

## **14. SCIENCE AND TECHNOLOGY**

India is committed to the task of promoting the spread of science. Recognising the role of technology in national development the country has enunciated the Scientific Policy Resolution of 1958 and Technology Policy Statement of 1983. These policies have emphasized self-reliance, as also sustainable and equitable development. They embody a vision and strategy that are applicable today and would continue to inspire the people in their endeavours. Science and Technology is not merely a tool for economic development, but a major change agent that exerts a continuing influence on the social, cultural and management aspects of the society. Science and Technology in all its facets has to be supported in recognition of its central role in raising the quality of life of the people of the country, particularly of the disadvantaged sections of society, in creating wealth for all, in making India globally competitive, in utilizing natural resources in a sustainable manner, in protecting the environment and ensuring national security.

Government of Tamil Nadu has long recognized the critical role that knowledge, and in particular, Science and Technology (S & T) plays in promoting economic growth and social progress. One of the points in the Chief Minister's 15-point programme is Technological Leapfrogging. A special thrust would be given to research in frontier areas of Science and Technology like Bio-Technology and Information Technology with the objective of increasing the employment and investment potential and improving the quality of life. The State Government has established the Tamil Nadu State Council for Science Technology, the Science City, the Tamil Nadu Science and Technology Centres. Besides, universities, higher Educational Institutions, public and private sector industries etc. carry out research programmes.

### **Tenth Five Year Plan (2002-07)**

The Government of Tamil Nadu while recognising the critical role of science and technology is also concerned about the social and economic consequences of the widening knowledge gap between the generators of technology and users. Hence, the Government has focused its attention on 'Science and Technology for Development' with the following goals:

1. Inter-disciplinary research, with concerns with respect to poverty alleviation, tribal welfare and women empowerment
2. Establishment of Patent Facilities Advisory Centre
3. Technology Incubation, Dissemination, commercialization and Utilisation
4. Promotion of Linkage with industry, National laboratories and R&D institutions
5. Promotion of Clean Energy Technologies
6. Promotion of Technologies with socio-economic implications
7. Nurturing future technology and Nationally co-ordinated projects
8. Preparation of current Status Report on Herbal Products
9. Popularisation of Science and Technology

To achieve the above desired goals, funds will be provided to the following Institutions during the Tenth Five Year Plan.

1. Tamil Nadu State Council for Science and Technology
2. Science City
3. Tamil Nadu Science and Technology Centre
4. Science and Technology Research Programms in Universities in Tamil Nadu

### **Outlay for Tenth Five Year Plan**

For Science and Technology the total outlay would be Rs.47.35 crores as given in Table below:

<b>(Rs. in crores)</b>		
<b>Sl.No.</b>	<b>Name of the Institutions</b>	<b>Outlay</b>
I	Tamil Nadu State Council for Science and Technology	13.35
II	Science City	9.05
III	Tamil Nadu Science and Technology Centre	15.89
IV	Anna University	9.06
	<b>Total – Science and Technology</b>	<b>47.35</b>

### **Annual Plan 2002-03**

For the year 2002-03 the actual expenditure incurred was Rs.180.53 lakhs against the Budgeted outlay of Rs.203.70 lakhs.

### **Annual Plan 2003-04**

For the year 2003-04, an amount of Rs.186.79 lakhs was provided for the sector. Against this the actual expenditure incurred was Rs.219.07 lakhs.

### **Annual Plan 2004-05**

A sum of Rs.195.52 lakhs has been proposed for taking up various schemes under this head during the year 2004-05. The anticipated expenditure would be Rs.224.23 lakhs for 2004-05

### **Annual Plan 2005-06**

An amount of Rs.171.51 lakhs has been proposed for year 2005-06 which includes an amount of Rs. 11.00 lakhs for new schemes.

### *Tamil Nadu Science and Technology Centres (Outlay Rs.89.28 lakhs)*

Tamil Nadu Science and Technology Centre was established in the year 1983 and is functioning with financial support from the Government of Tamil Nadu. This centre comprises the Periyar Science and Technology Centre, B M Birla Planetarium and Anna Science Centre including Planetarium at Trichy.

For the year 2005-06, a sum of Rs.89.28 lakhs has been proposed towards salary of staff and other maintenance expenditure of the Science and Technology Centre. This includes a sum of Rs.11.00 lakhs for taking up the following two new schemes.

- (i) *Provision of 15 KVA Uninterrupted Power Supply (UPS) (Outlay Rs.6.00 lakhs)*

- (ii) Strengthening of Science Park, Traffic Park and Eco Park etc. (Outlay Rs.5.00 lakhs)

*Tamil Nadu State Council for Science and Technology, Chennai (Outlay Rs.42.93 lakhs)*

The objectives of the Tamil Nadu State Council for Science and Technology are to co-ordinate the functions various organizations and research establishments in the state, liase with the Central Government on Science and Technology Activities, formulate scientific policies of Government and popularize science and Technology among masses and to develop scientific temper among the youth.

During the Tenth Five Year Plan the activities contemplated by the Council are listed below:

1. The State Council has honoured ad encouraged 42 scientists by presenting cash awards of Rs.10,000/- each and citation
2. 4000 Young Scientists studying VIIIth Std. In the Schools were provided training for a period of one month in Colleges / Universities.
3. 30 science and technology projects were implemented in various research institutions in the State.
4. 500 science and engineering entrepreneurs were developed by giving them training programmes in various sectors.
5. 500 middle school teachers were provided intensive in-service training cum demonstration programmes for the quality improvement of Science Education.
6. 72 scientists were provided partial financial assistance under travel grant scheme to present research papers in National / international conference.
7. 100 seminars, symposia and conferences were organized in various institutions in the State with the help of financial assistance from the State Council.
8. 25 scientists were trained in National Institutes in the Country for furthering their research and updating their knowledge.
9. About 4.00 lakhs student teachers and people were created scientific awareness and scientific temper in the State under the popularization of science activities.

The following schemes that are currently under implementation by the State Council are programmed to be continued during 2005-06:

(Rs. in lakhs)		
Sl.No.	Name of the scheme	Outlay for 2005-06
1	Student Project Scheme	9.50
2	Adoption of Young Student Scientists	10.00
3	Young Scientists Fellowship Schemes	0.50
4	Partial Financial Assistance for Seminars / Symposia and Workshops	2.50
5	Application of Science and Technology to Rural Areas	5.00
6	Popularisation of Science and Technology	7.50
7	Incentive to young scientists - Travel grant to young Scientists fellowship	2.50
8	Tamil Nadu Scientists' Award scheme (TANSA)	2.00
9	Others	3.43
	<b>Total – Tamil Nadu State Council for Science and Technology</b>	<b>42.93</b>

### Anna University

The Government of Tamil Nadu, in 1985 have approved the scheme on "Setting up of a Laboratory for Textile Chemistry" at the Anna University and sanctioned the non-recurring and recurring grant for the purpose. A sum of Rs. 0.25 lakhs has been proposed as grant to the Anna University.

### Chennai Science City (Outlay Rs.39.05 lakhs)

The Chennai Science City is an autonomous organization established in the year 1994-95 with the objective of encouraging the spirit of enquiry among people in general and to foster the research capabilities in the scientific community. Hence, an agglomeration of Institutions connected with scientific research and development in Guindy – Tharamani Institutional belt totaling to nearly 60 like IIT, Anna University, CLRI, Periyar Science and Technology Centre belonging both to State and Central Governments have been declared as Science City with the objective of promoting Science and Technology.

A sum of Rs.39.05 lakhs has been proposed during 2005-06 for the following schemes

(Rs. in lakhs)		
Sl.No	Name of the scheme	Outlay for 2005-06
1	Creation of Database	0.05
2	Newsletter and photography	1.50
3	Popularisation of Science	5.00
4	Gender Cell	2.45
5	Networking of Libraries	0.75
6	Environment Related activities	0.05

7	Setting up of Information Center	0.25
8	Preparation of Database on Science and Technology Resources in Science City and State level	2.00
9	Science City Research Fellowship	3.00
10	Revenue expenditure for Ongoing schemes	24.00
	<b>Total</b>	<b>39.05</b>

#### Annual Plan 2005-06

A total sum of Rs.171.51 lakhs is proposed in the budget estimate for 2005-06 for continuing the ongoing schemes and two new schemes under this head. The agency wise outlays proposed are as follows:

(Rs. in lakhs)		
Sl.No.	Schemes	Outlay for 2004-05
1.	Assistance to Tamil Nadu Science & Technology Centre	89.28
2.	Grant to Tamil Nadu State Council for Science and Technology	42.93
3.	Grants to Anna University	0.25
4.	Chennai Science City	39.05
	<b>Total – Scientific Services &amp; Research</b>	<b>171.51</b>