

INFORMATION TECHNOLOGY

DEPARTMENT

DEMAND NO. 31

POLICY NOTE 2012 – 2013

Mukkur N. Subramanian Minister for Information Technology

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<u>CHAPTER – I</u>

INTRODUCTION

It is the vision of our Hon'ble Chief Minister to make Tamil Nadu as "Knowledge capital" and "Innovation hub" of the Country. Under the able and dynamic leadership of our Hon'ble Chief Minister, Tamil Nadu endowed with well developed infrastructure facilities and skilled human resources has become the destination of choice for IT/ITES investments in India.

The objectives of the Information Technology Department are as follows:-

- Provide Government services, both informational and transactional to Citizens at their door steps through the Internet;
- Bridge the digital rural-urban divide;
- Make Tamil Nadu the Best State in IT enabled Governance;

- Substantially increase the software exports of Tamil Nadu;
- Provide Cable TV services to all households in Tamil Nadu at reasonable rates;
- Taking Computing in Tamil to a higher level;
- Enhance the quality of life of Citizens through Information and Communication Technology.

With the help of available resources, efforts are under way to take the various services of the Government to the Citizens covering the length and breadth of the State. There will be a vibrant shift upward in the quality of services delivered by the Government to its Citizens in the years to come. The transformation will enable the common man to avail the various services of the Government online.

To fully reap the benefits of the use of Information and Communication Technology in Government, an e-Governance Policy reflecting the above initiatives will be launched shortly. This will remove intermediaries thereby taking governance closer to people. The Government of Tamil Nadu will thus nurture a culture of responsive and transparent Governance that ensures progress, security, and equal opportunity to all stakeholders.

Tamil Nadu has been in the forefront of the IT revolution. As of now nearly 3,50,000 employees are employed in about 1750 IT/ IT Enabled Services (ITES) companies in the State. Software exports from the State, which stood at Rs.42,100 crores in 2010-2011, are expected to be Rs.48,000 crores in 2011-2012. All efforts are being taken to attract more IT/ITES investments in the State.

Tamil Nadu Arasu Cable TV Corporation Limited which has recently been revived by the Hon'ble Chief Minister is providing Cable TV services to people at reasonable rates. All steps are being taken to improve the services of Tamil Nadu Arasu Cable TV Corporation Limited.

<u>CHAPTER – II</u>

ELECTRONICS CORPORATION OF TAMILNADU LIMITED (ELCOT)

Electronics Corporation of Tamil Nadu Limited (ELCOT) is a wholly owned Government of Tamil Nadu Undertaking, registered under the Indian Companies Act, 1956. Since the advent of the Information Technology revolution in India, ELCOT which was formed for the promotion of electronics industry has transformed itself as the Information Technology arm of the Government of Tamil Nadu. ELCOT has been providing hand holding support to various Departments, Organizations, Boards, etc. of the Government of Tamil Nadu in the area of Information Technology, e-Governance, providing Internet Connectivity and Capacity Building.

ELCOT is the optional nodal agency for hardware procurement, software development, major turnkey IT projects of the Government of Tamil Nadu and major projects of the Department of Information Technology, Government of India. The Tamil Nadu State Wide Area Network (TNSWAN) and Tamil Nadu State Data Centre (TNSDC) have been established by ELCOT in a pioneering way.

The Hon'ble Chief Minister has given the new brand name for ELCOT created IT Special Economic Zones as ELCOSEZs. ELCOSEZs would be marketed as the destinations of choice for IT / ITES investments.

INFORMATION TECHNOLOGY SPECIAL ECONOMIC ZONES (ELCOSEZ)

In the IT Policy 2002, a blue print for developing infrastructural initiatives for Knowledge Industry Township was laid down by the Hon'ble Chief Minister.

It was stated that, Knowledge Industry Townships (KITS) will be created along the IT highway in Chennai through Public Private Partnership. It was also envisaged to position Coimbatore, Madurai, Trichy, Tirunelveli, Hosur and Salem as Tier II cities for promoting IT investments. Based on that vision, ELCOT has established ELCOSEZs (ITSEZs) in the following eight locations:-

- 1. Chennai Sholinganallur ELCOSEZ
- 2. Coimbatore -Vilankurichi ELCOSEZ

- 3. Madurai- Ilandhaikulam ELCOSEZ
- 4. Madurai Vadapalanji-Kinnimangalam ELCOSEZ
- 5. Trichy -Navalpattu ELCOSEZ
- 6. Tirunelveli- Gangaikondan ELCOSEZ
- 7. Salem Jagirammapalayam ELCOSEZ
- 8. Hosur Viswanathapuram ELCOSEZ

Status of ELCOSEZs

Chennai - Sholinganallur ELCOSEZ

For establishing ELCOSEZ at Sholinganallur in Chennai, Government have alienated 377.08 acres to ELCOT. Out of 377.08 acres, 215 acres have been allotted on lease basis to various Information Technology Companies. In this ELCOSEZ, ELCOT has invested Rs.42 crores towards basic infrastructure. M/s. Wipro has constructed 23 lakhs sq.ft. building and is presently operating with 14,000 employees. M/s.HCL has constructed 10 lakhs sq.ft. building and is operating with 10,000 employees. M/s. Satyam has completed 4.5 lakhs sq. ft. building and is currently operating with 4,000 employees. M/s. Cognizant Technologies Solutions has started the construction of 28 lakhs sq.ft building.

Coimbatore- Vilankurichi ELCOSEZ

For establishing ELCOSEZ, at Vilankurichi village in Coimbatore, Government have alienated 61.59 acres of land to ELCOT. In this ELCOSEZ, 9.5 acres of land each have been allotted to two companies on lease basis. In this ELCOSEZ, ELCOT has completed all Common infrastructure facilities. M/s.TIDEL Park Coimbatore Limited has constructed 17 lakhs sq.ft IT Park and the same is operating since September 2011.

Madurai – Ilandhaikulam ELCOSEZ

For establishing ELCOSEZ at Ilandhaikulam village, 28.91 acres of land have been alienated by the Government to ELCOT. Basic infrastructural facilities as well as 50,000 sq.ft IT-cum-Administrative building have been completed. In this ELCOSEZ, 6.75 acres of land have been allotted on lease basis to two Companies. One company has been allotted 2000 sq.ft office space in the 50,000 sq.ft IT-cum administrative building constructed by ELCOT.

Madurai-Vadapalanji-Kinnimangalam ELCOSEZ:

For establishing ELCOSEZ at Vadapalanji-Kinnimangalam Village, 245.17 acres of land have been alienated by the Government to ELCOT. Basic infrastructural facilities have been completed in this ELCOSEZ. In this ELCOSEZ, 7 acres of land have been allotted on lease basis to two IT/ITES companies.

Tiruchy - Navalpattu ELCOSEZ

For establishing ELCOSEZ at Navalpattu Village in Trichy, Government have alienated 147.61 acres of land to ELCOT. Basic Infrastructural facilities as well as 50,000 sq. ft IT-cum-Administrative building have been completed. In this ELCOSEZ 26 acres of land have been allotted on lease basis to seven IT/ITES Companies. In the 50,000 sq.ft IT-cum Administrative building in the ELCOSEZ, two companies have been allotted a total of 9,200 sq.ft office space. This ELCOSEZ commenced its operations from August 2011.

Tirunelveli – Gangaikondan ELCOSEZ

An extent of 500 acres of land have been allotted to ELCOT on lease basis by SIPCOT for establishment of

an ELCOSEZ Park at Gangaikondan village in Tirunelveli. 290 acres have been notified as SEZ area. Basic infrastructure facilities for 100 acres have been developed in this ELCOSEZ. 50,000 sq. ft. IT-cum-Administrative building has been completed. For remaining 190 acres in SEZ area, common infrastructure development work will be taken up shortly. In this ELCOSEZ, 102 acres of land have been allotted on lease basis two IT companies. 25 acres of land have been allotted to a company in non-SEZ area.

Salem – Jagirammapalayam ELCOSEZ

For establishing ELCOSEZ at Jagirammapalayam Village in Salem, 164.26 acres of land have been alienated by the Government to ELCOT. In this ELCOSEZ, ELCOT has initially taken up the development of 53.33 acres of land out of 164.26 acres. The work related to common infrastructure facilities in this ELCOSEZ are nearing completion. In this ELCOSEZ 11.50 acres of land have been allotted to four IT/ITES companies on lease basis.

Hosur – Viswanathapuram ELCOSEZ

For establishing this ELCOSEZ at Viswanathapuram village in Hosur, Government have alienated 174.47 acres of land to ELCOT. Basic infrastructural facilities and the construction of 50,000 sq. ft IT-cum administrative building work are under progress. In this ELCOSEZ, 10 acres of land have been allotted to three IT/ITES companies on lease basis.

Vellore and Villupuram IT Parks:

In order to establish IT Parks at Vellore and Villupuram, identification of the lands for setting up the ELCOSEZ is under process.

In order to allot remaining land to IT/ITES companies in the above eight ELCOSEZs, ELCOT will take up aggressive marketing to attract IT/ITES Companies.

Hardware Procurement

The Government have issued orders authorizing ELCOT as the Optional Procurement Agency for all Government departments and their agencies to procure IT and IT related products and services from the market.

ELCOT is procuring the IT products for the major Departments such as Treasuries and Accounts, School Education, Higher Education, Commercial Taxes, Registration Department, Co-operation Department, Labour and Employment Department and Agriculture Department. ELCOT also facilitates the Government offices to procure the IT products.

Software Development

ELCOT, Tamil Nadu e-Governance Agency (TNeGA) and National Informatics Centre (NIC) have been providing active support to the Government Departments for their software needs by studying their requirements, preparation of Request for Proposals (RFP), floating of e-Tenders and selection of Software Developers. ELCOT undertakes a Software Development Life Cycle (SDLC) approach, so that a complete documentation of the entire development to roll-out is captured.

Distribution of Laptop Computer Scheme

The Government of Tamil Nadu is implementing the scheme of distribution of laptop computers to the plus two students studying in Government and Government aided Schools and students studying in Government and Government aided Colleges in the State to facilitate them in acquiring better computer skills. The Government have entrusted the task of procuring Laptop Computers to ELCOT for distribution to students. The procurement and distribution of the total requirement of 9,07,790 laptop computers for the year 2011-2012 is under progress. Advance action is being taken for the procurement for the year 2012-2013.

Enterprise Resource Planning

ELCOT has developed a Web Based Enterprise Resource Planning (ERP) Solution in Linux Platform, enabling all operations of ELCOT on anytime anywhere basis. This ERP has been customised in the following Departments:-

- Tamil Nadu Adi Dravidar Housing and Development Corporation Limited (TAHDCO)
- (2) Tamil Nadu Minerals Limited (TAMIN)
- (3) Registrar of Co-operative Societies (RCS)

Information Communication Technology Policy 2012

New Information Communication Technology (ICT) Policy 2012 will lay emphasis on attracting foreign direct and domestic investments leading to creation of large employment opportunities and the right atmosphere for the establishment and growth of the ICT sector in Tier II and Tier III locations of Tamil Nadu. This policy will be released soon.

<u>CHAPTER – III</u>

IT INFRASTRUCTURE

IT Infrastructure provides the backbone for advanced collaboration and integration of various technologies such as Cloud Computing, Data Centre, Connectivity, Grid data storage, Grid based resource sharing etc.

In order to provide seamless service, the following infrastructure have been created :

a) Tamil Nadu State Data Centre (TNSDC)

b) ELCOT Data Centre

c) Tamil Nadu State Wide Area Network (TNSWAN)

CONNECTIVITY

Tamil Nadu State Wide Area Network (TNSWAN) – Vertical Connectivity

Tamil Nadu State Wide Area Network having 708 Points of Presence (POPs) has been established in the State by ELCOT. It is a shared scheme between the State and Central Governments being implemented at an estimated cost of Rs.181.69 crores (GOI share is Rs.97.17 crores and State share is Rs.84.52 crores). The Network provides services such as Voice, Data, Internet and Video to the Government Departments.

The Build, Own, Operate and Transfer (BOOT) Operation of the Network will be over by 30.11.2012 and the Operation and Maintenance of the Network beyond the BOOT period is to be taken care by the State Government for which necessary action plan is being devised.

Tamil Nadu State Wide Area Network (TNSWAN) – Horizontal Connectivity

Government Departments can get connected to the TNSWAN POPs for getting intranet facility for rolling out applications and also to avail other services such as Voice, Internet, Video Conferencing etc.

So far, Horizontal connectivity has been provided to about 1600 offices of departments such as Commercial Taxes, Tamil Nadu Water Supply and Drainage Board (TWAD), Tamil Nadu Health Systems Project (TNHSP), Treasuries & Accounts, Registration, Employment & Training, Forest, Tamil Nadu e-Governance Agency (TNeGA), State Health Society, Tamil Nadu Housing Board (TNHB), Survey and Settlement, Tamil Nadu Cements Corporation Limited (TANCEM) etc.

Broad Band Connectivity

Broadband refers to high-speed data transmission which can carry a large amount of data at once. The increase in Information and Communication Technology (ICT) enabled applications for facilitating Government to Government communication has mandated the need for broadband connectivity for Government Departments. ELCOT is providing Broadband connectivity to Government offices at competitive rates. As of today, broadband connectivity has been provided to about 7,450 Government offices including schools.

National Knowledge Network

National Knowledge Network (NKN) is a national level high speed network established by Government of India for connecting academic institutions across India and also for linking the global scientific community. NKN provides a common platform to the scientists, researchers, doctors, scholars and students to work together for advancing human development. NKN also provides Network platform to National e-Governance Projects (NeGP) for national level roll-out. NKN is a Government owned network and the bandwidth providers are Central Government agencies such as BSNL, Power Grid Corporation of India Limited (PGCIL) and Railtel. The NKN consists of an ultra-high speed core, starting with multiples of 2.5/10 Gigabits per second and progressively moving towards 40/100 Gigabits per second (Gbps) connectivity.

Tamil Nadu State Data Centre

Tamil Nadu State Data Centre (TNSDC) has been established in the State by ELCOT and is in operation from 1.8.2011. It is one of the core e-Governance backbone infrastructure under National e-Governance Action Plan (NeGP). It is a shared scheme between the State and the Central Governments as per the SDC Guidelines of Department of Information Technology, Government of India, at an estimated cost of Rs.60.80 crores (Government of India share is Rs.55.80 Crores and State share is Rs.5 crores). TNSDC will facilitate the Government departments in the consolidation of services, applications and infrastructure to provide efficient electronic delivery of Government to Government (G2G), Government to Citizen (G2C) and Government to Business (G2B) services. State Data Centre would provide many functionalities via. Tamil Nadu State Wide Area Network (TNSWAN), Common Service Centre (CSC) and Internet.

TNSDC is a secure and centralised facility which is a Data repository for all Departments. Applications such as Document Management System for Chennai Metro Rail Ltd (CMRL), Tamil Nadu Health Management Information Systems (TNHMIS), Enterprise Resource Planning (ERP) software for Laptop and Mixie-Fan-Grinder schemes etc. are currently hosted in TNSDC.

Disaster Recovery Centre (DRC)

The applications and services of Government departments have been hosted in the State Data Centre (SDC) in a secured environment. In order to avoid loss of data / applications due to natural / manmade disasters, establishment of a Disaster Recovery Centre (DRC) has

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become mandatory. Administrative approval has been issued for the establishment of a Disaster Recovery Centre (DRC) in Tamil Nadu and Electronics Corporation of Tamil Nadu (ELCOT) has been nominated as the implementing agency for the setting up of Disaster Recovery Centre (DRC) in two phases.

<u>CHAPTER – IV</u>

TAMIL NADU e-GOVERNANCE AGENCY

Tamil Nadu e-Governance Agency (TNeGA) is an autonomous society formed to cater to the e-Governance initiatives of the Government Departments in the State. The Director of e-Governance is the Chief Executive Officer of this Society.

The following are the activities carried out by the TNeGA:

- State-wide Rollout of e-District Programme
- Common Service Centres
- Capacity Building (CB)
- Tamil Nadu Geographical Information System (TNGIS)
- State Portal

State Wide Rollout of e-District Programme

Districts are practically the front-end of Government where most Government-to-Citizen (G2C) interactions take place. The e-District project was conceptualized to improve this experience and enhance the efficiencies of the various Departments at the districtlevel to enable seamless service delivery to the citizens.

On pilot basis, this Project was implemented in Krishnagiri District followed by five districts, i.e., Ariyalur, Perambalur, Coimbatore, Tiruvarur and The Nilgiris. Now the Government of India have approved the Detailed Project Report (DPR) to roll out the project throughout the State.

To oversee the implementation of e-District services and other services offered at District Level, the Government have ordered the formation of District e-Governance Societies (DeGS) in all the Districts. More services will be identified by the Departments and added under State wide rollout of e-District Project.

Urban Common Service Centres

Urban Common Service Centres (Urban CSCs) will be established in Chennai City as a pilot project. The Commissioner, Corporation of Chennai will be the Nodal Officer for the implementation of Urban CSCs. Data, Voice and Video services in the areas of e-Governance, Health, Education, Entertainment, Tele-Medicine and other private services will be rendered to the citizens through these Urban CSCs.

Capacity Building

The Capacity Building scheme is intended to train and develop computer skills of the Government employees. It is a continuous skill development programme in basic Information Technology Training, Soft Skills Training, Hardware and Networking training, Database Management training, IPv6 Courses, Application Software Training for their respective departments etc. Such programmes are undertaken by TNeGA on a regular basis.

The State e-Governance Mission Team (SeMT) has been established at TNeGA and the SeMT is handholding the departments in the following areas.

- Setting up of Project e-Mission Teams (e-Team)
- Help departments to create a department level e-Governance road map
- Play advisory role to the departments in implementing e-Governance projects

Tamil Nadu Geographical Information System (TNGIS)

Geographical Information System (GIS) is a tool for managing, analyzing and decision making, by seamlessly combining both spatial and non-spatial data. Tamil Nadu Government is taking the initiative to set up Tamil Nadu Geographical Information System (TNGIS) Centre for implementing standards based GIS applications, which could be used by intending Government departments.

State Portal, State Services Delivery Gateway (SSDG) and e-Forms

State Government have granted administrative sanction for this project at a total estimated outlay of Rs.16.13 crores to be funded by the Government of India. The Tamil Nadu e-Governance Agency (TNeGA) has been nominated as the State Nodal Agency for the project. The project components are (i) State Portal (ii) State Services Delivery Gateway (SSDG) and (iii) e-Forms. The e-Forms will be hosted on the State Portal and could be downloaded by citizens for online submission. Once the e-Form is submitted to the State Portal, the e-Form data will be routed by SSDG to the respective Department Server located at the State Data Centre (SDC) where the information submitted by the citizen will be stored. Service locations of the departments will pull out the information from the Department Server (DS) and after processing, the response will be submitted to the State Portal via SSDG. Citizen will get periodic status update on the State Portal. The National Informatics Centre (NIC) has developed the State Portal. The newly designed and developed State Portal incorporating e-Forms and SSDG middleware will be launched soon to enable the Citizen to access Government services through Internet. The new Portal will be hosted in the URL www.tn.gov.in replacing the existing website for the use of citizens for access through Internet.

<u>CHAPTER V</u>

<u>e-GOVERNANCE INITIATIVES FACILITATED</u> <u>BY IT DEPARTMENT</u>

Chief Minister's Award for Excellence in e-Governance

(i) Award for Government Departments

The Government of Tamil Nadu has envisioned that all Government Services are to be delivered to citizens at their doorsteps. As a mark of recognition and encouragement, the departments which strive towards this task successfully will be awarded with the "Chief Minister's Award for Excellence in e-Governance" every year. Orders have been issued in this regard.

(ii) Award for Students

In order to create an awareness on e-Governance among the youth, students and e-Governance enthusiasts, a competition for development of innovative e-Governance software applications shall be held every year and the winners shall be honoured with the "Chief Minister's Award for Excellence in e-Governance". The Award is instituted under three categories. Each awardee shall be honoured with a prize money of Rs.2,00,000/- (Rupees two lakhs only) and a trophy worth Rs.15,000/-(Rupees fifteen thousand only) in the respective categories. Orders have been issued in this regard.

e-Governance Awareness Campaign

To change the present scenario of "**People approaching the Government**", Hon'ble Chief Minister has envisaged a situation where "**Government reaches the People**". The role of e-Governance is indispensable to implement this vision. In order to create awareness among the poorest of the poor in our society about e-Governance, it has been decided to conduct e-Governance Awareness Campaigns at the Block level, which will be a "People's Movement". These campaigns are proposed to be conducted shortly.

Citizen Contact Centre

The Citizen Contact Centre (CCC) with the help of Government of India is to be established with a vision to provide help on informational, transactional, nonemergency Government to Citizen (G2C) services for various departments at the State level. While other channels of delivery such as departmental counters, websites, and service kiosks serve important functions, Citizen Contact Centre shall provide the advantage of greater accessibility due to high penetration of telecom and cellular services in rural parts, ease of usage, reduced costs and improved service delivery over these channels through a single unique phone number which will be common across the country.

Some of the key benefits envisaged from Citizen Contact Centre are:

- Timely access to Information, Government to Citizen (G2C) services
- One number to call, with local language capability
- Integration of services given by various departments on a single platform
- Provide service tracking information and grievance handling

Administrative approval has been granted for the establishment of Citizen Contact Centre. Further action is being pursued for implementing the above project.

Mission Mode Departments

"Mission Mode Projects" implies that the objective and the scope of the project are clearly defined, the project has measurable outcomes and service-levels and the project has well-defined milestones and timelines for implementation under National e-Governance Plan (NeGP). The Government of Tamil Nadu has identified 14 Mission Mode Departments (MMDs) to implement the Mission Mode Projects. The following are some of the Mission Mode Departments of the State:

Commercial Taxes Department

The Commercial Taxes Department is developing and hosting comprehensive software enabling the mercantile public to avail various e-services like online registration, e-filing, e-payment etc,. The Government has sanctioned a sum of Rs.230 crores for the end-to-end computerisation of Commercial Taxes Department.

Employment and Training Department

An online 24x7 web portal has been exclusively developed for the Employment Directorate, so as to facilitate the registration of job seekers, vocational guidance, periodical collection and compilation of data and implementation of Unemployment Assistance Scheme. Apart from this, to avoid the serpentine queues at the Employment Exchanges, an online registration system has been introduced whereby the students can register through internet from their school itself and get the sameday seniority. About 12 lakh students have benefited through this new initiative.

Agriculture Department

AGRISNET - a software for Agriculture Department aims at delivering single window information and services to the farmers. It also provides alerts on crop information, climatic conditions etc. to the farmers.

Civil Supplies and Consumer Protection Department

ELCOT has created a State level Family Card Database for about 2 crore families in Tamil Nadu. This Database is being used by various Government departments.

Health and Family Welfare Department

The Health Management Information System (HMIS) has been envisaged not only to help the administrators to have better monitoring and control of the functioning of hospitals across the State using decision support indicators, but also to assist the doctors and medical staff to improve health services with ready reference patient data, work flow enabled paper-less process and parameterized alarms and triggers during patient treatment cycle.

Police Department

Crime and Criminal Tracking Network and Systems (CCTNS) has been approved as one of the Mission Mode Projects under NeGP. It aims at creating a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing through a nation-wide networking infrastructure for evolution of IT-enabled state-of-the-art tracking system around investigation of crime and detection of criminals. This will cover all the Police Stations in the country.

Apart from the above, Revenue, Registration, Social Welfare and Nutritious Meal Programme, Transport, Treasuries and Accounts, Education, Industries and Municipal Administration and Water Supply Departments are also covered under the Mission Mode Projects.

CHAPTER VI

ICT Academy of Tamil Nadu

ICT Academy of Tamil Nadu (ICTACT) is an initiative of Government of India, Government of Tamil Nadu and the Confederation of Indian Industry (CII). ICTACT is an autonomous non-profit society established on Public Private Partnership (PPP) mode. It has embarked on the novel path of improving the quality of students in the State of Tamil Nadu.

The objective of ICTACT is to train the Higher Education teachers and students of the ICT domain, for benefiting the students to become Industry ready and employable and thereby creating a new generation of talent pool which would benefit the ICT Industry in the State of Tamil Nadu.

To fulfill the vision of Hon'ble Chief Minister to make Tamil Nadu as innovation hub and knowledge capital of India on the strength of world class institutions in various fields and the best human talent, ICT Academy would implement various skill development programmes for the students in the State. ICT Academy would also be part of the programme on imparting IT training to the college students.

ICTACT is involved in facilitating and monitoring Rural Business Process Outsourcing (BPO) in the State. The existing strength of ICTACT on Industry – Academia – Government collaboration is used to promote the Rural BPOs. This aims at creating employment opportunities for the rural youth in the State.

<u>CHAPTER – VII</u>

TAMIL VIRTUAL ACADEMY

The Tamil Virtual Academy (TVA) aims at providing Internet-based resources and opportunities for the Tamil communities living in different parts of the globe as well as others interested in learning Tamil, Science, Technology, Tamil Computing software and acquiring knowledge of the history, art, literature and culture of the Tamils and to identify, establish, maintain and promote the solutions for the Tamil computing requirements of Tamil Diaspora, Government, Educational, Media and Business institutions.

Academic Programmes

At present Tamil Virtual Academy is providing Academic Programmes such as Primer Education, Certificate Course, Diploma, Higher Diploma courses and Degree B.A. (Tamilology).

12,358 candidates from 70 Countries have registered for different courses and 1889 certificates, 27 higher certificates, 237 Diplomas and 128 Higher Diplomas and 109 Degrees were awarded so far. 56 Study Centres in 17 countries all over the World are providing these Academic programmes.

Under the plan for producing CD's of the lessons, CD's for Primary, Basic, Intermediate and advanced level lessons, Learn Tamil, Tamil Karpom and other CD's like Thirukural and Technical Glossary have been prepared and released for the benefit of students.

In Virtual class room, 120 lessons are available for learning Tamil. Video lectures for B.A.Tamilology class are also available. All these are available in YouTube also.

Digital Library

For the benefit of students registered for various courses of TVA and others, books on Literature, Commentaries, Dictionaries, Tamil Technical Glossaries and Cultural and Suvadi (Palm Leaf) galleries are made available in the Digital Library of TVA website.

Tamil Software Development

Tamil Optical Character Recognition (OCR), Electronic Dictionary, Tamil Corpus Analysis and Intelligent Information Retrieval of Thirukkural in Handheld Devices are some of the tamil softwares developed under Tamil Software Development Fund (TSDF). Predictive Text Software Design for Tamil is ongoing. Tamil Fonts and required Keyboard Drivers, for free use by all, are also being developed.

Publication of Technical Glossary

About 2,50,000 technical terms compiled by various Universities have been reviewed and grouped according to subjects and published in 14 volumes.

Building For Tamil Virtual Academy

Construction of the Ground Floor of Tamil Virtual Academy building is completed. Construction of the first floor, a studio and an auditorium are under progress.

<u>CHAPTER – VIII</u>

TAMIL NADU ARASU CABLE TV CORPORATION LIMITED (TACTV)

Arasu Cable TV Corporation was incorporated under the Indian Companies Act 1956 on 04.10.2007 with the intention of providing high quality cable TV signals to the public at an affordable cost. To achieve this objective, Digital Head Ends were installed at a cost of approximately Rs.8 crores each at Thanjavur, Tirunelveli, Coimbatore and Vellore. Due to various reasons the Corporation became defunct.

After assuming office by this Government, Hon'ble Chief Minister has revived the Arasu Cable TV Corporation Limited and sanctioned a sum of Rs.3 crores for the revival and expansion of the activities of the Corporation. The Corporation was renamed as Tamil Nadu Arasu Cable TV Corporation Limited (TACTV).

Activities of the Corporation:

 Tamil Nadu Arasu Cable TV Corporation has taken over 27 Head Ends from the willing private Multi System Operators (MSOs) and the four digital Head Ends of Tamil Nadu Arasu Cable TV Corporation were revamped.

- The Hon'ble Chief Minister of Tamil Nadu has launched the cable TV services all over Tamil Nadu (except Chennai) on 02.09.2011 by switching-on the Head End at Vellore through Video Conferencing.
- The Hon'ble Chief Minister of Tamil Nadu announced on the floor of Tamil Nadu Assembly on 30.08.2011 that the Tamil Nadu Arasu Cable TV Corporation Limited will provide quality services at an affordable cost of Rs.70/- as monthly subscription from the subscribers by the Cable TV operators and Tamil Nadu Arasu Cable TV Corporation Limited will collect Rs.20/per month per subscriber from the cable operators.
- The response from the Cable operators and the public was overwhelming and during the online enrolment conducted by Tamil Nadu Arasu Cable TV Corporation Limited, nearly 37,889 Operators with a subscriber base of 1.45 crores have enrolled with TACTV Corporation and after validation of Data the number of enrolled operators is 30,194 with a subscriber base of 1.12 crores and they are being connected gradually. The subscriber base of TACTV Corporation Limited which was 4.94 lakhs on 02.09.2011 has increased to 49,53,670 as on 30.04.2012 with an operator

base of 21,123. Action is being taken to increase the subscriber base to One crore.

- TACTV Corporation which started its services on 02.09.2011 with Free-to-Air Channels has concluded negotiations with various Broadcasters and procured 108 Pay Channels. Most of the Pay Channels are now in the bouquet of Cable TV services of TACTV Corporation. At present, TACTV is providing the Cable TV services with a bouquet of 100 Channels, which includes Free-to-Air Channels, Pay Channels and private local channels.
- Before the advent of TACTV, the public were paying Rs.150 to Rs.250 per month to avail the Cable TV services. However, now TACTV Corporation is providing the cable TV services with most of the pay channels at an affordable cost of Rs.70/- per month to the public through cable operators and the public could save a sum of Rs.80 to Rs.180 per month and hence, the public have overwhelmingly welcomed TACTV services.
- The Collection of subscription from the Cable TV operators is being done in a transparent and userfriendly manner by online payment in Indian Bank to

ensure timely and proper accounting. As on 30.04.2012, the collection of monthly subscription amount from the Local Cable Operators (LCOs) and MSOs is **Rs.32.67 crores** apart from the Advance payment of **Rs.25.97 crores** collected from the LCOs and MSOs. In order to increase the connectivity and the collection, Deputy Managers / Special Tahsildars have been posted in all the 31 districts.

- In order to regulate the Private local channels, the selection of Private Local Channels in TACTV services was done through Tender-cum-Auction conducted at District Level by the District Collectors. The Allotment Orders to the 431 successful tenderers were issued. The Corporation has collected an advance of Rs.7 crores from Private Local Channels and is expecting a revenue of Rs.3 crores to 4 crores per month by way of Carriage Fee from Private Local Channels.
- The Tamil Nadu Arasu Cable TV Corporation is taking necessary action to start its services in Chennai Metropolitan area in digital mode soon.

CHAPTER IX

NEW SCHEMES FOR THE YEAR 2012-2013

An Electronic Dictionary with pronunciation

Tamil Virtual Academy has very rich Annotated Tamil Corpus. With the present Annotated Tamil Corpus, TVA has proposed to compile "An Electronic Dictionary with pronunciation." For the first time, phonetic transcription will be given to the Tamil words. A sum of Rs.30 lakhs has been allocated under Part II Scheme for the year 2012-2013 for implementing this scheme.

Syntactic and Semantic Annotations for Tamil Literature

Tamil Virtual Academy has very rich Tamil corpus in its e-library (approximately 1 lakh pages) with early, medieval and modern literatures in digital form.

At present, Machine Translation (MT) is inevitable one, for which Syntactically and Semantically Annotated Tamil Corpus is needed. If the Syntactic and Semantic tags for the Massive Tamil corpus are available at TVA, an accurate spell checker, grammar checker and many more software for Machine Translation can be developed. A sum of Rs.25 lakhs has been allocated under Part II Scheme for the year 2012-2013 for implementing this scheme.

Tamil Computing Lab

To establish a separate lab for Tamil Computing to carry out research and development for Tamil software such as Machine Translation, Optical Character Recognition (OCR) etc., a sum of Rs.20 lakhs has been allocated under Part II Scheme for the year 2012-2013 for implementing this scheme.

Software Repository Tool

As of now, the departments implement application software through Government agencies and outsourced agencies. In case of software implemented through outsourced mode, over a period of time, there is a lack of support/enhancement and Source Codes and documentations may not be traceable. In such conditions the continuity for the department services would be affected. To overcome the above issue, it is proposed to establish a centralized software Repository at a cost of Rs. 17 lakhs for the Government Departments so that the software, source code and documentations could be made available at a single location under the custody of single Government agency. As and when the Departments require the support and documentation, the same could be made available in the future. A sum of Rs.17 lakhs has been allocated under Part II Scheme for the year 2012-2013 for implementing this scheme.

> Mukkur N. Subramanian Minister for Information Technology