

FINAL REPORT

E-GOVERNANCE ROADMAP (EGRM) VOLUME II – STRATEGY & BLUEPRINT

For

GOVERNMENT OF TRIPURA



AGARTALA

May 2006

In association with



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Abstract: This document details the analysis and the recommendations of the E-Governance Roadmap (EGRM) for development of the Capacity Building Roadmap (CBRM) for Government of Tripura

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Glossary of Terms

		Definition
		Budget and Accounts Management System
2	CBRM	Capacity Building Road Map
		Community Information Centres
4	Core Applications	Those applications which are common for all departments
		Common Service Centres
6	Departmental Applications	Those applications which are specific to the department
		e-Governance Road Map
8	G2B	Government to Business
		Government to Citizen
10	G2E	Government to Employees
		Government to Government
12	GIS	Geographical Information System
		Government of India
14	GoT	Government of Tripura
		Head Quarter
16	ICT	Information Communication & Technology
		Management Information System
18	NeGP	National e-Governance Plan
		National Institute of Smart Government
20	PeMT	Project e-Governance Mission Team
		Point of Presence
22	PPP	Public Private Partnership
		Panchayati Raj Institutions
24	SDC	State Data Centre
		State e-Governance Mission Team
26	SFC	Service Facilitation Centres
		Service Level Agreement
28	TSCA	Tripura State Computerisation Agency
		Tripura State Wide Area Network
30	VoIP	Voice Over Internet Protocol
		Village Service Centres

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1. INTRODUCTION

In the early nineties, e-governance in India saw the use of IT for wider applications with due emphasis on the policies and on reaching out to rural areas. While the emphasis has been primarily on automation and computerization, most of the state governments endeavour to use IT and venture into various forays like connectivity, networking, setting up systems for processing information and delivering services. At a micro level, this has ranged from IT automation in individual departments, electronic file handling, access to entitlements, public grievance systems, service delivery for high volume routine transactions such as payment of bills, tax dues to meeting poverty alleviation goals through the promotion of entrepreneurial models and provision of market information. The thrust has varied across initiatives, with some focusing on enabling the citizen-state interface for various government services, and others focusing on bettering livelihoods of the citizens.

ICT intervention is just one of the pillars in meeting the developmental and governance related challenges

As per the priorities of the Government of Tripura (discussed in Volume I of this report), this report discusses the e-governance roadmap for Tripura and contains a broad direction of the initiatives planned by the state in the sectors like welfare, health, education, rural development etc. These initiatives are in line with the e-governance vision & strategy and is a balanced approach – targeting at improvement in the citizen facing processes, and also internal efficiency improvement.

1.1 STRUCTURE OF REPORT

This report contains

- Ø Priority Areas for e-Governance
- Ø Strategic Framework
- Ø Core Infrastructure
- Ø Core Applications
- Ø Departmental Applications
- Ø Government Process Reengineering
- Ø Standards and Guidelines
- Ø Institutional framework and Capacity Building
- Ø Financial Resources
- Ø Summary and Next Steps

This report provides the analysis of sectors / departments of the State Government and lays down the propositions for the future, department wise and on an overall level. This is covered under eleven Chapters:

Chapter 2: Priority Areas for e-Governance: This chapter covers the criteria adopted for e-Governance prioritisation in the State of Tripura

Chapter 3: Strategic Framework: This Chapter covers the high priority departmental applications and the core initiatives that constitutes the e-Governance strategy.

Chapter 4: Core Infrastructure: Provides an overview of the existing infrastructure and a model for the future.

Chapter 5: Core Applications: Presents an overview of existing and recommended core applications for the State of Tripura

Chapter 6: Departmental Applications: Presents an overview of individual departments in terms of existing applications, infrastructure and the roadmap for future.

Chapter 7: Government Process Re-engineering: This chapter presents the priority areas of GPR, the approach and the future steps to be taken by GoT

Chapter 8: Standards and Guidelines: Presents an overview of Standardisation in technology and platforms and guidelines for software development and integration

Chapter 9: Institutional framework and Capacity Building: This chapter presents the need for Institutional framework and capacity building for the State of Tripura.

Chapter 10: Financial Resources: Covers estimation of financial requirements and various aspects on funding strategies

Chapter 11: Summary and Next steps: Provides the big picture and the phasing out of activities planned



2. PRIORITY AREAS FOR E-GOVERNANCE

2.1 E-GOVERNANCE PRIORITISATION

The process of identification and prioritization of e-Government opportunities provides assurance that the requirement of resources for e-government are appropriately estimated and optimally used and e-Government initiatives are optimally timed, to produce significant impact in an appropriate time-frame. It also enables planning for integration /interfacing among applications. This chapter presents the process and framework for identification and prioritization of e-Government opportunities.

A study of major sectors/departments has been carried out to understand each sector/departments and their development mission, objectives, challenges and priority action areas. Major services and processes have been identified. These have been supplemented by studying the ICT initiatives currently in place or are underway. Required ICT initiatives have been identified in discussion with the key functionaries of the departments. These initiatives typically, serve the development objectives, address major challenges, and provide improved service levels/process efficiencies.

Identified ICT initiatives are prioritized using a criticality-feasibility framework, resulting in the categorization of ICT initiatives into 4 categories – Target, Pursue, Permit and Defer. The framework is described in the following sections.

Dimensions of Criticality and Feasibility

The Criticality-Feasibility approach has been used to prioritize ICT – Initiatives.

Two factors have been selected to represent the criticality dimension:

1. Intensity of felt need, reflected in the anticipated contribution to good governance and to the achievement of development objectives.
2. Alignment with other state or national ICT initiatives. An ICT initiative identified under the NeGP as a mission mode project for states would score high on criticality. Also, if the project complements or supplements other state level ICT initiatives, it scores high on criticality.

The Feasibility dimension reflects the “*do-ability*” of the project, and is based on the following five factors:

1. Availability of successful examples elsewhere and suitable software products. Initiatives already in place elsewhere, or availability of suitable standard configurable software products / packages.
2. Availability of data inputs: Initiatives where input data of acceptable quality is easily available, are more do-able. On one other hand, cases where processes for gathering data have to be strengthened, score lower.

3. e-Readiness of the sector: availability of essential ICT infrastructure and skills at all required layers in the system. Infrastructure refers to computing, local area networking, and wide area networking / Internet access
4. Safety (low risk) perception: The perception of failure points/ dependencies, and impact of failure. Example: If a project uses untried technology, it would have high risk. If a failure of the project is associated with high economic, social or political costs, it would score lower on safety. If a project requires major process reengineering improvement and change management, it would be high-risk, unless a well-thought through change management strategy is put in place.
5. Cost / Benefit perception: A reflection of the level of benefits, relative to the cost of implementation.

Scoring and Categorization of E-Government Applications

- § Scores out of 5.0 were assigned to each major ICT initiative along the criticality and Feasibility dimensions. Scores are on the basis of discussions with key persons, backed by facts to the extent possible. An average score was then worked out for each dimension.
- § Based on its scores on criticality and feasibility, each ICT initiative has been placed in the following grid

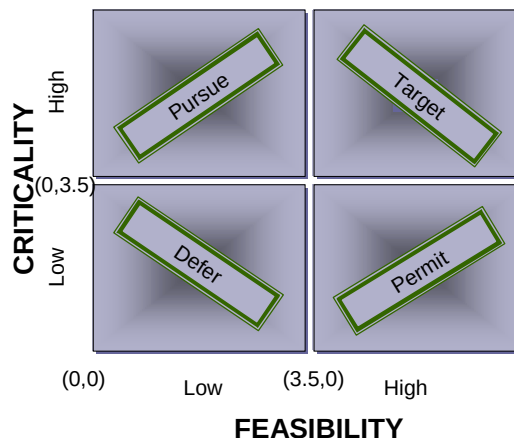


Exhibit: 1- Prioritization Framework Matrix

Target:

Initiatives with high criticality (Score >3.5) and high feasibility (Score >3.5).

Action areas for target initiatives are:

1. Immediate initiation of study, if not already initiated.
2. Focused attention and project management if already initiated.
3. Intensive effort for Scope/ Costs Estimation.
4. Funding strategies to be immediately worked out [Through budgets, PPPs, Accessing funds from GOI / External Agencies].

Pursue:

Initiatives with high criticality but relatively low feasibility mainly for reasons of lack of readiness, including /E –readiness / Risk

Action areas for 'Pursue' are: -

1. Initiation of scoping study and GPR study, followed by.
2. Conduct of change management exercises – generic and specific.
3. Plan for pilot / proof of concept implementation.

As a general rule the proof of concept pilot should be complete within one year from initiation.

Permit:

These initiatives score relatively lower (< 3.5) in criticality. However, they are more easily done, as the resources / effort requirements are relatively lower. In some cases they can leverage a larger initiative already planned in place. In others ready-to-use software products are available for use, and can be easily installed. These do not require major project management efforts.

Action areas for 'Permit' are: -

1. Initiate through a small project.
2. Fund small initiatives that are already in place for improvements.

Defer:

These initiatives at present have low criticality and low feasibility.

Action areas for 'Defer' are: -

1. Placing the initiative on 'hold' if already initiated
2. Deferring the initiative by a year or two until a fresh analysis changes the criticality feasibility scores.

It would be pertinent at this point to reiterate that the scores and prioritization are open to further refinement on the basis of new insights / concerns expressed.

Characteristics of Selected Projects

Projects selected for top priority implementation have one or more of the following characteristics:

1. Common use in several departments; or common use across sector/group members.
2. Direct interfacing with citizens for several important services covering several departments..
3. Direct interfacing with businesses for several important services.
4. Serve critical needs of departments for improving efficiency.

Prioritisation Matrix

Based on the above criterion, the rating was done out for Criticality and Feasibility. The departments/Directorates were segregated into Sectors, to relate their importance with the overall socio-economic needs of the state. Thereafter based upon the above mentioned criterion, the Priority/ Action Strategy for the department/directorates have been identified.

	SECTORS	Departments/ Directorates			Priority of Deptt. Application
1	Agriculture Sector	Agriculture	5	3.5	Target
2		Horticulture	2.5	2	Defer
3		Animal Resources	2.5	3	Defer
4		Fisheries	2.5	2.5	Defer
5	Education Sector	Education (School)	4	2	Pursue
6		Education (Higher)	4	2	Pursue
7		Social Education	3	3	Defer
8		Sports & YP	2	3	Defer
9	PR and Rural Development	Rural Development (Panchayati Raj)	5	3.5	Target
10		Tribal Welfare	4	2	Pursue
11		SC Welfare	4	2	Pursue
12	Labour & Employment	Employment Exchange	5	5	Target
13		Labour Organisation	2	2	Defer
14	Home	Police	4	4	Target
15		Fire Service	4	2	Pursue
16		Civil Defence	4	2	Pursue
17	Election	Election	3	3	Defer
18		Fire Service	3	3	Defer
19	Health	Health	5	4	Target
20		Family Welfare	5	4	Target
21	Revenue	Settlement and Land Records	4	5	Target
22		Registration	4	5	Target
23	Finance	Finance	5	3.5	Target
24		Treasuries	5	3.5	Target
25		Taxes & Excise	5	3.5	Target
26		Institutional Finance	2	4.5	Permit
27		Excise	4	3.5	Target
28	Urban Development	Urban Development	4	4	Target
29	Transport	Transport	5	5	Target
30	Law	Law	3	4	Permit
31		High Court	3	4	Permit
32	Industries & Commerce	Industries	4	3	Pursue
33		HH & Sericulture	3	3	Defer
34	Secretariat	Assembly Secretariat	3	4	Permit
35		Governor Secretariat	3	2.5	Defer
36		Secretariat Administration	3	4	Permit
37		Political	3	4	Permit
38		Administrative Reforms	2.5	4	Permit

	SECTORS	Departments/ Directorates			Priority of Deptt. Application
39	Corporation	Corporation	4	2.5	Pursue
40	Welfare	Food, Civil Supplies & Consumer Affairs	4	2	Pursue
41	Forest	Forest	4	2.5	Pursue
42	Infrastructure	Public Works Department	4	3	Pursue
43		Public Health Engineering Dept.	4	3	Pursue
44		Power	4	4	Target
45		Public Works (Water Resources)	3	4	Permit
46	Others	Science & Technology	2	2	Defer
47		Planning & Coordination	4	3	Pursue
48		TPSC	3	4	Permit
49		SIPARD	3	4	Permit
50		Printing and Stationary	2	3	Defer
51		Relief & Rehabilitation	4	3	Pursue
52		ICAT	4	3	Permit
53		Weight and Measures	1.5	2	Defer
54		Economics and Statistics	3	2	Defer

Exhibit: 2- Prioritization of Departments

Principles for Phasing of Projects

The identified projects need to be phased in order to ensure that investments are timed taking into consideration of the following factors:

- § Criticality of need and potential to make a positive impact in an appropriate timeframe. Core infrastructure and applications that can receive partial or complete GoI funding receives high priority. These include TSWAN, State Data Centre and Common Delivery Centres.
- § Quick hit projects (relatively low requirement of efforts and resources and be completed in a short time) shall also be given priority. These include Citizen Access Portal with Right to Information Compliance.
- § Interdependencies among projects, wherever applicable;
- § Financial resource requirements, for individual projects, and resource mobilization options, such as potential for PPP, or availability of GoI / external Agency source of funds.
- § Availability of management resources and focus in the concerned implementing institutions

3. STRATEGIC FRAMEWORK

High Priority Departmental Applications

The above mentioned departments/directorates which have been identified as target for e-Governance have to be taken up by the concerned Line Secretary. The immediate action under NeGP desired is to prepare a DPR for such projects. The DPR should contain a detailed study of the identified initiatives, provide a detail scope of work, identify process changes, technical solution, hardware required, total cost of the project, institutional mechanism/capacity building etc and send it to DIT, GoI for funding.

Core Initiatives

The various e-Governance initiatives requires certain initiatives to be taken up at the state level so that individual ICT projects can be built and rely upon for efficient delivery of services. These initiatives would have to be driven by the Tripura State Computerisation Agency (TSCA) / DIT and would provide a catalyzing effect in rolling out e-Governance in the state.

1. Core Applications
2. Core Infrastructure
3. Supporting Policies
4. Institutional Structure and Capacity Building

The above next steps have presented as an illustration overleaf (the numbers in the circle denote the number of initiatives identified under the particular head)

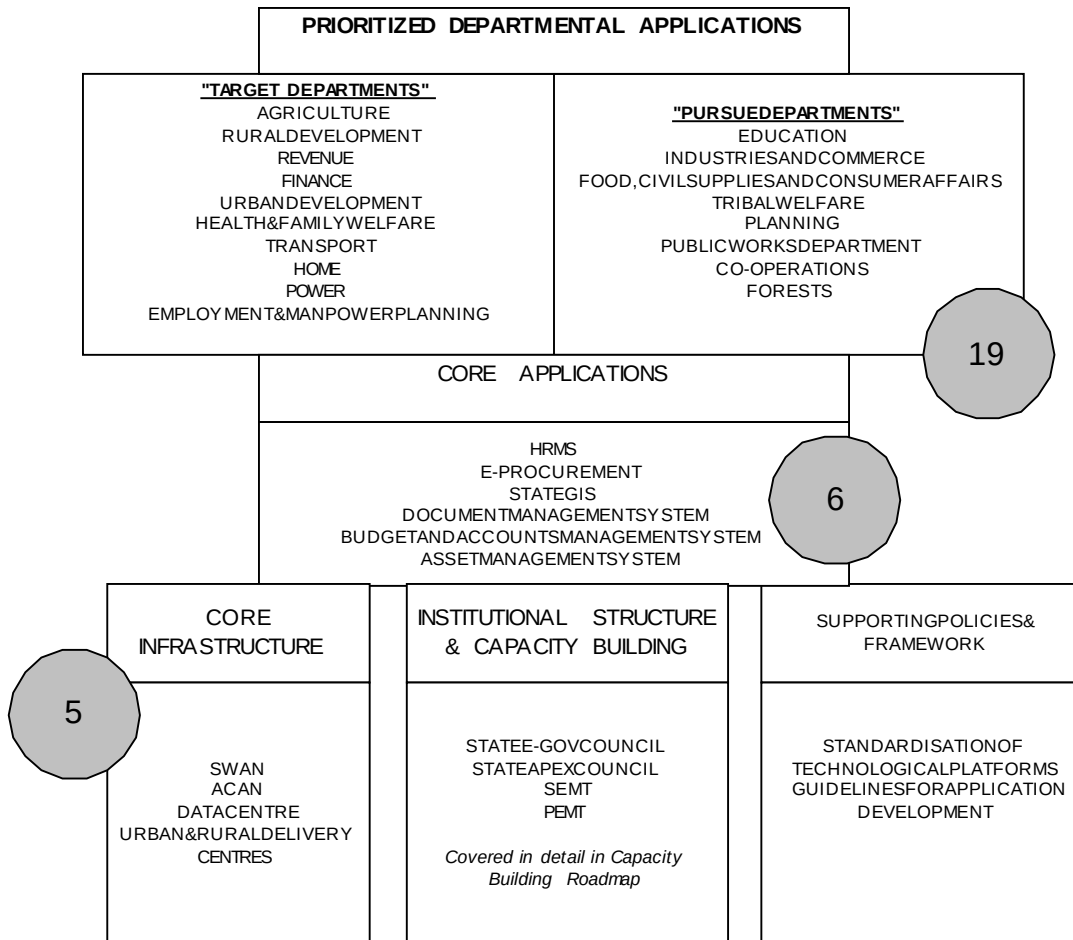


Exhibit: 3 - Identified Initiatives for e-Governance in Tripura

Each of the above mentioned initiatives have been discussed in detail in the following chapters.

4. CORE INFRASTRUCTURE

Core Infrastructure forms a backbone for the e-Governance in the state. Core Infrastructure could be used by all Government Departments and its agencies, and thereby reduce project costs for each department. Conceptually the backbone requirement for every e-Governance projects is as follows :

- Repository of all the data and applications (State Data Centres) at the back-end
- Connectivity of the back-end to all the front-ends which includes department offices (State Wide Area Network)
- The front-end delivery of services (Citizen interface Centres)

Core Infrastructure is the key to successful implementation of e-governance applications and efficient delivery of public services. Core Infrastructure availability requirement is 24X7 from anywhere in the State. The government has already embarked on the path of creating this infrastructure. The details are given below.

4.1 STATE WIDE AREA NETWORK

As in other states, Tripura has a connectivity till the district level through the NICNET. However to accomplish its vision to create as Information technology infrastructure in Tripura, which could form the basis to develop on the initiatives identified in the report, it is imperative to transform the State's telecommunications infrastructure to a converged network that leverages leading technologies and global best practices in infrastructure communication. The Tripura State Wide Area Network with a fibre optic backbone would effectively meet the voice, video, applications and data communication requirements of the State. The State Wide Area Network would help in :

- § Providing a reliable, integrated and robust telecommunications infrastructure catering to high speed, high capacity delivery of voice, data and video transmissions at a State level
- § Setting up an open standard based, interoperable, scalable network infrastructure providing a ubiquitous communication backbone for the State's distributed information processing environment in addition to enabling connectivity to the citizens and the various government departments
- § Improving the service delivery and response time to the citizens of Tripura enabling quick access to State information with no bandwidth limitations
- § Streamlining the Information Flow within the State
- § Leveraging IT for greater transparency, accountability and easier access to information

4.1.1 Requirements for the state WAN

The state requires a robust, state wide area network that meets the following requirements:

- Adequate Connectivity
- Connectivity between Agartala and district level offices.
- Connectivity from Districts to its field offices
- Connectivity to the village (cluster) level for service delivery and data uploading by Panchayats, healthcare, education, agriculture, and other service delivery institutions at the village level;
- Horizontal connectivity at each level (state HQ offices, district level offices, subdivision level / block level offices).
- Handling data, voice (VoIP), and video traffic
- Scalability capacity to grow with needs, in terms of volumes handled and types of services required.
- Reliability and maintainability- Meeting uptime requirements, dealing with difficult terrain and vulnerability to law and order problems in some areas.
- Cost-effectiveness – A function of market conditions, technology maturity, and proposed utilization of the network.

4.1.2 GOI Support for State Wide-Area Networks under NeGP

SWAN has been identified as core infrastructure for e-Government by the GOI in the NeGP. In October 2004, the GOI issued guidelines for technical and financial support for the creation of SWAN infrastructure in states. Support will be provided by the GOI for backbone infrastructure up to the block Headquarters level. Minimum bandwidth to be made available would be 2 MBPS up to the district level as well as up to the block level on a dedicated basis. The department of information technology (DIT) has earmarked an outlay of the order of Rs 1000 crores for this purpose. States would be eligible for funding support if they have undertaken the implementation of at least three major state-wide e-Government projects that require connectivity, of which at least two should have been completed. Two implementation option options are acceptable: I). Using an appropriate PPP model or ii) Using NIC as the implementation agency.

It is proposed that the state level implementation plans recommended in this report, be carried out and the existing NICNET be used for the purpose. In parallel the state Government should prepare the SWAN proposal and submit it to GoI for funding.

4.1.3 Broad overview of Tripura SWAN

The broad picture emerging is that the TSWAN would be covering all the 4 Districts Headquarters and would be connected to 15 Subdivisions and 40 Block/offices. The implementation of SWAN would be taken up in phases, first covering the District HQ and thereafter the Blocks and thereafter it may be extended upto village level based on the requirements.

The technical specifications and band-width requirement are being worked out by NIC as of now. But based on the GoI guidelines in funding the project and understanding the requirement of Tripura at a broad level, the bandwidth requirements are proposed in the Exhibit below.

			Bandwidth requirement estimation
			100 MBPS
2	Sub-Division	15	10 MBPS
			2 MBPS
4	Villages	874	256 kbps

Exhibit:4 – Bandwidth requirement for Tripura

4.1.4 Agartala City Area Network

Government of Tripura (GoT) proposes to set up a Agartala City Area Network (ACAN) to modernize the communication set up of Government to improve the Administrative effectiveness & efficiency, thus improving the Quality of public service being provided to common man and quicken the overall development of the State through improvement of Intra-Government and Government - Citizen Interfaces.

The key applications envisaged on the network are Video Conferencing, Voice and Data Communications, Value Added Networks, Help Desk for ACAN users, Information Kiosks, etc.

Agartala City Area Network consisting of 20 LANs located in different state level offices/ bhawans and interconnecting such LANs through a 11 mbps wireless (RF) media to Secretariat Campus Area Broadband LAN.

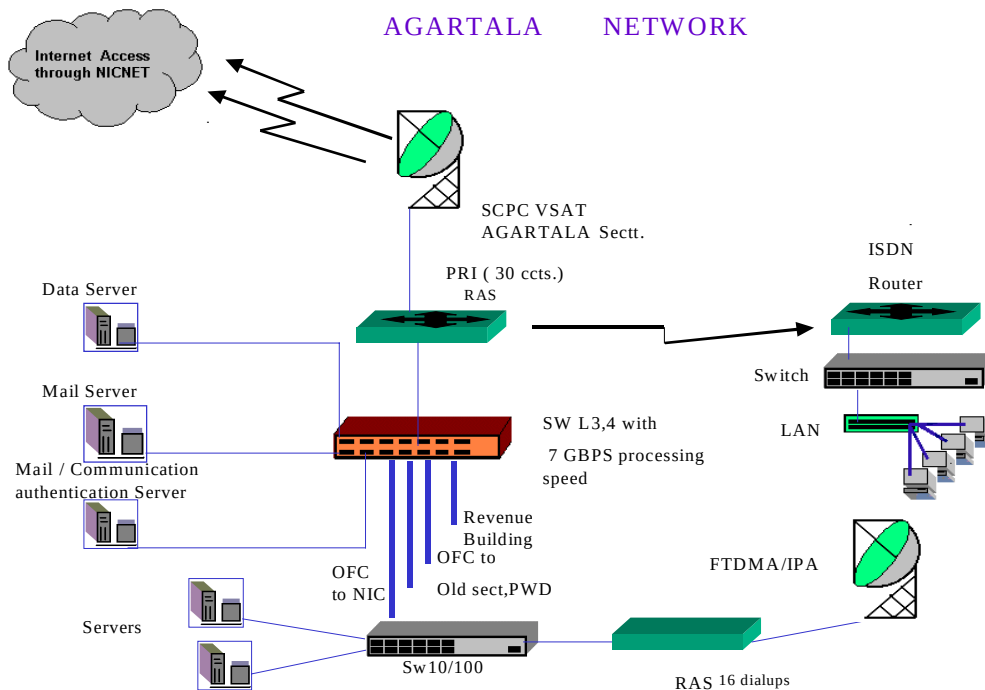


Exhibit:5 – Agartala City Area Network

4.1.5 District Headquarter Network

Based on similar concept, there are plans to develop networks in each the district headquarters. The external connectivity has been based through the NICNET, which may be replaced in future as and when the State Government is implementing the TSWAN.

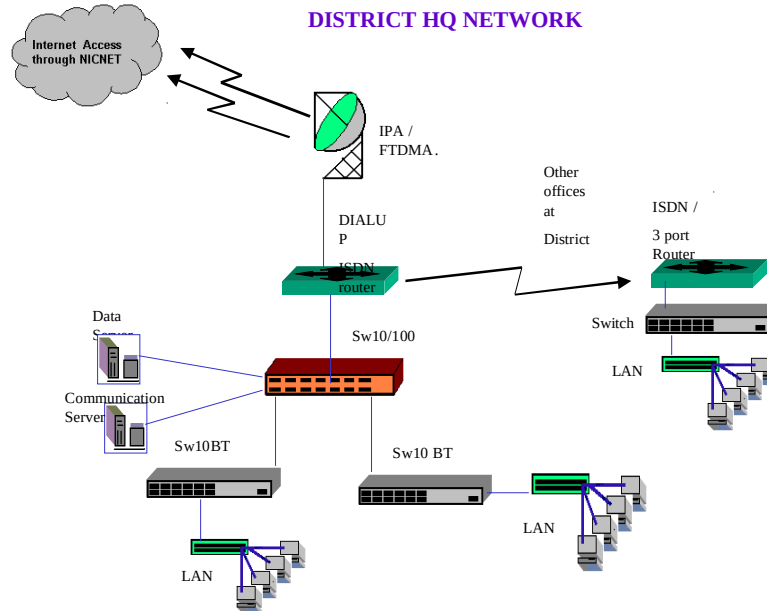
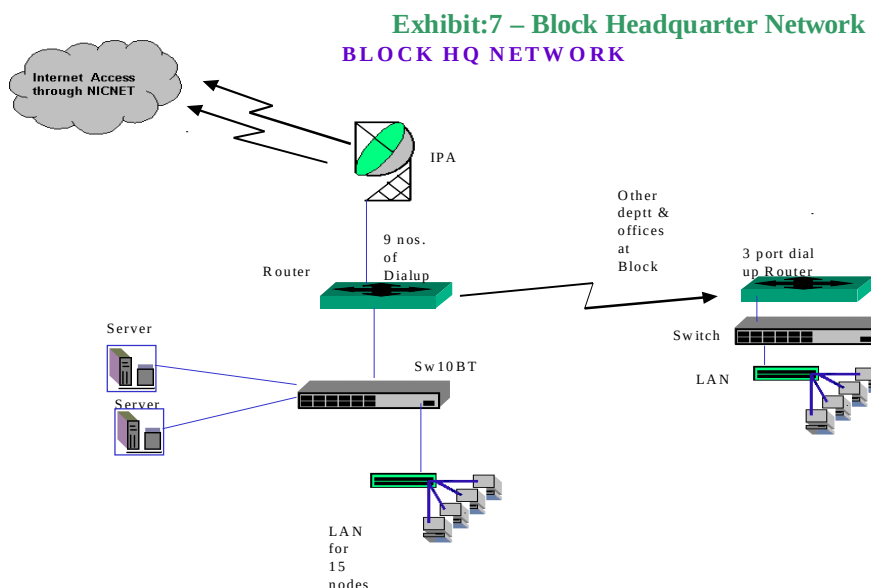


Exhibit:6 – District Headquarter Network

4.1.6 Block Headquarter Network

Similarly there are plans to develop networks in each the district Block headquarters. The external connectivity has been based through the NICNET, which may be replaced in future as and when the State Government is implementing the TSWAN.



4.2 STATE DATA CENTRE

State Data Center shall provide international standard compliant, reliable, highly available and secured computing facility to host critical statewide applications, data and websites. All users shall access the SDC through SWAN. It would result in savings on the overall cost of software platform, hardware and technical manpower. SDC will provide system hosting (operation, management and maintenance) services for the Government's central IT infrastructure and departmental information systems. It will also provide disaster recovery (DR) facilities for the Government's mission critical systems. The SDC shall also have a network control centre and a central help desk that will monitor the government-wide data network and critical network devices. The SDC shall be based on a single platform, which will be a standard platform for the state. This will facilitate statewide sharing of applications and data through a secured, uniform access interface.

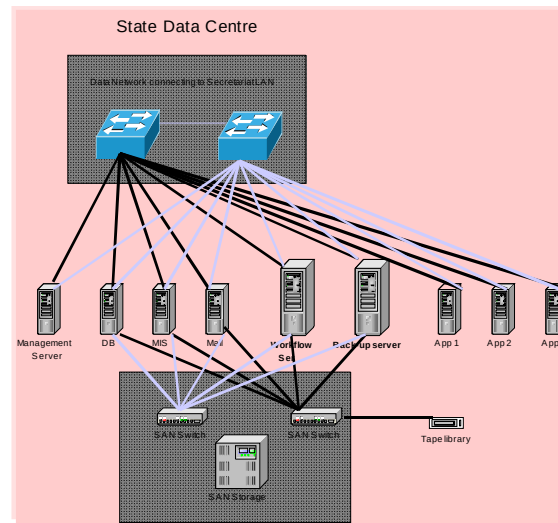


Exhibit:8 – State Data Centre

4.2.1 Need for a State Data Centre

A State Data Centre (SDC) enables the various government departments of the States to locate their IT infrastructure and host the services at the same location leading to ease of integration and efficient management, ensuring sharing of bandwidth and computing resources, and adequate security. Thus, a State Data Centre minimizes the investment in dedicated infrastructure for individual departments and the common IT infrastructure so created can be optimally used to provide a host of services.

The broad requirements for a typical data centre include facilities/site infrastructure (physical, electrical, air conditioning etc.), installation and integration of IT infrastructure (servers, telecom equipment, integrated portal/departmental information systems, software & associated databases; enterprise and network management systems, security, firewalls, networking components etc.) Establishing a State Data Centre would entail substantial investment. As e-governance applications are expected to grow, the data centre architecture should be highly

scalable and built on a solid architectural foundation that supports high availability, security and manageability. The extent to which a data centre must remain operational even when some of its resources are impaired or unavailable will greatly influence how the design objectives of Reliability, Availability, Scalability, Serviceability and also Backup, Redundancy, Survivability and Disaster Management are met.

4.2.2 GOI Support for State Data Centres

State Data Centre (SDC) has been identified as an element of the core infrastructure for supporting these e-Governance initiatives and the Department of Information Technology (DIT) proposes to earmark a significant outlay for supporting this activity.

4.2.3 Conditions for GOI Support for State Data Centres

The State should have Wide Area Networks in place providing connectivity between the proposed Data Centre site and the various Departments. Secretariat and at district and block level, wherever required.

The State would need to have undertaken implementation of at least three major state-wide e-governance projects that require creation of State Data Centre of which at least one should have been completed in order to be eligible for funding support.

The State would agree to add services of other State Govt., Central Govt. Departments. (Like Commercial Tax Collection, Passport applications) as and when the same became available and need to be hosted in the SDC

4.2.4 Recommendations on State Data Centre

Currently the Tripura state unit of NIC has a data centre. However given the current status as reflected in the e-readiness of the state, the NIC data centre is grossly under-utilised.

Given this situation, the approach suggested is as follows:

1. **Stage I:** State Government should initiate the usage of the NIC data centre.
2. **Stage II:** As and when the e-Governance perpetuates in the state, as suggested in this roadmap, the State Government should consider setting up the State Data Centre.
3. **Stage III:** Subsequently the concept of a common data centre should be applied at the district level, as there would be similar advantages of co-location of facilities for district level applications.

Data Centre (NIC, Tripura State Unit)	
1. Rack Mount Servers : 9 no.s / SAN Storage (SUN): 2 no.s	
2. Rack and accessories consisting of 42U Rack, Keyboard/Mouse, KVM Switch, Monitor, Cable accessories	
3. CISCO PIX 515E Firewall: Primary and Secondary Firewall Modules 4. Cisco 3750 Layer-3 Switch: 1 no./ Fiber optic Switch	
4. Cisco 2950 switches	
5. Microsoft Windows 2003 Server Operating System software: 3 nos. and one no. ISA software	

4.3 SFCs CICs AND VSCs¹

Government service delivery through ICT intervention must be aligned to this fact that it has to reach the citizens. Penetration of PCs and internet still continues to be a limitation factor in making e-services of Government of Tripura widely available. Designing and implementing an effective delivery system that addresses this issue of Digital Divide is one of the focus activities for Government.

Integrated Citizen Service Centres and Kiosks shall provide citizens with convenience and comfort in all transactions with the government. It will allow the public to transact business with Government and its departments round-the-clock through a diversity of access channels, in particular the Internet, easily and securely. These kiosks must be located in the areas convenient for them to approach and use.



4.3.1 Urban Delivery Centres: Service Facilitation Centres (e-Subidha)

All kinds of service deliveries addressing all departments shall happen in urban areas through the Service Facilitation Center interface (e-Subidha).

Objectives of Service Facilitation Centres

- § To significantly enhance the speed, convenience, transparency and responsiveness in citizen's interactions with Government agencies through creating a 'One-Stop-Shop' for G2C and G2B services
- § To create a shared delivery infrastructure for all government agencies and some businesses.
- § To enhance service levels significantly by adopting a Service-Oriented-Approach in providing services.

Government of Tripura has successfully implemented State Facilitation Centres (SFC) in selected locations in the State. Service Facilitation Centre started as a Single Window application in the Office of the Sub-Divisional Magistrate, Udaipur, South Tripura on July, 2000 and serviced about a lakh Citizen Request till now. The E-Subidha application being implemented in the Community Information Centres have also evolved from this SFC application. The new version of SFC, called e-Subidha SFC is based on a generalised model that makes the application suitable for implementation in government organisations, having Citizen-Centric-Interface and Hard Copy printed deliverables, with end to end workflow automation. This Web based module of e-Subidha SFC facilitates enquiring about the status of a Citizen Service Request for any particular service. The person inquiring has to select his/her District, Sub-division, the Year of his/her application, the Service for which he/she has applied for and his/her Application Serial Number. The last three information could be found on the

¹ SFCs: State Facilitation Centres, CICs: Community Information Centres, VSCs: Village Service Centres

Acknowledgement Receipt delivered from the e-Subidha SFC Counter during the Filing of Application for Service. Status would be displayed if the required information is entered correctly. A printout of the displayed status could be taken out if required.

4.3.2 Rural Delivery Centres: Community Information Centres (CICs) / Village Service Centres (VSCs)

On the same lines all service delivery in rural areas will be through CICs and Village Service Centres. The Government of Tripura have already initiated the process of setting up about 300 Village Service Centres in the State in an agreement with Drishti.com under a PPP model. The objective of CICs and Village Service Centres in rural areas are as follows:

Objectives of CICs and Village Service Centres are:

- § To bridge the digital divide between the urban and the rural sectors
- § To convert right to information into a reality through access to digital information
- § To empower people through access to global communication and information
- § To enable prompt issue of certificates, documents and application forms.
- § To ensure prompt redressal of grievances.

Currently 29 CICs are operational in Tripura. However the services provided through them are limited. To provide better services to the citizens and to ensure sustainability these may be needed to be supplemented by CIC/VSCs on PPP model in which a host of other services could be provided. The state is comparing some other relevant models like e-Seva, Sukhmani, Setu and FRIENDS in identifying the services which would be provided through these CICs.

Going ahead, these Citizen Service Centres should be rolled out across the State and more services made available on them.

4.3.3 Fitment of SFCs/VSCs with GoI CSC Scheme:

The Department of Information Technology (DIT), Government of India proposes to facilitate the establishment of a network of more than 100,000 internet enabled Information and Communication Technology (ICT) access points termed as Common Service Centres (CSC). The CSCs are meant to provide high quality and cost effective video, voice and data content, in the areas of E-Government, Education, Health, Tele-medicine, Entertainment as well as possible government and private services. The CSCs are proposed to be rolled out by end of year 2007.

The goal of the CSC Project is to empower the rural community and catalyse social change through modern technologies. With a large and heterogeneous geographical area, the private and civil society sectors are expected to play an active role in development and implementation of the CSC Project in supplementing the Governments' efforts to realise its vision for the project.

The State Governments SFCs/VSCs/CICs would be aligned with the CSC scheme so that the state could benefit from the central scheme while attempting to provide the Government services to the common citizens to the doorsteps.

4.4 STATE GIS

4.4.1 Objectives

Satellite images need to be made available as a central resource to prepare a database map with digitized demarking. Various government departments can use this base map to digitise other feature with respect to established reference points in the map and create a spatial database. GIS will require coordination of several GoT agencies to produce reliable base maps will have wide ranging applications in areas like town planning, GIS based crime analysis, hydrology, agriculture, transportation etc

4.4.2 Scope

Inputs from the following departments is crucial for the effective use of State GIS.

- § **Revenue Department:** Cadestrial plus textual Maps
- § **PowerDepartment :** Transmission and Distribution lines
- § **Urban Development Department:** Urban maps
- § **Public Works Department:** Roads, Building and other infrastructures, water resources, irrigation etc
- § **Agriculture Department :** Area under cultivation, unused land etc
- § **Home Department:** Border Areas, cantonments, checkpoints etc.
- § **Forest Department:** Flora & Fauna

4.5 STATE E-GOVERNANCE PORTAL

4.5.1 e- Pariseva, the e- Governance Portal

Government of Tripura has already initiated an e-Governance portal which is aimed at providing the e-Governance services through the web. This initiative is called e- Pariseva. The following services are provided through this portal :

1. Agartala Municipal Council
 - Property & water tax query
 - Birth & death query
 - Application forms for birth registration
 - Application forms for death registration
 - Status of application for birth & death
2. Govinda Ballav Pant Hospital
 - Hospital Management System
 - Health Service Booking System
 - Message to Patients
 - Booking Slip
 - List of Time Slots for all services
 - Details of Available Services
3. Online Blood Donor Information and Blood Bank Status

- Search for Donor of your required blood group
 - Become a proud blood donor
 - Blood stock status of Blood Banks
4. Transport Information System
5. Services from Dhalai District
- Application's Status of Extremist Violence Case
 - Services from North Tripura District
6. Land Acquisition And Awarding Status
- Verification Of Character And Antecedence Status
 - Group Insurance Case Status
 - Extremist Violence Case Status
 - Revenue Case Status
 - Arm Licence Status
 - Passport Verification Status
 - Blood Donor Information and Blood Bank Status
7. Services from South Tripura District
- Service Facilitation Centre
 - Downloadable Forms
 - District News
8. Services from West Tripura District
- Land Acquisition Case Status Online
 - Extremist Violence Case Status Online
9. Common Forms
- Citizenship Certificate
 - P.R.C Certificate
 - S.C/S.T Certificate
 - O.B.C Certificate
 - Survival Certificate
 - Income Certificate
10. Weekly Cause List of Agartala Branch
- Cause List for Court No 1
 - Cause List for Court No. 2
 - Cause List for Court No. 3
 - Cause List Archive
11. Tripura Kiosk
- Educational Information
 - Agricultural Information
 - Health Service Booking System

- Citizen Services from North Tripura District
- Citizen Services
- What's New
- Government
- Departments
- Institutions
- Other Links

12. Milk Card Issue System

- Issue New Milk Card
- For Milk Union Authority

13. Job Advertisement

- Recent Job Advertisements
- Job Advertisements Archives

14. Rural Soft

- S.G.R.Y
- Citizen Section
- Government Section

4.5.2 State Portal

As detailed out in the previous section, Government of Tripura is planning out various e-Governance services. However e-Pariseva needs further augmentation in terms of number of services and coverage of departments/sectors. This initiative, which would seek to establish a comprehensive and integrated system to cater to all the requirements of Citizen (G2C), businesses (G2B), Government (G2G) and Government employees (G2E) through their life cycle. The portal will involve integration of entire portfolio of services offered by the various levels of Government viz. State and Local.

Further as it may not be cost-effective to set up independent portals / websites for all departments, given the small size of the state and the low volume of transactions. Hence the State Government Portal would also facilitate state departments to have their relevant information and services provided from this State Portal.

However each department's website would be a separate sub-portal and would be centrally hosted. The specific information and services highlighted for each department is highlighted in Chapter 6.

4.5.3 Scope

Would cover all the departments and provide all the information about the sector (not only about the department) and would bring about considerable improvement in processes of information dissemination. Besides a host of government information, policy & procedures, tenders and forms, the Portal would aim at providing services such as payment of utility bills, filling of various kinds of returns, etc. It may be noted that all mandatory disclosure information pertaining to RTI would be available at this website.

The State Portal would be linked to departmental website/portal which would be enhanced substantially to provide the services/ information dissemination as mentioned for individual departments in Chapter 6.

4.5.4 Beneficiary Departments

All the departments of the state Government.

5. CORE APPLICATIONS

Core Applications are those applications, which address the common requirements for most of the departments within the State for e.g. salary processing, procurement of goods & Services etc. In case of any minor deviations, the processes should be standardised across the state, based on the best practices within the state Government. Based on the standardised processes the applications could be developed and rolled out across the state within a short duration. Hence Core Applications are “low hanging fruits” which could be used to achieve transparency and efficiency in some areas of Governance.

Some of the areas identified by the state Government which could be taken up as “core applications” are provided below. Each of the department taken up for the study (detailed in Chapter 6) highlights the major Core applications (functions of each core application provided below) which could be utilised in a particular department of the state.

5.1 HUMAN RESOURCES MANAGEMENT SYSTEM

The proposed system would cover all aspects of HR function through the lifecycle of an employee. It would cover functions ranging from appointment, postings, transfer, payroll, seniority and other administration matters in order to streamline the whole process.

An initiative in this regard has already been taken by the Govt. of

Potential Beneficiaries of HRMS (Govt. of Tripura)	
Grade	No. of Employees
	2,910
Grade B	3,677
	70,015
Grade D	21,686
	98,288

Tripura and the proposed HRMS can be built upon this to cover other functions as well to provide an integrated solution.

5.1.1 Objectives

- § To improve productivity in the area of establishment/Human Resource Management by streamlining and automating personnel information management processes
- § To create consistent, transparent information flows for all service related processes;
- § To improve employee performance management;
- § To improve the efficiency of wage and benefits administration
- § To facilitate employees in receiving and providing personal and pay-related information. A successful implementation of HRMS will lead to the reduction

in the cost and effort in the establishment functions, that can be diverted for more productive areas of governance.

5.1.2 Scope

This Application covers the following areas.

- § Employee information management: Service matters covering recruitment, probation, transfers and deputation, promotions / seniority, disciplinary matters; Employee personal information.
- § Employee Performance and development management: Performance Appraisals; ACRs, Training Administration
- § Retirements / separations management: Resignations, Retirements.
- § Pension matters
- § Benefits Management: Leaves, Medical reimbursement / facilities, Leave Travel Concession, Loans and Advances, Employee quarters etc.
- § Pay Administration: Payroll processing, Time & Attendance Management,
- § Provident Fund, pay fixation and increments, arrears processing.
- § Service Book of employees to be online.
- § Other matters – Official Travel and Tour management, Legal employee related matters, others.
- § MIS Reports as required.

5.2 E-PROCUREMENT

The Budgetary estimate of capital expenses (including related services) for the year 2006-07 is estimated to be around Rs. 874 crores. It is estimated that around Rs. 80-90 crores of purchases could be through the e-Procurement system. The introduction of e-procurement can radically improve the efficiency and accountability of the government organizations by establishing legally regulated opportunities for registered suppliers to bid online for government contracts, either in competitive auction or individual tenders. This project would specifically achieve to automate the procurement and purchase procedures of Government of Tripura and monitoring and tracking of purchase of all goods and services by Government organizations. This would improve the efficiency and transparency of the public procurement by reducing procurement cycle times, reducing the cost of procurement, improving the quantity and quality of responses to procurement requests; and effecting savings in costs of works, goods and services.

5.2.1 Objectives

- § To improve the efficiency and transparency of the public procurement by reducing procurement cycle times, reducing the cost of procurement, improving the quantity and quality of responses to procurement requests; and effecting savings in costs of works, goods and services.

5.2.2 Scope

- § Internal workflow for approval of tendering for specific projects;
- § Web-based support for tendering including all RFx (“Request for”) processes; supplier registration; downloading of tender documents; includes rate contracts-based tendering, and simple quotation based procurement.
- § Uploading of tenders/Requests and supporting documents;
- § Recording of responses and required supporting documents
- § Support for various systems of responses to tenders including single part and multi-part bidding;
- § Support for evaluation of responses;
- § Negotiation and award;
- § Contract management
- § e-Procurement application has to be designed in such a manner - with open interfaces that
 - § it is possible to integrate it with all the Group and Departmental applications, effortlessly.
 - § Reach when fully implemented – All departments, covering Headquarters as well as district level establishments.

5.3 DOCUMENT MANAGEMENT SYSTEM (DMS)

5.3.1 Objectives

This DMS shall enable to streamline and automate Secretariat workflows in particular to improve the productivity, quality of decision making in file disposal and streamline documentation and document management by replacing paper-based documents with documents in electronic form. *An application has been implemented in lieu of this, however not used to the fullest extent due to the duplication of efforts and complexity of task of scanning the huge stock of documents.*

5.3.2 Scope

The expected benefits include reduction in time taken for file disposal, support for prioritization of work; automatic notifications and reminders, improved consistency and quality of work through knowledge management support; increased traceability and accountability. The successful implementation of this application will greatly facilitate the enforcement of the Right to Information Act, by automating the publication of information required by the citizens on the Government Portal, as required under the Right To Information (RTI).

5.4 BUDGET AND ACCOUNTS MANAGEMENT SYSTEM (BAMS)

The receipts and expenditures mentioned in the State Budget of Tripura is of the order of Rs. 3100 crores (2004-05). The budgeting and expenditure process is a very repetitive and intensive exercise, which could be done in a more professional manner through the use of an application.

This application would enable the preparation of fund requirement estimates, budget approval / modification, budget variance reports etc.

5.4.1 Objectives

To ensure efficiency in the following through the e-Governance:

- § Control of Expenditure and Ways & Means Position
- § Receipt & Disbursement of Government Funds within Fiscal Discipline
- § Ensuring timely compilation of Treasury Accounts
- § Resource Mobilization

5.4.2 Scope

The application envisages the automation of internal decision making procedures in the finance department regarding management of resources, budget and expenditure. This would assist in the improving the efficiency in Financial Management through efficient creation of database, monitoring of expenditures, receipts, debt management, etc. For regulating and optimizing various financial transactions of the Departments, the coverage should include:

- § Auditing & Financial Analysis System (for carrying out various Audits of Accounts and related activities such as Compliance, Investment Analysis, Portfolio Management, Financial Restructuring & Reformation, etc.)
- § Financial Accounting System (for collection, collation and compilation of various branch-wise and head-wise receipts and payments details and maintenance of various financial records etc.)
- § Bill Management System (pertaining to all kind of bills and their reconciliation activities)
- § Budget Monitoring System (for providing assistance during the preparation of head-wise budgets by various Departments and Agencies of State Government and monitoring all the allocated funds)
- § Bank Reconciliation Module (for reconciliation and monitoring of all the financial statements of deposits and withdrawals from various banks on daily basis by State Government Departments and Agencies)
- § Investment Monitoring System (for monitoring Department-wise and Scheme-wise status of various Investments, Surplus Funds and Savings, for planning future Investment and Capitalization and for preparation of various fiscal development plans/structures)

Budget & Resource Allocation System (to allocate the annual head-wise budgets and resources for different Departments and monitoring department-wise and sector-wise spending cycles periodically)

5.5 SCHEME FORMULATION & TRACKING SYSTEM

5.5.1 Objectives

There are various schemes of the Central and State Government for the social upliftment, employment generation, literacy campaigns etc., for which there is flow of funds from the state to various state functionaries involving various state government employees, NGOs, Local Government etc. Managing such schemes which have various donors and various types of

implementation agencies, becomes a challenge. Apart from managing the funds, the coverage of the application would emphasize on the outcomes of the spent funds as an integral component of the application.

The plan grants to Tripura are of the order of Rs. 1000 crores. Hence Scheme Formulation and Tracking application would result in higher efficiency of the funds received.

5.5.2 Scope

Consolidated Web Based System for formulating various schemes via embedded Data Analysis & Mining Tools and for managing various ongoing Schemes across the State via a set of status-based workflow, dynamic collaboration tools and interfaces for various participants, including External Agencies, NGOs, etc.

5.5.3 Beneficiary Sectors

Agriculture/ Social Development/ Rural Development/ Panchayati Raj etc.

5.6 ASSET MANAGEMENT SYSTEM

5.6.1 Objectives

Government of Tripura owns various assets in terms of land, buildings, infrastructure, plant and machinery etc which is worth Crores of Rupees. It is essential for GoT to have a grip on the tracking of these assets and the asset management system can be a good solution.

The Asset Management system is a single access portal for asset management information across Government of Tripura. It integrates and compliments existing decision support material and policy requirements and is designed to support the management of land, buildings, infrastructure, and plant and equipment assets.

5.6.2 Scope

Some of the benefits of using asset management system are :

- § Allows to automated processes instead of manually creating paper trails
- § Tracks the software assets and licenses
- § Tracks the hardware equipment
- § Provides management reports on the Government assets
- § Can provides a user interface for the people in charge of tracking assets
- § Aids in reducing total cost of ownership
- §

5.6.3 Beneficiary Sectors

All departments especially PWD, Rural Development, Agriculture etc

6. DEPARTMENT APPLICATIONS

This section covers the details of each of the identified departments, their objectives, key functions/processes, current level of e-Governance in the department and proposed e-Governance initiatives.

Methodology adopted for departmental analysis

Kick-off Meetings: were held with Senior Officials of State Government to explain the context and scope of the whole exercise, including an introduction to NeGP. The aim of these meetings was to make all the stakeholders aware of the purpose of the assignment and also prepare the ground for future interactions to identify the possible e-Governance areas.

Selection of Departments: In line with the development needs, high number of beneficiaries, GOI sponsored sector (Mission Mode Projects), along with the Directorate of Information Technology a list of 20 departments / directorates were arrived at based on the criticality and feasibility of the e-Governance initiatives.

Data Collection:

- **Primary Data:** Questionnaire template (Annexure -1) was used for collection of relevant and necessary data from various respondents during the first stage of the assignment. (Please refer Annexure 2 and 3 for the list of departments and the officers met during the study). The objective of these meetings were to
 - § Understand the role and functions
 - § Understand the core functions
 - § Current e-governance initiatives
 - § Current IT infrastructure
 - § Future e-governance initiatives planned
 - § People (number & skill sets in IT)
 - § Training requirement in IT and related areas
- **Secondary Data:** such as books, publications, gazettes, etc. pertaining to the State were also collected from various sources (Directorate of Economics & Statistics, etc.). The e-Governance Action Plan report prepared by NIC on March 2002 was referred in detail to gather information relating to the proposed design of IT infrastructure, e-Governance services envisaged etc. The report was designed within the overall framework laid down by GoT in IT policy 2000. The report considers 17 departments namely Election, Food & Civil Supplies, Revenue, Planning (Statistics), General Administration (Political, Administrative Reforms, P & T, Printing & Stationery, Secretariat Administration), Education (Youth Affairs & Sports, Statistics & Survey), Urban

Development, Rural Development, Public Works Development, Finance, Transport, Industry & Commerce, Health, Science & Technology, Police, Power and Forest.

The data thus collected from primary and secondary research were analyzed to ascertain the present capacity of the Department and the potential improvements through ICT intervention. A Gap analysis was performed with respect to the “AS-IS” IT status of the State and the Applications that need to be made operational towards realization of the e-Government Vision. The analysis culminated in e-Government Strategy and Blueprint for the departments of Government of Tripura.

6.1 AGRICULTURE DEPARTMENT

6.1.1 Introduction to the department

At the time of merger of Tripura with the Indian Union, Animal Husbandry, Fishery Wing and Horticulture were a part of the Department of Agriculture. However subsequently, Animal Husbandry and Fisheries were formed as an independent departments. Further, for effective implementation of the schemes relating to horticulture and soil conservation, a separate Directorate was created under the Department of Agriculture - “Directorate of Horticulture and Soil Conservation”.

6.1.2 Objectives of the department²

The overall objective of the Department is to attain self sufficiency in respect of food grains by way of increasing production and productivity within 10 years time (2000-2010).

Various key functions/processes of the Department

As per the table below, most of the key processes of the department are manual. As per the strategy of the Government, this sector is important as it improves the quality of interactions with the common farmers.

				Major Stakeholder		
						Citizen
1	Awareness programmes to various stakeholders like farmers, master trainers, trainers.	ü				ü
2	Input support to farmers encompassing the following: 1. Imparting knowledge on the usage and benefits of high yielding seed varieties 2. Modern farm Machineries 3. Fallow Management 4. Modern agricultural practices like Integrated Pest Management, Integrated Nutrient Management etc	ü				ü

² Annual Administrative Report 2004

				Major Stakeholder		
						Citizen
3	Quality control Post harvest technology, value addition and packaging of various agricultural produce.	ü			ü	ü
4	Marketing support like formation of APMC (Agricultural produce marketing committee), market surveillance, market infrastructure development like building of market sheds, buyer and seller platform, terminal markets etc		ü		ü	ü
5	Transportation of agricultural produce from producers to the buyers	ü			ü	

6.1.3 ICT Initiatives

Following are the details of the ICT Initiatives of the department - both AS-IS and proposed initiatives.

6.1.3.1 Current ICT Initiatives

The Department of Agriculture has taken initiative by providing information on agricultural prices from the identified markets online. However, the end users, a large number of farmers of the State are yet to take advantage from this, as only a few market places are online. Department official also face problem on receiving the data on time due to lack of connectivity.

				Delivery Channel
1	APMC Computerisation	G2C	The department currently provides inputs regarding agricultural prices from identified markets in Tripura	Web Based.

6.1.3.2 Recommended ICT Initiatives

Following are the recommended Application for the Department of Agriculture. While recommending these applications, the key information needs of the stakeholders has been considered and the emphasis on improving the back-office functions has been considered, in line with the overall strategy for the state.

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Educate farmers on applied	Krishi-	The module would cover	Web site, CICs /

technologies & best practices 2. Crop Disease Information & Prevention Information on usage of pesticides and insecticides	sahajakari (part of the State Portal)	crop disease information, usage of pesticides and insecticides. It could also cater to advertisements on latest pesticides and insecticides available in the market with communication and query redressal facility between agriculture scientists, administrators and farming community. The module should also enable the citizen to access information about various schemes implemented / initiated.	VSC / SFC
3. Information of Agricultural Produce and Market Information	Krishi – Sahayata (part of the State Portal)	The scope of this module would support the processes for sampling and data collection in the following: Area under cultivation, agricultural land utilization, area under irrigation, agricultural census and survey, harvesting related activities, rainfall statistics, prospective yield estimates, market prices etc. Connecting all important agricultural produce markets.	Web site, CICs / VSCs / SFCs

RECOMMENDED APPLICATIONS

Focused at Improving the efficiency of the Department (Back -office)

	lica		Delivery Channel
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Procurement and Distribution of farm machinery		e- Procurement	Directorate/ State HQ
3. Financial Budgeting and Accounting		Budget & Accounts Management System	Officers
4. Implementation & Monitoring of Schemes - To enable department to keep track of the applications		Scheme Formulation & Tracking System	Directorate / State HQ

received / sanctioned / disapproved, benefits extended and the status of utilization			
5. Tripura Agriculture Information System covering (a) Data pertaining to Agricultural Census whenever required - Area under cultivation, unused land etc (b) Awareness Program held for New Technology (c) Higher Management Information	GIS based Tripura Agriculture Information System		All offices
6. Document Management		Document Management System	State HQ / Directorate

6.1.4 Summary :

	1 (GIS based Tripura Agriculture Information System)
2. No. of Core Applications recommended to be used in the department	5
	Web Based and CICs/ VSCs / SFCs
4. No. of Websites as a part of State Portal	2

6.2 RURAL DEVELOPMENT DEPARTMENT (PANCHAYAT)

6.2.1 Introduction to the department

Following 73rd Amendment of the constitution of India, a new act named “Tripura Panchayats Act, 1993” was enacted in the State with a view to set up three tier Panchayat Raj system and to enable them to function as vibrant institutions of Local Self Government. In consonance with the provisions made under 73rd Amendment of Constitution and the Tripura Panchayats Act 1993, the elected PRIs were empowered with different functional, financial and administrative functions. To ensure public participation at grass root level planning and for conducting social audit, the institution of Gram Sansad and Grama Sabha have been strengthened with legal backing.

6.2.2 Objectives of the Department³

The Rural Development Department (Panchayat) have been involved in the implementation of various employment generation and infrastructure development programmes aimed at uplifting the socio-economic and living conditions of the rural poor through activities of the grass root level organization of the State.

The objectives of the Department are:

- § Encouragement of people’s participation in development through the process of grass-root level planning, formulating schemes, according sanction and execution of the works.
- § Impart training to elected representatives of Panchayat bodies to enable them to perform their functions efficiently and keeping them posted with latest happenings in the field of development

6.2.3 Various key functions/processes of the Department

As per the table below, most of the key processes of the department are manual.

				Major Stakeholder		
						Citizen
1	General Administration	Ü		Ü		
2	Co-ordinate with respective DRDAs, Block and the GoI for general matters and fund release	Ü		Ü		
3	Overall implementation of major programmes like EAS, JGSY etc through Gram Panchayats	Ü		Ü		Ü
4	Approval, review schemes selected by the Gram Panchayats	Ü		Ü		

6.2.4 ICT Initiatives

³ Reference: Annual Administrative Report 2004

Following are the details of the ICT Initiatives of the department - both AS-IS and proposed initiatives.

6.2.4.1 Current ICT Initiatives

				Delivery Channel
1	Rural Soft	G2G	Details of block wise rural schemes like PMGSY, Drinking water scheme are processed and hosted.	Web Based.

6.2.4.2 Recommended ICT Initiatives

Following are the recommended Application for the Department of Rural Development. While recommending these applications, the key information needs of the stakeholders has been considered and the emphasis on improving the back-office functions has been considered, in line with the overall strategy for the state.

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Information Providing	e-Panchayat (part of the State Portal)	Web based application providing information regarding various schemes and beneficiaries.	Web Based and CICs
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back -office)			
		lic	Delivery Channel
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Integrated management system providing program/project management function and MIS for the RD department.	Rural Development Program Management System		All RD Department Offices
3. Asset Tracking in RD Department		Asset Management Register	All RD Department Offices
4. Document Management		Document Management System	Directorate / State HQ
5. Financial Budgeting and Accounting		Budget & Accounts Management System	Officers

6.2.5 Summary :

	1 (Rural Development Program Management System)
2. No. of Core Applications recommended to be used in the department	4
	Web Based and RD Offices
4. No. of Websites as a part of State Portal	2

6.3 REVENUE DEPARTMENT

6.3.1 Introduction to the Department

The various directorates under the department are:

- § Land Revenue
- § Land Records & Settlement
- § Weights and Measures Organization
- § Relief & Rehabilitation

6.3.2 Objectives of the Department⁴

- § Registration of deeds under Registration Act, 1908 and Tripura Registration Rules, 1954 with a view to provide guarantee for the genuineness of the instrument.
- § Preparation of Record-of-Rights and maps periodically showing the latest position, rights, titles etc. over the land.
- § Ensure interest of Share-croppers and weaker sections, protection by appropriate entries in the Record-of-Rights.
- § Protect consumers interest by implementing various provisions of the Central and the State Laws on Weights and Measures

6.3.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are manual.

				Major Stakeholder		
						Citizen
1	Registration	Ü				Ü
2	Provide certified copy of the registered documents on demand.	Ü				Ü
3	Preservation of books and Indexes	Ü		Ü		
4	Preparation of monthly, quarterly Statement of transaction	Ü		Ü		
5	Collection of Stamp Duty	Ü		Ü		Ü
6	Maintaining graphical data (cadastral maps) maps of agricultural, non agricultural and urban land.		Ü *	Ü		

⁴ Reference: Annual Administrative Report 2004

6.3.4 ICT Initiatives

Following are the details of the ICT Initiatives of the department - both AS-IS and proposed initiatives.

6.3.4.1 Current ICT Initiatives

				Delivery Channel
1	Land Records Computerisation	G2C	The department currently provides computerised copy of RoR through Service Facilitation Counters	Web Based.
2	Computerised Land Acquisition Awarding System	G2C	The system processes all the mandatory stages involved in Land Acquisition -starting from initiation of proposal for the Acquiring Department to disbursement of awarded amount (compensation) to the land owner. All the forms, notices and letters relating to the process of Land Acquisition are generated by CLAAS software. The software has been implemented in North Tripura and West Tripura district. Online status of Land Acquisition Cases is available to common people over the net.	Web Based
3	Revenue Case Monitoring System (RCMS)	G2C	The Revenue cases (Case under section 95 and 96 of TLR & LR Act) are filed in the court of District Magistrate & Collector and are being processed and monitored using the RCMS software. The software generates letter to the concerned Sub Divisional Magistrate (SDM) for field level enquiry, wherever required with a copy to the applicant. The software has a provision to generate the pendency list to the SDMs once in a month. The Case Status list also generates. The RCMS has also got the option of answering public query. Online status of such cases is available over the net to citizen to know his/ her case status through CICs	Web Based

6.3.4.2 Recommended ICT Initiatives

Following are the recommended Application for the Department of Revenue. While recommending these applications, the key information needs of the stakeholders has been considered and the emphasis on improving the back-office functions has been considered, in line with the overall strategy for the state

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Allow registration of property and access to valuation documents	Registration Software (to be developed as a module of Integrated Land Record Management System - ILRMS)	Development of Registration Software having inbuilt facility to access benchmark valuation data.	SROs, (For information – internet and CICs)
2. Integration of Registration Software with Land Records and Roll Out across state.	Integrated Land Records and Registration Software (part of ILRMS)	Integration of Registration Software with Land Records and Roll Out across state.	SROs, (For information – internet and CICs)
3. Availability of land records on the internet	Land Records Website part of the State Portal	A website containing information of land ownership	Internet
4. Assistance in Disaster Management	Post Natural Disaster Relief and support assistance	Assistance in the following : - Undertaking disaster reconstruction works and coordination with other Departments - Setting-up District Emergency Operation Centres	Exclusive civil wireless network (with base stations)
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back-office)			
		lic	Delivery Channel
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Using GIS application for Land	GIS integrated ILRMS		

Records and mutations integrated with Registration function, CLAAS and RCMS			
3. Budgeting and Accounting		Budget and Accounts Management System	All Offices
4. Document Management		Document Management System	Directorate / State HQ

6.3.5 Summary

	1 (GIS integrated ILRMS)
2. No. of Core Applications recommended to be used in the department	3
	Web Based, CICs, SROs, Circle offices
4. No. of Websites as a part of State Portal	1

6.4 FINANCE DEPARTMENT (TREASURIES, TAXES & EXCISE)

6.4.1 Introduction to the Department

When Tripura attained statehood, the Finance Department came into being with two branches viz. General Branch and Budget Branch. Thereafter, Finance Establishment branch and Finance Commission cell was established. Presently, the finance department has been discharging all its functions through budget branch, general branch, and finance establishment branch and finance commission cell.

6.4.2 Objectives of the Department⁵

The objectives of the department are:

- § To maintain the financial propriety
- § To control financial management
- § To maintain check and balances
- § To frame and introduce various rules and orders in order to ensure the financial discipline
- § Preparation of budget and allocation of fund
- § To mobilize financial resources of the State
- § To control the State finance
- § To monitor financial relation between the State and the Centre
- § Regulation of retrieval branch in respect of the employees
- § Submission of memorandum of the Finance Commission of India
- § Submission of replies to all queries of the Finance Commission of India
- § Regulation of deduction of Income Tax at source

6.4.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are manual.

				Major Stakeholder		
						Citizen
1	Tax Collection	Ü		Ü		Ü
2	Collection of taxes on check posts on goods coming from outside the State.	Ü		Ü	Ü	
3	Verification of Treasury Challan	Ü		Ü		
4	Payments		Ü *		Ü	Ü
5	Receipts		Ü *		Ü	Ü

⁵ Reference: Annual Administrative Report 2004

				Major Stakeholder		
						Citizen
6	Deposits			ü		
7	Stamps	ü		ü		
8	Pensions		ü	ü		ü
9	Training to Govt. servants in accounts matters		ü *	ü		

6.4.4 ICT Initiatives

Following are the details of the ICT Initiatives of the department - both AS-IS and proposed initiatives.

6.4.4.1 Current ICT Initiatives

				Delivery Channel
1	Commercial Tax Computerisation	G2B	VCMS software (Value Added Taxes Central Sales Tax Management System) (a comprehensive package on registration, payment, filing of returns, collection of taxes, audit, and field inspections which works in a client server environment with VB in the front end and SQL at the back end) is being installed in all the sub divisional offices and in the Directorate. The connectivity through VSAT is established within the offices. At present, registration of dealers, notice and circulars, payment of tax and mail facility is being operational. The other modules in the VCMS software are expected to be operational by the end of April 2006.	Commercial Tax Offices
2	Treasury Computerisation	G2C / G2G	Computerized 'bill passing' and 'Compilation of accounts' has been functional in all the Treasuries. Connectivity between the treasuries will be established shortly.	Treasuries
3	TINXSYS project	G2G	Cross verification of all interstate transaction	Treasuries

6.4.4.2 Recommended ICT Initiatives

Following are the recommended Application for the Department of Finance. While recommending these applications, the key information needs of the stakeholders has been

considered and the emphasis on improving the back-office functions has been considered, in line with the overall strategy for the state.

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Ease of services for business class for commercial tax related affairs with department.	Online Services through the website (part of the State Portal)	Online services like - filing of returns, acknowledgement of application forms, way bill generation, tax payments, refunds, issue of tax clearance certificates, availability & status of applications, registration, audit etc. This will enable efficient service delivery to 13,489 registered dealers under VAT and 6,391 registered dealers under CST in the State.	Web Site, CIC's / VSCs / SFCs
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back-office)			
			Delivery Channel
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. MIS providing real-time data on consignment status to all registered dealers through TINSXYS and maintenance of records.	Enhanced VCMS		
3. Connecting all the departments including cheque-drawing departments for Collection of data, Budget, Preparation and Tracking, automation of internal decision making procedures in the finance department		Budget and Accounts Management System	All Offices

6.4.5 Summary

	1 (enhanced VCMS)
2. No. of Core Applications recommended to be used in the department	2
	Web Based, CICs,
4. No. of Websites as a part of State Portal	1

6.5 DEPARTMENT OF URBAN DEVELOPMENT

6.5.1 Introduction to the Department

Urban Development Department is concerned with Directorate of Urban Development, Town and Country Planning Organization and Urban Local bodies such as Agartala Municipal Council and 12 Nagar Panchayats in the State. In conformity with the provision of the Constitution (74th Amendment Act), 1992, the State Government has enacted the Tripura Municipal Act 1994. As per provisions of the relevant sections and rules, the Urban local bodies are responsible for developmental works in their respective areas under their jurisdiction. Urban Development Department is entrusted with the responsibility of formulating, co-ordinating, monitoring and evaluating the State and Central Government sponsored urban development schemes in the State.

6.5.2 Objectives of the Department⁶

The main objectives of the Department of Urban Development are:

- § Improvement of the existing Civic amenities
- § Strengthening of the urban infrastructure by implementing schemes of Drinking Water Supply, Sewerage, Drainage and Solid Waste Management.
- § Ensuring good governance and fulfilling Urban Civic needs.
- § Providing Drinking Water and Sewerage Services in the urban areas.
- § Preparing Comprehensive Development Plans for better Managing Urban Growth around cities
- § Providing Sites and Services, particularly for the Weaker Sections
- § Improving Infrastructure in the Urban areas.
- § Priority is given to Urban Housing for providing facilities to the Urban poor/shelter-less people.

6.5.3 Various key functions/processes of the Department

				Major Stakeholder		
						Citizen
1	Urban Development works permission for building plan approvals.	ü	ü	ü		ü
2	Issue of Birth and Death Certificates.		ü			ü
3	Collection of various fees and Taxes such as Octroi, Toll tax, Parking fees etc.		ü	ü		ü

⁶ Reference : Annual Administrative Report 2004

Major Stakeholder						
						Citizen
4	Maintenance of civic amenities like lighting, garbage removal.	ü				ü

6.5.4 ICT Initiatives

Following are the details of the ICT Initiatives of the department - both AS-IS and proposed initiatives.

6.5.4.1 Current ICT Initiatives

				Delivery Channel
1	Computerisation of Agartala Municipal Council	G2C	The software processes the application submitted by Citizens. Citizens could access details of property & water tax, birth & death registrations over the net	Web site

6.5.4.2 Recommended ICT Initiatives

Following are the recommended Application for the Department of Urban Development. As this department has a high degree of direct impact on the quality of life of the citizens, focus has been to improve the quality and efficiency of the interaction. As is evident from the table below, most of the services could be provided through the website linked to state web portal.

The department has to focus on the cultural change within the department so as to be responsive to the efficient data and information available through e-Governance.

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. To provide information to the citizen	Nagar Parichalan (part of the State Portal)	A Comprehensive website covering the following information : - Building permissions, advertisement tax, trade licenses and court case monitoring - Grievance Redressal System - Data-bank covering a wide variety of information on the Municipality like details of Police Stations, Ambulance Services, First Aid services, Electricity Department, Telegraph Offices, Banks, Colleges, Schools, Hospitals, Medical Practitioners, etc.	Web Site
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back -office)			
-			

			Delivery Channel
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. GIS based Application to improve the planning and property tax administration.	GIS based Municipality application (part of e-Municipality)		Head Quarter
3. To plan, implement and monitor public works and facilitate preparation of superior plan and effective implementation of the plans. The application shall also cover the financial details of the projects/ works undertaken	Works Monitoring Suit (part of e-Municipality)		Offices
4. Financial Budgeting and Accounting		Budget and Accounts Management System	All Offices

6.5.5 Summary

	1 (GIS based e-Municipality)
2. No. of Core Applications recommended to be used in the department	2
	Web Based, CICs,
4. No. of Websites as a part of State Portal	1

6.6 DEPARTMENT OF HEALTH & FAMILY WELFARE

6.6.1 Introduction to the Department

The department of Health and Family Welfare strives to control, eliminate and eradicate communicable and endemic diseases and non-communicable diseases through various schemes and State plans under National Health Policy.

6.6.2 Objectives of the Department⁷

The key objectives of the Department are:

- § To create adequate health facilities (Curative & Preventive) available at the door steps of the people.
- § To educate the citizens of Tripura about prevailing health problems and method of preventing and controlling them
- § To make citizens aware of proper nutrition, potable water, infestation, basic sanitation, maternal and child health care including family planning, immunization against infectious diseases.
- § To prevent and control endemic diseases and treatment of common diseases and injuries

6.6.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are manual. The department has a high degree of interface of the rural and poor affecting their health. Hence the department has a key improvement potential in its “back-office” processing and improving the efficiency in providing health services.

				Major Stakeholder		
						Citizen
1	Proper running of Primary, Health Care centres and dispensaries.	ü		ü		ü
2	Implementation of various health welfare schemes	ü				ü
3	Programme Management for various schemes implemented under State and Centrally sponsored schemes.	ü		ü		
4	Collection, Maintenance and reporting of Health intelligence and Vital Statistics.	ü		ü		
5	Procurement and distribution of medicine	ü				ü

⁷ Reference: Annual Administrative Report 2004

				Major Stakeholder		
						Citizen
6	Drug Licensing and control.	ü			ü	
7	Construction and repair of physical infrastructure of health institutions.	ü		ü		
8	Promoting Medical Education and Training	ü				ü

6.6.4 ICT Initiatives

As this department is a critical department in ensuring one of the basic responsibilities of the Government (Health forms part State and Central Subject), the ICT interventions can play a critical part in prevention of diseases and upliftment of the health facilities in the state. Given the geographical isolation of the state, the ICT interventions would provide impetus in the quality of health services provided by the state Government.

6.6.4.1 Current ICT Initiatives

				Delivery Channel
1	Health Booking System	G2C	A web enabled software which provides advance booking facility for different types of diagnostic test and specialist consultation from the G.B.P Hospital, the State level referral hospital located at Agartala.	CICs
2	Hospital Management System	G2G	In GB Pant Hospital located at Agartala the Capital of Tripura Out door registrations, 4 clinics (medicine, Surgery, Orthopaedic & ENT) and Cash Counters are computerised. Pathology, x-ray unit, indoor registration etc is computerised. Statistical and other related information in this regard are available over net. The Cancer Hospital is also being computerised.	GB Pant Hospital
3	Online Blood Donor Information System	G2C	Citizen can search for the donors of his/ her required blood group in an area chosen. He / She can also see the stock status of blood in blood banks and provides an option to register as a voluntary donor.	Web Site
4	Telemedicine facilities	G2C	A telemedicine network is established in Sub Divisional Hospitals at Chailengta, Kanchanpur, Gandacherra & Amarpur with GBP Hospital & IGM Hospital. Further, NEC is planning to set up telemedicine centre in Sub Divisional Hospital at Dharmanagar, Kamalpur, Khawai and RGM Hospital in Kailashahar	GBP Hospital, IGM Hospital, RGM Hospital, Tripura Sundari Hospital and three sub divisional hospitals

6.6.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
To provide health services to citizens in remote areas	Scaling up of telemedicine facilities to rural areas	Scaling up of Telemedicine facilities and advice from the best physicians/surgeons to be made available to the rural community irrespective of geographical constraints	Web Based, Sub Divisional Hospitals, Primary Health Centres
Providing various types of information pertaining to department	Making the Health Booking System and Online Blood Donor Information System available on the State Portal		Website/Internet
Citizen Health Card		Enables to record the medical details of a patient for easy retrieval of the same in times of diagnosis and emergency.	All Hospitals
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back -office)			
		lic	Delivery Channel
1.Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Procurement and Distribution of material and consumables		e-Procurement	Headquarters
3. Financial Budgeting and Accounting		Budget & Accounts Management System	
4. Comprehensive application across all Dispensaries, PHC, District Hospitals, PHC's, CHC etc to get real time data. This system would also keep track of the details of different documents like medical cases in the department. This may be possible through enhancement/modifications in the existing Hospital Management	Hospital Management System		All Offices, Headquarters

System			
4. Implementation & Monitoring of Schemes		Scheme Formulation and Tracking	
5. Document Management		Document Management System	Directorate / State HQ

6.6.5 Summary

	2 (Telemedicine and Hospital Management System)
2. No. of Core Applications recommended to be used in the department	5
	Web Based, CICs, Hospitals Directorate / Department Offices/ State HQ
4. No. of Websites as a part of State Portal	2

6.7 DEPARTMENT OF TRANSPORT

6.7.1 Introduction to the Department

The Transport Department is responsible Road Transport System in the state by regulating the use of various categories of Motor Vehicles in accordance with provisions of Motor Vehicle Acts and Rules. The department has been maintaining close liaison with the Ministry of Railways, Ministry of road Transport & Highway and Ministry of Tele-Communication for overall improvement of all communication facilities in the State

6.7.2 Objectives of the Department⁸

The main objectives of the Department are:

- § To offer services to the public, trade and industry by way of development of road transport.
- § Proper transport facilities for passengers and goods in the State, issuing permits to different class of vehicles, licensing, registration etc.
- § To promote economic, efficient adequate and well co-ordinated transport services to the people.
- § To promote road transport facilities in the State and to connect the neighbouring States by providing Inter State Passenger Transport Services.
- § To minimize accidents on roads
- § To ensure vehicles pollution free atmosphere
- § To ensure collection and increase of Government revenue by enforcing relevant Acts and Rules.

6.7.3 Various Key Functions/Processes Of The Department

As per the table below, some of the key processes of the department are partially automated. This is mostly because of the implementation of the transport management software namely VAHAN and SARATHI, in 4 DTOs and one DTC office across the State of Tripura. The software is capable of the following functions like temporary registration, registration of new private vehicles, registration and issue of permit for commercial vehicle, transfer of ownership, addition / removal of hypothecation, challan entries of vehicles, tax collection of registered vehicles etc. VAHAN has been implemented in all the 4 DTOs and in the office of DTC, Agartala. SARATHI has been launched as a pilot phase in Agartala and will be soon rolled out through out the State.

⁸ Reference: Annual Administrative Report 2004

				Major Stakeholder		
						Citizen
1	Issue of Learners/Driving License, Fitness Certificate.		ü			ü
2	Registration of Vehicles.		ü			ü
3	Collection of Taxes and fees.		ü		ü	ü
4	Issue of National and special permits.	ü			ü	ü
5	Awareness creation on road safety and driving.	ü				ü

6.7.4 ICT Initiatives

Following are the details of the ICT Initiatives of the department - both AS-IS and proposed initiatives.

6.7.4.1 Current ICT Initiatives

				Delivery Channel
1	Vahan & Sarathi	G2C	Sarathi software is for issuance of learners driving license and Vahan is for Registration of Vehicles. The software is capable of the following functions like temporary registration, registration of new private vehicles, registration and issue of permit for commercial vehicle, transfer of ownership, addition / removal of hypothecation, challan entries of vehicles, tax collection of registered vehicles etc.	Web Site, RTO's
2	Citizen Services	G2C	Downloadable forms, Tax assessment, penalty calculation, tax defaulter list, license application status and license search	Web Site

6.7.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Computerised Registration of Vehicles		To be implemented in all RTO circles enabling Registration of vehicles (both Private and Commercial), Tax Payments, Issuing of Fitness Certificate, Granting of Permits of vehicles.	CIC/ RTO offices

2. Issue of Learners/Driving License, Renewal of Driving License in all the RTOs	Sarathi enhanced through Smart Cards	The Permanent License in Smart Card having 1MB of storage space that stores details of the applicant	CIC/ RTO offices
3. Providing Information to citizens and Grievance Redressal System	Part of the State Portal	Enable to lodge the grievances regarding the traffic / motor vehicle issues	Web Site
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back -office)			
-	lica		Delivery Channel
1.Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Financial Budgeting and Accounting		Budget & Accounts Management System	RTO Offices
3. Consolidation of Check Post Applications with Vahan & Sarathi	Integrated Transport Management System		All the RTO offices to be connected to each other

6.7.5 Summary

	1 (Integrating Vahan and Sarathi with back-end processes of the department resulting in Integrated Transport Management System)
2. No. of Core Applications recommended to be used in the department	2
	Web Based, CICs, RTO Offices
4. No. of Websites as a part of State Portal	1

6.8 DEPARTMENT OF HOME (POLICE)

6.8.1 Introduction to the Department

Internal Security and Law order are direct pointers to the robustness of the State Administrative Machinery. It is the foremost duty of the State Administration to ensure safety and security of the citizens. The State Government is committed to provide the citizens a crime free society where in perfect Law and Order exists and where all uprisings and attempts from anti social elements to create social unrest and disruption is immediately curbed. It is in light of the social criticality as well as importance from the perspective of National society, that the sector assumes a lot of importance and focus. The Home department includes Police, Fire, and Jail & Civil Defence.

6.8.2 Objectives of the Department

The main objectives of the Department are:

- § To enforce the rule of Law to provide a secured environment to all sections of society, especially the vulnerable and under privileged including women, children and minorities and maintain ethnic harmony keeping in mind the democratic secular ideals of Constitution;
- § To follow a people friendly approach, without which no goals can be achieved.
- § To achieve the rest for the merger into the prime initiative
- § To upgrade professional skills and human resources in general to prevent crime and maintain public order, while upholding human rights so that we can meet emerging challenges that may threaten to destabilize our nation, and enable us to move towards the goal of bringing peace and progress with the unstained support to the community

6.8.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are mostly manual, whereas, very few steps have been taken for automation.

				Major Stakeholder		
						Citizen
1	Registration of cases	ü				ü
2	Maintenance of Crime Records		ü	ü		ü
3	Maintenance of Payroll		ü	ü		ü
4	Procurement and distribution of stores	ü		ü		
5	Administration of Jails in the state.	ü		ü		

				Major Stakeholder		
						Citizen
6	Forensic investigation of crime.	ü		ü		

6.8.4 ICT Initiatives

Following are the details of the ICT Initiatives of the department both AS-IS and proposed initiatives.

6.8.4.1 Current ICT Initiatives

				Delivery Channel
1	Crime Criminal Information system	G2G	Stores details of the Criminals in the State.	CID Branch Office
2	Payroll	G2G	Records the attendance and pay roll details of the police personnel	District Headquarters

6.8.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Capturing and publishing all crime records in the state.	- Crime and Criminal Information System (part of the State Portal)	- Capturing and publishing all crime records in the state. - Online FIR lodging and public providing information about criminals and antisocial elements.	Web Based & CICs
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back -office)			
		lic	Delivery Channel
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Financial Budgeting and Accounting		Budget & Accounts Management System	All Offices
3. Vehicle Movement - To keep track of escort vehicles	GIS based Vehicle Management System		District Head Quarters
4. Connectivity Between all the Police Stations to - Keep a track of procurement	POLICE NETWORK covering - Inventory		

and storage of important items like weapons etc. - Information and activities of Organized gangs - Information sharing with Central Government, other state and union territories.	Management System - Crime Responder and Quick action tracker on a GIS based application		
5. Connecting all jails and handling all administration functions of jails. Welfare activities for jail inmates.	JAIL NETWORK		

6.8.5 Summary

	3 (Vehicle Management System, Police Network and Jail Network)
2. No. of Core Applications recommended to be used in the department	2
	Web Based, CICs, District Headquarters, Police Stations
4. No. of Websites as a part of State Portal	1

6.9 DIRECTORATE OF EMPLOYMENT & MANPOWER PLANNING

6.9.1 Introduction to the Department

The maintenance of industrial peace and effective enforcement of various labor enactments ensuring adequate work and safety conditions in factories and boilers and management of employment exchanges are the thrust areas of the Department of Labour.

Registration of job seekers was started in Tripura in 1957 with the opening of the first employment exchange in Agartala which was subsequently converted into sub regional employment exchange with the growth of live registers. In the year 1973, a separate Directorate “Directorate Of Employment Services And Manpower Planning” was created by merging the Directorate of Manpower with the employment exchanges.

6.9.2 Objectives of the Department⁹

The main objectives of the Directorate of Employment Services and Manpower planning are:

- § Providing promotional and motivation programme for job seekers.
- § Vocational guidance
- § Placement operation
- § Hoisting of available job vacancies in and outside Tripura through government website up to the CICs level.

6.9.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are manual.

				Major Stakeholder		
						Citizen
1	Registration of jobseekers	Ü				Ü
2	Maintenance /updating of profiles of jobseeker.	Ü		Ü		Ü
3	Periodical renew of registration	Ü				Ü
4	Notification of vacancies	Ü		Ü		
5	Submission of names of the candidates to the employers	Ü		Ü		
6	Collection of Employment Market Information Report. - Year 1 (Quarterly) , Year 2 (Biannual)	Ü		Ü		
7	Providing guidance to the youths in areas	Ü				Ü

⁹ Reference: Annual Administrative Report 2004

				Major Stakeholder		
						Citizen
8	Providing employment services and arranging placements in potential employment generating sectors	ü				ü
9	Maintenance of employment statistical data	ü		ü		
10	Promotional and motivational programme for job seeker in self employment programme.	ü				ü

6.9.4 ICT Initiatives

6.9.4.1 Current ICT Initiatives

There have been no ICT initiatives undertaken in this directorate so far.

6.9.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Registration of job seekers	Registration Module -	A web-based application for job seekers to register with the employment exchange with separate categories of their profile and job-requirement. This categorized repository of job-seekers will serve easy look-up in case of requirements that is presently a cumbersome phenomenon. The solution will have First in First Out (FIFO) facility. The module shall also have the Match Making Alerts and advanced search making facility.	Web Site, CIC's / VSCs, SFCs
2. Training of job seekers	Training Module	Providing Vocational and occupational information, job advertisements etc.	Web Based, CICs, VSCs, SFCs
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back-office)			
		lica	Delivery Channel
3. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
4. Financial Budgeting and Accounting		Budget & Accounts Management System	All Offices
5. Document Management		Document Management System	All Offices

6.9.5 Summary

	<i>0</i>
<i>2. No. of Core Applications recommended to be used in the department</i>	<i>3</i>
	<i>Web Based, CICs, VSCs, SFCs, Employment Exchanges</i>
<i>4. No. of Websites as a part of State Portal</i>	<i>1</i>

6.10 DEPARTMENT OF POWER

6.10.1 Introduction to the Department

The Department primarily deals with generation, transmission and distribution of electricity.

6.10.2 Objectives of the Department¹⁰

The main objectives of the Department are:

- § Power generation in the State based on Water Resources & Natural Gas.
- § Transmission of high and medium voltage electric supply through out the State i.e urban, semi-urban, rural areas and also outside the State through installation and commissioning of 11KV,33KV,132KV Substations.
- § Distribution of electricity for domestic, agriculture, water works, industrial sector etc.
- § Providing training at least 103 number skills and technical youth (apprentice) and also personnel of the Department of Power for improvement of the quality of service.

6.10.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are mostly manual, whereas, very few steps have been taken for automation.

				Major Stakeholder		
						Citizen
1	Consumer Registration	ü				ü
2	Billing and Cash Collection		ü	ü		ü
3	Trouble call servicing	ü				ü
4	Power Transmission	ü		ü		

6.10.4 ICT Initiatives

6.10.4.1 Current ICT Initiatives

				Delivery Channel
1	Computerised Billing System	G2C	Six Electrical Sub Divisions were computerised and the billing system is computerised.	Sub Division Offices

¹⁰ Reference : Annual Administrative Report 2004

6.10.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Better efficiency in billing	Computerized Billing System in all Divisions, with spot hand held billing system.	The computerised billing system introduced in six sub division offices to be extended to all the subdivisions of the state.	Sub Divisional Offices
2. Providing information to public	Grievance Redressal system	Enables the authorities to redress the grievances of customers	Web Site
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back -office)			
	lica		Delivery Channel
-			
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Financial Budgeting and Accounting		Budget & Accounts Management System	All Offices
3. GIS based Power Transmission Planning and Monitoring system	Power Transmission & monitoring System		

6.10.5 Summary

	2 (Computerised Billing System and Power Transmission & Monitoring System)
2. No. of Core Applications recommended to be used in the department	2
	Web Based, CICs, Sub Divisional Offices,
4. No. of Websites as a part of State Portal	1

6.11 DEPARTMENT OF SCHOOL EDUCATION

6.11.1 Introduction to the Department

The Department of School Education has its reach across the length and breadth of the State. Earlier a single Department was responsible for a school (Primary & Secondary and Higher, Sports & Youth Affairs and Social Welfare and Social Education). The school education directorate under the education department merged as an outcome of the trifurcation of the Department into Education (School) Department, Education (Higher) Department and Social Education in 1979.

6.11.2 Objectives of the Department¹¹

The main objectives of the Department are:

- § Providing primary schools for every habitation at a walkable distance of one kilometer.
- § Providing middle level schools at a distance of two kilometers of every habitation
- § Providing high schools at a distance of four kilometers of every habitation
- § Providing higher secondary school at a distance of not more than six kilometers of each habitation.
- § For 100% enrolment and 0% dropout upto 6-14 age group, a scheme in the Sarva Shiksha Abhiyan has been launched.
- § Imparting quality education.
- § Introduction of computer education in schools

6.11.3 Various key functions / process of the Department

As per the table below, the key processes of the department are manual.

				for Stakeholder		
						Citizen
1	Establishment works of schools under the department.	ü		ü		
2	Maintenance of payroll and accounts of the department	ü		ü		
3	Implementation of centre sponsored schemes	ü				ü
4	Monitoring of the implemented schemes.	ü		ü		

¹¹ Reference: Annual Administrative Report 2004

				Major Stakeholder		
						Citizen
5	Monitoring of enrolments and dropouts of students.	Ü				Ü
6	Promoting the spread of basic education	Ü				Ü

6.11.4 ICT Interventions

Following are the current and recommended ICT Interventions for the department.

6.11.4.1 Current ICT Initiatives

The Department has not taken much initiative as of date. Though under Sarva Siksha Abhiyan computers have been provided to perform the function of an MIS, the operation stays limited to manual input of data in order to generate reports.

6.11.4.2 Recommended ICT Initiatives

Following are the recommended ICT Initiatives for the Department.

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Providing Information about the education institutes	Website	Providing information on the educational institutes, scholarships, facilities and infrastructure available	Website and CIC
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back -office)			
	n		Delivery Channel
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Financial Budgeting and Accounting		Budget & Accounts Management System	All Offices
3. Education Management Information System (e-MIS)	A multi-level system that would aim to provide information to the management and assist in preparing the tracking and planning activities of the department. This should also provide - Information about the teachers and their teaching		All Offices

	subjects in the school. - Track children to monitor their progress and address issues related to dropouts and career guidance - Relevant Information for teachers		
4. Implementation & Monitoring of Schemes		Scheme Formulation & Tracking System	District Education Offices
5. Document Management		Document Management System	Directorate / State HQ

6.11.5 Summary

	1
2. No. of Core Applications recommended to be used in the department	4
	Web Site, CICs, District Education Offices, Directorate, State HQ
4. No. of Websites as a part of State Portal	1

6.12 DEPARTMENT OF INDUSTRIES & COMMERCE

6.12.1 Introduction to the Department

The Department of Industries and Commerce occupies a very important role in the economic development of the State. The Department of Industries and Commerce under the umbrella of State Industrial Policy and North East Industrial policy of Government of India strives to bring more investors and entrepreneurs to the State by providing attractive incentive schemes and building up of basic industrial infrastructures. The Directorate of Handloom & Sericulture and Directorate of Information Technology are also under the administrative control of Department of Industries and Commerce.

To meet the needs of the entrepreneurs, the Department has already decentralized most of the financial powers and other incentives schemes to the Districts.

6.12.2 Objectives of the Department¹²

One of the main tasks of the Department is to explore and formulate plans and programmes for the industrial development of the State. The Department also assists in preparing feasible and commercially viable schemes and project profiles to be given to prospective entrepreneurs who have been provided with training under Entrepreneurship Development Programmes and other training programmes. Such schemes and projects enable self employment ventures in the State. The Department also has 8 Industrial Training Institutes (ITIs) which provides skilled training.

6.12.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are manual.

				Major Stakeholder		
						Citizen
1	Registration of SSI Units	ü			ü	
2	Providing Assistance to registered SSI units	ü		ü	ü	
3	Administrative functions	ü		ü		
4	Evaluation of new projects	ü		ü		

6.12.4 ICT Initiatives

Following are the current and recommended ICT Interventions for the department.

6.12.4.1 Current ICT Initiatives

The Department has not taken much ICT initiatives as of date.

¹² Reference: Annual Administrative Report 2004

6.12.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
Information to prospective entrepreneurs	Interactive Entrepreneurial Suite	The interactive website would enable the citizen to furnish the provisional and permanent application form for registration of SSI units online and gather information on various schemes and subsidies.	Web Site, CICs, VSCs, SFCs
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back -office)			
			Delivery Channel
-		licati	
Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
Financial Budgeting and Accounting		Budget & Accounts Management System	All Offices
Document Management		Document Management System	All Offices
Scheme Implementation and Monitoring		Scheme Formulation & Tracking System	All District Industries Centre

6.12.5 Summary

	0
2. No. of Core Applications recommended to be used in the department	4
	Web Based, CICs, VSCs, SFCs, District Industries Centres
4. No. of Websites as a part of State Portal	1

6.13 DEPARTMENT OF FOOD, CIVIL SUPPLIES & CONSUMER AFFAIRS

6.13.1 Introduction to the Department

The Food, Civil Supplies and Consumer Department of Tripura is responsible for procurement of food grains and other essential commodities, building up and maintenance of stocks & their storage, supply and delivery to the distribution centres at reasonable rates, food security, licensing, vigilance and regulation. Most of the food grains are procured from outside the State and therefore the department operates as per the policies laid by Government of India. For the purpose of efficient distribution under the 'Public Distribution System' (PDS), ration cards are issued to all the heads of the family with details of members in the family listed in the card.

6.13.2 Objectives of the Department¹³

- § Providing food grains to different segments of people through a fair channel under Government of India schemes.
- § Ensuring good supply of food grains/LPG/Kerosene, particularly to the weaker sections.
- § Maintaining food stocks for day to day and in case of crisis.

6.13.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are manual.

				Major Stakeholder		
						Citizen
1	Procurement of Food grains from FCI	ü				ü
2	Seeking of cash credit limit from RBI for the procurement of food grains.	ü		ü		
3	Allocation and distribution of food grains to Fair Price Shops.	ü		ü	ü	
4	Monitoring of the distribution of food grains and kerosene oil by FPS	ü		ü		ü
5	Selection of beneficiaries for various schemes through district administration	ü				ü
6	Preparation and submission of	ü		ü		

¹³ Reference: Annual Administrative Report 2004

				Major Stakeholder		
						Citizen
	utilization certificate to Govt. of India					

6.13.4 ICT Initiatives

Following are the current and recommended ICT Interventions for the department.

6.13.4.1 Current ICT Initiatives

				Delivery Channel
1	Management Information System	G2G	This system enables the tracking of procurement and dissemination of food grains. Food stocks procured at the respective sub-divisional godown from the State godown are tracked & updated through the RF network	Web Site, FCS Offices

6.13.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS				
Focused at Improving the Citizen Services (Front Office)				
				Delivery Channel
1. Providing Information to citizens	Interactive Information Website	- Publication and dissemination of information regarding Fair Price Shops, beneficiaries of different schemes and public grievance redressal. - Information of beneficiaries and FPS owners allowing dynamic querying and updation.		Web Based, CICs, VSCs, SFCs
RECOMMENDED APPLICATIONS				
Focused at Improving the efficiency of the Department (Back-office)				
				Delivery Channel
1. Employee Payroll, Leave, GPF, Service Book		HRMS		All Offices
2. Financial Budgeting and Accounting		Budget & Accounts Management System		All Offices
3. Document Management		Document Management System		All Offices
4. Computerisation of following services - Ration Card Management - Distribution Management System	Food Civil Supplies & Consumer			All District Industries Centre

- Individual Beneficiary Tracking - Unit Based Allocation - Inventory Tracking - Eligibility Computation - E-Services - Grievance Redressal - MIS Reporting	Affairs Information System		
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6.13.5 Summary

	1 (Food Civil Supplies & Consumer Affairs Information System)
2. No. of Core Applications recommended to be used in the department	3
	Web Based, CICs, VSCs, SFCs
4. No. of Websites as a part of State Portal	1

6.14 DEPARTMENT OF CO-OPERATION

6.14.1 Introduction to the Department

The department of cooperation has been extending assistance and guidance to the cooperative societies both Apex Level and Ground Level for better management and financial support aimed at improving the socio-economic conditions of the rural people. The department also extends assistance in form of share capital, working capital, subsidies to women and weaker section co-operative societies and special assistance for SC/ST.

The department's main function is to accelerate and promote the economic activities through the Co-operative principles, open membership, democratic control, limited interest in capital, equitable division of surplus among members, Co-operative education and cooperation among cooperatives.

6.14.2 Objectives of the Department¹⁴

- § Promote economic activities and offer services to the public, trade and industry.
- § Be a friend, philosopher and guide in the Co-operative movement and perform its statutory duties in this regard.
- § Ensure transparent disbursement of funds among the co-operatives and conduct fair election process for the Board of Directors.
- § Ensure regular audit activities in the cooperatives.
- § Act as a regulatory body among the cooperatives in case of clash of interest, enquiries etc.

6.14.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are manual.

				Major Stakeholder		
						Citizen
1	Registration of the co-operative society	ü		ü		
2	Supervision and inspection of the co-operative societies	ü		ü		
3	Audit of the co-operative societies	ü		ü		
4	Implementation of various plan schemes	ü		ü		ü

6.14.4 ICT Initiatives

Following are the current and recommended ICT Interventions for the department.

¹⁴ Reference: Annual Administrative Report 2004

6.14.4.1 Current ICT Initiatives

As of now, there are no ICT initiatives being undertaken in the department.

6.14.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Providing Information to citizens	Cooperative Suchika	The relevant information on the various schemes, lending criteria, FAQs and the audit report of the cooperative societies would be made available on the Internet for the benefit of shareholders & investors	Web Based, CICs, VSCs, SFCs
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back -office)			
		licati	Delivery Channel
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Financial Budgeting and Accounting		Budget & Accounts Management System	All Offices
3. Document Management		Document Management System	All Offices
4. Management of Co-operatives	An integrated software - Co-operative Management System, from the registrations of co-operatives to managing the statutory obligations and generating the MIS.		Head Office

6.14.5 Summary

	1 (Co-operation Management System)
2. No. of Core Applications recommended to be used in the department	3
	Web Based, CICs, VSCs, SFCs, HeadOffice
4. No. of Websites as a part of State Portal	1

6.15 DEPARTMENT OF TRIBAL WELFARE

6.15.1 Introduction to the Department

The Department of Tribal Welfare takes care of the welfare of Scheduled Tribe people. The department implements various schemes in the areas such as - Education, Employment, Housing, Irrigation, etc.

6.15.2 Objectives of the Department¹⁵

- § Economic development of scheduled tribes.
- § Educational and cultural development
- § Protecting the schedule tribes from various social exploitation
- § Safeguarding the constitutional and legal right of the scheduled tribes.

6.15.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are manual.

				Major Stakeholder		
						Citizen
1	Implementation of various schemes under Central Government and State Government for the welfare of Tribes	ü		ü		ü

6.15.4 ICT Initiatives

Following are the current and recommended ICT Interventions for the department.

6.15.4.1 Current ICT Initiatives

As of now, there are no ICT initiatives being undertaken in the department.

6.15.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Providing Information to citizens	Tribal Information & Facilitation Website	Provide information on scheme / list of beneficiaries and the eligibility criteria. It covers the list of the NGOs along with the	Web Based, CICs, VSCs, SFCs

¹⁵ Reference: Annual Administrative Report 2004

		schemes available through them and funding received to them.	
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back-office)			
-	licati		Delivery Channel
Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
Financial Budgeting and Accounting		Budget & Accounts Management System	All Offices
Scheme Tracking		Scheme Formulation & Tracking System	All Tribal Welfare Offices

6.15.5 Summary

	0
2. No. of Core Applications recommended to be used in the department	3
	<i>Web Based, CICs, VSCs, SFCs, Tribal Welfare Offices</i>
4. No. of Websites as a part of State Portal	1

6.16 DEPARTMENT OF FOREST

6.16.1 Introduction to the Department

The forest department is headed by the Principal Chief Conservator of Forests, assisted by three Chief Conservator of forest, two conservator of forests (including CF, Social Forestry) and three Deputy Conservator of forests in the Headquarter. The Department is responsible to manage the natural resources of the State.

6.16.2 Objectives of the Department¹⁶

- § Increase in forest cover and it's productivity.
- § Improve public sector management in forestry and wildlife.
- § Conservation and management of bio-diversity
- § Optimal use of natural resources & provide better service to the society
- § Proper accumulation and integration of knowledge from diverse sources regarding environment and conservation

6.16.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are manual.

				Major Stakeholder		
						Citizen
1	Management of Forests	ü		ü		
2	Conservation of wild life	ü		ü		
3	Reforestation of degraded forests	ü		ü		
4	Afforestation of barren areas	ü		ü		
5	Social forestry	ü		ü		
6	Soil and moisture conservation	ü		ü		

6.16.4 ICT Initiatives

Following are the current and recommended ICT Interventions for the department.

6.16.4.1 Current ICT Initiatives

As of now, there are no ICT initiatives being undertaken in the department except the GIS based application for management of forest.

¹⁶ Reference: Annual Administrative Report 2004

6.16.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Providing Information to citizens	e-Timber as a part of State Portal	A web based application which keeps track of the storage of timber, and providing information on price and the availability	Web Based, CICs, VSCs, SFCs

RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back -office)			
			Delivery Channel
-	licati		
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Financial Budgeting and Accounting		Budget & Accounts Management System	All Offices
3. GIS based application on management of forests	GIS based Forest Management System		Headquarters

6.16.5 Summary

	1
2. No. of Core Applications recommended to be used in the department	2
	Web Based, CICs, VSCs, SFCs, Headquarters
4. No. of Websites as a part of State Portal	1

6.17 DIRECTORATE OF PLANNING & CO-ORDINATION

6.17.1 Introduction to the Department

The State Planning Machinery was set up under the Planning & Coordination Department in 1973 to hold in te formulation of the State Plan and monitor the plan programmes / schemes. It was elevated to the Directorate of Planning & Coordination on 01-05-1987. The Government of Tripura has introduced Decentralised Planning during 1990-01.

6.17.2 Objectives of the Department¹⁷

- § Formulation, implementation and monitoring of State plans for all round development of the State.
- § Providing policy directions to the State Government from time to time.
- § Proper utilisation of the State Plan resources

6.17.3 Various key functions/processes of the Department

As per the table below, the key processes of the department are manual.

				Major Stakeholder		
						Citizen
1	Plan formulation which includes five year plan and annual plan	ü		ü		
2	Administrative matters related to the State Planning Board	ü		ü		
3	Reference department for allocation / diversion / utilisation of plan funds	ü		ü		
4	Monitoring and implementation of plan	ü		ü		
5	Decentralised planning	ü		ü		
6	Project Planning & Monitoring of externally aided project	ü		ü		
7	Scrutiny of the plan schemes of various departments	ü		ü		
8	Periodical assessment and evaluation of plan schemes	ü		ü		
9	Interaction with Planning Commission,	ü		ü		

¹⁷ Reference: Annual Administrative Report 2004

				Major Stakeholder		
						Citizen
	Department of Development of North Eastern Region and North Eastern Council					

6.17.4 ICT Initiatives

Following are the current and recommended ICT Interventions for the department.

6.17.4.1 Current ICT Initiatives

As of now, there are no ICT initiatives being undertaken in the department except Project / Scheme Tracking application for monitoring the schemes under the special area programmes like NLCPR

6.17.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back-office)			
		licati	Delivery Channel
-			
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Financial Budgeting and Accounting		Budget & Accounts Management System	All Offices
3. Scheme Formulation and Tracking		Scheme Formulation & Tracking System	Headquarters, District Planning Offices
4. Facilitation of decentralized planning	Planning and Monitoring System		Headquarters, District Planning Offices
5. Document Management		Document Management System	Directorate / State HQ

6.17.5 Summary

	1 (Planning and Monitoring System)
2. No. of Core Applications recommended to be used in the department	4
	Web Based, CICs, VSCs, SFCs, Headquarters, District Planning Offices
4. No. of Websites as a part of State Portal	0

6.18 PUBLIC WORKS DEPARTMENT

6.18.1 Introduction to the Department

Tripura Public Works Department is headed by the Engineer-in-chief. The Department is responsible for construction and maintenance of Roads & Buildings, Management of Water Resources and Public Health Engineering divisions. The department is responsible for construction and maintenance of roads and buildings, residential and non residential buildings, manage the irrigation facilities, flood protection, provide safe drinking water etc.

6.18.2 Objectives of the Department¹⁸

- § Enhancing safety on State highways by improving accident-prone stretches.
- § Providing wayside amenities, conveniences and facilities.
- § Providing bypasses around congested cities.
- § Replacing railway level crossings by road overbridges or underbridges.
- § Maintaining roads at acceptable standards
- § Strengthening pavements to carry heavy loads and improving geometric to ensure better operating speeds. Progressively widening State highways
- § Prioritising improvements on routes, which provide linkages to industrial growth centres, power generation centres, ports, agricultural produce marketing centres and heritage and tourist centres.
- § Providing all-weather linkages to unconnected settlements.
- § Provide irrigation facilities to the farmers through lift Irrigation, deep tube wells, diversion and flood protection in entire State of State
- § Provide drinking water supply to the people of urban and rural area of Tripura by piped water supply system

6.18.3 Various Key functions/processes of the Department

As per the table below, the key processes of the department are manual.

				Major Stakeholder		
						Citizen
1	Project Planning and Development	ü		ü		
2	Operations & Maintenance	ü		ü		
3	Monitoring of Projects	ü		ü		

6.18.4 ICT Initiatives

Following are the current and recommended ICT Interventions for the department.

¹⁸ Reference: Annual Administrative Report 2004

6.18.4.1 Current ICT Initiatives

				Delivery Channel
1	Works Management Suit Application	G2G	For online monitoring of works services at various stages starting from proposal preparation to commissioning of project. It maintains the entire information of a work to enable and facilitate the executing and supervisory officers in planning and monitoring various stages of the various works in a more efficient and effective manner.	Head Office
2	REI Heads (Commercially off-the shelf software developed by Research Engineers International)	G2G	Planning and design of public works	Head Office

6.18.4.2 Recommended ICT Initiatives

RECOMMENDED APPLICATIONS			
Focused at Improving the Citizen Services (Front Office)			
			Delivery Channel
1. Providing Information on Tender	e-Tender	A web based application which enables the user to submit view, download and submit the tender forms. This application shall enable the authorities to view value wise, date wise list of works, list of works with given contractors, list of bidders, bidder selection etc.	Web Based, CICs, VSCs, SFCs
RECOMMENDED APPLICATIONS			
Focused at Improving the efficiency of the Department (Back-office)			
-	licati		Delivery Channel
1. Employee Payroll, Leave, GPF, Service Book		HRMS	All Offices
2. Financial Budgeting and Accounting		Budget & Accounts Management System	All Offices
3. Tracking of Assets		Asset Management Register	All Offices
4. Watershed development, irrigation, road and other infrastructure related spatial and	GIS based project/Land Management		Head Quarter

non spatial database			
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6.18.5 Summary

	<i>1 (GIS based project/LandManagement)</i>
<i>2. No. of Core Applications recommended to be used in the department</i>	<i>3</i>
	<i>Web Based, CICs, VSCs, SFCs, Headquarters</i>
<i>4. No. of Websites as a part of State Portal</i>	<i>1</i>

7. GOVERNMENT PROCESS RE-ENGINEERING

7.1 FOCUS IN GPR

The implementation of the conceptualised e-Governance initiatives should ensure that the e-Governance should not be mere automation of the existing processes but should aim to improve the quality of Government services. There is a need to redesign processes to match the increasing ways that “customers” now access the Government services. This is only possible if the state Government re-looks/reviews the processes currently being followed in the departments, i.e. Government Process Re-engineering.

The best results are obtained when the GPR is carried out using cross functional and cross hierarchical functions. It is expected that Process Mapping is one tool that will be used in the process improvement or redesign processes. This will provide a valuable grounding for Government in understanding what makes the existing process work well or badly and consequently gives a clear insight into how processes and performance may be improved.

While attempting to improve the quality of service to the citizens is the ultimate aim, globally it has been seen that such focus areas of the Reengineering Exercise revolve around the following:

- § Creation of Consolidated Government Data Repository: A consolidated repository should be created to contain, manage and serve all the data from various Departments
- § Closer Collaboration in Transaction of Government Processes: All the Departments and Agencies within the Government need to collaborate more closely with each other while transacting various processes
- § Consolidated Set of Service Delivery Channels: The delivery of various Government Services would be done via a consolidated set of Channels that would be developed and deployed throughout the State on priority-basis.

Further the most important aspect is whether the existing processes are required or not. Government Organizations should select those processes that will have the greatest impact on the business if they are reengineered and where the reengineering efforts are most likely to succeed. To determine which of the processes to tackle first, Government Departments, Agencies and Corporations should begin by looking for signs that a process is ‘broken’ as per the new paradigms as stated in previous paragraphs.

7.2 PRIORITY AREAS OF GPR

Based on the prioritization analysis carried out in this report, the Government of Tripura may consider taking up Government Process Re-engineering in the following departments/Sectors:

1. Agriculture

2. Rural Development
3. Revenue
4. Finance
5. Urban Development
6. Health & Family Welfare
7. Transport
8. Home (Police)
9. Employment
10. Power
11. Education
12. Industries & Commerce
13. Food, Civil Supplies & Consumer Affairs
14. Co-operation
15. Tribal Welfare
16. Forest
17. Planning & Co-ordination
18. PWD

7.3 APPROACH

Process Improvements/GPR effort should consist of five distinct phases as given below:

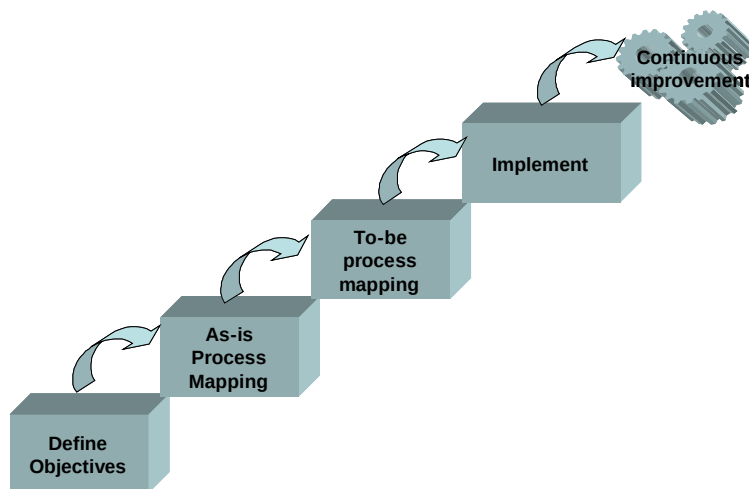


Exhibit: 9 – Approach for Government Process Re-engineering

It needs to be appreciated that the Process Improvement is a long term continuous improvement activity. Once a process has been improved or redesigned, appropriate measures should be put in place to benchmark success. Additional refinements and improvements should then be made until long term objectives are met.

7.4 NEXT STEPS & METHODOLOGY

It may be noted that the Government Process Re-engineering involves a lot of commitment from the top level leadership in the state. It would involve involvement of appropriate levels based on the nature of changes required. For e.g. for issuing a departmental guideline – a notification may suffice, whereas for certain process changes, amendments in the Act may be required. Hence the GPR would involve teaming up of consultants and domain experts to make the GPR successful.

The GPR team would oversee the implementation of redesigned processes identified after the “As-is” and “To-be” exercise. This would involve the following steps:

1. Establish transition team(s) both inter and intra departmental that would coordinate the implementation of the new processes.
2. Develop a comprehensive implementation plan: A detailed implementation plan should be developed by the Team in consultation with the transition team for implementation of the new processes.
 - a. Critical elements and milestones should be identified.
 - b. Specific timetables for all activities should be prepared
 - c. Roles & responsibilities of individuals who would implement the new processes should be framed
 - d. A mechanism for collecting and sharing implementation problems and solutions should be made
 - e. Close monitoring of the progress should be carried out.
3. Changes in Legal and regulatory framework: The team should help in the following:
 - a. Drafting of new notifications: Identify changes required in terms of notifications in consultation with the departmental head and other key officials.
 - b. Amendments of acts / New acts: The team should identify changes required in existing acts and in Team with key senior officials draft new acts or amendments to the existing acts that should facilitate the implementation of the new processes.

The team should also suggest on how to implement the Business Process Re-engineering at the Pilot Site, without breaching any legalities and at the same time restricting the implementation of BPR measures, in absence of computerization.

4. Implementation of the IT based systems and processes: The Team should oversee implementation of IT based systems and processes that should include:
 - a. Selection of vendors to carry out computerization and networking.
 - b. Selection of vendors to develop new IT based applications, the development of new applications and roll out.
 - c. Training of concerned officials on the new applications.
5. Training: The Team should prepare a training strategy and calendar to ensure that all the concerned officials are trained to work on the new processes.
6. Pilot run of new processes: The Team should develop a strategy for pilot run of the new processes taking into account the concerns of various stakeholders. Since the GPR covers 18 departments, a series of pilot tests should be carried out to assess the impact and effectiveness of the new processes and prepare employees for the change. A full pilot run of the new processes should be carried out later. It should involve the following:
 - a. Identification of all tasks, timeframes and resources required for the transition.
 - b. Structure the roll out taking into account the complexities of organizational structure, volume of tasks, commitments etc.
 - c. Assign roles and responsibilities to individuals who will work on the new processes during the pilot phase.
 - d. Identify success criteria for the pilot test(s).
 - e. Develop a feedback mechanism and collect feedback from all the stakeholders
 - f. Identify and document all issues arising during the pilot run.
 - g. Evaluate all the issues and suggest changes for further refinement of the new processes to address the problems and concerns.
7. Measure the effectiveness of new processes: The Team should measure the performance of each process and determine whether the new process is achieving desired results. The Team should also suggest and put in place a process for continuous improvement through feedback mechanism and incorporation of new ideas.

8. STANDARDS & GUIDELINES

8.1 STANDARDISATION IN TECHNOLOGY AND PLATFORMS

Standards

One of the technological challenges in implementation of e-Governance is to manage the large number of applications that need to interact with each other while maintaining security and privacy of the data i.e. interoperability. This needs to be accomplished in such a manner that change requirement in a single application should not trigger changes in other applications since these applications need to be developed in a parallel way unlike conventional development processes. Hence their development should be such that they are developed to be integrated i.e. from bottom-up, the design and development should be such that once they are ready, the applications automatically integrate with the rest of the solution and with future components.

The amount of information being handled by GoT is expected to grow up exponentially once e-Governance gains popularity. Also, to reduce dependency on a few solution providers, the government should have the freedom to pick and choose the most appropriate application from any vendor and seamlessly plug in that application into the e-Governance middleware and thereby, to the rest of the e-Governance solution. The challenge of scalability arises primarily from a need to maintain large number of records that may be created in geographically distributed data repositories.

Defining the standards for the various GoT services is issue that needs to be addressed. Setting the standards shall help in building a solution within a framework.

The guiding principles for following need to be defined

- § Operating systems
- § Hardware platforms
- § Software application packages
- § Databases / Metadata
- § Middleware
- § Schema and nomenclature
- § Interoperability
- § Domain Naming for websites
- § E-Mail addresses
- § Networks
- § Network security

- § Directory
- § File Transfer Systems
- § Data Integration
- § Data presentation

8.2 GUIDELINES FOR SOFTWARE DEVELOPMENT AND INTEGRATION

The next challenge for successful e-Governance roll-out in the state is development of efficient applications and their integration across departments / sectors. This would be possible only through enforcement of standard technology / architecture. To achieve this, policies for selection of technology/platforms need to be laid down and enforced.

Nature of Existing Applications

After studying the current applications (even though few in number) it was found that a good number of applications are built on legacy technologies like client server or distributed environments. These applications are not interoperable in nature because of having non-sharable databases. These applications are stand alone applications which do not have any kind of integration or interoperability with other applications within a department and hence consolidation of data is not possible leading to redundancy in the databases. As these applications do not comply to any standard policies, the existing applications could be integrated.

Guideline for future software development

The future Software development proposed in this document, should comply to open standards, i.e., they should be database independent, browser independent, platform independent and application server independent. The target should be that the applications can be integrated so that the seamless sharing and transmission of data can happen between different applications within and across departments. This integration should be done leveraging the proposed SWAN infrastructure of the State and the State Data Centre. Effort should be made that all existing legacy applications should be made web enabled and migrated to open standards, so that they could be integrated with future applications.

The integration should begin with all dispersed applications of different departments and then inter departmental integration should be done to finally achieve the State level integration. A phase wise integration plan will see a gradual transformation of the level of information provided by the various applications. Moreover a central data repository for the State should be created which will help to consolidate the data at one single repository. This would form a strong basis for enforcement of data security measures, disaster recovery and I.T systems deployment and maintenance. However, to ensure such integration in future, it is important to identify the data that is generated and shared.

The low level of e-readiness provides Tripura an opportunity to develop software ab-initio addressing all the quality requirements. A basic approach for developing a quality software for Tripura is as follows :

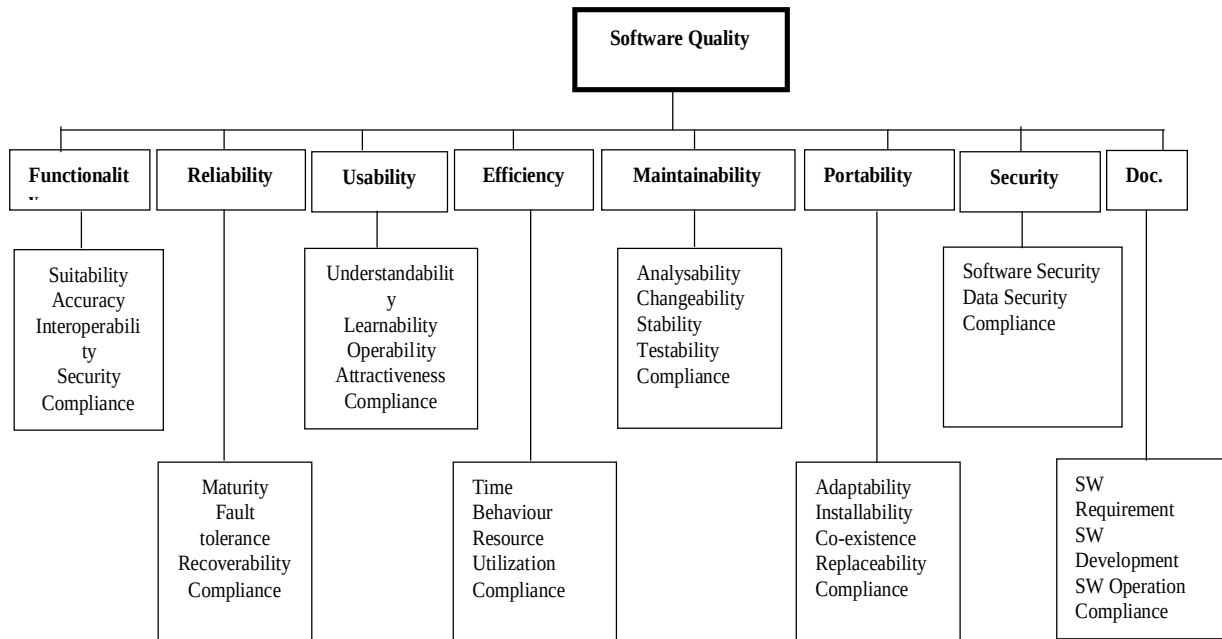


Exhibit:10 – Approach for developing Quality Software

Sl. No.	Quality Characteristics	Sub-characteristics	Definition
1.	Functionality		The capability of the software to provide functions which meet stated and implied needs when the software is used under specified conditions
		Suitability	The suitability of the software to provide an appropriate set of functions for specified tasks and user objectives
		Accuracy	The capability of the software to provide the right or agreed results or effects with the needed degree of precision.
		Interoperability	The capability of the software to provide the right or agreed results or effects with the needed degree of precision.
		Functionality Compliance	The capability of the software to adhere to standards, conventions or regulations in laws and similar prescriptions relating to functionality.
2.	Reliability		The capability of the software to maintain a specified level of performance when used under specified conditions.
		Maturity	The capability of the software to avoid failure as a result of faults in the software
		Fault tolerance	The capability of the software to maintain a specified level of performance in cases of software faults or of infringement of its specified interface.
		Recoverability	The capability of the software to re-establish a specified level of performance and recover the data directly affected in the case of a failure.
		Reliability compliance	The capability of the software to adhere to standards, conventions or regulations relating to reliability.
3.	Usability		The capability of the software to be understood, learned, used and attractive to the users, when used under specified conditions.
		Understandability	The capability of the software to enable the user to understand whether the software is suitable, and how it can be used for particular tasks and conditions of use.

Sl. No.	Quality Characteristics	Sub-characteristics	Definition
		Learnability	The capability of the software to enable the user to learn its application.
		Operability	The capability of the software to enable the user to operate and control it.
		Attractiveness	The capability of the software to be attractive to the user.
		Usability compliance	The capability of software to adhere to the standards, conventions, style guides or regulations relating to usability.
4.	Efficiency		The capability of the software to provide appropriate performance, relative to the amount of resources used, under stated conditions.
		Time behaviour	The capability of the software to provide appropriate response and processing times and throughput rates when performing its functions, under stated conditions.
		Resource utilization	The capability of the software to use appropriate amounts and types of resources when the software performs its functions under stated conditions.
		Efficiency compliance	The capability of software to adhere to standards or conventions relating to efficiency.
5.	Maintainability		The capability of the software to be modified. Modifications may include corrections, improvements or adaptation of the software to changes in environment, and in requirements and functional specifications.
		Analyzability	The capability of the software to be diagnosed for deficiencies or causes of failures in the software, or for the parts to be modified to be identified.
		Changeability	The capability of the software to enable a specified modification to be implemented.
		Stability	The capacity of the software to avoid unexpected effects from modifications of the software.
		Testability	The capability of the software to enable modified software to be validated.
		Maintainability compliance	The capability of software to adhere to standards or conventions relating to maintainability.
6.	Portability		The capability of software to be transferred from one environment to another.
		Adaptability	The capability of the software to be adapted for different specified environments without applying actions or means other than those provided for this purpose for the software considered.
		Installability	The capability of the software to be installed in a specified environment.
		Co-existence	The capability of the software to co-exist with other independent software in a common environment sharing common resources.
		Replaceability	The capability of the software to be used in place of another specified software for the same purpose in the same environment.
		Portability compliance	The capability of the software to adhere to standards or conventions relating to portability.
7.	Security		The capability of the software to protect information and data so that unauthorized persons or systems cannot read or modify them and authorized persons or systems are not denied access to them.
		Software Security	The capability of the software to prevent unauthorized access to the software.
		Data Security	The capability of the software to prevent unauthorized access to the data.

Sl. No.	Quality Characteristics	Sub-characteristics	Definition
		Security compliance	The capability of the software to adhere to standards or conventions relating to security.
8.	Documentation		The quality of software documentation.
		Software Requirements Documentation	The quality of software requirements documentation such as Software Requirements Specifications (SRS).
		Software Development Documentation	The quality of software development documentation such as Software Design Documents (SDD).
		Software Operations Documentation	The quality of software operations documentation such as User Manual (UM).
		Documentation compliance	The capability of the software to adhere to standards or conventions relating to documentation.

9. INSTITUTIONAL FRAMEWORK AND CAPACITY BUILDING

9.1 NEED FOR INSTITUTIONAL FRAMEWORK AND CAPACITY BUILDING

The nature and scale of e-governance initiatives planned in this document for Tripura, presents a considerable enhancement in the aspiration level of government. Major managerial and technological challenges are one consequence of this, particularly in the context of the need for implementation of these projects in a “mission/projectised mode”, (with clearly defined goals, timelines and responsibilities) by concerned departments of the State Governments. There is also a need to manage the entire programme at the state level in a coherent manner with consistent strategies for cost optimisation and integration. For achieving this, Govt. of Tripura needs to provide for overall direction, standardisation and consistency across initiatives and at the same time, have the resources and flexibility to drive this plan.

This chapter stresses the requirement of Institutional Framework and Capacity Building. These issues have been dealt in detail in the document- Capacity Building Roadmap

Keeping in view the enormous task of driving NeGP in line with the overall spirit of service orientation, Tripura is currently inadequately equipped in terms of personnel and the skill-sets needed to handle the host of issues involved. The IT department has a skeletal department that is not designed to deal with the complexity of issues involved. To achieve its goals, this is the first gap that needs to be addressed.

To address this issue, Planning Commission has incorporated a special Budget entry and has allocated funds as Additional Central Assistance (ACA) to all the States for initiating the National E-Governance Plan (NeGP) programme the first priority being capacity building.

9.2 INSTITUTIONAL FRAMEWORK

As NeGP in the states would be cutting across departments, it is expected that the State Government at the highest levels would be providing leadership, direction and vision for e-Governance, which would result in broad roadmap and prioritisation of the projects.

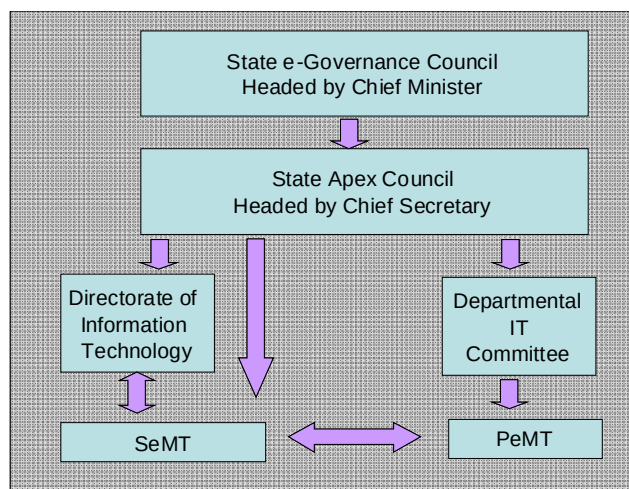


Exhibit :11 – e-Governance Structure proposed by NeGP

Present Status of Governance Framework in Tripura

Tripura, at present, does not have either a State e-Governance council or an apex committee. However, the Government has initiated the formation of framework by issuing the notification for the constitution of the Program Steering Council chaired by Chief Minister, SeGP Apex Committee chaired by Chief Secretary and SeMT chaired by Commissioner & Secretary Department of Industries & Commerce (Information Technology) in line with NeGP principles.

9.3 CAPACITY BUILDING

The need for competent human resources is an integral part of the knowledge era. In this context, the following basic resource requirements need to be put in place for successful e-Governance initiatives, as explained in the earlier sections.

- § Every department should have a team comprising of the Head of the department (HoD), finance / accounts representative, technical representative of organisation and subject experts. This team to be headed by the secretary of the respective department would look into the initiatives of the department and be the sole decision making authority in the Department in the I.T matters. Each of these aspects would be discussed in the next deliverable, Capacity Building Roadmap (CBRM).
- § Every department should have personnel to look into the project management of e-Governance projects and capacity building requirements of the department employees.
- § Every department should have system managers to look after trouble shooting and operation and management issues related to ICT initiatives of the department.

It is seen that many departments lack the basic skilled IT staff, let alone have a dedicated team for IT. This could cripple any initiatives planned for future. Therefore, it is suggested to follow an institutionalized approach which needs immediate attention.

10. FINANCIAL RESOURCES

Each department should allocate 1-3% of the total budget for IT initiatives or earmark a portion of fund in their budgeted sub head.

It is suggested that each department should allocate 1-3% of the total budget for IT on an average. However, at present there is no policy in place, which mandates a strict allocation of budget towards IT for different departments. It is imperative that a policy be formulated, which provides guidelines and norms for the allocation of budget towards IT and IT initiatives.

Typically, most of the departments rely on the money allotted from Government for their IT needs. There are no other sources for funding. These allotments from Government tend to be a fraction of what is being requested by the departments. Moreover, these funding is also not on a regular basis. Thus the departments end up using the meagre funds received for hardware purchase without a proper IT plan in place leading to wastage of resources. It is suggested that each departments shall earmark a small portion of fund in their budgeted sub head for IT related initiatives.

10.1 ESTIMATION OF FINANCIAL REQUIREMENTS

This e-Governance Roadmap identifies the following initiatives in the state to be taken up immediately.

					Portal Websites
TARGET DEPARTMENTS					
1	Agriculture	Target	1	5	2
2	Rural Development	Target	1	4	2
3	Revenue	Target	1	3	1
4	Finance	Target	1	2	1
5	Urban Development	Target	1	2	1
6	Health & Family Welfare	Target	2	5	2
7	Transport	Target	1	2	1
8	Home (Police)	Target	3	2	1
9	Employment	Target	0	3	1
10	Power	Target	2	2	1
			13		13
PURSUE DEPARTMENTS					
11	Education	Pursue	1	4	1
12	Industries & Commerce	Pursue	0	4	1
13	Food, Civil Supplies & Consumer Affairs	Pursue	1	3	1
14	Co-operation	Pursue	1	3	1
15	Tribal Welfare	Pursue	0	3	1

					Portal Websites
16	Forest	Pursue	1	2	1
17	Planning & Co-ordination	Pursue	1	4	0
18	PWD	Pursue	1	3	1
			6		7
	Grand Total		19	6	20

Summarising the above table the State Government needs to undertake 19 Departmental Applications, 6 Core Applications, 5 Core Infrastructure Projects and 20 Websites under the State Portal. **Though it is near to impossible to estimate the funds required at this stage** (it would be done during the preparation of Detail Project Report/Proposals to GoI under NeGP - NeGP has provision to fund the projects in the abovementioned areas and also for the preparation of the Detail Project Report/Proposals), **an attempt has been made to do so, based on the information on similar projects undertaken in the country and the broad scope of work envisaged in this roadmap.** (However to a large extent, the numbers estimated are purely qualitative). The total investments including the software development, hardware, application development costs, connectivity costs, and operational costs for the next 3 years, for each type of initiative is qualitatively estimated as follows:

		Capex (in Rs. Crores)			Potential Govt. investment vs. PPP investment ratio
Core Policies	18-20	2-3	0	2-3	100:0
Core Infrastructure	5	50-60	20-30	70-80	80:20
Core Applications	6	5-8	2-4	7-12	90:10
Departmental Applications	19	10-15	5-8	15-23	80:20
Web Portal & Services	20	2-3	1-2	3-5	60:40
Grand Total		60-80	30-45	95-125	

Exhibit :12 – Estimation of financial requirements

As per the table above, the total funds requirement may be 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 assumed between Government and Private investment. As compared to the other states, the investment from private sector is assumed to be lower due the low viability of the projects on a PPP model in Tripura.

10.2 MOBILISATION OF FUNDS

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.

GOI funding under the NeGP is available for core infrastructure projects, mission mode projects, and capacity building. The DIT has evolved guidelines for several elements of these areas, which describe the nature of support, eligibility criteria for accessing the funds, and related conditionalities.

At present, GOI funding is available mainly for core infrastructure projects (State WAN, State Data Centre, and rural service delivery Centres).

10.3 SUPPORT FOR STATE WIDE AREA NETWORK

As mentioned in chapter 4 (Core infrastructure), support will be provided by the GOI for backbone infrastructure up to the block Headquarters level. Minimum bandwidth to be made available would be 2Mbps up to the district level as well as up to the block level on a dedicated basis. Two implementation options are acceptable, namely, i). Using an appropriate PPP model or ii) Using NIC as the implementation agency.

DIT support in the form of 100% grant funding, will cover the entire cost of establishment, operation, and maintenance of the WAN for a period of 5 years., including the cost of personnel hired to by the selected operator. DIT grant support covers the cost of terminal equipment at each Point of Presence (POP), one POP is supported at each level. Support also covers site equipment for 5 years. DIT will also provide a grant to cover consultancy costs for the technical feasibility study, identification of PPP model, management of the selection and contracting process.

The state government is expected to fund the cost of terminal equipment at other POPs (horizontal); last mile connectivity costs, cost of personnel hired by the state; and bandwidth cost. The state will provide sites for the SWAN nodes, and civil works relating to site preparation.

10.4 GOI SUPPORT FOR STATE DATA CENTRES

Three implementation options are acceptable for State data Centres, namely, 1) State establishes and owns the data centre, and is responsible for operations, and contracts with a private sector agency for facilities management; 2) State identifies a suitable PPP model and

outsources the establishment, operations, and management to a private partner, or 3) designation of NIC as the agency for establishment and operations.

GOI support for SDCs covers the entire cost of establishment, operation and maintenance of the SDC for a period of five years on 100% grant basis, cost of personnel hired by the operator selected through a bid process, will also be covered by the grant support. Cost of consultancy services, as in the case of SWAN, will also be covered by DIT.

In order to be eligible for funding support, The State would need to have undertaken implementation of at least three major state-wide e-governance projects that require creation of State Data Centre of which at least one should have been completed.

10.5 GOI SUPPORT FOR COMMON SERVICE CENTRES FOR RURAL SERVICES DELIVERY .

This DIT support scheme presents an opportunity for the state Government to ensure access to the services for the rural public, by increasing the probability of sustainability for Village Level Entrepreneurs (kiosk owners). It is recommended that the government pursue this option after further examination. If this option is to be pursued, district-level societies would have to be set up on the lines of the Punjab district level SUKHMANI societies or Rajasthan's District e-Mitra Societies, to implement this scheme. In rural areas where even this arrangement does not result in sustainable kiosks, the government would need to meet the cost of delivery from its own funds.

10.6 GOI SUPPORT FOR MISSION MODE PROJECTS

GOI assistance under NeGP is available for mission mode projects of the states in the following sectors: .Land Records, Road Transport, Property Registration, Agriculture, Treasuries, Municipalities, Gram Panchayats, Commercial Taxes, Police, and employment exchanges.

The state has in the past accessed GOI funds for mission mode projects such as the land records project, and the treasuries computerization projects, e-Panchayat, e-District, RTA computerization, and others.

10.7 PUBLIC PRIVATE PARTNERSHIP

Public Private partnership (PPP) is a concept that is often used for infrastructure projects. PPPs can take several forms. At the lower end of the spectrum are PPPs are service contracts, in which private participation is limited to performing discrete tasks. Next are Management contracts, where the infrastructure is owned by the government, and the private party takes up O&M. Third are Design, Build, and Operate Contracts, where the government finances and owns the infrastructure, and the private sector undertakes design, construction, operation and Maintenance. The highest level of private sector involvement is in contracts, in which the private sector brings in finance in addition to DBO. In the Indian e-Government context PPP

also includes partnership with small entrepreneurs such as Cybercafe owners, or rural kiosk owners.

Several e-Government projects have been implemented in the PPP mode, such as:

- § Gujarat State Wide Area Network (GSWAN) – implemented through the PPP BOOT model
- § AP Broadband project – A Joint Venture of AP Government and a consortium of
- § Private sector players including ICPs, Fibre optic s manufacturers, others
- § Citizen Services Projects Example: e-Seva in Andhra Pradesh on a 5 year BOOT model
- § E-procurement in AP with PPP partner through the Application service Provider (ASP) model
- § Portal Projects such as AP Online which is a JV between AP Government and Tata Consultancy Services

Advantages of Public Private Partnerships

Public Private Partnership offers certain advantages for implementation, such as:

- § It brings in private sector expertise, and private sector finance (depending on the PPP model). This gives the opportunity to create a significant impact in a relatively short time frame.
- § It also allows for risks to be apportioned to those parties that are best positioned to manage the risks.
- § Project implementation benefits in terms of time, as the private sector can work without excessive bureaucratic red tape.
- § Operations efficiency post implementation is likely to be high, provided the contractual agreements and SLAs are appropriately structured.

Pre-Requisites for effective PPPs

- § A Clear policy framework with the rationale for use of PPP clearly articulated, and principles and procedures laid down.
- § The state would need to identify the appropriate PPP model for each type of project, and also pay due attention to issues in contracting, dispute-resolution, and performance- linked payments.
- § For each case proposing PPP, economic justification should be provided; value for money issues should be addressed.
- § Best practices and procedures should be laid down for selection of providers.

- § Contractual arrangements should emphasize performance-based payments penalties.
- § Best practices should be made available to government in the form of consultancy support, repositories of model contracts, case studies, etc.
- § A core level of in-house expertise is desirable to achieve the required confidence, and to manage selection processes, to manage contracts during implementation, operation.

There are several funding options available to the government for e-Government projects. These include state's own funds and funds from the GOI and other agencies. PPP is an option that can be used to bring not only technical and managerial resources, but financial resources as well.

10.8 FUNDING STRATEGIES

Funding for the prioritized Projects has to be taken up by identifying available sources of funding. These may include funds from Department of Information Technology (under NeGP) for mission mode Projects, from State government's own fund earmarked for I.T., funds from parent departments for department centric e Governance ventures, individual departments own outlays for I.T., from unilateral funding agencies, international funding agencies like World Bank, through Foreign Direct investment etc. However care should be taken that duplicity in fund management and usage is avoided for which articulate fund management should be done, both at the State Level and Department level. Hence a separate Financial Fund Management wing has been created both in the State e Governance Mission Team (SeMT) and Project e Governance Mission Team (PeMT).

Funding Strategy under NeGP: The e Governance Roadmap aims to sketch a detailed roadmap for e Governance for the State and prioritizes different departments to be taken up for e Governance with a three-year perspective. The Capacity Building Roadmap aims to institutionalize an e-Governance framework at the State level and department levels for the e Governance program with a qualitative and quantitative proposal of the team structure, composition and extent of private participation. The Detailed Project Report contains the summary of findings of the EGRM and CBRM and makes a projection for the cost estimation for the SeMT for the next three years and for the constitution and support of the PeMT. Based on the Detailed Project Report (DPR), Government of India would sanction funds for the SeMT.

In the following phase departments that have been prioritized under the Mission Mode Projects have to send qualitative Project proposals to the Department of Information Technology (DIT), GoI, for the e Governance Projects they desire to take up as per their Department e Governance Roadmaps. Funding for individual Department Project would come after due consideration and approval of the Project Proposals. PeMTs of respective departments have to be sustained out of the fund sanctioned under NeGP. Further release of Funds would be based on Performance (Outcome) of the Project as envisaged.

Strategy for managing funds from other funding agencies: Funds from individual parent departments, Department of Information Technology, multilateral funding agencies and international funding agencies for I.T. should be utilized in such a way that there is no duplicity in fund usage or overlap of investment area. Hence fund tracking, necessary demarcation of investment area, regular fund tracking and management is the need of the hour.

Public-Private Partnership: The concept of Public Private Partnership (PPP) essentially arises out of considerations like, the imperative to provide infrastructure of high quality, shortage of public funds and above all, the profit motive driving high efficiencies and quality in the privately managed areas.

Experiences across the globe show that IT is one of the areas which is eminently suited for PPP - especially, in areas such as driving licenses, utility bill collections, management of land records etc. Investments in information technology by governments have an opportunity cost since there are limited resources of money, time and attention. Investing these in IT would explicitly deny such investments in other development areas like provision of water, sanitation, health, shelter, production technology and skills development. Investments in information technology have therefore to be made very strategically by governments.

However it may be noted that as per the rough estimates, the PPP model may not be feasible in Tripura. This is because the success of PPP model lies in high transactions (function of population density) and user charges. Both these factors point out that PPP based on the user charges would not be feasible in Tripura. However PPP is a successful model and could be explored provided the user charges are subsidised by the state.

11. SUMMARY AND NEXT STEPS

11.1 THE BIG PICTURE

The e-Governance roadmap gives a holistic view of the steps to be taken by the Government of Tripura to progress from one of the least achievers to be one of the fore runners in country. The blue print given below is a graphical representation of the systematic manner in which this aim is to be achieved.

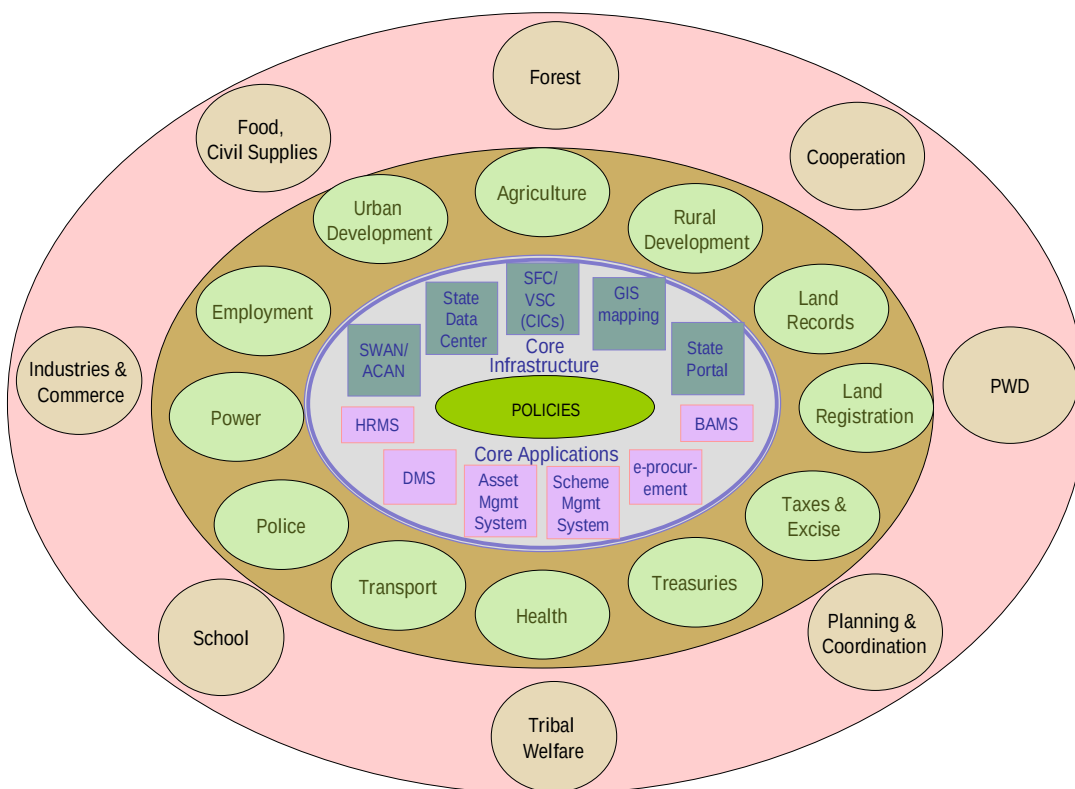


Exhibit 13: e-Governance Blueprint for Tripura

To summarize the blue-print:

- § At the very core are the policies that would make all the e-Governance initiatives feasible. It involves top level envisioning and intervention on the part of the state legislature. The policies that would be required are outlined in detail in Chapter 8 of this document.
- § The base is formed by the core infrastructure and the core applications that are required across all the departments. These initiatives have to be taken centrally

so as to ensure cost effectiveness and synergy between the various e-Governance initiatives. These projects will lay the foundation for all other projects. The core infrastructure and applications are covered in detail in Chapter 4 & 5 of this document.

- § The next layer consists of the Mission Mode Projects as identified in the NeGP. They cover 10 most important projects that have the maximum impact upon the different stakeholders and have to be given the maximum priority.
- § The outer layer represents those projects that were identified as having significant impact considering the socio-economic condition and the developmental priorities of the State of Tripura.

11.2 INTERDEPENDENCIES OF THE BASE LAYER AND GEOGRAPHICAL FRAMEWORK

The next step is to show the inter-relationships and dependencies among the base layer elements (Core infrastructure like SFC/CIC/VSCs, SWAN and Data Center) along with the geographical reach of each of the initiatives along the dimension of State capital, districts, villages etc, as depicted in the graphic below.

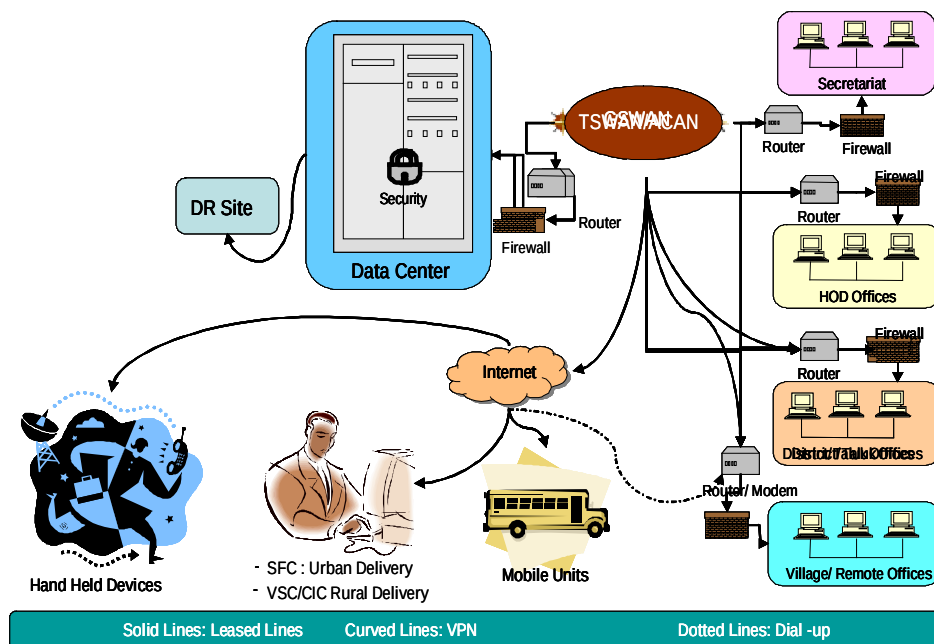


Exhibit 14: Functional Framework of IT backbone

11.3 PHASING OUT OF ACTIVITIES

This report highlights a list of initiatives to be taken by the state Government. However to provide a step-by-step approach on how to move forward under the framework of NeGP, is provided below. It may be noted that this is an illustrative phasing proposed based on the logical flow of implementation under NeGP, however nothing prevents in pre-poning or postponing of certain activities mentioned below.

The macro-level scopes of these Stages would be as following:

- § **Stage 1:** In the first quarter of this stage, various Start-Up Operations (which would be common for all MMP Sectors), such as constitution and empowerment of PeMT for the Sector, localization of State Policy Framework and finalization of Employee Training & Capacity Building Plans, should be completed at earnest. Second, third and fourth quarters could thereafter be utilized for initiation of various Core Computerization Activities and for Application Development & Deployment.
- § **Stage 2:** The first two quarters of this stage could be used for Internal Capacity Building and Core Computerization Activities. The focus in the last two quarters should be on Application Development & Deployment. Comprehensive Program Management of all the activities holds the key in this phase.
- § **Stage 3:** In the first quarter of this stage, all Training activities should be completed. This stage should see more Core Computerization Activities and Development & Deployment of rest of the applications. Towards the end of the Stage, the Owners should be in a position to rollout the applications all across the State and to deliver various services digitally.

Exhibit: 15- Suggested Stage-by-Stage activities

		Stage 3
-	<u>Program Management & Internal Capacity Building</u> Conduct complete Audit of previous Phase Review ongoing Employee Trainings and extend their scopes Start deploying newly trained employees at key positions <u>Core Computerization Activities</u> Extend the reach of TSWAN up to Village levels Initiate creation of common set of Delivery Channels for the State Start delivering select services digitally across the State Procure and deploy ICT Tools upto Block level locations Initiate Data Conversion and Data Entry at Block levels <u>Application Development & Deployment</u>	-

Finalize ICT Tool Procurement and Deployment Plan		
Extend the reach of TSWAN upto Block levels		
Create infrastructure for State's Data Management Layer		
Procure and deploy IC Tools upto District level locations		
Initiate Data Conversion and Data Entry upto District levels		
<u>Application Development & Deployment</u>		
Initiate procurement of Core and Integrated Applications on State's Business Interface Layer		

11.4 IMMEDIATE NEXT STEPS

LINE DEPARTMENTS

The immediate next steps for all the initiatives mentioned above, the Government of Tripura is expected to prepare DPRs/Proposals. The DPRs should contain the detailed coverage of the applications and the scope with broad functional requirement specifications, technological solutions, costs of the project, project capacity building, impact assessment, benefits to the citizens and government etc.

However as the Government of Tripura does not have skilled resources for the preparation of DPRs/Proposal, the cost of preparation of such DPRs is being budgeted in the Capacity Building Roadmap and DPR for Capacity Building. Hence TSCA would be using a part of the funds received from Government of India towards preparation of the DPRs.

TRIPURA STATE COMPUTERISATION AGENCY (TSCA)

Immediately on submission of this report along with the DPR for capacity Building and Capacity Building Roadmap, it is expected that Government of India would approve the funding for the capacity Building (including costs towards preparation of DPRs).

Already the Government of India has been providing funds as advance for Capacity Building, which would get adjusted against the sanctioned amount based on the DPR for capacity Building, submitted along with this report. The TSCA may use these funds towards formation of SeMT, a team comprising of Government and industry experts having the right skill sets for implementation of e-Governance Roadmap. The options for formation of SeMT is explained in detail in the Capacity Building Roadmap.

Annexure

Annexure 1 : Questionnaire used for Departmental Analysis

Questionnaire – Department Visits (Govt. of Tripura)

General

1. Name of the Department / Directorate
2. Geographic Spread of the Department (No. of Offices (Area wise))
3. Number of Staff in the Department
4. Estimated number of Citizen/ Business directly benefited by the Department

Finance

5. Total Budget of the Department (2005-2006)
6. IT budget of the Department (2005-2006)
7. Future expenditure requirement for IT next 5 years (approximate)
8. Revenue generated by the Department
9. Contribution to state economy

IT Applications & Technology

10. Is there any IT action plan for the Department? If yes, please provide details
11. Please provide details of Software applications in the department
 - a. Function of the application,
 - b. Technology (e.g. client server VB/SQL working on local LAN or Web enabled 3-tier in J2EE (EJB, XML) Centralized DB in Oracle)
 - c. No of offices in which the software is running,
 - d. Security & Back-up methodology,
 - e. Connectivity
12. Future applications envisaged and their scope

Training

13. Is there a Training plan for e-Governance in place? If yes, please provide details
14. Number of people taken advance Training in IT
15. Training Infrastructure within the Department for e-Governance

Annexure 2 : List of short listed Departments / Directorates

1. Department of Agriculture
2. Department of Rural Development
3. Directorate of Land Records & Settlement (Department of Revenue)
4. Directorate of Land Registration (Department of Revenue)
5. Directorate of Taxes & Excise (Department of Finance)
6. Directorate of Treasuries (Department of Finance)
7. Department of Urban Development
8. Department of Health & Family Welfare
9. Department of Transport
10. Department of Home (Police)
11. Department of Power
12. Directorate of Employment Services & Manpower Planning (Department of Labour)
13. Department of Food, Civil Supplies & Consumer Affairs
14. Department of Co-operation
15. Department of Tribal Welfare
16. Department of Forest
17. Department of Industries & Commerce
18. Department of Planning & Co-ordination
19. Department of School Education
20. Public Works Department

Annexure 3 : Risk Analysis

A few risks and threats have been perceived which may have a direct or indirect impact on the e-Governance implementation in the future. The following table depicts the risks along with their mitigation Plans.

	MITIGATION PLAN
Information Privacy: The privacy of citizens needs to be ensured. Whenever a citizen gets into any transaction with a Government Agency, a lot of personal information is divulged, which can be misused	It should be ensured that the information flow should always be through a predefined set of channels and a new Law for Data Privacy can be formulated to safeguard the private information of the citizen
Authentication: Secured transactions of various Government Services needs to be ensured and the identity of citizens requesting these services needs to be verified before they are allowed to access or use them	Digital Signature could solve this but the infrastructure needed for the same is very expensive and requires constant maintenance. State Government could either explore newer ways to ensure authenticity in their transactions or could go with Digital Signatures only.
Citizen Participation: ICT needs to reach out to the common people across the State and people need to start participating in all e-Governance initiatives	Access of information must be facilitated in the language of the common people. Technologies, such as GIST and language software by which translation from English into other languages can be made, could also be utilized
Obsolescence in Technology: With the State expected to invest heavily on ICT tools and technologies, the danger of these technologies getting outdated in shorter time-frames exists	State Government needs to address this issue via its IT Policy. Government may also desist from buying all its Hardware/Software and vendors can be engaged under contract to rent these in conformity with the kind of initiative being implemented. All SLAs pertaining to technology should always contain a clause for Maintenance.
Transfer of Key Government Officials: Transfer of key Government Officials, who are a part of special purpose vehicles, primarily SeMT and to a lesser extent PeMT, and those who Champion and drive the e Governance initiatives, can hamper and impede the e Governance program.	Key members of the SeMT, like Head of SeMT and other champions of e-Governance in the State who possess high degree of potential and competence in the field of e-Governance should not be transferred as frequently as other employees are in Government
Diverse Agendas and Ideologies: Different Departments have different level of e-preparedness and subsequently different rate of e-governance agendas and ideologies which need to converge	Strong political leadership, top management driven approach and e-Government strategy customized for each department can go a long way in achieving a coordination among various e-Government initiatives undertaken
Low Level of Acceptance by Government Employees: Substantial cultural and organizational transformation would be needed to gain acceptance of various Government Employees in the planned ICT initiatives	State Government needs to establish appropriate Change Management Programme encompassing e-government, HR, etc. Also Internal Capacity Building in various areas of e-Governance and technology needs to be given top priority.

Attrition of Key People: The institutionalized framework that has been proposed seeks a lot of participation, both in full time and part time basis, from Non-Government Professionals. They include specialists in areas of Project Management, Change Management, Technology Management and Financial Management. However these professionals may change their engagements very frequently in pursuit of exploring newer and better opportunities. Frequent resource attritions may hamper the IT initiatives and effect would be deeply felt if it occurs in crucial occasions	Instead of recruiting directly through personal interviews, advertisements etc, professionals with desired skill sets and experience could be engaged from Consulting Firms or Recruitment Agencies. All Contractual Agreements need to have a minimum separation period included in them to prevent any major disruption in the Project activity due to resources leaving with short notice.
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