



Primer on Municipal E-Governance Reform JNNURM City-Level Reform

Final Report

Indo-USAID Financial Institutions Reform and Expansion Project—
Debt & Infrastructure Component (FIRE-D Project)

USAID-TCGI Contract No. 386-C-00-04-00119-00

March 2010

This publication was produced for review by the United States Agency for International Development. It was prepared by The Communities Group International (TCGI), in partnership with AECOM.

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e-Governance

ULB Level Reform

1. The Reform

e-Governance is a form of public administration making “use of information and communication technologies (ICT) to enhance the access and delivery of government services to benefit citizens, employees and management of urban local bodies.” It aims to “help strengthen government’s drive toward effective governance and increase transparency to better manage social and economic resources for development.”

Government of India (GoI) has launched a National e-Governance Plan (NeGP). NeGP intends to institute and enable mechanisms to improve the system of governance and thus provide better services to the citizens by effective use of ICT. e-Governance in municipalities is one of the Mission Mode Projects under the NeGP, which is expected to result in improved service delivery by local governments for the citizens. Implementation of e-Governance reform is one of the mandatory reforms under Jawaharlal Nehru National Urban Renewal Mission (JNNURM).

The broad aim for implementing e-Governance in municipalities is to:

- Focus on clearly identified citizen services that would be covered with clearly laid down service levels and outcomes to be achieved.
- Improve efficiency and effectiveness in interaction between local government and its citizens and other stakeholders.
- Improve quality of internal local government operations and management information systems to support and stimulate good governance.
- Bring about transparency and accountability in urban local body operations.
- Help improve reach of the delivery of services to citizens.

Following services are to be covered under this reform:

- *Basic citizen services:* Birth and death registration and health programs.
- *Revenue earning services:* Property tax and licenses.
- *Development services:* Water supply and other utilities, building plan approval.
- *Efficiency improvement services:* Procurement and monitoring of projects.
- *Back office improvements:* Accounting and personnel management system.
- *Monitoring:* Citizen grievance redressal.

The key objectives of the e-Governance initiative are to:

- Provide single window system for delivery of services and information to citizens.
- Provide integrated and simplified services to citizens on any time, anywhere basis.
- Decentralize service delivery and improve accessibility of information to citizens.
- Increase the efficiency and productivity of ULBs.
- Re-engineer processes for better service delivery.
- Integrate data and services of various departments.
- Enhance efficient inter-departmental coordination.
- Provide timely and reliable management information relating to municipal administration for effective decision-making.
- Adopt a standards-based approach to enable integration with other related applications.

2. Rationale for the reform

The recent advances in ICT and the Internet provide opportunities to transform the relationship between governments and citizens, as well as contribute to the achievement of good governance goals. e-governance will ensure that the interface between citizens and ULBs is made smooth and resolves the problems encountered by people at present. The use of ICT can help greatly in improved service delivery, decentralization, better information management and transparency, citizen involvement in government and overall improvement in urban governance across departments and at all levels. The benefits of e-Governance will be for citizens, ULBs and management:

For Citizens

- Single-window access to various services of ULBs.
- Better delivery of services and information.
- Quick service delivery at a decentralized level.
- Improved communications.
- Simplification of procedures.
- Streamlining of the approval process.
- Opportunity for greater participation in decision-making.
- Improved interaction with municipal government at different levels.
- Track the performance of ULBs.
- Transparency and accountability in ULB functioning.
- Quick redressal of grievances.

For ULBs

- Common information base across departments on a single integrated platform.
- Better co-ordination between departments and agencies.
- Improved communications.
- Creation of effective management information system (MIS).
- Better mobilization and utilization of resources.
- Improvement in revenue collection.
- Efficient citizen grievance redressal.
- Overall improvement in governance, delivery of services and citizen interface.
- Objectiveness in decision-making.

For Management (Mayor, Commissioner, Standing Committee)

- Availability of standardized and meaningful MIS on timely basis across all departments
- Appropriate and timely analysis and decision-support mechanism.
- Ability to monitor and track programs, services, and revenues effectively and on a timely basis.

3. Reform components

ULBs need to exploit the advantages of ICT to transform the quality and cost effectiveness of their services, to align and integrate them with those of other public bodies, and to collect and manage data in ways that make it possible to provide information and services in an integrated manner at the local level.

While implementing e-Governance the following broad principles should be kept in mind:

- Adopt a state-wide approach for designing the systems and in planning implementation of the e-Governance project. This will not only bring uniformity across the state, but also will result in cost and time optimization.
- Focus should not be on just procurement of hardware or software, but primarily on a critical study of the existing system and processes for delivery of services to citizens and in providing easy access to information in a transparent manner.
- Focus should be on creating a centralized and unified database across various services.
- Integrate with other IT initiatives in the state and leverage core infrastructure, rather than create separate infrastructure thus bringing down the overall cost.
- Adopt phase-wise approach for implementation based on the need and requirements of ULBs.
- Adopt core standards ensuring applications and projects link across departments and agencies.
- Identify project champions to lead the initiatives.
- Carry out clear assessment and implementation of PPP models to ensure cost effectiveness and sustainability.
- Build flexibility in the system to meet future needs of ULBs.
- System should be able to generate reports at state level for benchmarking and monitoring ULBs.

A comprehensive e-Governance roll out strategy at state level should comprise the following major components.

Component	Description
e-Governance Roadmap	Defining a clear roadmap and implementation plan to avoid duplication, wastage of effort, and chances of mistakes, and which ultimately will lead to the creation of an integrated system. The roadmap should describe: <ul style="list-style-type: none"> • understanding state's vision, objectives • assessment of current IT environment • assessment & gap analysis of IT initiatives • preparation of e-Governance strategy • develop IT architecture • opportunities for PPP • preparation of revenue model
Institutional Framework	Clearly defined institutional framework will be drawn up at all levels by laying down decision-making processes and responsibilities across departments and at different levels. The institutional framework will: <ul style="list-style-type: none"> • facilitate in taking empowered decisions and instill autonomy across the organizations to fulfill its roles • address the differing roles required to be played with respect to the

	implementation of projects by different stakeholders
Technology Infrastructure	<p>Technology infrastructure provides information with respect to applications, databases, infrastructure (IT and physical infrastructure), connectivity, etc. The various components should be chosen carefully based on technical feasibility, economic considerations and criticality of requirements.</p> <p>The following considerations should be kept in mind while dealing with technology infrastructure:</p> <ul style="list-style-type: none"> • adaptable and robust application platform to meet the varying requirements of ULBs • extremely user-friendly interface to reduce the impact of change management • installation and implementation procedures shall be simple, to the extent possible • scalable IT infrastructure to address future requirements of ULBs • capable of execution across different platforms • secure so as to generate confidence among various stakeholders • an appropriate disaster recovery and business continuity plan <p>Maintenance and upgradation should be an integral part of the development of e-Governance solutions.</p>
Business Process Re-engineering (BPR)	<p>Mere injection of technology into the existing processes will not yield the desired result. It would amount to <i>translation</i>, rather than <i>transformation</i>. It may not also result in enhanced value to the customers or end-users.</p> <p>BPR will involve the following:</p> <ul style="list-style-type: none"> • study of the existing systems, procedures, organizational, functional and user requirements • map the processes • identify those processes, which will help in simplifying procedures and in quick delivery of services <p>One of the critical factors leading to a high positive impact for an e-Governance project is the extent and rigor of reforms undertaken in process re-engineering. <i>This exercise should be the starting point for an e-Governance initiative at state level; otherwise, the initiative will result in mere computerization of existing processes and will likely not result in bringing efficiency in the system.</i></p>
Delivery Mechanism	<p>Delivery mechanism is the way through which services are delivered to customers. The delivery mechanism should be user-friendly and easily accessible to citizens. This can range from Internet, common service centers, call centers, kiosks, etc. and impacts the following:</p> <ul style="list-style-type: none"> • technology infrastructure (hardware, software and network) • business processes and procedures organizational structure to manage and deliver the services, i.e., skills, roles and PPPs
Information	Security and privacy of information is one of the challenges and ways to

Security and Privacy	increase citizen confidence in the system. There should be proper security tools so that fraud and sabotage of systems can be avoided. The mechanisms and responsibilities to access information should be clearly defined and proper backup of information should be available at any given point of time. It should include information security management, system security, and access control and address issues relating to information systems auditing and security auditing. Data protection, privacy, and security are integral parts of e-Governance and a challenge for ULBs in e-enabling delivery of services.
Business Continuity Plan and Disaster Recovery Plan	Planning for all types of disruptions in service due to failure of equipment, power cuts, shutting of servers, natural and man-made disasters and ways in which data loss will be prevented and services resumed at the earliest. At state level there should be guidelines for both backup and disaster recovery.
Capacity Building and Change Management:	To create a dedicated and suitable capacity to prioritize, conceptualize, develop and manage e-Governance projects. States should prepare a capacity building plan which describes: <ul style="list-style-type: none"> • capacity gaps at different levels of functionaries and identification of training needs • the training areas and target groups • institutional framework for building capacity in the states/ULBs
Public Awareness and Communication	Communicating and creating awareness with stakeholders and the public at large on the benefits of e-Governance will help in designing and implementation of required solutions.

4. Steps to implementing the reform

The states and ULBs need to consider the following processes while initiating the implementation of e-Governance reform at State/ULB level:

Processes	Responsibility	Role
Pre-Implementation Phase		
Identify the nodal agency for implementing NMMP in the state	State	<ul style="list-style-type: none"> • Responsible for managing the implementation, dealing with technology, process and change management-related issues internally, quality assurance, etc. • Selection of project management consultant • Finalize the roadmap • Finalize institutional framework • Finalize revenue models • Define service level agreements • Procurement of various consultants • Monitor projects across ULBs • Finalize the capacity building and change management plan for the state

		<ul style="list-style-type: none"> Finalize business model
Selection of project management consultant	State	<ul style="list-style-type: none"> Prepare e-Governance roadmap Prepare appropriate business models Advise on institutional framework for implementation across state Prepare service level agreements Prepare revenue models Finalize contract documents Advise in selection and procurement of solution providers Monitor quality of service of service providers Advise on security policies and compliance with standards Develop strategies for rolling out e-Governance across state/ULBs Design change management program at the state level Identify the milestones/indicators for monitoring success
Preparation of state-e-Governance roadmap	State	<ul style="list-style-type: none"> Services to be provided Coverage of ULBs Delivery channels Technology architecture (hardware, software, networking) Institutional framework Service levels Capacity building requirements Broad cost estimates
System analysis and process reengineering	State	<ul style="list-style-type: none"> Process overview and its functions Description of key sub-processes Process parameters for each of these sub-processes Interface requirements with other modules Detailed functionality & MIS requirements Indicative data standards Create a work plan for the phased implementation of reengineered processes Monitor the redesigned business processes
Customization of software	State/ULB	<ul style="list-style-type: none"> Review the user requirements Design the system requirement specifications Design the MIS requirements Test the application Deploy the application Assess hardware requirement Integration with different modules Finalizing the reporting formats Operation and maintenance

Preparation of guidelines for creation of IT infrastructure at ULB level	State	<ul style="list-style-type: none"> Preparation of the specifications of the required IT infrastructure (PCs, printers, servers, software, etc.) Finalization of rates for above IT infrastructure components
Implementation Phase		
Creation of a special e-Governance cell at ULB level	ULB	<ul style="list-style-type: none"> Finalize the requirements specification Monitor the project activities Prepare site for hosting infrastructure Identification of locations for setting up service centers Monitor the data entry activities Support deployment of the application Design training strategy for the end-users Test for user acceptance Report project progress to the state implementation team Manage change at the ULBs Support hardware procurement and installation
Preparation and finalization of Detailed Project Report	ULB	<ul style="list-style-type: none"> Project description including objectives, service levels and outcomes Project approach and component detailing Project costing Implementation timelines Developing viable business models
Create technology infrastructure including site preparation	ULB	<ul style="list-style-type: none"> Assess the need as per the requirements Procurement of appropriate infrastructure at ULB level for housing technological solutions Site preparation including power backup provisions and other requirements
Entry and validation of manual records	ULB	<ul style="list-style-type: none"> Appropriate data migration strategy Migration from manual and legacy system to the new system with reasonably error-free conversion
Pilot and scale up	ULB	<ul style="list-style-type: none"> Pilot in one or two ULBs in the state Go live on selected modules Scale-up
Training	State/ULB	<ul style="list-style-type: none"> Preparation of training modules Identify various stakeholders including elected representatives Continuous on-the-job training as well as other training for various end-users
Documentation	State/ULB	<ul style="list-style-type: none"> Preparation of documents such as: Functional requirements document System design document User manuals Operational manual

		<ul style="list-style-type: none"> • Maintenance manuals • Other documentation
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5. Setting the timeline

Following are the suggested sequencing of steps and timelines to be adopted by states and ULBs to roll out e-governance:

Activity/Timeline	Q1	Q2	Q3	Q4
State Level				
Designate a state nodal organization				
Selection of project management consultant				
Preparation of state e-Governance roadmap for ULBs				
Finalize the institutional framework for implementation				
Systems analysis				
Selection of application consultant				
Customization of the application as per functional requirements and e-Governance roadmap				
Formats of standard reports for state level MIS				
Decision on PPP model(s) recommended for adoption				
State-wide web portal				
Creation of policies at state level				
Training to end-users				
CITY LEVEL				
Assess existing IT initiatives				
Formation of project management unit (PMU)				
Assessment of functional requirements				
Preparation of detailed project report (DPR)				
Approval of DPR by the state government				
Tendering, evaluation and selection of data entry vendors				
Application customization (development of the web portal and customization of core modules)				
Data digitization (entry and validation) of the manual records				
Data migration and stabilization				
Site preparation (civil, electrical and infrastructure works, etc.)				
Hardware procurement (tendering and finalization)				
Deployment of the application and hardware at site				
Going live for the computerized ULB-selected modules				
Setting up delivery channels				
Training to end-users				
Documentation				
Project management				

6. Measuring Achievement/Outcomes

The following are the key outcomes of this reform:

- Citizens: Easy access to municipal services, hassle free payment of taxes and user charges, quick redressal of grievances.
- Municipalities: Improvements in efficiency and effectiveness of business processes/functions of ULBs.
- Decision-makers: Improved information for planning and decision-making.
- Employees: Improved efficiency and better delivery of urban services.
- Policy makers: Integrated view of performance of municipalities at the center, state and ULB level.

Key outputs from the reform are:

- Reduction in time-lag in delivery of services, viz. issue of birth and death certificates, assessment & collection of property tax, payment of utility bills, etc.
- Enhanced interface between urban local bodies and citizens.
- Transparency and accountability in the governance of urban local bodies.
- Improvement in quality of internal local government operations to support and stimulate good governance.
- Key performance indicators-based decision-support systems for reports and analysis using intelligent platform.

Key monitoring indicators:

<u>State Level</u>	<u>ULB Level</u>
<ul style="list-style-type: none"> • Institutional framework at state level • Appointment of project management consultant • Preparation of e-Governance roadmap • Business process reengineering carried out • Appointment of solution providers (hardware, software, networking) • Model contracts prepared • Delivery mechanism and revenue models finalized • Formats for MIS prepared and finalized • Coverage (in terms of number of models and number of ULBs) of e-Governance in the state • Clearly defined service levels for software, hardware and networking 	<ul style="list-style-type: none"> • Institutional framework at ULB level • Number of functions computerized • Website is operational and updated regularly • Number of services with unified database • Number of services provided through single window system • Access to services has been decentralized • %age of customers using e-Government services • %age of municipal services transformed into e-Government • %age of transactions of each service executed electronically • %age of revenue improvement of ULB due to e-enabled services • %age of birth and death certificates issued through new system • %age of grievances handled through new system