

## National Science Foundation – An Institution with a Unique History

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National Science Council (NSC), the predecessor of the National Science Foundation (NSF) was not offered on a platter to the scientific community of Sri Lanka. It had to go through a 20 year phase of agonizing agitation, during which period fortunes fluctuated between hope and despair.

The history of the National Science Foundation (NSF) was exceptionally rich and unparallel. It is the pioneer organization assigned with the task of planning and policy development of science, which can be traced back to 1941. This historical record can be conceptually considered to comprise two distinct phases. The first phase - the forerunner was from January 1941 to May 27, 1968 when the National Science Council was created. The second phase commenced from May 28, 1968 when it progressed sequentially through several structural and functional transformations over a period of 50 years to be finally remoulded

as the National Science Foundation.

The initial events began to unfold in January 1941 with the formation of the Ceylonese-dominated Chemical Society of Ceylon. This professional body was formed on a proposal made by Mr N. G. Baptist, an outstanding scientist of that era. The British Governor of Ceylon, Sir Andrew Caldecott had given formal recognition to the appointment of a “Scientific Advisory Committee” to the colonial government based on the recommendation of the Chemical Society of Ceylon.

The objective of the Scientific Advisory Committee was to advice the colonial government on matters pertaining to industrial development and research.

In December 1942, on a suggestion made by Mr. D. H. Wadia, a former President of the Indian Science Congress, the Chemical Society of Ceylon spearheaded the formation of the

Ceylon Association of Science when it assembled all scientists, engineers, medical scientists, and social scientists in the country under one banner.

The Ceylon Association of Science was re-constituted in July, 1944 as the Ceylon Association for the Advancement Science (CAAS). Historically, this was also the year that a draft for a national constitution was prepared for Ceylon, with the help of Ivor Jennings (later Sir Ivor), the then Vice Chancellor of the University of Ceylon. The Chemical Society of Ceylon thus brought together a diverse and heterogeneous group of scientists, engineers, medical scientists and social scientists under one umbrella organization.

In 1948 a memorandum to the Prime Minister, Hon. D. S. Senanayake, and the Cabinet of Ministers, CAAS pleaded for a ‘Council for Scientific Research’, which forced the Government to seek the assistance of the World Bank, which in turn recommended the establishment of the Ceylon Institute of

Scientific and Industrial Research (CISIR.) This was in order to resolve the so-called “main grievances” of the scientists.

Thus, when a new government came into power in 1956, CAAS continued its agitation and re-submitted its request for a Council of Scientific Research. Also as an interim measure, CAAS constituted within its organization a committee called the “General Research Committee”, which had as its main function to foster scientific and industrial research. They met Prime Minister Hon. S. W. R. D. Bandaranaike and the then Minister of Lands who agreed to consider their request, which prompted CAAS to prepare a draft Act. Interest in this subject however, began to fade when the term of office of the government drew to a close.

In 1961, the Ceylon Association for the Advancement of Science adopted a resolution requesting the new regime to appoint a “Science Commission.”

A Cabinet Paper was prepared for the establishment of a ‘National Research Council’ (NRC). In 1963, although there was dissatisfaction over the Cabinet proposal further discussions leading to the drafting of a fresh Cabinet Paper proposed the appointment of a 5-member ‘Science Commission’ as a preliminary step to the setting up of the NRC.

At this stage the government

sought the assistance of UNESCO to set up these organizations. The final proposals were approved by the Cabinet and its formal announcement was made by the then Prime Minister, Hon. Sirimavo Bandaranaike, in December 1963, at the Annual Sessions of the CAAS.

However, in 1965, negotiations recommenced with the new government that came to power. In December 1965, the new Prime Minister Hon Dudley Seneneyake, in his inaugural address at the Annual Sessions of CAAS, declared that he intends to set up a new Ministry for Research and Technical Education.

The Ministry of Planning and Economic Affairs at this stage stepped in to resolve the main areas of conflict in the draft Act, by submitting fresh proposals to CAAS. Many of these new proposals were received favorably by CAAS.

While these discussions were taking place, CAAS itself went through a transformation, when it was incorporated by an Act of Parliament in April 1966.

### **Birth and Early History of the National Science Council**

It has to be noted that the Government of the day proposed

the setting up of a Ministry for Scientific Research which was implemented by setting up of a Ministry of Scientific Research and Housing in January 1968. This move was followed up later by the establishment of the National Science Council by Act No: 9 of 1968, as an alternative to the previously suggested National Research Council. The NSC was thus established as a statutory body under a Ministry, and unfortunately fell far short of the expectations of the scientific community, which hoped for an autonomous scientific organization with usual administrative and financial bottle necks removed.

The inaugural ceremony for the establishment of the National



**Sir Nicholas Attygalle - The first Chairman of NSC**

Science Council took place on May 28, 1968, with Hon. Prime Minister, Mr Dudley Senanayake as the Chief Guest and in the presence of Ministers of the

relevant Ministries. It was presided by Sir Nicholas Attygalle, the first Chairman of the Council.

It is remarkable that apart from issues concerning scientific research, all the guest speakers drew the attention of the new Council to the need to formulate a science policy for the country. Mr D.P.R. Gunawardena, Minister of Industries and Fisheries, in his Address, drew the attention to the scientific and technological strides made by India after independence and he went on to elaborate the 10 - point “Scientific Policy Resolution” placed before the Indian Parliament, ten years earlier on March 4, 1958, by the then Prime Minister of India.

Obviously inspired by these sentiments, the newly appointed Council at its very first meeting held on 29th May, 1968, established a sub-committee to prepare a draft statement on Science Policy, which was to be the basis for the first seminar to be organized by the National Science Council.

The Act of Incorporation of the National Science Council specified the functions of the Council as well as, a) the constitution of the Council, b) the process of electing the Chairman, and c) the procedure for the selection and appointment of the Chief Executive Officer (Secretary General).

It is on record that at the first meeting of the Council, a request

by the Chairman for volunteers for the post of Secretary General had a negative response. Subsequently on a formal proposal, Mr. B.P.J. Alles was elected as Acting Secretary General but held office on a part time basis until September 1969 when Dr C.R. Panabokke took over office as the first full time Chief Executive of NSC.

The first Council appointed by the Minister of Scientific Research and Housing comprised the following members:

1. Sir Nicholas Attygalle – Chairman
2. Dr G. Ponnampereuma
3. Dr A.N.S. Kulasinghe
4. Mr. L.D.J. Fernando
5. Dr P.P.D.L. Siriwardena
6. Prof. S.W. Bibile
7. Dr Charles St. George
8. Dr S. Gnanalingam
9. Prof. E.O.E. Pereira
10. Mr B.P.J. Alles
11. Dr J.W.L. Peries
12. Dr V. Appapillai
13. Dr R.P. Jayewardene
14. Prof. B.A. Abeywickrema
15. Prof. H. Cruz
16. Mr D.B. Rampala
17. Prof. A.S. Dissanayake
18. Dr E.F.L. Abeyratne
19. Mr W.D.V. Mahatantile (Permanent Secretary Ministry of Scientific Research and Housing)
20. Dr Gamini Corea (Permanent Secretary – Ministry of Planning and Economic Affairs)



**Dr C.R. Panabokke - The first full time Chief Executive of NSC**

21. Mr B. Mahadeva (Permanent Secretary – Ministry of Agriculture and Food).

Sir Nicholas Attygalle held office for 18 months and was succeeded by Dr A.N.S. Kulasinghe.

In the absence of a professional staff in the Secretariat, the Council largely operated through ad hoc Committees, the first of which was the sub-committee of the Council to draft a Science Policy statement for the country. In April 1969, in response to an application received from Prof. F.S.C.P. Kalpage for a research grant, the Council set-up another committee called the Research Grants Committee to evaluate and make recommendations.

And following the discussion with the new Minister of Industries and Scientific Affairs, a memorandum was prepared and submitted to the Cabinet for the reorganization of the Council with one difference, i.e. the Research Board being renamed as the Scholarship Board.

**List of Chairpersons**

|                           |                               |
|---------------------------|-------------------------------|
| Sir Nicholas Attygalle    | April 1968 – January 1970     |
| Dr. A.N.S. Kulasinghe     | February 1970 – February 1972 |
| Prof. Osmund W. Jayaratne | March 1972 – February 1977    |
| Ptof. E.O.E Pereira       | October 1977 – May 1982       |
| Dr. R.P. Jayewardene      | June 1982 – April 1992        |
| Prof. Priyani E. Soysa    | May 1992 – 1998               |
| Prof K. Dahanayake        | 1998 – August 2001            |
| Prof. Eric Karunanayake   | 15 August 2001 – January 2002 |
| Prof. Ranjan Ramasamy     | February 2002 – April 2004    |
| Prof. Sirimali Fernando   | August 2004 – June 2013       |
| Prof. W. Sumathipala      | July 2013 – February 2015     |
| Mr. Iqbal Mohamed         | February 2015 – June 2015     |
| Prof. Sirimali Fernando   | June 2015 - Onwards           |

and development activities pertinent to that group of Ministries.

It was proposed that a Standing Research Committee should be set up for each group of Ministries. The Chairman of such a Committee appointed in consultation with the particular Minister concerned will be appointed as a member of the National Science Council by the Minister of Industries and Scientific Affairs.

These members would thereby be in a position to transmit to the National Science Council, the scope and range of research activities in the different Ministries. This would assist the National Science Council to formulate an overall policy for scientific research.

1972, following the reconstitution of the Council, the Cabinet of Ministers made the following observations:

The Cabinet agreed that the Council had not been able to carry out its major functions effectively, primarily due to the fact that the Council as a whole had no direct links with the Ministries under which the major scientific activities in the country

were carried out. The National Science Council had therefore tended to work in isolation.

To achieve greater co-ordination among the various sectors of research activity presently carried out in various departments, research institutes and Universities, it was suggested that the Ministries having related functions should be grouped in such a manner as to make possible the implementation of research

In consideration of these observations of the Cabinet, the Council proposed Standing Research Committees for which Chairmen were appointed in consultation with the relevant Ministries.

In August 1975, the National State Assembly sanctioned its enactment as the National Science Council of Sri Lanka Law No:36

**List of Chief Executive Officers**

|                             |  |
|-----------------------------|--|
| Mr B.J.P. Alles             | Secretary General<br>April 1968 – August 1969        |
| Dr C.R. Panabokke           | Secretary General<br>(Secondment)                    |
| Dr G.C.N. Jayasuriya        | Secretary General<br>March 1971 – September 1978     |
| Dr R.P. Jayewardene         | Secretary General<br>November 1978 – May 1982        |
| Dr R.P. Jayewardene         | Director General<br>June 1982 – April 1992           |
| Prof. Priyani E. Soysa      | Director General<br>May 1992 – 1998                  |
| Mr M. Watson                | Director<br>1999 – December 2004                     |
| Dr M.C.N. Jayasuriya        | Director<br>2005 – March 2009                        |
| Dr S.A.K. Abayawardana      | Director<br>May 2009 – December 2011                 |
| Mrs H.A.U. Amarasinghe      | Director General<br>February 2012 - 2013             |
| Mrs Sunethra Perera         | Acting Director General<br>2014                      |
| Mrs H.A.U. Amarasinghe      | Director General<br>Up to 14 May 2015                |
| Dr Thamara F. Dias          | Director General (Covering)<br>June 2015 - Sept 2017 |
| Dr Jayantha Waththevidanage | Acting Director General<br>Oct 2017 – Dec 2017       |
| Prof. Ananda Jayawardane    | Director General<br>Jan 2018 onwards                 |

The composition of the Council according to the new Act consisted of seven appointed members and six ex officio members, making in all a 13-member Council. The ex officio members represented ministry officials from relevant Ministries, who would facilitate in “achieving greater co-ordination among the various sectors of research activity carried out in various departments, research institutes and universities.”

The Chairman of the new Council was appointed by the Minister from among the appointed category of members. The Act also permitted the Minister, on the recommendation of the Council, to appoint Working Committees deemed necessary to assist the Council in the performance of its duties.

A further amendment was introduced to the NSC Act No.36 of 1975 in November 1979, whereby the clause dealing with the appointment of Council members was repealed and a new clause provide for the appointment of eight members by the Minister. The numbers of ex officio members were limited to three.

The final outcome of these reforms was a reasonably good institutional setup, with operational flexibility as well as with meaningful provisions for coordination and co-operation in scientific and technological work. But due to the Government’s

of 1975. The Law however was to become operative more than five years after the Council had initiated steps to rectify the defects in the first Act of Incorporation of the NSC.

The new Act widened the scope of work of the Council with emphasis on planning and policy development for science and technology. In particular the Act empowered the Council to study and report on:-

- (a) The effective utilization of the available scientific and technical personnel in Sri Lanka;
- (b) The future scientific and technical manpower requirements for the effective implementation of the science policy of Sri Lanka; and
- (c) The steps to be taken to provide adequate training facilities to meet future scientific and technical manpower requirements.

concern for appropriate action in the fields of natural resources, and energy and for further expansion and exploitation of the scientific skills of the country it was necessary to restructure to continue the new policy objectives of the Government.

### **The Crowning Glory of NSC – Commencement of the Research Grants Scheme**

In 1970, National Science Council commenced the awarding of grants for scientific research. In the first year, the Council recommended 23 Grants to the new Ministry of Industries and Scientific Affairs for allocation of funds. Thus for the first time in Sri Lanka, funding became available for what may be referred to as curiosity-oriented basic research.

In 1975, major amendments were introduced to the NSC constitution. With these amendments provision was made for the appointment of statutory working committees in specific areas of interest. Consequent to these amendments, six statutory committees were appointed with Ministerial approval, which included the Statutory Working for Science Policy Research.

Between 1977 and 1978 the National Science Council's Statutory Committee on Science Policy Research formulated a policy framework on science and technology and by September 1978, a seven-point proposal

generally described as the National Science and Technology Policy Statement was prepared and placed before the government for consideration. This Policy Statement was subsequently promulgated by the Executive Head J.R. Jayewardene in September 1978, at the Annual Sessions of SLAAS. He also realized the need to re-structure the National Science Council by empowering it with the additional task of overseeing the scientific and technological development of the environmental and energy sectors.

The scope of activities of the National Science Council thus was widened to include natural resources and energy. With these changes, in June 1982 the NSC Act was repealed and in its place the Natural Resources, Energy and Science Authority (NARESA) was created. Thereafter, its hierarchical position in the government's organizational structure was changed by placing it under the Presidential Secretariat. Significant changes that took place however was the disbanding of the Statutory Committee for Science Policy Research and the transfer of its functions to the Board of Management. In terms of planning and policy development in science and technology, this move was considered as an ill conceived and a retrograde step. Nevertheless, NARESA continued to carry out one of the main functions of the National Science Council that is, advising

the government on specific issues relating to science and technology policy. Its main thrust however, was to enhance the research capability of young scientists, and thereby building a viable scientific community.

The success of NARESA's efforts to enhance research capability of young scientists was evident from the output of post graduates and publications. Between 1970 and 1984 this scheme of awarding Grants produced 70 qualified in MSc and six with PhD qualifications. And over 150 scientific publications out of a total of 261 received Grants.

Induction of the Science and Technology Development Act In 1989, with a change of government, NARESA was transferred from the President's office to the Ministry of Industries, Science and Technology, and subsequently it was placed within a new Non-Cabinet ranking Project Ministry for Science and Technology.

The government, assuming that there was a slackness in science based activities, appointed a 'Presidential Task Force on Science and Technology Development' (PTF) in 1991 in order to review the situation.

It consisted of nine senior scientists representing different disciplines. The terms of reference of the Task Force included a review of the current status of science and technology in the country and

the formulation of strategies for the use of Science & Technology in industry, in agricultural modernization and in poverty alleviation. The report of the task force was submitted to the President in November 1991, in which a ten-point policy framework for the 1990s was recommended.

### **The Birth of the National Science Foundation**

The provisions of the Science and Technology Development Act were generally rejected not only by the scientific community but also by the then Parliamentary Opposition. Nevertheless, despite vociferous opposition, the Government went ahead to get the Act passed in Parliament in April 1994. However, the Government sensibly refrained from implementing it due to their own realization that it was not a piece of popular legislation.

The new coalition government that came into power re-established a separate Cabinet level Ministry for Science and Technology. The new Minister sought advice of leading scientists and scientific organizations on the feasibility of implementing the Task Force recommendations.

However in April 1998, the succeeding Minister of Science and Technology took a decision to implement one of the main recommendations of the Task Force and implement the Act which necessitated major institutional reforms.

Through the provisions of this Act, some of the original functions of NARESA were delineated, and the role of formulating science policy was assigned to a new institution designated as the National Science and Technology Commission (NASTEC). While the task of undertaking Science & Technology policy research was allocated to the newly created National Science Foundation (NSF) it technically replaced NARESA. Therefore, National Science Foundation was established in 1998 under the Science and Technology Development Act No.11 of 1994.

It was also expected to carry out country-wide statistical surveys on the scientific resource potential of the country in order to generate viable statistics and indicators. This was to help effective monitoring and decision-making in respect of all aspects of science and technology development and for application of scientific considerations in national development planning.

In 1999, NSF was identified as the focal point for development of a Manpower Information System on S&T (MIS) under the ADB project on S&T Manpower Development. In 2000, NSF established the STMIS database under the above project. After seven years of expanding the facilities of the NSF library, in 1993, NSF Digital Library-the first of its kind in Sri Lanka offering on-line access to the full text of

NSF journals, was launched.

In 2002, NSF was identified by the National Committee of UNESCO as the focal point of celebrating the World Science Day for Peace and Development. Thereafter, the celebration of this event in Sri Lanka continued to be organized by NSF. When the World Science Day School Programme was begun, it provided the opportunity for school children to play a major role in this celebration. It afforded popularization of science among the school community through various scientific activities that came under the World Science Day School Programme. The first World Science Day celebration in Sri Lanka with the school community a milestone in the NSF history was held at 'Navarangahala,' Royal College, Colombo on November 10, 2004. Thereafter, this programme up to the year 2016, was conducted annually, on a grand scale under different scientific themes.

The structure of the Scientific Division was changed in 2005 with six Divisions being established at NSF. These were Research Division (RD), Science Popularization Division (SPD), Technology Division (TD), International Liaison Division (ILD), and National Science Library and Resource Centre (NSLRC) established to carry out the mandated activities more precisely and efficiently in accordance with the Science and Technology Development Act

No.11 of 1994. Though the scope of the NSF of its inspection task was widened, it continued to prioritize the research and other relevant activities.

The introduction of the Equipment Grants Scheme in 2005 by NSF widened the support to local scientists. It helped them

Programme (CTRP) in 2005. This was done to reorient and drive the national research system to produce well defined outputs that would directly benefit the stake holders in the short term.

After the Tsunami on December 26, 2004, NSF decided to make people take informed decisions on natural disasters. Therefore, the

but were produced as separate productions in Sinhala, Tamil and English. The first documentary on 'Tsunami' was telecast on Independent Television Network (ITN). The production of 13 science video programmes under Phase-I was completed in 2006. This video series won one National Award e-Swabhimani



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to purchase equipment essential for conducting their research activities which otherwise they cannot afford to purchase on their own. The introduction of Spare Parts Grants Scheme facilitated maintenance of equipment provided to researchers.

NSF initiated a multidisciplinary Coordinated Thematic Research

NSF in 2005, through the Science Magazine on TV (Mihimadala) - Phase I and a series of short video programmes on natural disasters, created awareness amongst the general public on mitigating and minimizing the loss of life and damage to property. Other current scientific topics were also added to this series,

Special Merit Award awarded by ICTA and an international award - "Manthan Award South Asia 2011" from the Digital Empowerment Foundation, New Delhi in 2011. This was the very first International Award won for a programme organized by the NSF. Based on the success of Phase-I, another series of



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15 short video programmes were produced and telecast on Rupavahini in 2018.

To create awareness among children on Tsunami, a children's story book on Tsunami titled 'Muhuda Kalu Wuna' (The Sea Darkens) written by Ms. Sumithra Rahubadda on the invitation of NSF was launched in 2005. This children's story book won a National Award for 'The Best Children's Story Book' category at the State Literary Award Festival 2005.

With the objective of creating a pool of science communicators in the country for bridging the gap between scientists and the general public, a three day Workshop on training of trainers on skills for science communication to the public was conducted in early 2005. This had the participation of two experienced science communicators from India who trained 30 scientists as trainers of science communication. This was followed by a series of such workshops in many places of the country.

By the Act No. 11 of 1994, NSF was mandated to develop natural resources in Sri Lanka. Therefore, the Foundation worked hard to protect natural resources in the country. Under the Man and Biosphere Programme of UNESCO, approval was obtained from the International Coordinating Council (ICC) in 2005 for the development Bundala National Park as a Biosphere Reserve. Earlier, in 2003, Kanneliya-Dediyagala-Nakiyadeniya (KDN) was also approved as a Biosphere Reserve. NSF subscribed to the SCOPUS, the world's largest on-line S&T abstracting and indexing database covering 13,500 journal titles, to facilitate literature searches. It provided free access to the full text of journals in the Science Direct Database from 2005.

The Journal of the National Science Foundation, which publishes scientific articles received from scientists, got cited in two databases of the Thompson Scientific Index, BIOSIS Previews and Zoological Records in 2006. This was the only science journal in the country which got cited in the above data bases.

A new segment called 'Vidudora' was introduced to the 'Pahandora' programme of Independent Television Network (ITN) in 2007. Fifteen programmes highlighting achievements of local scientists were produced in collaboration with ITN and telecast on the same tv channel.



**Prof. Ananda Jayawardane**  
**Current Director General**  
**National Science Foundation**

NSF celebrated its 40th anniversary in 2008 when the NSF-song was launched. This year, the Foundation celebrates its 50th anniversary. Being a premier organization in the science arena, it has contributed vastly towards the development of science and technology in the country. Its future directives which will lead to the establishment of Sri Lanka Bio-Technology Institute and National Science Centre, will provide more experience in science and technology to the people of Sri Lanka.



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