

FINAL REPORT

# CAPACITY BUILDING ROADMAP (CBRM)

For

GOVERNMENT OF TRIPURA



AGARTALA  
May 2006

In association with



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# DOCUMENT CONTROL

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### Glossary of Terms

| Sl. # | Term   | Definition   |
|-------|--------|--|
| 1     | ACA    | Additional Central Assistance                                  |
| 2     | CBRM   | Capacity Building Roadmap                                      |
| 3     | CIC    | Community Information Centre                                   |
| 4     | CIO    | Chief Information Officer                                      |
| 5     | CAN    | Capacity Need Analysis   |
| 6     | CTO    | Chief Technology Officer                                       |
| 7     | DIT    | Directorate of Information Technology                          |
| 8     | DPP    | Detail Project Proposal  |
| 9     | DPR    | Detailed Project Report  |
| 10    | EGRM   | e-Governance Roadmap   |
| 11    | GoI    | Government of India  |
| 12    | GoT    | Government of Tripura  |
| 13    | GPR    | Government Process Re-engineering                              |
| 14    | MMP    | Mission Mode project   |
| 15    | NeGP   | National e-Governance Plan                                     |
| 16    | NISG   | National Institute for Smart Government                        |
| 17    | PeMT   | Project e-Governance Mission Team                              |
| 18    | PSU    | Public Sector Unit   |
| 19    | SeGP   | State e-Governance Program Apex Committee                      |
| 20    | SeMT   | State e-Governance Mission Team                                |
| 21    | SIPARD | State Institute of Public Administration and Rural Development |
| 22    | SLA    | Service Level Agreement  |
| 23    | GO     | Government Orders  |
| 24    | ToT    | Training of Trainers   |
| 25    | TSCA   | Tripura State Computerisation Agency                           |

# 1. INTRODUCTION

## 1.1. BACKGROUND OF THE ASSIGNMENT

The Government of Tripura is committed to bring about a deep-seated and far reaching development of the citizens of the State. The State Government sees Information Communication & Technology (ICT) as an opportunity to achieve its vision for socio-economic development. In this context, an e-Governance roadmap (EGRM Volume I & II) has been proposed for the Government of Tripura that highlights the key initiatives that needs to be undertaken in the next three years by the respective departments. In order to take up and execute the initiatives proposed in the e-Governance Roadmap, the Government of Tripura requires an adequate capacity build up which would leverage on ICT as an enabler.

## 1.2. ABOUT NEGP

NeGP is an ambitious program of the Government of India aimed at improving the quality, accessibility and effectiveness of government services to citizens and businesses with the help of Information and Communication Technology. It is a national level initiative which proposes rapid deployment and scale-up of select "Mission mode Projects", creation of national IT backbone for fast, reliable & efficient connectivity, data storage & access and Common Service Centers for delivery of citizen services, creation of Internet portals for 24x7 access to government information and services.

The wide scope and objectives of the NeGP program highlight the enormity of the tasks ahead. Considering the nature and scale of e-Governance initiatives planned under NeGP, the role of the State Governments in managing these initiatives is seen as critical. It is also well recognized that for States to play their role effectively, significant capacities need to be built / upgraded. Thus, for the success of NeGP, it is necessary to enhance the capacities in the State Governments and its Nodal Agencies to enable issues to be dealt with in a competent manner, with a holistic perspective and with speed.

It is in this context, NeGP necessitates State Governments to prepare:

- An e-Governance Roadmap (EGRM) clearly defining the e-Governance Vision and strategies to achieve the Development agenda of the State and provide good governance to the citizen leveraging ICT as an enabler tool. EGRM also depicts the big picture of e-Governance Blue print of the State Government. Based on this blueprint, the effort and the competence needed to manage the State e-Governance initiatives could be planned
- Capacity Building Roadmap is a document which lays down the plan for developing institutional mechanisms, acquiring the technical expertise from within and outside the government, set plans for training on specific areas and projects the required resources (and costs) for outsourcing activities. This document encompasses suggestions for structure of the institutional framework; capacity requirements, in line with the e-Gov Roadmap (EGRM) and the Training need analysis to build the internal capacity of the Government.

### 1.3. CAPACITY BUILDING – THE OUTLOOK

It is observed that there are a few initiatives already taken by the State Government towards proliferation of ICT. However, most of the projects have provided the expected results. It has been identified that the primary cause for sub-optimal results is that the government is ill - equipped in terms of IT skills and leadership. Therefore it is being thought to augment the capacity of the State to address the IT related requirements in the department.

This document is an effort in the same direction that shall bring into light the capacity building needs in the departments, future plans and institutional arrangements to provide strategic directions.

Keeping this in mind, the e-Governance roadmap has been used as a basis to define the capacity building requirements in the state

This document addresses the following points.

*Capacity Building contains three major elements*  
*1) Establishing Institutional Framework*  
*2) Engaging Personnel with requisite experience*  
*3) Upgrading skill sets through training*

- Setting up appropriate institutional framework for e-Governance
- Identification of people and skill set for augmenting existing capacities
- Leveraging the internal Capacities of people within the Government through adequate training
- Involvement of professional through outsourcing in different sectors to complement the existing capacities
- Training Need assessment

### 1.4. OUR APPROACH & METHODOLOGY

The Capacity Building Roadmap analyzes the strengths and weaknesses of existing institutional structures. It also analyses the current capacities available within the Government at the State level and individual department level for e-Governance. Through elaborate discussions with different stakeholders, a gap analysis was carried out. Finally a Capacity Building roadmap has been developed so that the existing gaps can be bridged at the State as well as individual department level.

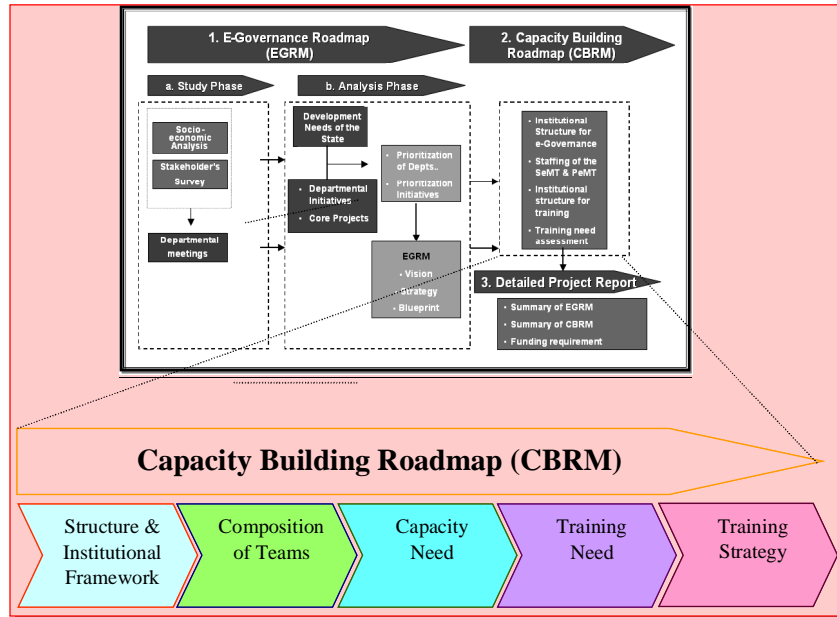


Exhibit 1: Approach to the project

*Approach to Capacity Building Roadmap consists of:*  
 1) As-Is Study  
 2) To-Be Study  
 3) Gap Assessment

The approach for the Capacity Building Roadmap started with making an assessment of the “As Is” status. Based on the existing and future IT initiatives, a “To Be” scenario was prepared. The capacity needs and the training needs were arrived at after taking into consideration the e-Governance roadmap, the institutional structure in the State and the gap between the “As Is” and “To Be” status.

**1.4.1 Where Are We: “As-Is” Study**

The Approach for “As-Is” Study was:

- Assessment of capacities available in areas of Project Management, Change Management, Financial Management and Technology Management in departments taken up for study in the State
- Analysis of Strengths and weaknesses of the existing institutional structure mandated to plan and implement e-Governance Initiatives.
- Evaluation of training initiatives of the Capacity Building Institutions in the State, their course content, coverage and reach
- Assessment of the capacity of the nominated State Nodal Agency



#### 1.4.2 Where do we want to reach: “To-Be study”

The Methodology for the “To-Be” study was:

- Knowing the future ICT initiatives of the State and of individual departments and assessment of capacities that would be required in a five year perspective for implementing the future Projects in the pipeline.
- Finalizing the nature, extent of Capacity and talent pool that needs to be developed in house and also through external participation in line with the E-Governance roadmap.

#### 1.4.3 How do we reach: The Gap Assessment

The Gap assessment included detailed discussion with officials of Government of Tripura that included:

- Finalization of the Capacity Building Framework of the State at the Apex Level, Program Level and Project level
- Strategies for strengthening the training Institutions and level of competencies and for leveraging their infrastructure for the Capacity Building Exercise
- Preparation of comprehensive strategy & plan for composition of SeMT & PeMT.
- Strategy on how the designated agency would undertake capacity building, through a judicious mix of options and further to develop an overall training strategy.

The methodologies used were:

- Desk research: Examination of E-Governance Roadmap, Capacity building documents relating to Government of Tripura, analysis of best practices, other documents relating to capacity building, Study of training courses offered by various institutes etc.
- Discussions with senior functionaries of Government of Tripura;
- Supplementation of discussions with questionnaires relating to capacities available in the State departments and training institutes.

#### 1.5. SCOPE OF THIS REPORT

This report briefly covers the following areas:

- Analysis of the Strengths and Weakness of the existing institutional structure for e-Governance in the State

- Indicative Structure for SeMT and the PeMT
- Suggestive composition of SeMT and PeMT in line with the guidelines of NeGP
- Training Needs Analysis of the State at a generic level
- Analysis of Strengths and Weakness of existing Capacity Building institution (SIPARD) of the State. This includes:
  - Assessment of the organization Structure for training and consultancy services in the domain of e-Governance
  - Assessment of its organizational capacity viz. infrastructure, faculty members, outreach to other organizations, curriculum content, administrative systems etc.
  - Identification of the nature and kind of e-Governance training provided by the institutions
  - Identification of the different types of audience for whom training is provided
- Indicate the level of capacity which needs to be developed in line with the State e-Governance roadmap
- Indicators as to the salient focus points to be kept in mind for capacity building in the State

## 1.6. STRUCTURE OF THIS REPORT

This document is divided into the following five sections (including this first section):

### Chapter 1: Introduction

This section provides an introduction to NeGP and the approach followed for this study

### Chapter 2: Summary of EGRM

This section provides the summary of the e-Governance vision and strategies to achieve vision along with the e-Governance blueprint for the State of Tripura.

### Chapter 3: Institutional Structure

This section deals with the existing institutional structure for e-Governance and provides an e-Governance structure for the implementation of initiatives and strategies to bridge the gaps.

### Chapter 4: Capacity Needs Analysis

Ø Introduction to NeGP  
 Ø Summary of EGRM  
 Ø Institutional Structure  
 Ø Capacity Needs Analysis  
 Ø Training Strategy  
 Ø Conclusion

This section looks at the Capacity building Institution (SIPARD), identifies gaps in framework for training and proposes steps to fill the gaps.

#### **Chapter 5: Training Strategy**

This section deals with the training requirements and the need for resources. It highlights options and strategies available for training and resourcing. The analysis of training and resource requirements are done at a State level with focus on SeMT & PeMT.

#### **Chapter 6: Financials for next three years**

This section details out the financial requirement for the next three years.

## 2. SUMMARY OF THE EGRM

The essence of e-governance - speed, transparency, accountability and improved quality of life for the citizens of the State, is the focus area of Government of Tripura. The e-Governance Plan of the state emphasizes the commitment towards using Information Technology as an instrument for growth; and this has been the beacon for directing the various initiatives in the State.

However the success in implementation of e-Governance projects in the state has been sub-optimal. Various initiatives of the State in this direction are in various stages of completion. The preparation of e-Governance Roadmap has provided an opportunity to plan the initiatives in a formal manner. This roadmap takes into account the initiatives planned earlier by the State Government and harmonizes with the aspirations of NeGP and the State Government departments.

However as the e-Governance priorities have to be derived from the Developmental and Good Governance Agenda of the state, a 'VISION STATEMENT' becomes a necessity. The vision statement is like a preamble to the e-Governance Roadmap and needs to be referred in case of any doubt in prioritization of any initiative. This statement forms a basis for defining the mission and strategy for any e-governance initiative in the state.

### 2.1. E-GOVERNANCE VISION STATEMENT

The components that have been used for the drafting the vision Statement is:

- The vision should be in line with requirement of the State
- It should cater to the needs of the citizens
- The government service should be quick and of high quality

Hence, e-governance vision proposed for the State of Tripura in the EGRM is as follows.

*"Use ICT as an efficient tool for achieving efficiency & transparency while servicing the common citizens for improving their quality of life"*

To achieve the Vision, the roadmap and Blueprint for e-Governance should ensure and cover the following aspects of the draft vision Statement.

- 1) To generate maximum impact in a short time, the State Government should undertake e-Governance in the priority sectors first, like social and economic development related departments, Local Governance institutions etc.
- 2) Stress should be on making the Government functioning accountable, efficient and effective, reducing transaction costs and enhancing policy coordination between the different government entities.

- 3) Effective delivery of public services through efficient administrative and financial systems, ensuring quality, accessibility, affordability and sustainability.
- 4) Interaction and transaction between citizens, private sector and government through the provision of on-line services thereby transforming relations with stakeholders.

## 2.2. E-GOVERNANCE STRATEGY

The e-Governance Strategy consists of the possible ICT interventions and identifies the foundation required for e-Government, that includes the required institutional arrangement and capacity, and a set of policies, systems procedures, and technical standards that will support the implementation of the e-Governance program in the State.

### A. ICT interventions

The e-Government strategy consists of a portfolio of ICT applications that will electronically deliver services of the highest quality to citizens (G-to-C), businesses (G-to-B) and Government functionaries (G-to-G). For this purpose, 12 departments / directorates were shortlisted after an analysis of 20 departments / directorates that cater to the 10 selected key sectors/groups namely Infrastructure, industries, Education, Health and Family Welfare, Tribal Welfare, Revenue group including Commercial Taxes, Agriculture, Panchayat and Rural Development and Transport.

The State portfolio of high priority core infrastructure and applications include:

|                                       |   |
|---------------------------------------|---|
| <b>Core Infrastructure (5)</b>        | 1. State Wide Area Network (including Local Networks)   |
|                                       | 2. State Data Centre  |
|                                       | 3. Common Services Centres like Service Facilitation Centres, Community Information Centres and Village Service Centres     |
|                                       | 4. State GIS  |
|                                       | 5. State Portal (details of information and services provided department wise in Chapter 6 of e-Governance Roadmap Vol. II) |
| <b>Core Applications (6)</b>          | 1. Human Resource Management System   |
|                                       | 2. E-Procurement  |
|                                       | 3. Budget & Accounting Management System  |
|                                       | 4. Scheme Formulation and Tracking System   |
|                                       | 5. Asset Management System  |
|                                       | 6. Document Management System   |
| <b>Departmental Applications (19)</b> | 1. GIS based Tripura Agriculture Information System   |
|                                       | 2. Rural Development Program Management System  |
|                                       | 3. GIS based Integrated Land Records and Registration Software  |
|                                       | 4. Enhanced Value Added Taxes Central Sales Tax Management System   |
|                                       | 5. e-Municipality   |
|                                       | 6. Hospital Management System   |
|                                       | 7. Telemedicine   |
|                                       | 8. Integrated Transport Management System   |
|                                       | 9. GIS based Vehicle Management System  |

|  |   |
|--|---|
|  | 10. POLICE NETWORK  |
|  | 11. JAIL NETWORK  |
|  | 12. Computerised Billing System                               |
|  | 13. Power Transmission & Monitoring System                    |
|  | 14. Education Management Information System (e -MIS)          |
|  | 15. Food Civil Supplies & Consumer Affairs Information System |
|  | 16. Co-operative Management System                            |
|  | 17. GIS based Forest Management System                        |
|  | 18. Planning and Monitoring System                            |
|  | 19. PWD : GIS based project/Land Management                   |

Exhibit 2: Core Infrastructure & Applications

There are 19 applications identified for the twelve shortlisted departments / directorates which shall be the basis for a departmental applications. The entire portfolio of applications along with the future ICT initiatives for implementation have been described in Chapter 6 of EGRM Volume II – Vision & Strategy.

**B. E-Governance Blueprint**

The e-Government blueprint is a visual depiction of the portfolio of initiatives and projects recommended for the State. It is a multi-layered concept that shows the components of the plan and the inter-connectivity and dependencies between various projects to facilitate interoperable designs.

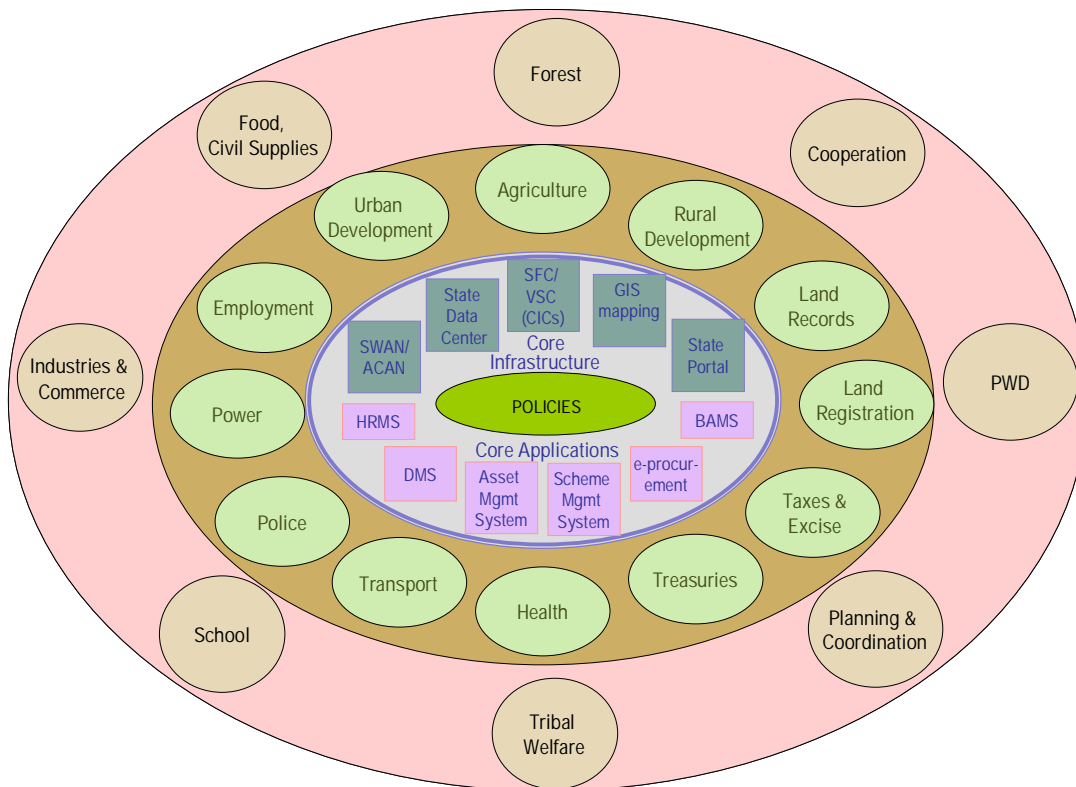


Exhibit 3: E-Governance Blueprint

### ***C. Funding the e-Government projects***

The total investments including the software development, hardware, application development costs, connectivity costs, operational costs for the next 3 years, for each type of initiative is qualitatively estimated anywhere between **Rs. 90-125 crores** depending on the scope of work and coverage under each of the projects. It may be noted the ratio has been estimated between Government and Private investment. As compared to the other states, the investment from private is assumed to be lower due the assumption on low viability of the projects on a PPP model.

The planned e-Government projects involve substantial outlays over the 5 year timeframe. The state needs to analyse its resource options for funding the implementation and post implementation operation and management of e-Government projects. The sources of funding available to the state Government include:

- § Plan funds of the State
- § GOI funds under NeGP through DIT
- § GOI funds under NeGP through ACA
- § GOI funds from the line Ministries
- § External Aid to State Government
- § Funding through Public Private Partnerships (PPP)
- § User charges for services.

### ***D. Institutional Framework, capacity-building, and Policies***

The State needs to strengthen and rationalize the existing institutional framework for implementing the e-Governance initiatives, and put in place a set of policies, systems, procedures and technical standards. The DIT, GoT should be responsible for formulating the development of policies, technical standards, providing technical clearance The details on the Institutional framework and Capacity Building is discussed in detail in this document.

# 3. INSTITUTIONAL STRUCTURE

## 3.1. EXISTING INSTITUTIONAL STRUCTURE

Presently, there is no operational institutional structure in the State that caters to the e-governance projects and capacity requirement. However, the State Government of Tripura has realized that an institutional structure is pertinent for carrying out the e-Governance initiatives in the State and has therefore constituted the following committees through a Government notification.

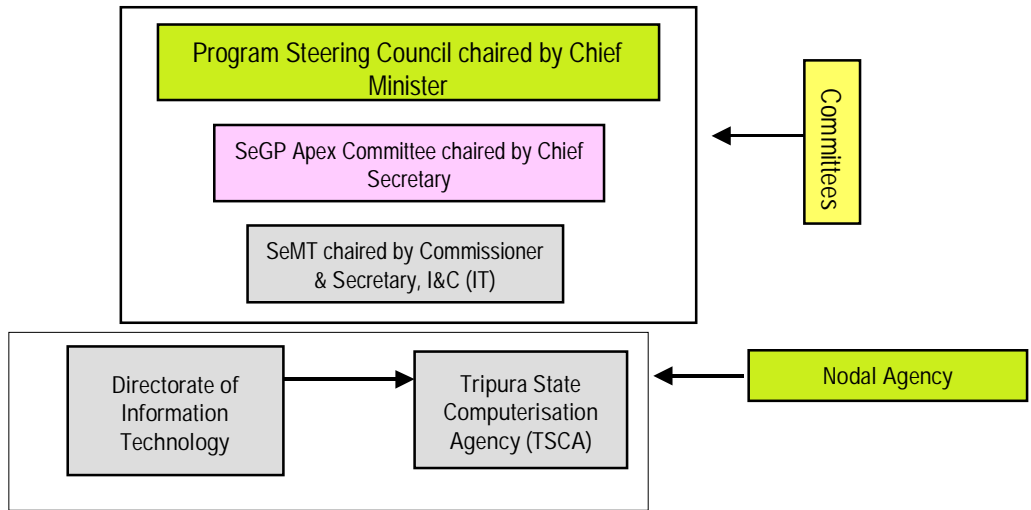


Exhibit 4: Institutional Structure as per the State Government Notification

### 3.1.1 Program Steering Council

The Program Steering Council headed by the Chief Minister would steer the entire State e-Governance program of the State at the top most level, in line with the e-Governance vision

#### A. Roles & Responsibilities

The Program Steering Council is an institutional mechanism to pursue the political will from the top of the administrative machinery to champion the cause of e-Governance and shall help in synergizing efforts across the State to help Information Technology as a core area of Governance in the State.

#### B. Composition of the Program Steering council

The composition of the council as per the Government notification issued on 26th December 2005 is as follows:

| Honorable Chief Minister of Tripura          | Chairman |
|--|----------|
| Minister for Finance, Tripura                | Member   |
| Minister for Agriculture                     | Member   |
| Minister of Health & Family Welfare, Tripura | Member   |
| Minister of I & C(IT), Tripura               | Member   |



|  |                 |
|--|-----------------|
| Minister of Revenue, Tripura           | Member          |
| Minister of Rural Development, Tripura | Member          |
| Minister of Urban Development, Tripura | Member          |
| Chief Secretary, Tripura               | Member          |
| Commissioner & Secretary(IT), Tripura  | Member Convener |

Exhibit 5: Program Steering Council

### 3.1.2 State e-Governance Program Apex Committee

Like Program Steering Council, the Government has already initiated the constitution of SeGP Apex Committee. This committee is headed by the Chief Secretary, and includes all the secretaries of the line departments.

#### A. Roles & Responsibilities

This committee shall oversee and provide policy direction to SeMT & ensure inter-department co-ordination. It will also ensure that the initiatives and action are in line with the NeGP guidelines and shall help in synergizing efforts across the State

The SeGP Apex committee will also have the following roles and responsibilities:

- Provide overall vision, broad policy direction and guidance to the State e-governance program (SeGP)
- Provide strategic direction and oversee the SeGP
- Ensure inter-departmental coordination
- Provide frameworks and issuing broad guidelines for SeGP
- Ensure that the initiatives and action are in line with the NeGP guidelines
- Develop the strategy for e-Governance
- Provide single-window clearance for projects, and issuing related directions to departments.

#### B. Composition of SeGP Apex Committee

The composition of SeGP Apex Committee as per the Government notification issued on 26th December 2005 is as follows:

| Chief Secretary, Tripura                                   | Chairman |
|--|----------|
| Commissioner & Secretary, I & C(IT), Tripura               | Member   |
| Principal Secretary, Finance, Tripura                      | Member   |
| Principal Secretary, Planning, Tripura                     | Member   |
| Commissioner & Secretary, Health & Family Welfare, Tripura | Member   |
| Commissioner & Secretary, Revenue, Tripura                 | Member   |
| Commissioner & Secretary, GAD, Tripura                     | Member   |
| Commissioner & Secretary, Rural Development, Tripura       | Member   |
| Commissioner & Secretary, Urban Development, Tripura       | Member   |

|   |                 |
|---|-----------------|
| Director, Information Technology, Tripura                         | Member Convener |
| The SIO NIC, Tripura State Unit                                   | Member          |
| Representative from IIT, Kharagpur                                | Special Invitee |
| Representative of Departments taking up e-Gov projects under SeGP | Invitees        |

Exhibit 6: SeGP Apex Committee

### 3.1.3 State e-Governance Mission Team

Government of Tripura has constituted a State e-Governance Mission Team to function as the secretariat and full time internal advisory body to Apex Committee and Steering Council in undertaking e-Governance projects under the Chairmanship of Commissioner & Secretary, Industries & Commerce (IT).

#### A. Roles & Responsibilities

State e-Governance Mission Team (SeMT) at the State level shall provide an overall direction, standardisation and consistency through program management of e-Governance initiatives running in the State Government. All interdependencies, overlaps, conflicts etc. across projects as well as core and support infrastructure shared across several projects would fall under this group.

#### B. Composition of SeMT

The following is the composition of SeMT as per the Government notification issued on 26th December 2005:

| Comm. & Secy., I & C(IT), Tripura   | Chairman        |
|---|-----------------|
| Director, S.I.P.A.R.D, Tripura  | Member          |
| Director, IT, Govt. Of Tripura  | Member          |
| Addl. Director, S.I.P.A.R.D, Tripura  | Member Convener |
| 4 Recruits @ 1 each in fields of Change Management, IT, Financial Mgmt. and Project Mgmt. | Member          |
| Representative from NISG  | Member          |
| Change Management (IISWBM, Kolkata)   | Member          |
| IT Expert(IIT,Kolkata / IIT,Guwahati)   | Member          |
| Financial Management Expert (IIM, Kolkata)  | Member          |
| Project Management Expert (IIT, Kharagpur)  | Member          |

Exhibit 7: Composition of SeMT as per the Government Notification

### 3.1.4 Tripura State Computerisation Agency (State Nodal Agency)

The State Government has created a registered society under the administrative control of Directorate of Information Technology, Government of Tripura, to be the State Nodal Agency responsible for initiating and implementing capacity building project and managing the fund allocated thereby.

#### *A. Roles & Responsibilities*

Following are some of the important roles and responsibilities of TSCA

- Identify the computerization requirements of various Government organizations and take up such projects as are necessary to meet these requirements
- Assist and advice the Government organizations on various computerisation projects, which may make the delivery of Government, services more efficient.
- Identify the training needs and offer training programmes to different Government organizations in subjects related to computerisation
- Co-ordinate with Education Department of the State for promotion of IT education in the State and other such measures which will improve the quality of IT manpower in Tripura
- Organize and conduct awareness / motivation programmes, trainings, seminars, workshops and regular courses for different target groups mainly for promotion of IT awareness among common man
- Participate in meetings, seminars, workshops etc organized by other similar societies / institutions elsewhere in India
- Acquire by gift, purchase, exchange, lease or otherwise, land buildings or other movable or immovable properties together with all rights pertaining thereto.
- Receive Grants-in-Aid and accept other grants of money, gift, donations in kind or in cash, securities, fees, negotiable instruments, loans from banks and other agencies and other form of assistance from any other sources and to enter into any agreement or arrangement with Central or State Government, voluntary organizations, national and international agencies for receiving such assistance and to maintain a fund to which shall be credited all money received by the Society.
- Charge such fees for the various services provided by the Society as deemed fit and considered necessary.
- Raise money and fund as deemed fit and necessary for the purpose and objective of the Society

### 3.1.5 Directorate of Information Technology

The State Government created the Directorate of Information Technology in April 1999 under the Department of Industries & Commerce with the aim of making available information readily available at the press of a few buttons. The Directorate of Information Technology (DIT) acts as a nodal agency for co-ordinating the implementation of Community Information Centre (CIC) project in all blocks of the State and is also involved in the implementation of computerization projects in different departments of the State Government.

#### A. Roles & Responsibilities

The following are the roles and responsibilities of the Directorate of Information Technology:

- Facilitating IT usage through proper e-Governance
- Development of IT literate human resource through IT education
- Encouraging investment in the State for employment generation
- To implement computerization projects in different Departments of the State Government
- To organize training programmes for increasing IT literacy among the officers and staff of the State Government
- To take steps for promotion of IT education in schools and colleges of Tripura and also for improvement of IT manpower in Tripura.

#### B. Composition of Directorate of Information Technology

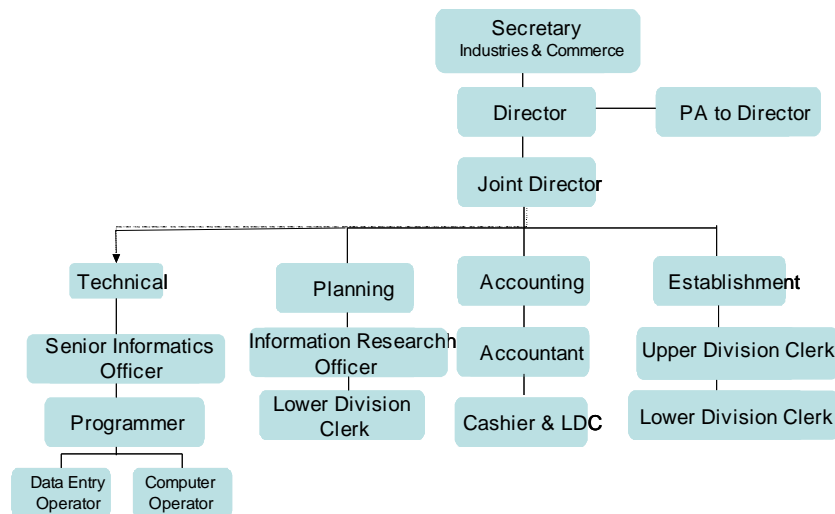


Exhibit 8: Organization Structure of DIT

### 3.2. COMMAND CONTROL REPORTING & MONITORING MECHANISM

At present, NIC and Directorate of Information Technology (DIT) implements and monitors IT projects with the help of the departments. NIC provides support in terms of software development, deployment of technical manpower and package specific user training.

### 3.3. MECHANISM TO ENSURE INTEGRATION, CONSISTENCY AND COORDINATION ACROSS AND WITHIN DE PARTMENTS

Since Tripura State Computerisation Agency (TSCA), under the administrative control of Directorate of Information Technology, is the nodal agency for implementation, it was envisaged that there will be integration, consistency and coordination across and within departments. However, currently there is no mechanism in place that takes a wholesome view of all projects in the state and ensures the integration and synergy among various ICT initiatives.

The institutional framework proposed under NeGP will strengthen the mechanism in the State to optimize the utilization of funds and efforts.

### 3.4. GENERAL OBSERVATIONS

- The committees mentioned in section 3.1, as per notifications issued by Government of Tripura are yet to be operational.
- The Tripura State Computerisation Agency is a virtual entity with no employees till date. Thus most of the work envisaged by TSCA is now been carried out by the Directorate of Information Technology itself.
- There is no dedicated team under each government department that would look into and drive the e-Governance initiatives.
- Absence of a technical advisory board to which departments can turn for help regarding technical issues. The Directorate of Information Technology is not adequately staffed to provide full time technical expertise.
- **The SeMT constituted contains more members as part time members or visiting members. This does not meet the overall objective for formation of SeMT. The SeMT members are expected to do / manage tasks on *full time basis*. These members are expected to be totally hands-on all the responsibilities entrusted for SeMT. Currently only 4 people have been proposed to be retained for this purpose. This may need to be augmented in future.**
- The Directorate of Information Technology has limited control over the IT initiatives in the State. The extent of control of Directorate of Information Technology in e-Governance initiatives is limited to advice on purchase of hardware.
- Most of the departments do not have requisite IT skilled personnel. Recruitment policies contribute to the situation remaining stagnant. Hence, some methodology for building capacity must be arrived at. It is also seen

that ICT is primarily envisaged as a departmental activity, which allows liberty to the department on ICT initiatives. This results in projects that do not realize the full extent of its promise.

- Certain Departments has appointed nodal officers to interact with Department of Information Technology for conceptualizing and managing the e-Governance initiatives. However since the engagement is not on a full time basis, these key officials also have additional responsibilities to discharge and more then often they end up being overburdened. So IT does not get the kind of importance or priority it deserves. Moreover it has been found that since there is a resource crunch in the Government, IT savvy Government employees who ideally should have been utilized in areas of IT are found discharging additional responsibilities. Hence e-Governance has not been able to find the administrative commitment, which is imperative for its success.
- It is felt that Professional Managers both at the Project level and Program level are required for better management, coordination and implementation of the e-Governance initiatives in the State.
- There is no separate officer responsible for the financial management of the e-Governance projects. Moreover, there is a dearth of resources expertise in developing Resource Models, Feasibility Models, Cost benefit Analysis etc which are very important from the sustainability of the e-Governance ventures.
- There are no dedicated resources in the area of program management, technology management, change management and financial management. The officials within the e-Governance related departments lack specialized skill sets on technology areas such as Standardization, Security, Architecture etc. Thus, due to the lack of an institutionalized framework for e-Governance, many of the Projects face stiff challenges on for implementation and roll out, both at the State level and at the department level.

### 3.5. PROPOSED INSTITUTIONAL STRUCTURE AND FRAMEWORK

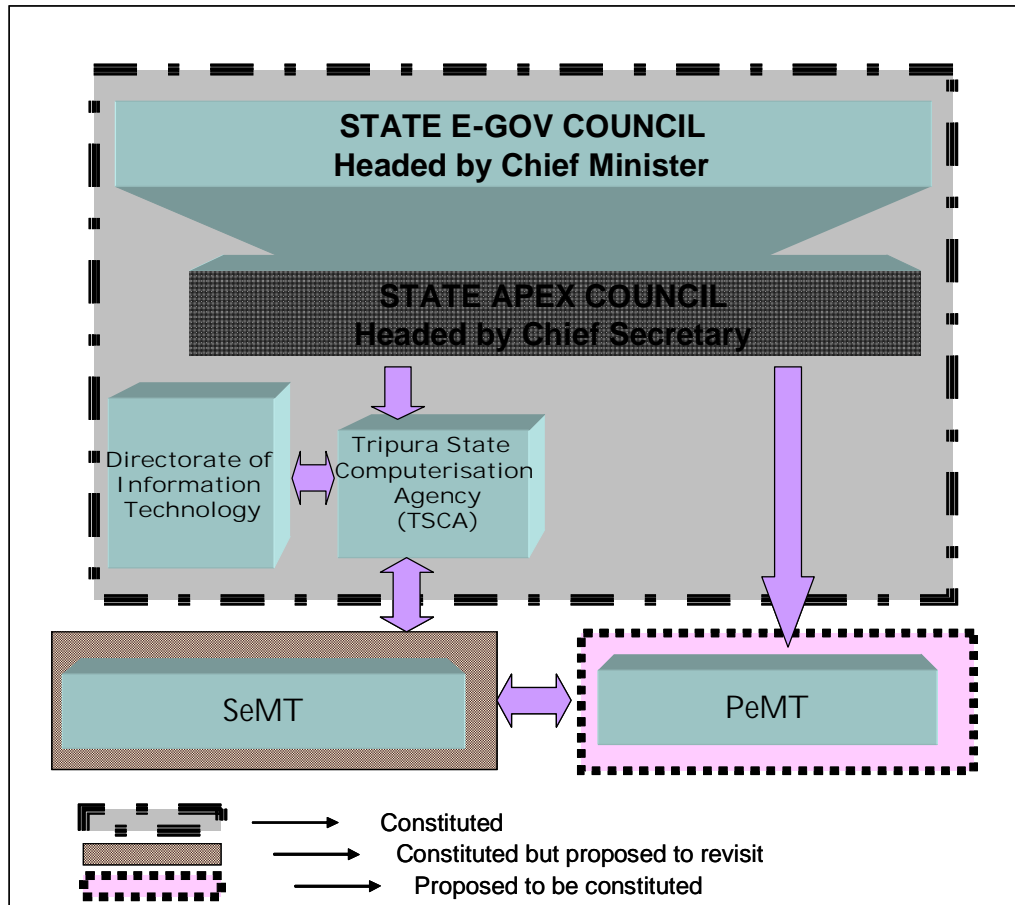


Exhibit 9: Proposed Institutional framework for GoT

The broad level institutional framework for carrying out e-governance project has already been defined by NeGP and the State Government already issued required notifications/orders. However based on the observations above there are 2 areas which need to be stressed.

#### 3.5.1 State e-Governance Mission Team (Revisited)

An analysis of the institutional structure of SeMT as per the Government notification reveals that most members of the committee are part-time members. However, it is imperative to have full time members for the successful conduct of the envisaged e-Governance initiatives mentioned in the e-Governance Roadmap of the State.

While revisiting the structure of SeMT for the State of Tripura, the following things have been kept in mind:

- There is need to create and institutionalizing group of personals skilled in **executing, evaluating, managing and consulting projects** that shall be taken up by the government (presented in the e-governance roadmap) primarily in domain of program management, technology management, change management, and finance management.
- There needs to be have a significant pool of personnel with experience in Government or Government related projects. This would allow easier

interaction with governmental staff and facilitate the rollout of projects in a more structured manner.

- There is a distinct need to utilize and strengthen existing capacities in the best possible manner.

#### ***A. Roles & Responsibilities***

The SeMT will have the following roles and responsibilities:

- 1. Overall program Management of the projects** including but not restricted to
  - Preparation of scope of work,
  - Preparation of Request for Proposals (RFPs),
  - Preparation of internal note-sheets for getting approvals / sanctions,
  - Selection of external agencies
  - Managing and getting the best out external agencies
  - Internalizing the outputs / reports of the external agencies
  - Quality assurance
  - Conducting cost-benefit analysis amongst various technological and other policy options.
- 2. SeMT will ideally work directly under Secretary IT, GoT subject to his overall guidance and administrative control and will perform the following:**
  - Assist the individual departments of the State Government in putting a dedicated team (PeMT) for conceptualizing and undertaking e-Governance projects in their departments through the constitution of individual project groups.
  - Monitor and track progress of the projects
  - Implement processes to ensure consistency and quality of output including using standardized tools for data collection, discussions, reporting and monitoring etc.
  - Provide the ability to ramp-up the capacity as and when required by the State Government or its departments.
  - Function as a permanent advisory body to Apex Committee in undertaking e-Governance projects.
  - Program manage all interdependencies, overlaps, conflicts, standards, overarching architecture, security, legal aspects etc. across projects as well as core and support infrastructure shared across several projects.
  - Provide overall direction, standardization and consistency through program management of the e-Governance initiatives in the State.



- Provide inputs to GoT during IT policy making process through the development of State-wide e-Governance strategies. This would chart the direction for e-Governance growth in the State for the next three years.
- Assessment of e-Governance training requirements of the State.
- Identify and help to implement processes for effective management of the program
- Making internal note-sheets for getting approvals/sanctions
- Selection of external agencies and ensuring that best work out of them (for tasks under the SeMT)
- Internalizing the outputs/reports of the external agencies, quality assurance
- Doing cost-benefit analysis amongst various technological and other policy options etc.
- Develop capacity (in terms of people, processes and tools) across the following four building blocks, which would help GoT to successfully manage its e-Governance program:
  - § Program Management
  - § Change Management
  - § Technology Assessment
  - § Financial Management

Some other features of the envisaged SeMT are:

- The SeMT will be a thin and flat organization that is designed to work on the core concepts and policies, while outsourcing most of the work that requires detailing.
- SeMT will be basically concerned with strategic planning, program management and coordination. But preferably it would not get down to undertake any task directly.
- SeMT would operate at program level but would try to avoid getting down to project level.
- SeMT would also function as a permanent advisory body to the State Government / NeGP State Apex Committee in undertaking e-Governance projects.
- All interdependencies, overlaps, conflicts etc., across projects as well as core and support infrastructure shared across several projects would fall under the purview of this group.
- Design, develop and implement processes for effective management of the program such as:
  - Conflict management process
  - Program communication process (internal & external)

- Financial management process
- Project plan and monitoring
- Change control process

### ***B. Proposed Revised Composition of SeMT***

The requirements for SeMT for the State of Tripura were identified after a detailed analysis of the application planned for the prioritized departments and NeGP Guidelines.

#### **Analysis for composition of SeMT**

All the initiatives/projects (completed, under implementation and proposed) under State e-governance roadmap have been taken into consideration. Core and departmental initiatives/applications have been analyzed separately to conclude at the total number of effective projects planned in the State. The criteria for calculating the effective number of project included the efforts required for the projects, the size of the projects and the number of applications. The Core and departmental applications/initiatives have been broadly elaborated in the e-governance roadmap.

#### **i. Effort required based on stage of completion (E)**

| Application Status    | Effort requirement | Remarks  |
|-----------------------|--------------------|--|
| Modification Required | 25 %               | Though projects are complete- but not effectively used due to unnecessary workload or not meeting the requirement. Such applications will need restructuring and customization to some extent. |
| Under Implementation  | 50 %               | These projects have been kick started, and most have gained adequate momentum. SeMT members will have to devote sometime to these projects, especially in areas like sustainability etc.       |
| Under development     | 90 %               | These projects are to be initiated, or just in the development stage. They will require full time and effort from SeMT members   |
| To be initiated       | 100 %              |  |

Exhibit 10: Effort Estimation Chart

#### **ii. Number of applications in various stages (N)**

The number of applications in the various stages is already discussed in EGRM Volume I- Vision & Strategy (Annexure III)

#### **iii. Size of the projects (S)**

The size of the projects were measured in two categories and measured in the scale of 1 to 2 (2= large project, 1 = small project).

| Application              | Project Size | Size as per scale |
|--------------------------|--------------|-------------------|
| Core Application         | Large        | 2                 |
| Departmental Application | Small        | 1                 |

Exhibit 11: Size of the project

Based on the above two parameters, total number of effective projects for the State was computed. This value is the summation of the product of the above two parameters in each application category. The formula used is:

$$\text{Effective number of Projects} = \sum (E \times N \times S)$$

|   | Number of Applications (N) | Effort Required (%) (E) | Size of the Project (S) | Effective number of projects |
|---|----------------------------|-------------------------|-------------------------|------------------------------|
| <b>Core Applications</b>                  |                            |                         |                         |                              |
| <i>To be initiated</i>                    | 4                          | 100                     | 2                       | 8                            |
| <i>Complete but require modifications</i> | 1                          | 25                      | 2                       | 0.5                          |
| <i>Under Implementation</i>               | 0                          | 50                      | 2                       | 0                            |
| <i>Under Development</i>                  | 0                          | 90                      | 2                       | 0                            |
| <b>Departmental Applications</b>          |                            |                         |                         |                              |
| <i>To be initiated</i>                    | 11                         | 100                     | 1                       | 11                           |
| <i>Complete but require modifications</i> | 3                          | 25                      | 1                       | 0.75                         |
| <i>Under Implementation</i>               | 2                          | 50                      | 1                       | 1                            |
| <i>Under Development</i>                  | 3                          | 90                      | 1                       | 2.7                          |
| <b>Effective Number of Projects</b>       |                            |                         |                         | <b>23.95</b>                 |

Exhibit 12: Calculations for effective number of projects in two broad categories

As per calculation, the **total number of effective project for the State is 24.**

The following criteria were used to conclude the number of members in the four wings of SeMT (as defined by NeGP):

| Wing                                       | Requirement             | No. of People required |
|--|-------------------------|------------------------|
| <b>Program Management</b>                  | 1 for every 12 projects | 2                      |
| <b>Finance Management</b>                  | 1 for every 20 projects | 1                      |
| <b>Change Management</b>                   | 1 for every 20 projects | 1                      |
| <b>Technology Management</b>               | 1 for every 12 projects | 2                      |
| <b>Number of Full time members in SeMT</b> |                         | <b>6</b>               |

Exhibit 13: Number of full time resources required in SeMT

Based on the above, the total number of full time members required for SeMT is 6 members.

| Area                | Role   | No | Requirement |
|---------------------|--|----|-------------|
| Visioning & Control | Chairman   | 1  | PT          |
| Overall Management  | Director   | 1  | PT          |
| Program Management  | Program Manager                                      | 1  | FT          |
|                     | OSD from a MMP Department                            | 1  | FT          |
|                     | Advisory Committee Member – Representative from NISG | 1  | PT          |

|                       |  |   |    |
|-----------------------|--|---|----|
|                       | Advisory Committee Member - Project Management Expert ( IIT Kharagpur) | 1 | PT |
|                       | Advisory Committee Member – Director. Statistics & Planning            | 1 | PT |
| Financial Management  | Senior Bureaucrat at the level of Joint Secretary or above             | 1 | PT |
|                       | Finance Manager  | 1 | FT |
|                       | Advisory Committee Member – Financial Management Expert (IIM Kolkata)  | 1 | PT |
| Change Management     | Senior Bureaucrat preferably Director, SIPARD                          | 1 | PT |
|                       | Change Manager for Business Process Reengineering & Training           | 1 | FT |
|                       | Advisory Committee Member - Change Management Expert (IISWBM, Kolkata) | 1 | PT |
| Technology Management | Technology Manager   | 1 | FT |
|                       | Technology Officer   | 1 | FT |
|                       | Security Auditor   | 1 | PT |
|                       | Advisory Committee Member - IT Expert (IIIT, Kolkata / IIT, Guwahati)  | 1 | PT |

Exhibit 14: Proposed Composition of SeMT

Total Full Time Resources: 6

Total Part Time Resources: 11 including advisory committee members

Total Resources: 17

**3.5.1.1 Institutional Structure of SeMT**

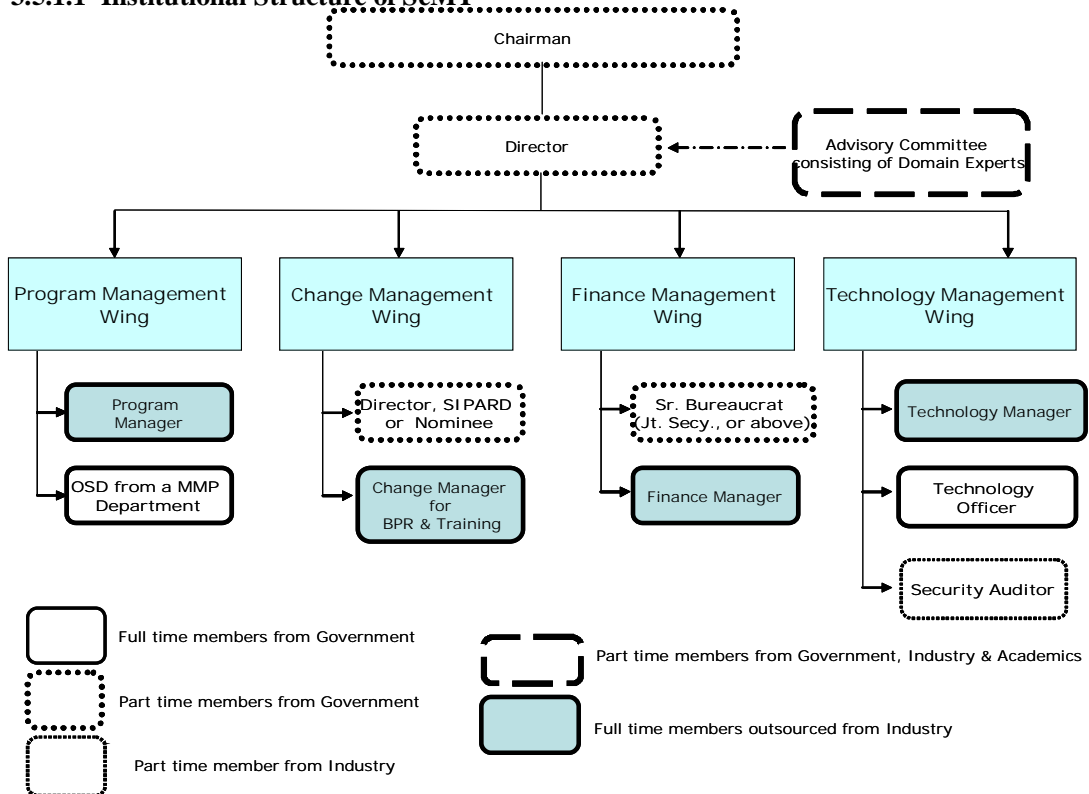


Exhibit 15 Proposed Institutional Structure of SeMT

### ***A. Additional resources from within the government***

Director (IT) will be the member convener for SeMT. He will convene all the meetings and coordinate the efforts of all the four wings. He / She would be aided by the committee of eminent experts from the field of Government (especially from the e-Governance champion states), industry and academics.

Further, it is proposed that Director, Statistics and Planning would be a member in the advisory committee who shall prescribe the framework for the data integration and validity, which is vital for the digitization of the data. The main function of the Director, Statistics & Planning would be to devise a framework so as to enable comprehensive, non duplicative and validated data across various departments.

An Officer on Special Duty (OSD) from a Mission Mode Department shall be a member of the Program management wing who shall work in tandem with the program manager on a full time basis.

The change management wing will have a senior bureaucrat (Jt. Secretary or above) who has rich experience and knowledge of people issues of the State. At present, the Director, SIPARD or his nominee shall be ideal for spearheading the Change management wing.

A Joint Secretary from the State, preferably from the Planning or finance department shall be a member of the Finance Management Wing.

In the technology management wing, a technology officer of the state shall form part of the SeMT who have experience and expertise in IT and related areas. All the members except the OSD from a MMP Department and Technology Officer, from Government will be part time members only.

**The part time members from the Government would be present in SeMT meetings as and when needed. Otherwise all the work would be done by full time members only.**

### ***B. Additional resources from outside the government***

GoT will need external participation from the Private Sector to complement and strengthen the internal resources of GoT. External participation has been planned with a right mix of professionals in the field of Project and Program Management, Change Management, Finance and Technology Management in line with NeGP's guidelines.

Considering the size and volume of current e-Governance initiatives of Tripura and the planned initiatives under EGRM, it is recommended that GoT hire the following professionals for SeMT at market rates (based on the processes suggested in the Capacity Building Guidelines of GoI):

- A Program Manager to manage several concurrent initiatives.
- 1 Finance Manager
- 1 Change Manager for BPR training
- 2 Technical experts namely
  - Technology Manager

- Security Auditor

The Convenor of the SeMT would have an advisory committee consisting of representatives from NISG, Change Management expert ( IISWBM, Kolkata), IT expert (IIIT, Kolkata / IIT, Guwahati, Financial Management Expert (IIM, Kolkata and Project Management Expert (IIT, Kharagpur) as mentioned in the Government Notification No. F 18 (16) / DIT /EG / 2005/ 2248-2350 dated 26th December 2005.

Some thoughts that must be considered while sourcing personnel for the requisite roles from the industry and Government are:

- Long term association must be the key factor. Professionals from the industry are highly attrition prone. In addition those employees of the Government working in such wide reaching and visible projects are also prone to being body shopped by the multi-national firms dotting the industry.
- One method for ensuring permanency or long-term association of professionals from the industry would be to tie up with firm rather than an individual / independent consultant. This can be done by a wet lease agreement wherein the required professionals for SeMT will be provided by a single agency with such manpower. The professionals shall be on the Payrolls of the agency and the salary and other service related benefits will be provided the Leaser agency. The Govt. of Tripura would typically handle only the operational expenses of such personnel. The Leased agency takes the responsibility of providing the qualified personnel and ensuring that they are available as required by the Govt. of Tripura. For example, the Government could enter into an agreement with NISG / consulting agencies etc to make available the requisite personnel for specific requirement. Strict SLAs (Other than financial) shall be signed with the firm to ensure continuity and commitment
- Similar strategy can be adopted for intra government sourcing from the institutions of excellence within the government, if required.
- Another method would be to recruit retired professionals. However, care must be ensured to provide the necessary interface and recognition to such people in order to make them more effective and to facilitate the dissemination of their control.

### **3.5.1.2 Knowledge & Skills**

The knowledge and skill sets required for various members of SeMT have been detailed in Annexure I.

### **3.5.1.3 Timelines for SeMT formation**

The following table gives an indicative timeline for formal formation of SeMT

| Actionables   | May | June | July | August | September |
|---|-----|------|------|--------|-----------|
| Formal Kick off of the SeMT under Chairmanship of IT secretary              |     |      |      |        |           |
| Identification of Government's internal resources                           |     |      |      |        |           |
| Selection of Agency for recruitment of SeMT members from outside Government |     |      |      |        |           |
| Appointment of Government's internal resources                              |     |      |      |        |           |
| Identification of selected manpower for recruitment from outside government |     |      |      |        |           |
| Appointment of manpower from outside Government                             |     |      |      |        |           |
| Formal Formation of SeMT  |     |      |      |        |           |

Exhibit 16: Timelines for formation of SeMT

### 3.5.2 Project e-governance Mission Team (PeMT)

This team will carry out projects in a “mission mode” at the departmental level. The team will consist of members from department, domain experts, industry experts and specialists etc. based on the needs of particular projects. It would provide support to the departments for preparation of the Detailed Project Reports (DPRs), business process re-engineering, change management, financial sustainability, technology expertise and monitoring the implementation of the project.

#### A. Roles & Responsibilities

PeMT with requisite skills relating to project planning and management, domain expertise, and technology management expertise is recommended to provide support to the department undertaking e-Government projects. The roles of the PeMT include:

- Conceptualize and manage the individual projects
- Work in close consultations and co-ordination with the departments to conceptualize and preparation of the DPRs
- Identify (and plan the process) for BPR (administrative, legal and process changes) required for improving the efficiency of the department through e-Governance
- Provide assistance to the department for change management, financial sustainability, technology expertise
- Provide project management and implementation support
- Assist the Department in institutionalizing the processes and tools required for managing the program
- Engage agencies for hardware, networking, software development, data entry etc during the implementation of the projects

### ***B. Composition of PeMT***

The structure of the PeMT will depend on the ongoing/future projects and specific needs of the department and project. Every PeMT will have four wings, i.e., a project management wing, a change management wing, finance management wing and a technology management wing. The committee will be headed by the Line Secretary/HOD, and will have 5-7 members. An indicative structure a PeMT is given overleaf:

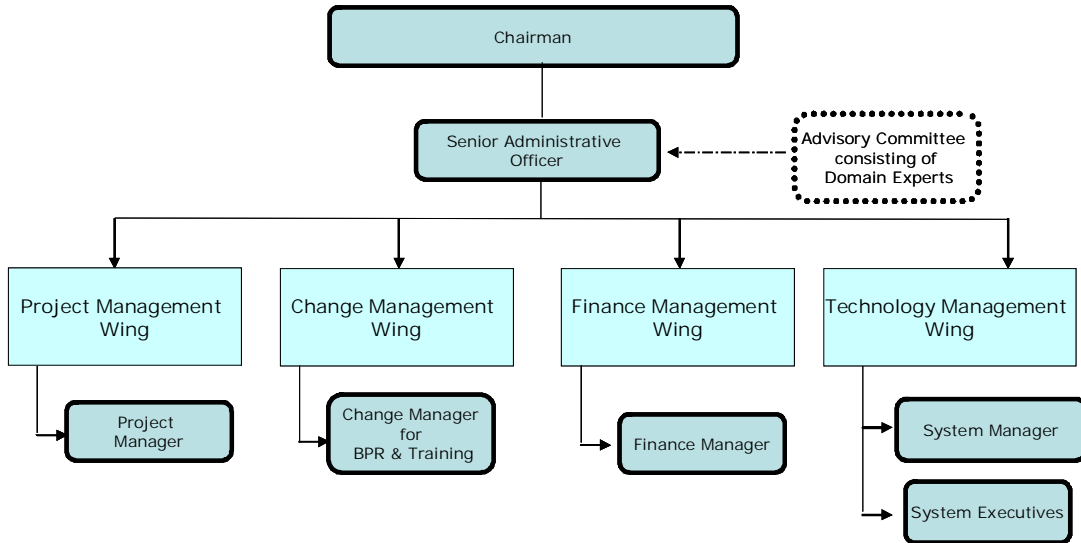


Exhibit 17: Indicative Structure of PeMT

### ***C. Indicative Skill Sets Required for PeMT professionals***

#### Experience in Change Management

- Preparation of strategy/policy document for any of the State Departments
- Conceptualizing / implementing a process improvement / re-engineering initiative
- Drafting Strategy and plans in IT projects

#### Experience in Information Technology

- Development of systems requirements specification for e-Governance projects
- Systems integration, solution architecting, developing software, etc.
- Computerization of large organizations involving technology selection issues
- Project implementation / communication experience
- Knowledge about technology trends

#### Experience in Financial Management/modeling

- Implemented Public Private Partnership.
- Financial project appraisals, viability analysis, etc.

#### Experience in Project Management



- Project Management and Overall Administration
- Proper Monitoring of the project/ Feedback & Regular review
- Project implementation

***D. When and how the PEMT would be constituted***

Constitution of PeMT is seen critical for taking up the individual departmental e-Governance initiative. PeMT should be constituted before taking up any e-Governance project in the State. However, formation of PeMT may not wait till SeMT formation. However the cost of PeMT would be approved as a part of overall project approval under NeGP. If the State Govt. desires to take up any Departmental project immediately, it can do so and not wait till the formation of SeMT and send a DPR / project Proposal to Government of India.

The State Government may utilise the amount released by GoI as advance under ACA (Capacity Building) towards preparation of DPR.

Adequate funds are being requested to GoI under this Capacity Building DPR for preparation of DPRs/Proposals for the concerned departments. The advance amount released by GoI for Capacity Building, as ACA would be adjusted against the amount approved under this proposal (i.e. DPR for Capacity Building)

The State Government may take help of DIT, GoI / NISG for the selection of the agencies which could undertake the task of preparation of DPR for each Department/Project.

While constituting the PeMT it is recommended that, manpower of right domain knowledge and adequate skill set pertaining to the nature of project should be considered. An illustrative Institutional Structure has presented in exhibit 17 of this document.

## 4. ANALYSIS OF TRAINING INSTITUTIONS AND THEIR ROLE IN CAPACITY BUILDING

### 4.1 TRAINING INSTITUTION - SIPARD (AS-IS CONDITION)

State Institute of Public Administration and Rural Development (SIPARD) is a composite training institute for public administration and rural development in Tripura. The Institute has come into existence in the year 1993 and since then it has been involved in organizing training programmes for State government officials, representatives of PRIs, members of NGOs etc working in the State.

#### 4.1.1 Command control & Monitoring Mechanism

SIPARD had been functioning as a directorate under the administrative control of General Administration Department in Government of Tripura till March 2000. Since April 2000, it has become an autonomous body registered as a society under the Registration of Societies Act 1860. It functions under the control and superintendent of a Governing Body that consist of senior officials of the State Government, academicians, and representative of PRIs. The Governing Body is chaired by Chief Secretary, Tripura and an executive committee has been formed under the Chairmanship of Chief Secretary to take quick policy decisions. The executive committee consists of senior officials of the State government. The day-to-day management is looked after by Director, SIPARD and a team of officials consisting of Deputy Director, faculty members and other supporting staff.

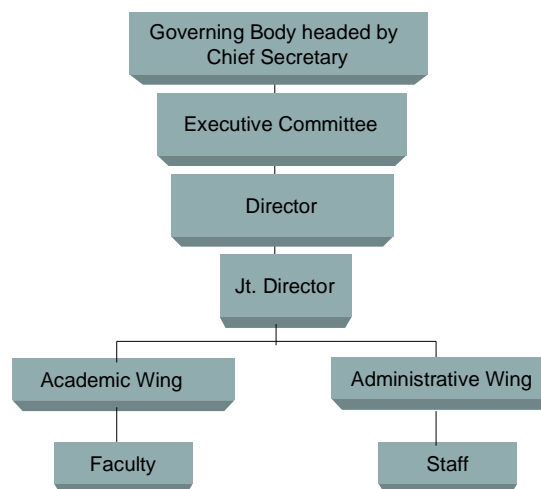


Exhibit 18: Organization Structure of SIPARD

#### 4.1.2 Objective of the Institute

- To provide training to the State government employees of all departments

- To cater to the training needs of all departments of Government of Tripura
- To evolve as the centre of excellence in training and research related to tribal and rural development in the North Eastern Region
- To become a nodal agency of networking with other similar organization both within and outside the State, Government departments, NGOs, PRIs etc.
- To develop quality and efficiency in government organizations.
- Research and evaluation of government schemes in rural and tribal development
- To provide computer education

#### **4.1.3 Infrastructure**

For organizing the computer training the Institute has a computer laboratory having one dual processor (PIII, 650 MHZ) server with 24 nodes (PIII, 650 MHZ) of Compaq make, which are networked together. The Institute has Internet connectivity through an FTDMA VSAT installed by NIC.

#### **4.1.4 Existing Faculty**

The Institute has five faculty members having specialization in different areas i.e. Public Administration, Gender Issues, Rural Development, Social Development and Computer Application. Faculties undertake research and evaluation work in their respective area of specialization.

Faculties also under take compilation of various laws, govt. circulars/instructions/guidelines etc. which are useful to the government functionaries and people.

However, there is no faculty for IT training.

#### **4.1.5 Activities of SIPARD**

Since its inception, the institute is trying to adopt itself to the socio-economic conditions, incorporating the latest technological changes in its curriculum on subjects like Computer Education, research and evolution studies. The institute also publishes newsletters, books, compendium etc on various subjects.

SIPARD organizes training for the following category of people.

- Government officials
- Non-government organizations
- Representatives of PRI

The training programmes are designed to meet the requirements of different departments. However, the main emphasis is given on subjects related to rural development, tribal welfare, general administration and management, computer education etc. The training programmes conducted by SIPARD is generally sponsored by DOPT, Government of India, Ministry of Rural Development, Government of India, Tribal welfare department, Government of Tripura, General Administration Department, Government of Tripura and other State government departments

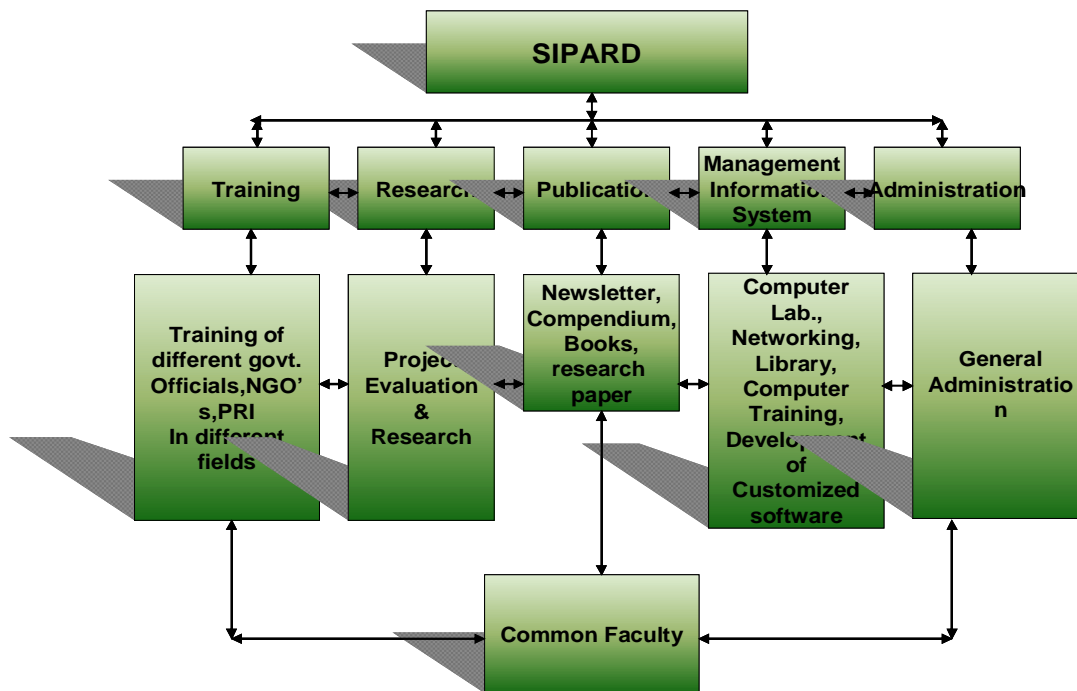


Exhibit 19: Activities of SIPARD

#### 4.1.6 Computer Training

SIPARD has undertaken a few computer education courses for government employees to make them computer literate as well as to equip them with adequate knowledge of the latest computer technology available. In order to train a large number of employees SIPARD has made an arrangement to utilize the services of APTECH Computer Education. Following courses are being floated for computer training.

- Window's & MS Office 2000
- Basics of Internet & E-Com. Technologies
- Web page designing through front page 2000
- Event programming with visual basic 6.0
- Local area networking concepts with WIN-NT
- DBMS concepts with MS-Access 2000
- OOP with C++
- RDBMS concept with Oracle 8 & D2k
- Internet programming with VJ++/SUN JAVA 2

#### 4.2 OBSERVATIONS ON TRAINING INFRASTRUCTURE

The analysis of the institutional framework for training has thrown up some insights into the ability of the State of Tripura to build capacity. It is to be noted that the following are the gaps identified in the training infrastructure of the state:

- There is no focus on e-Governance per se in the institution. Some IT awareness training is being conducted, but the other relevant areas for managing an e-Governance projects are not covered.
- There is no co-coordinated effort or plan to provide adequate training to all the existing staff. This is because of the lack of a proper training plan in the departments.
- The content of the various training programmes have not kept pace with the changing environment. For example, various success models of e-Governance initiatives happening across the State shall be introduced to the Government staff so as to sensitize and encourage them to take up similar projects.
- Most of the training is given in advance of the necessary hardware and software being procured. This results in the skills learnt being forgotten due to lack of application.
- The training duration is based on cost rather than effectiveness
- There is no review mechanism in place to ensure that the person undergoing the training has imbibed the content. This allows the participant to take the training lightly
- Motivation of both the participants and the trainers is very important. It is imperative that the trainers feel the need to update themselves on the various changes in their core area while the participants feel the need to make the best use of the limited opportunity they get.

To bridge the existing gap between the training needs and the available capacity it is recommended that:

*Training & Education are two separate entities. The primary emphasis of the institution shall be on the training needs of the existing staff. The training institute shall be a harbinger of change and not a mere training centre*

- The capacity of the SIPARD needs to be augmented both in terms of infrastructure and manpower. It would be desirable for the Government to entrust an agency to provide the required trainers for the ToT programmes. The selection of the participants shall be motivated enough to carry on the initiative for the entire project period. This shall be done by various programmes like
  - Foreign study tours
  - Honorarium to the trainers
  - Certifications & Weightage in the promotion evaluation etc.

Some of the indicative criteria for the selection of trainers are:

- Communication & Presentation Skills
- Knowledge of English & Bangla
- Health etc.
- Detailed training need analysis of individual departments should be carried out.
- Define a training policy for the state.
- Make use of both the manpower and infrastructure available with private training institutions to provide the requisite training on a turnkey basis.
- The network of CICs and the proposed VSC's in the state should be leveraged to effectively widen the reach of training delivery sites.
- Leverage the knowledge gained from successful implementation of e-Governance initiatives in the country through;
  - Conducting tours for senior govt. officials and political leadership of the state to successful e-Governance sites.
  - Case studies and discussions on successful operational models.
  - Seminars and discussions with successful implementers.

### 4.3 TRAINING & CHANGE MANAGEMENT NEEDS

#### 4.3.1 Immediate Training needs

The existing and immediate training needs for the State are:

*Change cannot be forced on people but rather has to be facilitated. Training on how to facilitate this change therefore attains importance.*

- Project based training to users.
- Refresher training every year
- Change Management training to all gazetted officers in the State so that they can drive the e-governance projects in their department. It is have been observed that there are pockets of resistance to e-Governance due to the following factors:
  - Little knowledge of essentials of e-Governance
  - Minimum technology exposure
  - Lack of in-depth understanding of the benefits
  - An adjustment to new way of working

- “What’s in it for me?” factor

Keeping in view the proposed EGRM and institutional structure, the training needs and skill enhancements requirements will vary for different levels.

#### **4.3.1.1 Policy maker level**

The skill enhancement and training needs for the key Policy makers of the State are to be given at two levels – the political and bureaucratic levels.

##### **A. Political level:**

1. Principles of e-Governance
2. Process reforms using IT/ Benefits of IT
3. Best practices and case studies
4. E-legislation insights and cyber laws

##### **B. Bureaucratic level:**

1. Working knowledge training in:
  - a. Government Process Re-engineering (GPR)
  - b. Public-Private-Partnerships
  - c. Technology architecture and standards
  - d. Program development, Project selection & Management
  - e. Financial modeling
  - f. Change management
2. e-legislation insights and cyber laws
3. Awareness on issues related to e-Security
4. Best practices case studies and international models

#### **4.3.1.2 SeMT**

The members of SeMT (within the government) and senior officials of the government from have the following training needs:

- Leadership
- E-Security
- Government Process Re-engineering
- Program Management
- Project management
- Usage of interoperable and scalable frameworks

- Introduction to NeGP

All the members of SeMT need to develop skill-sets to handle the issues of overall policies, strategies, technologies, common infrastructure etc. in an effective manner. The training need is also dependent on the knowledge and skill set that will be available with the member. The areas of training for SeMT are:

- Principles of e-Governance
- Boundaries and coverage of e-Governance
- E-legislation insights and cyber laws
- Gap Analysis
- Program management with emphasis on change management
- Project evaluation and award
- Project monitoring and control
- Technology management
  - IT Trends in the industry linked to selection, acquisition, development, and installation of major information systems
  - IT security
  - System Administration
  - Networking
  - Standards for systems, applications and processes required for program management
  - Holistic overview for interoperable, standardized and scalable systems in the State
  - IT policy and standards relating to the interdependencies, overlaps, conflicts, standards, architecture, security, legal aspects etc.
- Financial management
  - PPP models
  - Outsourcing
- Change management
  - Government Process re-engineering
  - Best practices



#### 4.3.1.3 PeMT

PeMT and departmental IT committees will both be responsible for implementation of the project. The training needs are similar, but training needs will vary from department to department and project to project. The training needs are:

- Project Management
  - Project plan integrating timelines, roles and responsibilities
  - Monitor/track and report status regularly
  - Develop communication plans
  - Monitor SLAs with vendors
  - Establish project control mechanisms like responsibility matrix, escalation matrix, etc.
- Technology related issues
  - Network design and related issues
  - Testing & Quality
  - System administration
  - IT Security
  - Project based training
- Change management
  - Business Process Re-engineering
  - Department specific change management issues

#### 4.3.1.4 Other Government Employees

The training given to the government employees at present is basic computer awareness training. Apart from this there is also a need for:

- Advance computer training for individuals who use computers more frequently
- Training in specific software for end users
- Training in systems administration
- Project based training

## 5. TRAINING STRATEGY

### 5.1 STRATEGY FOR STATE CAPACITY NEEDS

Before evolving the training strategy, it is imperative to look into the existing capacity gaps in the State. The following are the capacity gaps and the mechanism for bridging the gaps:

#### *A. Lack of Personnel with appropriate background and aptitude*

E-Governance initiatives ideally require a right mix of domain experts from the State Government, IT savvy resources and e-Governance champions from within the State and also professionals and industry experts from the Private sector in specific skill areas. GoT requires a healthy mix of resources from within the State government and professionals from external agencies with appropriate background and skill sets would be helpful in prioritizing, conceptualizing, developing and managing the e-Governance projects. The areas of expertise identified as being necessary for handling program/ project level issues are:

- Program Management
- Project Management
- Change Management
- Financial Management
- Technology Management

A judicious mix of two approaches would cover this gap:

- Sourcing of carefully selected personnel from government, PSUs or any State agency or central agency, with required background and experience
- Sourcing personnel from the private sector

Please refer section 3.5.1. on hiring resources from outside the Government.

#### *B. Inadequate skill sets within the Government*

This gap would largely be addressed through training, leveraging the training infrastructure of the Capacity Building Institutions of the State.

#### *C. Lack of appropriate institutional framework to handle NeGP*

An institutional framework for e-Governance is proposed in this document.

### 5.2 STRATEGY FOR TRAINING NEEDS

The following specific suggestions are being made to enable a successful training effort in the State of Tripura:

|   |  |
|---|--|
| 1 | Develop a training policy for the State which should address the requirements of e - Governance. |
|---|--|

|    |   |   |
|----|---|---|
| 2  | Set up a dedicated e-Governance training facility in the State. For this upgrade the capacity of SIPARD and a schedule should be chalked down for inviting the external people for training.  |   |
| 3  | Upgrade present infrastructure in SIPARD to conduct e -Governance trainings .   |   |
| 4  | Invite trainers from outside (from NISG, Technical institutes, Private companies, B -schools) on regular basis for specific training needs. As mentioned earlier the Government can consider entering into an agreement with aforesaid agencies for visiting faculty on regular basis.  |   |
| 5  | Tie up with private institutes and other institutes on turnkey basis to provide the training. (Please refer Annexure II for a list of requirements which the private institutions would have to satisfy for the qualification)  |   |
| 6  | Appoint one training official in each of the 40 blocks (teacher, govt. official etc.) who will identify and coordinate training needs in the blocks.<br>These officials will do the work on part-time basis in addition to their regular responsibility. Separate training programs will have to be arranged for these officials to sensitize them to the training needs and their responsibilities |   |
| 7  | Use schools in District Headquarters as classrooms for training. The other infrastructure and faculty support can be provided by SIPARD.  |   |
| 8  | All the training provided should be linked to certifications, which establishes will persons credentials and identifies the individuals' specific skill set.  |   |
| 9  | Conduct study tours for senior officials to e-governance sites in India and abroad  |   |
| 10 | Assign responsibility to look after all training needs of the State to an officer from SIPARD.  |   |
| 11 | Establish a Training Need Analysis mechanism  |   |
| 12 | A feedback process should be institutionalized in form of performance appraisal, dipstick surveys, external surveys and 360° feedback to create ample feedback so that areas that require more focus and improvement can be found out   |   |
| 13 | The training approach should include  |   |
|    | A   | Demo at excellence centers                            |
|    | B   | Panel discussions                                     |
|    | C   | Classroom sessions                                    |
|    | D   | Case studies and presentations                        |
|    | E   | Visits to e-Governance sites                          |
|    | F   | Discussions with successful e-Governance implementers |
|    | G   | Seminars by e-Governance gurus                        |
|    | H   | One-on-one with heads                                 |
| I  | Documentaries on successful e-Governance projects   |   |

Exhibit 20: Strategy for training

### 5.3 STRATEGY FOR TRAINING NEEDS AT VARIOUS LEVELS

The training strategies for different levels are:

#### 5.3.1 Policy Makers Level

| Training needs and levels   | Training Strategy   |
|---|---|
| Principles of e-Governance  | Study tours/ Seminars by e-Governance gurus, Academicians, and experts (Some of the programs have to be conducted in local language, i.e., Bangla & Kokbarak) |
| Process reforms through IT/ Benefits of IT  |   |
| Best practices, case studies and international models   |   |
| Working knowledge training in GPR, PPP, Technical Architectures and standards, program development ,financial modeling, change management ,e-legislation insights and cyber laws, IT Security | Training programs at NISG/ tie-ups with reputed private companies & B-Schools   |

Exhibit 21: Training Strategy for Policy Makers

#### 5.3.2 SeMT/DIT senior officials

| Training needs and levels   | Training Strategy  |
|---|--|
| Leadership  | Leadership training at institutions like NISG, premier B- Schools etc.   |
| e-governance principles, e-legislation insights, e-governance trends, Introduction to NeGP  | Study tours / training program by NISG/ other Govt. institutes/ Seminars |
| Program Management - project management, monitoring & control.  | Tie-ups with IIPA, premier B-Schools etc                                 |
| Financial management- PPP models, outsourcing, need analysis, vendor selection etc  | Govt. institutes outside State/ Private institutes                       |
| Technology management- IT Trends, standards for systems, scaleable models, IT Security, interdependencies, overlaps, conflicts, standards, architecture, security, legal aspects etc. | Tie up with reputed private companies / private training institutes      |
| Change management- GPR/ best practices  | Govt. institutes outside State / Private institutes                      |

Exhibit 22: Training Strategy for SeMT / DIT Senior Officials

### 5.3.3 PeMT / CIO & CTO level

| Training needs and levels   | Training Strategy   |
|---|---|
| Project Management - project monitoring/ tracking, timelines, communication plans, SLAs, project control mechanisms, escalation matrix etc. | SIPARD/ Govt. training institutes outside State & Private training institutes on turnkey basis  |
| Technology related issues - network design, IT security, testing and quality, system administration, Project based training                 | SIPARD / Govt. training institutes outside State & Private training institutes on turnkey basis |
| Change management- GPR  | SIPARD / Govt. training institutes outside State & Private training institutes on turnkey basis |
| Financial Management - Financial modeling & Sustainability, Fiscal monitoring & Budgeting, PPPs, Inventory Tracking                         | SIPARD / Govt. training institutes outside State & Private training institutes on turnkey basis |

Exhibit 23: Training Strategy for PeMT / Department Senior Officials

### 5.3.4 Line Departments & HoDs

| Training needs and levels  | Training Strategy   |
|--|---|
| Project Management - project monitoring/ tracking, timelines, communication plans, SLAs, project control mechanisms etc. | SIPARD/ Govt. training institutes outside State & Private training institutes on turnkey basis  |
| Technology related issues – Awareness on IT security, technology trends and future roadmaps                              | SIPARD / Govt. training institutes outside State & Private training institutes on turnkey basis |
| Change management- Handling Change management, Specific Business Process Re-engineering                                  | SIPARD / Govt. training institutes outside State & Private training institutes on turnkey basis |
| Financial Management – Budgeting & Funding, ROI calculation  | SIPARD / Govt. training institutes outside State & Private training institutes on turnkey basis |

Exhibit 24: Training Strategy for Line Departments & HoDs

### 5.3.5 Other Government EMPLOYEES (Grade C, Grade D)

| Training needs and levels   | Training Strategy   |
|---|---|
| Basic computer literacy training  | SIPARD / Govt. training institutes & Private training institutes on turnkey basis/ Use of schools and District headquarters as classrooms |
| Advance computer training for individuals who use computers more frequently |   |
| Training in specific software for end users                                 |   |
| Training in systems administration  |   |
| Project based training  |   |

Exhibit 25: Training Strategy for other Government employees

## 5.4 TRAINING CURRICULUM

A programme of continuous improvement action learning has to be initiated to have good retention levels. The training itself should focus mostly on practical work and hands on activities. It would be administered in Bangla and English and special care should be taken to demystify the technology and to present the concepts in a very simple manner. The training shall be a learner and activity oriented with emphasis on activities which are life related or from

the day to day job environment. The content of the training will vary drastically across the user group.

The training needs mentioned above have been categorized into various training courses, and the training curriculum for these courses along with the approximate duration is given in the following table:

| Target Audience  | Training Course                          | Training Curriculum  | Outcomes  | Duration |
|--|--|--|---|----------|
| Politicians  | Orientation Program on e-Governance      | Principles of e-Governance, Process reforms through IT/ Benefits of IT, e-legislation, cyber laws, Best practices, case studies and international models, Critical Success Factors, Alignment of Governance agenda with e-governance initiatives | Sensitization to e-governance   | 1 Week   |
| Senior Bureaucrats                                     | Orientation Program on e-Governance      | Working knowledge training in GPR, PPP, Technical Architectures & standards, program mgmt., financial modeling, change management ,e-legislation insights and cyber laws, IT Security  | Clear understanding of: basics of e-Governance, the need for vision, mission, specific objectives for an e-Gov initiative     | 1 Week   |
| Politicians / Senior Bureaucrats / Line secretaries    | Study Tour of Leading e-Governance Sites | Interaction with e Governance Champions of the State, knowledge sharing, analysis of best practices and department application, standardization and integration aspects  | Exposure to best practices and success stories. Sensitization to common pitfalls  | 5 days   |
| Senior Bureaucrats / Line secretaries/ SeMT officials. | e-Governance Champions Program           | Leadership Training, Change Management, Business Process Reengineering, Business Transformation , e-Security and Standardization and best practices and success stories.   | Preparing e-Governance champions for the State  | 14 weeks |
| SeMT / PeMT members / Senior officials                 | Project Management                       | MS Project, soft skill development, task breakdown, preparing action plans, project monitoring with respect to milestones set, Project Development Methodology, legal aspects etc.   | Develop capabilities to manage large and complex e-Government projects<br>Clear understanding of tools for project management | 1 week   |
| SeMT members/ Senior officials                         | Technology Management                    | Technology management- IT Trends, standards for systems, scaleable models, IT Security, project interdependencies, overlaps, conflicts, standards, architecture, security etc.   | Clear understanding of the technology subjects  | 1 week   |
| SeMT members / Senior officials                        | Financial Management                     | Financial management- PPP models, outsourcing, need analysis, vendor selection etc.  | Detailed understanding of :<br>PPP models<br>Risk and rewards<br>Preparation of RFPs<br>Vendor selection & outsourcing        | 1 week   |
| Trainers   | Train the trainers                       | Various training methods,  | Ability to:   | 1 week   |

| Target Audience   | Training Course                      | Training Curriculum   | Outcomes  | Duration            |
|---|--------------------------------------|---|---|---------------------|
|   |                                      | effective communication, building awareness   | train people better design training programs                              |                     |
| PeMT members / Department Officials                       | Technology Training                  | Technology related issues - network design, IT security, testing and quality, system administration   | Detailed understanding of relevant technology area                        | 1 week to 1 month   |
| PeMT members / Department Officials                       | Project Related Training             | Need based  | Detailed understanding of the relevant subject                            | 1 week to 3 months  |
| End users / department employees                          | End user training                    | Need based  | Detailed understanding of the relevant subject                            | 1 week to 3 months  |
| PeMT members/ selected IT savvy employees/System Managers | Specialized Computer Training        | Relevant technology areas like RDBMS, Database Administration, Networking, programming languages, security & other areas of needs of the department & project | Detailed understanding in the relevant subject                            | 15 days to 3 months |
| All employees of State                                    | Mindset Change and Re-orientation    | Benefits of e-Governance, motivational drive and mindset change requirement.  | Sensitization to: e-governance benefits to employees through e-governance | 3 days              |
| All employees of State                                    | Basic and advanced computer training | Basic Computer Awareness, Operational Functionalities, M.S. Office  | Working knowledge of computers  | 1 week              |

Exhibit 26: Indicative Training Curriculum

## 5.5 TRAINING CALENDAR

The following training calendar gives the indicative timelines for the various training programs that need to be conducted at various levels. Some of them are need based, and only the frequency of training is indicated here. The actual time will depend on the specific need of the projects, availability of the official, availability of training program in the institute etc.

| Target Audience   | Training Course                           | 2006 |     |     |     | 2007 |     |     |     | 2008 |     |     |     |
|---|---|------|-----|-----|-----|------|-----|-----|-----|------|-----|-----|-----|
|   |   | Q 1  | Q 2 | Q 3 | Q 4 | Q 1  | Q 2 | Q 3 | Q 4 | Q 1  | Q 2 | Q 3 | Q 4 |
| Politicians   | Orientation program on e-Governance       |      |     |     |     |      |     |     |     |      |     |     |     |
| Senior Bureaucrat   | Orientation program on e-Governance       |      |     |     |     |      |     |     |     |      |     |     |     |
| Politicians / Senior Bureaucrat / Line Secretaries                        | Study tour to leading e-Governance States |      |     |     |     |      |     |     |     |      |     |     |     |
| Senior Bureaucrats / Line Secretaries / SeMT officials / Senior Officials | Champions Program                         |      |     |     |     |      |     |     |     |      |     |     |     |
| SeMT / PeMT members / Senior Officials                                    | Project Management                        |      |     |     |     |      |     |     |     |      |     |     |     |
| SeMT members / Senior Officials   | Technology Management                     |      |     |     |     |      |     |     |     |      |     |     |     |
| SeMT members / Senior Officials   | Financial Management                      |      |     |     |     |      |     |     |     |      |     |     |     |
| Trainers  | Train the trainers                        |      |     |     |     |      |     |     |     |      |     |     |     |
| PeMT members / Department Officials                                       | Technology Training                       |      |     |     |     |      |     |     |     |      |     |     |     |
| PeMT members / Department Officials                                       | Project related training                  |      |     |     |     |      |     |     |     |      |     |     |     |
| End users / department employees  | End user training                         |      |     |     |     |      |     |     |     |      |     |     |     |
| PeMT members / IT Savvy employees / System Managers                       | Specialised computer training             |      |     |     |     |      |     |     |     |      |     |     |     |
| All employees of the State  | Mindset change and re-orientation         |      |     |     |     |      |     |     |     |      |     |     |     |
| All employees of the State  | Basic and advanced computer training      |      |     |     |     |      |     |     |     |      |     |     |     |

Exhibit 27: Indicative Training Calendar



## 6. FINANCIAL FOR THE NEXT THREE YEARS

### 6.1 SEMT & INDUSTRY SPECIALISTS

The non-government officials, who will be hired from outside Government set-up for SeMT, will strengthen the capacity of the state by bringing specific expertise in their respective fields. These people will be hired would be working on contract basis with the Nodal Agency Tripura State Computerisation Agency (TSCA). The cost of personnel to be hired from an outsourced agency along with agency charges is detailed out in Exhibit I of Annexure 3.

### 6.2 OPERATIONAL REQUIREMENT FOR SEMT

#### Hardware & Related Infrastructure

Government of Tripura is to provide the required office space for SeMT. However hardware such as computers, laptops, printer, scanner, UPS, furniture & fixtures and electrical fittings etc need to be procured for functioning of SeMT.

The cost estimates are detailed out in Exhibit IV of Annexure 3.

#### Operational Expenses

There are some recurring expenses envisaged for smooth functioning of SeMT. These expenses include office maintenance charges, telephones & mobiles, travel & transport, postage & courier, stationery & consumable, advertisement & promotions (like brochures & support materials), electricity etc. These costs will be variable in nature, as it will depend on the exact nature of use.

The cost estimate for these expenses is detailed in Exhibit II of Annexure 3.

### 6.3 TRAINING

The SeMT members will require orientation training to facilitate crystallization and discharge of the role of SeMT. The training needs and strategy has already been discussed in section 5.

**Leadership training, Program Management and Government Process Reengineering (GPR) training** is required to be given to all members of SeMT selected from within the Government. Training programs specially designed for preparing e-Governance champions is recommended. It is also recommended to **prepare CIOs (Chief Information Officers) and CTOs (Chief Technology Officers)** in all the MMP departments to drive the IT initiatives of Govt. of Tripura to its logical conclusion. It is also required to provide leadership training to 5-6 members of the Apex committee and PeMT members and DIT. Learning from successful implementation of similar e-Governance projects at other places can be used before embarking on e-Governance projects in Tripura.

## 6.4 OUTSOURCING

### Resource based

The detailed requirement for the additional resources for SeMT from outside Government is detailed in Annexure 1. In order to mitigate the risk arising from high attrition rate of technology experts, Govt. of Tripura may not engage itself in recruiting/ head hunting individual resources, for roles such as Technology Managers, Program Managers, Project Managers and Business Transformation Consultants. It is recommended that experts for the above fields would be engaged from agencies backed with comprehensive SLA on a long term basis, to support Govt. of Tripura's needs in an uninterrupted and professional manner.

### Task based

The e-Governance Road Map (eGRM) prepared for the State has covered all the Departments with a broader perspective. Initially it will be necessary, to have a thorough analysis of the existing opportunistic applications in terms of its compatibility with open standards, interoperability issues and security needs. Hence it is necessary for SeMT to engage an external agency to analyse the existing projects in the State MMPs and suggest appropriate migration/ revamping strategy.

Also SeMT is required to engage external agency/ consultants to prepare Detail Project Reports (DPRs) for State Mission Mode Projects. These DPRs would be sent to Government of India for the funding of specific projects. SeMT will advise, support and monitor the working of external agency/ consultants for preparation of DPRs. The list is provided in Exhibit VI of Annexure 3.

It is also proposed that SeMT engage need-based services of specialists in niche areas of e-Governance. Provision for a minimum number of man-days required in area of e-Governance such as Technology, Finance, Economics, Sociology, GPR and International Best practices. The cost estimate for these expenses is detailed in Exhibit V of Annexure 3.

## 6.5 ESTIMATED FUND REQUIREMENTS

Based upon the cost components explained in the previous sections, the total fund requirement under NeGP for State e Governance Mission Team (SeMT) for next 3 financial years would be as follows:

| Total Costs       |  |               |               |               |                |
|-------------------|--|---------------|---------------|---------------|----------------|
| Rs. Lakhs         |  |               |               |               |                |
| No                | Cost Components  | Year 1        | Year 2        | Year 3        | Total          |
| 1                 | Outsourced Agency / SeMT Personnel   | 93.80         | 100.30        | 107.47        | <b>301.57</b>  |
| 2                 | Operational Expenses   | 38.4          | 42.36         | 46.37         | <b>127.13</b>  |
| 3                 | Training   | 34            | 24.9          | 24.5          | <b>83.4</b>    |
| 4                 | Hardware/ Infrastructure   | 13.69         | 3.04          | 1.99          | <b>18.72</b>   |
| 5                 | Outsourcing Tasks  | 149           | 150           | 75            | <b>374</b>     |
| 6                 | Industry specialists + Advisory Committee members                              | 18            | 17.6          | 19.36         | <b>54.96</b>   |
| 7                 | Cost of IT Roadmap & CB Roadmap  | 12            |               |               | <b>12</b>      |
| 8                 | Miscellaneous (5% of total cost excluding the cost of IT Roadmap & CB Roadmap) | 17.34         | 16.91         | 13.73         | <b>47.98</b>   |
| <b>Total Cost</b> |  | <b>376.23</b> | <b>355.11</b> | <b>288.42</b> | <b>1019.76</b> |

Exhibit 28: Funding requirement for SeMT

Please Refer Annexure 3 for details of the cost break-up in all the heads mentioned in the above table.

## 6.6 NEXT STEPS

The State Government may utilise the amount released by GoI as advance under ACA (Capacity Building) towards preparation of DPR for each Department and need not wait for the formation of SeMT. The advance amount already released by GoI to Tripura for Capacity Building, as a part of ACA, would be adjusted against the amount approved under this proposal (i.e. DPR for Capacity Building)

The State Government may take help of DIT, GoI / NISG for the selection of the agencies which could undertake the task of preparation of DPR for each Department/Project AND/OR for the formation of SeMT in the State.

## 7. CONCLUSION

Since it is envisaged that all major e-Governance projects would be under NeGP Program, there is a need to “ramp-up, refocus and realign” the current training provided, with the requirements of NeGP. The nature and scale of e-governance initiatives planned under the EGRM demand a considerable enhancement in the capabilities of governments to effectively address the objectives of the NeGP.

The focus of the capacity building exercise is primarily to leverage on internal capacities and then on external capacities. This would allow the State to develop a pool of e-Governance practitioners, IT savvy resources and IT aware employees whose energies can be channelised to drive the e-Governance program of the State.

Proper capacity building will ensure that the right people with right skill sets are available in the State. Organisational motivation towards e-governance will be a critical success factor. Ultimately, successful capacity building will hold the key for successful implementation of the e-governance project.

ANNEXURE I: INDICATIVE SKILL SETS & EXPERIENCE LEVELS FOR SEMT

| SI No | Role                       | Designation             | Job Responsibilities  | Qualifications  | Experience   | No. | Requirement |
|-------|----------------------------|-------------------------|---|---|--|-----|-------------|
| 1     | Overall Control & Guidance | Chairman                | <ul style="list-style-type: none"> <li>§ Visioning</li> <li>§ Overall Control</li> </ul>  | Preferably Secretary IT   | N.A  | 1   | Part Time   |
| 2     | Operational Head           | Director                | <ul style="list-style-type: none"> <li>§ Heading the SeMT operations reporting to the Chairman</li> <li>§ Preparation of Detailed Project Reports</li> <li>§ Monitoring &amp; Evaluation of all e-Governance initiatives in the State</li> </ul>  | Preferably Director IT  | N.A  | 1   | Part Time   |
| 3     | Program Management         | Program Manager         | <ul style="list-style-type: none"> <li>§ Coordinating with various agencies for preparation of DPRs</li> <li>§ Assist departments in preparing RFPs, selecting vendors etc</li> <li>§ Project feasibility / sustainability / rollout.</li> <li>§ Initiation of e-Governance projects</li> <li>§ Assist in release of funds</li> <li>§ Project closure</li> <li>§ Post implementation audit</li> </ul> | <ul style="list-style-type: none"> <li>§ MBA with basic degree in sciences / technology</li> <li>§ PMI Certified</li> <li>§ 10+years of experience</li> </ul> | <ul style="list-style-type: none"> <li>§ Managing IT projects in public / government / private sectors involving PPP/outourcing / project management</li> <li>§ Experience in software quality and IT audit.</li> <li>§ Overall understanding of project viability including financials and technology</li> <li>§ Experience in IT program / project management – e.g., implementation of ERP in a large multi location organization.</li> <li>§ CISA certification (Preferred)</li> </ul> | 1   | Full time   |
| 4     | Program Management         | Officer on Special Duty | Job responsibilities as mentioned above   | § MBA with basic degree in Science /  | § Above mentioned experience (preferred)   | 1   | Full Time   |

| SI No | Role               | Designation                  | Job Responsibilities  | Qualifications  | Experience  | No. | Requirement |
|-------|--------------------|------------------------------|---|---|---|-----|-------------|
|       |                    |                              |   | technology<br>§ PMI Certified<br>§ 6+ years of experience   | § Involvement from start to finish of an e-Governance project at an operational level.<br>§ Experience across multiple projects (preferred)   |     |             |
| 5     | Change Management  | Head, Change Management wing | § Conducting Training Needs Analysis<br>§ Preparing Training Plans and Programmes<br>§ Evaluating Training Programmes<br>§ Co-ordinating with training institutes outside the State, B-Schools, NISG etc. | Preferably Director, SIPARD   | N.A   | 1   | Part Time   |
| 6     | Change Management  | Change Manager               | § Process Re-engineering<br>§ Project Conceptualisation<br>§ Organisational Design  | Experience in e-Governance initiatives<br>MBA with basic graduation in Science / Technology<br>10+ years of experience in Management / IT consultancy | Preparation of strategy / policy document for the State / any Government Department<br>Conceptualizing / implementing a process improvement / re-engineering initiative<br>Drafting IT strategy plans<br>Implementing e-Governance projects in India<br>Organizational Structure design | 1   | Full Time   |
| 7     | Finance Management | Head, Finance Management     | § Project Appraisal<br>§ Financial Audit  | Preferably Joint Secretary, Planning / Finance  | N.A   | 1   | Part Time   |
| 8     | Finance Management | Finance Manager              | § Business Modeling / Business Planning<br>§ Conceptualising /  | § MBA Finance or CA<br>§ 10+ years of experience  | § Developing financial models like Public Private Partnership   | 1   | Full Time   |

| SI No | Role                  | Designation        | Job Responsibilities   | Qualifications   | Experience   | No. | Requirement |
|-------|-----------------------|--------------------|--|--|--|-----|-------------|
|       |                       |                    | Preparing PPP Models / User charges model  |  | <ul style="list-style-type: none"> <li>§ Financial project Appraisals, viability analysis etc.</li> <li>§ Development of Business plans</li> </ul>   |     |             |
| 9     | Technology Management | Technology Manager | <ul style="list-style-type: none"> <li>§ Designing and deploying technical architecture</li> <li>§ Architecting of complex N-tier systems</li> <li>§ Migrating from legacy to N-tier technology</li> </ul> | <ul style="list-style-type: none"> <li>§ B.E / B.Tech / M.B.A</li> <li>§ 10 to 12 years of experience</li> </ul> | <ul style="list-style-type: none"> <li>§ Experience in technology and service intensive organizations undergoing significant transformation</li> <li>§ Designing and deploying technical architecture</li> <li>§ Experience with architecture of complex N-tier systems based on Service Oriented architecture and Object technologies in diverse technology environments.</li> <li>§ Experience in multi-tier and object oriented technologies, service oriented architecture, Client / Server, Internet / Intranet, WAN Networks and heterogeneous environments.</li> <li>§ Experience with multiple products and migrating from legacy to N-tier technology</li> <li>§ Experience with EAI software (Web methods, Biztalk etc)</li> <li>§ Experience of working in Java / Open source / .NET / J2EE etc.</li> </ul> | 1   | Full Time   |
| 10    | Technology            | Technology         | § Coordinate with system   | § B.E / B.Tech / M.B.A   | § Ability to manage and  | 1   | Full Time   |

| SI No | Role                  | Designation      | Job Responsibilities   | Qualifications   | Experience   | No. | Requirement |
|-------|-----------------------|------------------|--|--|--|-----|-------------|
|       | Management            | Officer          | <ul style="list-style-type: none"> <li>executives and trouble shooting teams</li> <li>§ Manage Hardware vendors, AMC vendors across the State</li> <li>§ Prepare SLA, SLA monitoring &amp; interventions</li> </ul>  | <ul style="list-style-type: none"> <li>§ 6 to 8 years of experience</li> </ul>   | <ul style="list-style-type: none"> <li>coordinate with system executives and trouble shooting teams deployed at multiple location.</li> <li>§ Developed cost effective strategies for infrastructure procurement, deployment, service and maintenance.</li> <li>§ Managed Hardware vendors, AMC vendors across the State</li> <li>§ Develop hardware maintenance and service models with private partnership.</li> <li>§ Preparation of SLA, SLA monitoring and interventions.</li> <li>§ Knowledge and experience of Open Standards</li> <li>§ Good Negotiations and communication skills.</li> </ul> |     |             |
| 11    | Technology Management | Security Auditor | <ul style="list-style-type: none"> <li>§ Need based</li> <li>§ Conducting security audit with respect to Information System, policies, procedures and processes of all the e-Governance projects implemented in the State.</li> <li>§ Performing quality analysis for all managed</li> </ul> | <ul style="list-style-type: none"> <li>§ B.E / B.Tech / M.B.A with 10+ years of experience</li> <li>§ Experience in conducting BS7799 assessments</li> <li>§ Certifications like CISA, CISSP, BS7799 LA / BS 7799 Implementor</li> </ul> | <ul style="list-style-type: none"> <li>§ Conducting security audit / technology risk assessments</li> <li>§ Monitor compliance with information system and security policies, procedures, processes.</li> <li>§ Review control over workstations, LAN, database administration, technical support, systems development etc</li> </ul>  | 1   | Part Time   |



| SI No | Role | Designation | Job Responsibilities  | Qualifications | Experience   | No. | Requirement |
|-------|------|-------------|---|----------------|--|-----|-------------|
|       |      |             | firewalls<br>§ Penetration testing & vulnerability analysis of the production environments. |                | § Remote management, configuration and monitoring of servers and firewalls, routers, and other network devices<br>§ Responsibility of fault / change management to meet SLA's and achieve customer satisfaction<br>§ Syslog analysis and security awareness<br>§ |     |             |

**ANNEXURE II : INDICATIVE REQUIREMENTS FOR SELECTION OF PRIVATE INSTITUTIONS  
FOR TRAINING**

The following are certain checkpoints that are suggested to be followed while partnering with private institutions for training purposes:

- The training institutes should have sufficient experience in delivering training on IT and e-Governance
- Institute should have experienced and dedicated staff with requisite credentials
- The course content of the training partner should be in alignment with the training requirement of the State Government
- Training institute should have spread at least till the district.
- Training institute should have sound infrastructure and feedback mechanism
- Training institute focusing on developing the soft skills of the employees should be actively considered.

## ANNEXURE III: FINANCIALS

| Exhibit I - Cost of SeMT Personnel and Agency Costs   |          |              |               |               |               |
|---|----------|--------------|---------------|---------------|---------------|
| (Rs. Lakhs)   |          |              |               |               |               |
| Role  | No.      | Year 1       | Year 2        | Year 3        | Total         |
| Program Manager   | 1        | 10           | 11            | 12.1          | 33.1          |
| Finance Manager   | 1        | 8            | 8.8           | 9.68          | 26.48         |
| Change Manager  | 1        | 6            | 6.6           | 7.26          | 19.86         |
| Technology Manager  | 1        | 10           | 11            | 12.1          | 33.1          |
| Security Auditor*   | 1        | 5            | 5.5           | 6.05          | 16.55         |
| <b>Total</b>  | <b>5</b> | <b>39</b>    | <b>42.9</b>   | <b>47.19</b>  | <b>129.09</b> |
| Back office Manpower Support Costs  |          | 8            | 8.8           | 9.68          | 26.48         |
| Out of Pocket Expenses (Travel from Agency HQ to the State, Boarding & Lodging costs, TA/DA etc.) |          | 28.8         | 28.8          | 28.8          | 86.4          |
| Misc. Costs & Profit Margin   |          | 18           | 19.8          | 21.8          | 59.6          |
| <b>Grand Total</b>  |          | <b>93.80</b> | <b>100.30</b> | <b>107.47</b> | <b>301.57</b> |

\* Part time resource

Back office Manpower Support Costs – Rs 2 lakhs per personnel ( excluding part time resource) in year 1 and 10% increment in subsequent years

Out of pocket expenses – Rs 7.2 lakhs per personnel (excluding part time resource) in year 1 and 10% increment in subsequent years

| Exhibit II - Operational Expenses |        |             |        |              |        |              |               |
|-----------------------------------|--------|-------------|--------|--------------|--------|--------------|---------------|
| (Rs. Lakhs)                       |        |             |        |              |        |              |               |
| Cost Components                   | Year 1 |             | Year 2 |              | Year 3 |              | Total         |
|                                   | PM     | PA          | PM     | PA           | PM     | PA           |               |
| Office Maintenance                | 0.4    | 4.8         | 0.44   | 5.28         | 0.48   | 5.76         | 15.84         |
| Telephones                        | 0.25   | 3           | 0.28   | 3.36         | 0.3    | 3.6          | 9.96          |
| Electricity                       | 0.1    | 1.2         | 0.11   | 1.32         | 0.12   | 1.44         | 3.96          |
| Post & Couriers                   | 0.1    | 1.2         | 0.11   | 1.32         | 0.12   | 1.44         | 3.96          |
| Advertisement & Promotion         | 0.3    | 3.6         | 0.33   | 3.96         | 0.36   | 4.32         | 11.88         |
| Stationery & Consumables          | 0.15   | 1.8         | 0.17   | 2.04         | 0.18   | 2.16         | 6             |
| Travel (Local)                    | 0.4    | 4.8         | 0.44   | 5.28         | 0.48   | 5.81         | 15.89         |
| Travel Outside the State**        | 1.5    | 18          | 1.65   | 19.8         | 1.82   | 21.84        | 59.64         |
| <b>Total</b>                      |        | <b>38.4</b> |        | <b>42.36</b> |        | <b>46.37</b> | <b>127.13</b> |

PM : Per Month

PA : Per Annum

Travel Local is purely based on requirement of the assignment to be carried out for which SeMT member etc. may require to visit different districts.

\*\*Travel outside state has been indicated for member either of Apex Council or SeMT to attain training or Workshop conducted outside State. (e.g. at NISG/DIT)

| Exhibit III - Training to Govt. Resources in SeMT & other Senior Officials of the State |        |     |      |        |     |      |        |         |      |             |
|---|--------|-----|------|--------|-----|------|--------|---------|------|-------------|
| (Rs. Lakhs)   |        |     |      |        |     |      |        |         |      |             |
| Training Details  | Year 1 |     |      | Year 2 |     |      | Year 3 |         |      | Total       |
|   | No     | CPP | Cost | No     | CPP | Cost | No     | CP<br>P | Cost |             |
| Leadership Training   | 5      | 1   | 5    | 3      | 1.1 | 3.3  | 3      | 1.21    | 3.63 | 11.93       |
| CIO Training  | 1      | 6   | 6    |        |     |      |        |         |      | 6           |
| Dept CIO Training / Project Champion Training   | 2      | 5   | 10   | 2      | 5   | 10   | 2      | 5       | 10   | 30          |
| Program Management (for SeMT)   | 4      | 1   | 4    | 3      | 1.1 | 3.3  | 3      | 1.21    | 3.63 | 10.93       |
| Financial Management like financial modeling*   | 2      | 1   | 2    | 3      | 1.1 | 3.3  | 3      | 1.21    | 3.63 | 8.93        |
| Technology Management like PMI Certification  | 5      | 1   | 5    | 3      | 1.1 | 3.3  | 2      | 1.21    | 2.42 | 10.72       |
| Change Management Soft Skills   | 4      | 0.5 | 2    | 3      | 0.6 | 1.65 | 2      | 0.61    | 1.21 | 4.86        |
| <b>Total</b>  |        |     | 34   |        |     | 24.9 |        |         | 24.5 | <b>83.4</b> |

\*These funds may be channelised for training of extra CIOs who are capable of undertaking these responsibilities.

| Exhibit IV - Hardware & Other Infrastructure for SeMT |        |     |              |        |     |             |        |         |             |              |
|---|--------|-----|--------------|--------|-----|-------------|--------|---------|-------------|--------------|
| (Rs. Lakhs)   |        |     |              |        |     |             |        |         |             |              |
| Cost Components                                       | Year 1 |     |              | Year 2 |     |             | Year 3 |         |             | Total        |
|   | No     | CPU | Cost         | No     | CPU | Cost        | No     | CP<br>U | Cost        |              |
| <b>Computer &amp; Peripherals</b>                     |        |     |              |        |     |             |        |         |             |              |
| Desktops*   | 5      | 0.4 | 2            | 0      | 0   | 0           | 0      | 0       | 0           | 2            |
| Servers   | 1      | 2   | 2            | 0      | 0   | 0           | 0      | 0       | 0           | 2            |
| Printer (High end)                                    | 1      | 0.8 | 0.8          | 0      | 0   | 0           | 0      | 0       | 0           | 0.8          |
| Printer (low end)                                     | 2      | 0.2 | 0.4          | 0      | 0   | 0           | 1      | 0.2     | 0.2         | 0.6          |
| Fax   | 1      | 0.1 | 0.1          | 0      | 0   | 0           | 0      | 0       | 0           | 0.1          |
| Scanner   | 1      | 0.1 | 0.1          | 0      | 0   | 0           | 0      | 0       | 0           | 0.1          |
| UPS   | 1      | 0.5 | 0.5          | 0      | 0   | 0           | 0      | 0       | 0           | 0.5          |
| Maintenance Costs (AMC)                               |        |     | 1.79         |        |     | 1.79        |        |         | 1.79        | 5.37         |
| <b>Furniture &amp; Fixtures</b>                       |        |     | 3            |        |     | 0.25        |        |         |             | 3.25         |
| <b>Electrical Equipments</b>                          |        |     | 3            |        |     | 1           |        |         |             | 4            |
| <b>Total</b>  |        |     | <b>13.69</b> |        |     | <b>3.04</b> |        |         | <b>1.99</b> | <b>18.72</b> |

CPU: Cost per Unit

\*Only 5 Desktops have been considered, as it is felt that SeMT Members hired from outsourced agency should carry their own laptops.

Central UPS envisaged – Hence to be of large capacity

Maintenance cost fixed at 15% of the first year hardware and infrastructure costs for all the three years

| <b>Exhibit VI - Engagement of additional Industry Specialists on a part time basis (Rs. Lakhs)</b> |                |             |             |                |             |             |               |             |              |              |
|--|----------------|-------------|-------------|----------------|-------------|-------------|---------------|-------------|--------------|--------------|
| <b>Description</b>   | <b>Year 1</b>  |             |             | <b>Year 2</b>  |             |             | <b>Year 3</b> |             |              | <b>Total</b> |
|  | <b>M<br/>D</b> | <b>C/MD</b> | <b>Cost</b> | <b>M<br/>D</b> | <b>C/MD</b> | <b>Cost</b> | <b>MD</b>     | <b>C/MD</b> | <b>Cost</b>  |              |
| Sociologist /economist   | 30             | 0.1         | 3           | 10             | 0.11        | 1.1         | 10            | 0.121       | 1.21         | 5.31         |
| Networking / IT Security   | 30             | 0.1         | 3           | 30             | 0.11        | 3.3         | 30            | 0.121       | 3.63         | 9.93         |
| Database Management Expert   | 30             | 0.1         | 3           | 30             | 0.11        | 3.3         | 30            | 0.121       | 3.63         | 9.93         |
| Business analyst   | 30             | 0.1         | 3           | 30             | 0.11        | 3.3         | 30            | 0.121       | 3.63         | 9.93         |
| Other Technology Experts   | 60             | 0.1         | 6           | 60             | 0.11        | 6.6         | 60            | 0.121       | 7.26         | 19.86        |
| <b>Total</b>   |                |             | <b>18</b>   |                |             | <b>17.6</b> |               |             | <b>19.36</b> | <b>54.96</b> |

MD: Man Days

C / MD: Cost per Man Days

| Exhibit V – Outsourcing Tasks  |          |            |           |            |          |           |            |
|--|----------|------------|-----------|------------|----------|-----------|------------|
| (Rs. Lakhs)  |          |            |           |            |          |           |            |
| Description  | Year 1   |            | Year 2    |            | Year 3   |           | Total      |
|  | No       | Cost       | No        | Cost       | No       | Cost      |            |
| Study of existing legacy / opportunity projects and suggest appropriate migration and interoperable strategy |          | 14         |           |            |          |           | 14         |
| DPR for Projects ( 6 Core Applications <sup>1</sup> + 18 departmental applications <sup>2</sup> )            | 9        | 135        | 10        | 150        | 5        | 75        | 360        |
| <b>Total</b>   | <b>9</b> | <b>149</b> | <b>10</b> | <b>150</b> | <b>5</b> | <b>75</b> | <b>374</b> |

#### Assumptions

- § Preparation of Project Proposals by Consultants will be take 3-5 months. Govt. will take up 6 Core Application Project and 3 Departmental Project each in year 1, 10 Departmental projects in year 2, and 5 Departmental projects in year 3.
- § Cost of preparing DPR for Core Application Project may be done in-house (By SeMT)
- § Cost of preparation of each Project Proposal will be approximately Rs.15 Lakhs.
- § Engagement of additional Industry specialists will be taken up in certain niche areas.
- § The engagement of industry specialists will also include specialized training session/ workshops for SeMT and other senior members of the Government.
- § The cost to Government for Outsourced Agency/ Personnel will be incremented by 10% per annum
- § The cost per man-day of Industry specialists will be incremented by 10% per annum.
- § Miscellaneous: 5% of total estimated cost.

<sup>1</sup> The core applications are e-Procurement, HRMS, Budget & Accounts Management System, Document Management System, Scheme Management System and Asset Management System

<sup>2</sup> The Departmental Applications are Agriculture, Revenue, Finance, Rural Development, Urban Development, Home, Transport, Health & Family Welfare, Employment & Manpower Planning, Power, School, Industries & Commerce, Food, Civil Supplies and Consumer Affairs, Forest, Co-operation, Planning & Co-ordination, Tribal Welfare and PWD