electronics and
Telecommunication Engineering
Faculty of Engineering
University of Moratuwa | i) Dr. R.D. Guneratna
Department of Chemistry
Faculty of Science
University of Colombo |
| ii) Prof. Sivali Ranawana
Former Prof. of Veterinary
Faculty of Veterinary Science
University of Peradeniya | ii) Mr. Ananda Pannilla
Head, ETC
Industrial Technology Institute |

Staff News

Dr. Ranil D. Guneratne completed 4 years of service at NASTEC and bid farewell to NASTEC in July 2010. We are thankful to his valuable services to NASTEC during his tenure.

Dr. Muditha Liyanagedara, Scientific Programme Manager has been appointed as the Acting Director from August 2010.

Research Assistants, Ms. Grace Brintha Arulananthan, Ms. Avanthi Igalavithana, Ms. Jeewani Hemathilake and Ms. Thaadhachayani Yogeeswaran completed their contractual period at NASTEC and left for better benefits, in 2010. NASTEC is thankful to them for their contributions towards NASTEC activities.

Training Programmes / Workshops attended by NASTEC Staff.

1. Ms.Asha Pitadeniya and Mrs. Kumari Peiris participated the workshop conducted by Institute of Personnel Management, on Time Management, on 27th July, 2010.
2. Mr. Anil Hettiarachchi and Mr. Prabath Jayashantha attended a workshop at ICTAD on Safe Driving on 20th October 2010.

Financial Statement

NATIONAL SCIENCE AND TECHNOLOGY COMMISSION

STATEMENT OF FINANCIAL POSITION FOR THE YEAR ENDED 31st DECEMBER 2010

(in thousands of currency units)

	2010		2009	
ASSETS				
Non - current assets				
Property, plant and equipment	4,267,020		3,259,303	
		4,267,020		3,259,303
Current assets				
Inventories / Stocks	149,484		112,169	
Trade and other receivables	12,000		12,000	
Trade Debtors	-		70,000	
Prepayments	418,459		735,000	
Cash and cash equivalents	897,548		104,710	
Staff Loans	471,423	1,948,914	193,679	1,227,558
Total Assets		6,215,934		4,486,861
LIABILITIES				
Current liabilities				
Accrued expenses	163,828		351,948	
		163,828		351,948
Non - current liabilities				
Deferred Income	439,500		106,400	
Provision for Gratuity	1,131,155	1,570,655	1,059,963	1,166,363
Total liabilities		1,734,483		1,518,312
Total Net Assets		4,481,451		2,968,549
NET ASSETS/EQUITY				
Accumulated fund	7,943,493		7,207,134	
Reserves	(3,462,042)		(4,238,585)	
Total Net assets/Equity		4,481,451		2,968,549

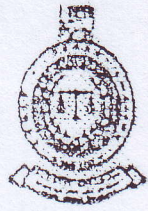
NATIONAL SCIENCE AND TECHNOLOGY COMMISSION
STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31ST
DECEMBER 2010

	2010	2009	
Operating Revenue			
Recurrent Grant	13,325,000	12,790,000	
Capital Grant - S & T Service	3,673,000	500,000	
Amortization of Government Grants - Depreciation	1,555,742	1,046,212	
Other income	27,202	220,636	
	18,580,944	14,556,848	
Operating Expenses			
Personal Emoluments	6,531,512	6,582,717	
Traveling	127,568	238,472	
Supplies and consumables used	228,082	375,887	
Maintenance	352,037	421,276	
Contractual services	4,180,145	4,459,280	
Transfers	922,067	1,546,611	
Research and Development	3,912,178	1,600,350	
Depreciation and amortization expenses	1,555,742	1,046,212	
Total operating expenses	17,809,329	16,270,805	
Surplus/(Deficit) from operating activities	<u>771,615</u>	<u>(1,713,957)</u>	
Financial Cost			
Gain on sales of property plant and equipment	4,929	-	
Total non operating revenue (expenses)	-	-	
Net surplus/(deficit) for the period	<u>776,544</u>	<u>(1,713,957)</u>	



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My No

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கணக்காய்வாளர் தலைமை அறிப்பித் திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT



உமது அංකம்
உமது இல
Your No.

தேதி
திகதி

Date 19 May 2011

EL/E/NASTEC/FA/2010

The Chairman
National Science and Technology Commission

Report of the Auditor General on the Financial Statements of the National Science and Technology Commission for the year ended 31 December 2010 in terms of Section 14(2)(c) of the Finance Act, No.38 of 1971.

The audit of financial statements of the National Science and Technology Commission for the year ended 31 December 2010 was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13(1) of the Finance Act, No. 38 of 1971 and Section 40(3) of Part VII of the Science and Technology Enhancement Act, No. 11 of 1994. My comments and observations which I consider should be published with the annual report of the Commission in terms of Section 14(2)(c) of the Finance Act appear in this report. In addition to this a detailed report in terms of Section 13(7)(a) of the Finance Act was issued to the Chairman of the Commission on 24 March 2011.

1:2 Responsibility of the Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Accounting Standards. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatements, whether due to fraud or error, selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

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தொலைபேசி } 2691151
Telephone.

சுதந்திர சதுக்கம்,
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எ-மேயில்
E-mail.

1.3 Scope of Audit and Basis of Opinion

My responsibility is to express an opinion on these financial statements based on my audit. Audit opinion, comments and findings in this report are based on review of the financial statements presented to audit and substantive tests of samples of transactions. The scope and 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 to obtain reasonable assurance as to whether the financial statements are free of material misstatements. The audit includes the examination on a test basis of evidence supporting the amounts and disclosures in the financial statements and assessment of accounting policies used and significant estimates made by the management in the preparation of financial statements as well as evaluating their overall presentation. I have obtained sufficient information and explanations which to the best of my knowledge and belief were necessary for the purpose of my audit. I therefore believe that my audit provides a reasonable basis for my opinion. Sub-sections (3) and (4) of Section 13 of the Finance Act, No.38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the Audit.

2. Financial Statements

2:1 Opinion

So far as appears from my examination and to the best of information and according to the explanations given to me, I am of opinion that the National Science and Technology Commission had maintained proper accounting records for the year ended 31 December 2010 and except for the effects on the financial statements of the matters referred to in paragraph 2:2 of this report, the financial statements have been prepared in accordance with Sri Lanka Accounting Standards and give a true and fair view of the state of affairs of the National Science and Technology Commission as at 31 December 2010 and the financial results of its operations and cash flows for the year then ended.

2:2 Comments on Financial Statements

2:2:1 Accounting Standard

The following non-compliances with the Accounting Standards were observed.

- (a) According to the Sri Lanka Accounting Standards No. 18, information to be disclosed while showing the revaluation value of items of property, plant and equipment in the accounts had not been presented along with the accounts. Although the revaluation profit of assets amounting to Rs.1,629,300 should have been shown under the revaluation reserve, it had been shown under the Accumulated Fund.
- (b) Although income and expenditure should have been reported separately in terms of Sri Lanka Accounting Standards No. 3, the net results amounting to Rs.6,660 of the revenue received from a workshop and expenditure incurred thereon amounting to Rs.53,000 and Rs.59,660 respectively had been shown as the Operation Committee expenditure of the Young Scholars Association.

2:2:2 Non-compliance with Laws, Rules and Regulations

Instances of the following non-compliance were observed in audit.

Reference to Laws, Rules, Regulations
etc

Non-compliance

-
- (a) Public Enterprises Circular No.
PED/12 dated 02 June 2003

6.5.1

A copy of the draft annual report had not been presented along with the accounts.

6.5.3

Accounts and audit report for the year 2008 had not been tabled in Parliament up to 10 March 2011.

9.3.1

Recruitment and promotion procedure of the Commission had not been approved.

9.6

Evaluation of performance had not been implemented for giving annual salary increments.

2.2.3 Transactions not Supported by Adequate Authority

A Distress Loan Fund amounting to Rs.124,184 had been opened by investing installments recovered from the amount of distress loans provided to the employees. Approval of the General Treasury had not been obtained for this revolving fund.

3. Financial and Operating Review

3:1 Financial Review

3:1:1 Financial Results

According to the financial statements presented, the operations of the Commission had resulted in a surplus of Rs.771,615 for the year ended 31 December 2010 after taking into account the government grant of Rs.13,325,000 for recurrent expenditure as against a deficit of Rs.1,713,957 for the preceding year after taking into account the government grants of Rs.12,790,000 for recurrent expenditure. Accordingly, the financial results for the year under review had indicated an improvement of Rs.2,485,572 as compared with the preceding year.

3:2 Operating Review3:2:1 Performance

- (a) The following activities included in the Action Plan for the year 2010 had not been completed.

Item No. of the Plan	Target	Activity
01	Submission of a report by formulating the policies	Collection and analyzing of data had only been carried out.
02	Preparation of a review report relating to previous 05 years	Review for the years 2006 - 2008 had only been carried out.
03	Review of progress of 03 institutions	Review of progress of 02 institutions only had been carried out.

- (b) The activities of the Senior Scholars Association comprising leaders in the field of science and technology who should implement the main objective of assisting the policy matters and main mandate of the National Science and Technology Commission, had been limited only for the annual general meeting

3:2:2 Idle and Underutilized Assets

An air conditioner in the type of Atlantic 24000 BTU at the cost of Rs.40,000 had remained idle for more than the period of two years.

3:2:3 Uneconomic Transactions

The following matters were observed.

Transaction	Amount	Observation
-----	-----	-----
	Rs.	
(a) Hired Vehicle	34,783	As the total distance performed during the month of September by a vehicle obtained for the hire charges of Rs.39,200 to perform the minimum distance of 3000 km was 338 km, a sum of Rs.34,783 paid for the hired vehicle had become an uneconomic expenditure.
(b) Hotel Charges	96,050	Hotel charges amounting to Rs.96,050 had to be overpaid due to allocating rooms for members not participating for the sixth biannual conference.
(c) Translation Fees	12,754	A sum of Rs.12,754 had to be spent additionally for translation of Technology Policy into Tamil twice.

3:2:4 Corporate Plan

Although a Corporate Plan for the years 2008 - 2012 had been prepared by the Commission, it had not been updated considering the present trends. Targets contained in the Corporate Plan prepared had not been shown in figures. Therefore, performance could not be evaluated.

3:2:5 Internal Audit

Internal audit had not been carried out with the assistance of the relevant Line Ministry.

3:2:6 Budgetary Control

Significant variances were observed during the year under review between the estimated expenditure and actual expenditure, thus indicating that the budget had not been made use of as an effective instrument of management control.

4. Systems and Controls

Deficiencies in systems and controls observed in audit were brought to the attention of the Chairman from time to time. Special attention is needed in respect of the following areas of control.

- (a) Performance
- (b) Accounting
- (c) Internal Audit
- (d) Utilisation of Vehicle
- (e) Budgetary Control

H.A.S.Samaraweera

Acting Auditor General

Report of the Auditor General on the Financial Statement of the National Science and Technology Commission for the year ended 31st December 2010 as per section 14(2)(c) of the Finance Act, No.38 of 1971.

Given below are the explanations for the above report.

2.2.1.Sri Lanka Accounting Standards

- a) In the preparation of the financial statements for the coming years, the commission expects to show the information to be disclosed in the accounts regarding revalued assets according to the Sri Lanka Accounting standards No.18.
- b) The expenses incurred for the activities of the Young Scientists Forum are recorded in a separate account maintained in the ledger for the Forum and presenting the final net result in the final accounts is the procedure that the Commission follows.

2.2.3. Non Compliance with Laws, Rules and Regulations

a.)

6.5.1.

Presently the 2010 Annual Report is being prepared by the Commission and it is expected to be completed as soon as possible.

6.5.3.

The accounts and audit reports of 2008 along with the 2008 Annual Report has been sent to the Ministry of Technology and Research to get the approval to submit it to the parliament.

9.3.1.

The scheme of recruitment and promotion was already prepared according to the DMS 30 circular and it has already been forwarded to the Salaries and Cadre Commission for the approval.

9.6.

Presently the Commission is preparing a performance appraisal form for giving annual salary increments

2.2.4.Transactions not Supported by Adequate Authority

The Commission paid distress loans to the employees only through a Rs.500, 000 fund granted by the general treasury in 2002, but this fund has not been enough to pay the distress loans due to the increasing of the employees' salaries with the DMS circular No.30. Therefore the Commission requested additional funds from the treasury several times but all such attempts were failed and as a result the Commission could not pay the distress loans. Considering all these facts, a revolving fund was created with the approval of the Commission.

3. Financial and Operating Review

3.1. Financial Review

3.1.1 Financial Results

In 2010 the government grant for recurrent expenses was Rs.13, 325, 000 and capital grant was Rs.3, 673,000 while in the previous year (2009) receiving of government grants Rs.12, 790, 000 for recurrent expenses and Rs.500, 000 for science and technology activities and services was the reason for this.

3.2. Operative Review

3.2.1. Performance

a.)

01.

Since it was very difficult to collect data from the private sector, measures have been taken by now to complete this report in 2011.

02.

The Commission expects to prepare a national science and technology review report for the period 2009 - 2010 in the year 2011.

03.

The Commission carries out S&T institutional progress reviews according to a program discussed and decided with the Directors of these institutions. For these reviews, Self-assessment reports should be obtained from these Institutions. If the institutions did not submit these reports in time the reviews would be delayed.

b.)

The purpose of all fora conducted by the Commission is to get the views on activities relevant to the Commission. Views of senior scientists have been obtained mostly at the Science and Technology conferences held biannually. In 2010 also this was done. In addition, views of this forum are obtained only as and when necessary.

3.2.2. Idle and Under Utilized Assets

The Commission obtained this machine after it was disposed from the premises of the then Science & Technology Ministry. Since there has not been a necessity to use this out of order machine it was not repaired.

3.2.3. Uneconomic Transactions

- a) As the Acting Director has been using his own vehicle according to the Public Administration circular No.14/2008 since 18th September 2010, this vehicle has been used as the pool vehicle for all official needs of the Commission since 18th September.
- b) The confirmation of the participation of scientists to the Biannual Conference is done through a registration form prepared and sent to them by the Commission. It is filled and returned to NASTEC by post or e-mail.

Accommodations are arranged only for those scientists who confirmed their participation through registration forms. Therefore, the Commission has to reserve accommodations for those registered for the Conference and requested accommodations. The hotel reserves rooms based only on the number of rooms requested by us.

However, in settling the hotel fee of the 6th Conference held in 2010 the Commission requested from the hotel management a reasonable concession for the rooms not used. But they didn't agree and therefore, NASTEC had to pay for all the rooms reserved.

- c) The translation of the National Science and Technology Policy was done by temporary Research Assistants. Even though the Commission has expertise for proof reading the Sinhala version, it does not have such expertise for Tamil language. Therefore, as a consequence of it, NASTEC had to seek the service of a veteran Tamil translator. Since there were many mistakes in the first translation it had to be re-translated.

To avoid the recurring of such mistakes, the current policy of the Commission with regard to the translations is to obtain the service of a veteran external translator.

3.2.4. Cooperate Plan

The targets of the activities to be completed by this institution are mentioned in the cooperate plan. However, since it is a must to get views, information and other facts from other institutions, Scientists, Professionals and other persons in completing these activities, it is difficult to show numerical targets for a specific period.

3.2.5. Internal Audit

Highlighting the necessity of an internal audit, the Commission already requested from the Acting Auditor of the Ministry of Science and Technology, by letters dated 19th February 2010 and 14th May 2010, to take necessary measures to audit at least twice a year.

3.2.6. Budgetary Control

Lack of human resource in the Commission was the reason why some activities could not be fulfilled as planned.

Thank You.

Professor Nalini Ratnasiri
Chairman