

Using e-Tools for Good Governance & Administrative Reforms

Dr. P.K. Mohanty, IAS
Director General, Centre for Good Governance, Hyderabad
pkmohanty_cgg@yahoo.com

1. Introduction

1.1 Good governance is fundamental and e-governance is instrumental. e-Governance is a tool. No e-Governance tool can be successful without focusing attention to process reforms for good governance. Good governance dictates the design and shape of e-tools for improving governance outcomes and processes. e-Governance can be an effective and efficient tool for good governance if and only if the process reforms have been carried out. Automating complicated government processes will create more problems than it can solve. In e-Governance, the letter 'e' is small and the letter 'G' is big. With process re-engineering, effective implementation of e-Governance can take IT to the common man, helping the government to align services with the changing needs of both citizens and other stakeholders. One of the principal objectives of the IT policy of Andhra Pradesh is the extensive use of IT within the process of governance for providing better citizen services and for enhancing efficiency, transparency and accountability of Government departments, and agencies. The State is emerging as a model for e-Governance. Simplification of rules and procedures has been an important area for the use of ICT. The Centre for Good Governance, Hyderabad is focusing on process reforms and designing of e-tools for good governance.

2. ICT & Governance

2.1 The emergence of the digital economy has affected both the role and functions of public institutions. While undertaking traditional functions such as defence, law and order, justice, taxation, legislation, regulation, education, health care and social equity, the governments are now required to take new roles of harnessing the power of information technology and leading change. There has been a transformation of the role of the government from a buyer or producer of ICT services to that of a facilitator and a leader.

2.2 ICT has been instrumental in changing the way in which the government operates through horizontal and vertical interactions and information flows. It has provided unique opportunities to governments in terms of new ways of doing business through e-Government and e-Governance applications. e-Government is about leading the transformation of government to provide efficient, convenient and transparent services to citizens and businesses through the use of Information and Communication Technologies (ICT). e-Government is not about 'e' but about 'government'; it is not about computers and websites, but about services to citizens and business. e-Government is also not about translating processes; it is about transforming them. e-Government concerns with the transformation of government, modernization of government processes and functions and better public service delivery mechanisms through technology. Citizens are the recipients in e-Government.

2.3 e-Governance, on the other hand, comprises decisional processes and the use of ICT for wider participation of citizens in public affairs. Citizens are participants in e-governance. The purpose of implementing e-Governance is to improve governance processes and outcomes with a view to improving the delivery of public services to citizens.

2.4 The United Nations distinguishes between the following areas where governmental operations can be improved by the application of ICT:

- e-Government: This applies to inter-organizational relationships, and includes policy coordination, policy implementation and public service delivery.
- e-Administration: This applies to intra-organizational relationships, and includes policy development, organizational activities and knowledge management.
- e-Governance: This applies to interaction between citizens, government organizations, public and elected officials, and includes democratic processes, open government and transparent decision-making.

Government needs to play a key role in shaping/supporting e-Government, e-Administration and e-Governance programmes with a view to improving governance.

3. Role of Government in ICT

The role of the government in ICT can be distinguished between the following categories:

- G1 : Laying ICT infrastructure, producing ICT equipment, financing public R&D;
- G2 : Creating the macroeconomic environment for growth and innovation in ICT, including fiscal policies (cost, innovation, investment, venture capital), legal and regulatory environment (competition, independent regulator, rule of law, intellectual property protection) and channeling and mobilizing resources for ICT;
- G3 : Education policy for the right amount and quality of manpower resources for a network-ready economy – curricula, ICT training facilities, wiring/networking of educational institutions;
- G4 : Addressing 'digital divide' domestically and internationally, giving signals to markets – articulating a national vision of ICT, according national priority to ICT, undertaking large projects, championing national interests in international forums;
- G5 : e-government: services online, e-procurement, trade facilitation, civil society participation, accelerating the adoption of ICT by government departments and agencies and establishing credibility.

To compete successfully in a network-based global economy, governments need to be both leaders and facilitators. The leadership and facilitation roles comprise the following elements:

- Developing national e-strategy, making ICT adoption and network readiness a national priority, bridging "digital divide" and championing an e-readiness framework;
- Undertaking innovative projects that make a difference to lead by example, adopting best practices and pushing for their adoption by others and developing public-private-people partnerships;
- Implementing Right to Information (RTI) and committing to transparency in governmental operations;
- Reforming government processes covering areas such as revenues, expenditures, procurement, service delivery, customer grievances etc.,
- Tracking, storing and managing information, promoting production of national content online and through electronic media;
- According high priority to protection of individual rights, intellectual property, privacy, security, consumer protection etc. and mobilizing the civil society;

- Documenting “best successes” and “worst failures” – benefiting from knowledge;
- Developing a supportive framework for early adoption of ICT and creating a regulatory framework for ICT-related activities, e.g. fixed and mobile communication, e-commerce and Internet services;
- Promoting innovation and risk-taking through fiscal concessions and availability of venture capital; creating an investment climate for domestic and foreign investment in ICT sector;
- Promoting ICT training, education and research;
- Negotiating and influencing the proper adoption of international frameworks, norms and standards by participating actively in the governance of the global information economy.

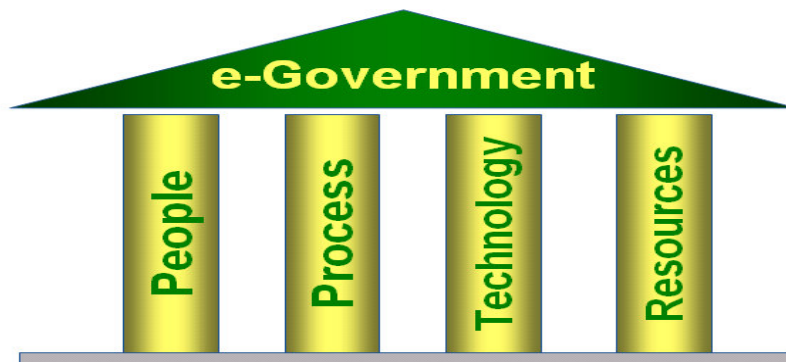
4. Challenges of e-Governance

4.1 e-Government and e-Governance are key challenges for governments today as they involve multiple stakeholders and multiple processes and demand considerable coordination and collaboration as well as managerial and financial resources.

Complexities of e-Government



The Four Pillars of eGov



4.2 e-Government involves the management of programmes, processes, knowledge, resources, technology, procurement and expectations. In e-Governance the 'People' dimension is critically important. People, process, technology and resources are the four pillars of e-Governance. The challenges to e-governance, therefore, relate to people (e.g. lack of political will, official apathy, shortage of champions, lack of skills in government etc.); process (e.g. lack of process models, status quo-ism, poor legal-institutional frameworks, complex procurement etc.); technology (e.g. lack of architecture, lack of standards, poor communication infrastructure and hardware-approach etc.) and resources (e.g. budget constraints, disinterest of the private sector, lack of project management skills on the part of public managers etc.). The key considerations in e-Governance are described below:

e-Governance Imperatives

Process →	Simplicity	Efficiency	Citizen- centricity	Sustainability	Cost- effectiveness
People →	Vision	Leadership	Commitment	Competency	Change
Technology →	Architecture	Open Standards	Reliability	Scalability	Security
Resources →	Holistic	Efficient	Service- oriented	Sustained	Adequate

5. ICT for Good Governance

5.1 The advances in information and communication technologies and the internet provide opportunities to transform the relationship between governments and citizens and business in new ways that contribute to the attainment of good governance. They provide opportunities for people and business to involve in the process of governance at all levels. They facilitate better service delivery to clients, in terms of timelines and quality, thus making governance more efficient and effective. In addition, the use of ICT may lower transaction costs both for citizens and government operations and public services can be made more affordable to the people at large.

5.2 ICT presents many avenues for improving governance. It has opened up new opportunities for governments to manage things differently and in a more efficient manner by utilizing information effectively and re-engineering processes. ICT tools are emerging as important instruments towards the goal of "good governance". Many countries have launched specific initiatives for open government. Freedom of information is being redefined and supported by statutes. India's Right to Information Act 2005 is a prime example in this regard. ICT has facilitated a conscious attempt to place the citizen at the centre of a governance network. Citizens are being perceived as customers and clients rather than beneficiaries. The Internet revolution has proved to be a powerful tool for citizen-centric governance. An important dimension of the Internet potential is the possibility of providing public services anytime, anywhere.

5.3 A defining characteristic of traditional public sectors has been the existence of a large physical infrastructure. This was to deliver programmes through a network of service delivery points and offices. Physical infrastructure was the most effective way to deliver public services directly to citizens. ICT now allows governments to experiment successfully with new ways of organizing themselves; cost-effective delivery of services is now possible without the service providers and clients being physically close to each other.

5.4 Large scale implementation of e-governance initiatives can lead to demystification of complicated government processes and empowerment of citizens. It can lead to enhanced government performance and generate a multiplier effect on economic progress. ICT has enabled citizens to demand information and better services from governments. With increased citizen awareness, governments today are under increasing pressure to deliver a range of services – from ration cards, motor driving licenses and land records to health, education and civic services – in a manner that is timely, efficient, economical, equitable and transparent.

5.5 The application of ICT to government processes - e-Governance - can have a profound impact on the efficiency, responsiveness and accountability of the government, thereby, on the quality of life and productivity of citizens, especially the poor; and ultimately, on the economic output and growth of the country as a whole. Electronic governance goes far beyond mere computerization of stand alone back office operations. It is a means to fundamentally change how the government operates and this implies a new set of responsibilities for the machinery of the government.

5.6 ICT can act as a catalyst for organizational transformation and change in government by influencing governance in several ways as follows:

- Managing large volumes of data and work flow connectivity between government operations, departments and agencies and significantly reducing errors;
- Reaping scale economies and improving efficiency by automation of complicated and repetitive governance tasks and developing standard applications;
- Reducing personal interface of citizens and business with public service providers, cutting delay, bureaucratic red tape, corruption and harassment and increasing speed of response; and
- Enhancing transparency and accountability by making information available to citizens through websites, reducing information monopoly, simplifying processes and empowering citizens to put pressure on public officials to deliver performance.

6. e-Governance Design

6.1 e-Governance practices across the world point to some key strategies for the successful design and implementation of such projects. These deal the aspects of planning, process re-engineering and implementation. Drawing from international experiences, the following suggestions can be prescribed for three phases of e-governance projects [Centre for Democracy and Technology (2002)]:

Publish:

- Begin with a strategy to get information online, with appropriate milestones.
- Post information of value to people in their daily lives, and emphasize local language content.
- Consider a mandate that all agencies publish a specified range of information online.
- Seek attainable results using available resources.
- Design sites so they are easy to maintain, and sustain funding to ensure that information is updated regularly.
- Focus on content that supports other goals, e.g. economic development, anti-corruption, attracting foreign direct investment etc.

Interact:

- Show citizens that their engagement matters, by informing them of the outcomes of their online comments.
- Break down complex policy issues into easy-to-understand components.
- Be proactive about soliciting participation; use traditional media to publicize online consultations.
- Engage citizens collaboratively in the design phase.

Transact:

- Target audiences that will have immediate use for the online services.
- Enlist the support of potential users of the site and address the concerns of government workers whose role will change due to the innovation.
- Integrate e-government with process reform, streamlining and consolidating processes before putting them online.
- Recognize that initial investments in transact systems can pay off over time in terms of cost savings and increased revenue.
- Create a portal for transact services.

6.2 Five key elements can be identified as common elements in the case of successful e-governance projects:

Guide to Implementation of Successful e-Government Projects**Process Reform:**

- Plan carefully – streamline and consolidate offline processes before putting them online.
- Don't automate inefficiencies – eliminate them.
- Respond to local needs – draw on the ideas of those who will use the system and enlist their support.
- Try to focus projects from the user perspective.
- Dispel resistance of civil servants by training/incentives to support reform.
- Ensure commitment of resources for the long-term.

Leadership:

- Create an office and designate a senior official as a focal point for e-government innovation, planning and oversight.
- Signal highest political support for the initiative to ensure that all relevant departments and agencies support it.

Strategic Investment:

- Define clear goals.
- Catalogue available resources, ranging from funding to personnel.
- Make short and long-term plans, with expected expenditures, income streams and deadlines.
- Designate an officer or organizing body to oversee planning and budgets.
- Consider multi-technology approaches. Some communities may not be ready for the Internet, but other technologies like radio may better serve their needs.
- Consult with local communities to ensure that they benefit from technology.

Collaboration:

- In the planning phase, establish a consultative process that includes opportunities to hear from and speak with business, NGO's and other

- government agencies. Explain the goals of e-initiative and solicit suggestions.
- Take private sector advice and experience into account when designing systems. Respond to identified needs.
 - Create incentives for private sector to become active participants in reform.
 - Encourage cooperation and integration between departments/ministries of government.
 - Local champions will help projects succeed. To decrease skepticism in local communities, directly involve local leaders by making them representatives, and by teaching them IT skills they can pass on to their communities.
 - Create local ownership. In conjunction with the establishment of a local management committee or body, handover of e-government projects should occur as soon as possible.
 - Central ministries and state and municipal agencies and authorities need to partner to ensure a smooth reform in services.

Civic Engagement:

- Consult widely in designing systems.
- Design applications that are focused on the citizen.
- Combine e-government with legal reform efforts such as requiring public notice and comment in legislative and regulatory processes.
- Keep in mind differences in local culture when seeking to engage citizens.
- Design engagement opportunities that build on successful models.

Source: Centre for Democracy and Technology. 2002. The e-Government Handbook.

7. e-Governance in India

7.1 India has done a remarkable start in terms of using ICT for improving government business. Several states in India – Andhra Pradesh and Karnataka being the pioneers – have been attempting e-governance solutions to improve information management and governance (see Appendix 3 for brief description of some e-Governance projects). States have set up Information Technology and Communication (IT&C) Departments to guide and coordinate the implementation of e-governance programmes and projects. These Departments also provide guidance for procurement of hardware and software by government agencies. IT&C Departments have made commendable progress in the development of e-governance applications (e.g. Bhoomi in Karnataka and e-Seva in Andhra Pradesh). The IT&C Department, Government of Andhra Pradesh has taken up exemplary e-governance initiatives like e-Seva, e-Procurement, CARD (Computer-aided Administration of Registration Department), and Fully Automated Services of Transport Department (FAST). These projects have become role models and have been emulated by other states in the country. The Government of Andhra Pradesh has also recognized the need for e-governance standards to ensure interoperability among e-governance applications. Metadata Standards and Operational Specifications titled “e-Thesaurus for Good Governance” and Data Standard Definitions titled “e-Data Dictionary for Good Governance” have been developed through the Centre for Good Governance (CGG), Hyderabad.

7.2 In spite of good progress, the power of e-Governance for good governance is yet to be harnessed in India to a significant degree. States differ substantially in terms of their e-readiness and approach to e-Governance due to several factors.



Status of e-Governance in India

7.3 A study of the experiences with e-Governance projects and other e-initiatives undertaken by States provides the following lessons:

- Strong domain knowledge is critical for the success and sustainability of applications; 80 per cent of projects fail due to poor knowledge content and design in e-applications following from lack of adequate domain support from government departments and agencies at the development stage;
- Lack of ownership and coordination in the government lead to many well-crafted e-solutions to languish into disuse; the institutional framework for e-governance needs to be robust and well-defined;
- Partial approaches have been adopted to both development and implementation of e-solutions; the enormous power of the excellent computerization of voter identity particulars by the Election Commission of India spanning the whole of India has not been tapped excepting in a few places like Hyderabad;
- Everything in government is linked with every other thing; developing and implementing ICT-enabled processes in narrowly defined departmental silos tend to have limited impact on improving governance and limited interest from public sector managers in the medium or long-term;
- Data standards, metadata standards and service delivery definitions are very important for inter-operability; most e-governance applications are not based on defined codes and standards as a result of which they don't lead to the network or linkage economies. A common IT infrastructure and architecture standard is key to ensuring e-development in a coherent and integrated way. Advanced planning of common IT infrastructure standards can result in shortened development time and system compatibility.
- Back-end is more important than the front-end; the front-end dealing with business and citizens in e-governance applications need much larger efforts to design than what is shown to outside;

- Support infrastructure is critical for e-governance implementation; the reliability and reach of electric power, telecommunication links and broad band connectivity are critically important;
- Top-down approaches hardly sustain; involvement of all key stakeholders is crucial; localization of e-governance and ownership at the local level is a must for sustainability;
- It is very difficult on part of governments to recruit and retain quality professionals with ICT expertise in view of much better prospects in the private sector; thus public-private partnership models need to be explored in addition to providing pay and allowance to ICT professionals in government on par with the private sector;
- General ICT literacy with local language content and application are essential elements of the climate for effective e-governance and its acceptance;
- Development and implementation champions - ICT leaders are necessary in government to deal with resistance to implementation and change and forging public-private partnerships;
- Resistance to the use of ICT in the government sector is large; well-designed and consistent change management programmes can address the mindset block issues effectively;
- Involvement of the civil society including academia from development to implementation stages helps in enhancing acceptability of e-applications by employees and social groups; and
- Training, awareness building, and social mobilisation to create constituencies of ICT-propelled transformation in government and to facilitate the acceptance of new tools and methods by various sections are very important.

8. Reforms for e-Governance

8.1 Using e-governance tools for good governance requires certain fundamental reforms. We need a new institutional framework – a framework of “networked” or “joined-up” government based on the foundation of simplified, reformed and connected horizontal processes and appropriate regulations. The institutional structure of government, which has so long been based on a hierarchical model, needs a thorough overhaul. Good governance requires a systems approach wherein various facets of government are linked to each other in an organic way.

8.2 e-Governance requires a range of new rules, policies, laws and legislative changes to address e-activities including electronic signatures, electronic archiving, freedom of information, data protection, computer crime, intellectual property rights and copyright issues. Dealing with e-governance means signing a contract or a digital agreement, which has to be protected and recognized by formalized laws. Digital laws are yet to be fully developed. Establishing protection and legal reforms will be needed to ensure, among other things, the privacy, security and legal recognition of electronic interactions and electronic signatures. Hence, the government needs to tackle the design and development of key public infrastructure – physical, administrative, legal etc. - which will guarantee secure transactions between organizations and individuals.

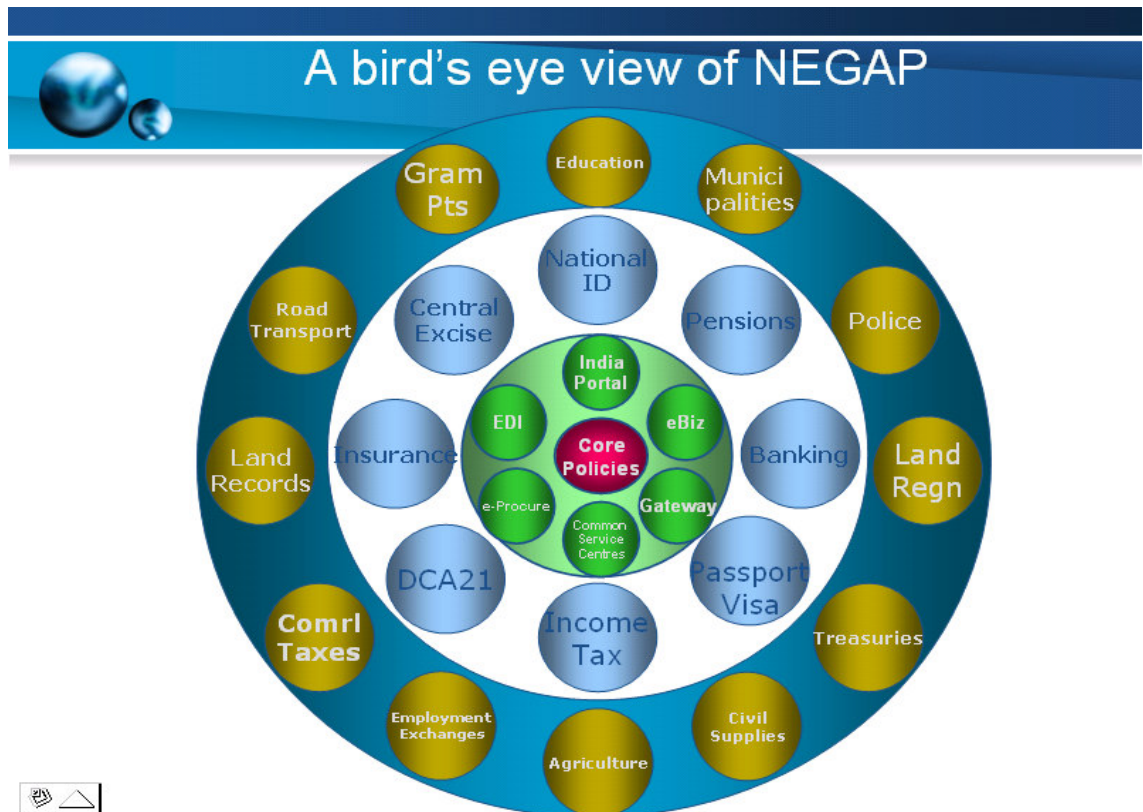
8.3 A major challenge of any e-governance initiative is the lack of required ICT skills in government. This is a particular problem where the chronic lack of qualified staff, frequent turnover of contract IT personnel, and inadequate human resources training are endemic. The availability of appropriate skills is essential for successful e-governance implementations. e-Governance requires hybrid human capacities: technological, commercial and management which can be procured at market cost. Technical skills for installation, maintenance, designing and implementation of ICT infrastructure, as well as skills for using and managing online processes, functions

and citizens, are necessary. Typical government salary structure should not be applied to key ICT professionals in government when the market provides far greater opportunities. To address human resource development issues, management initiatives are required focusing on staff training, seminars, workshops etc. in order to create the basic skills for handling e-governance. Public-private partnership models appear to be a partial solution. The new experiment of Andhra Pradesh through Jawahar Knowledge Centres in reputed engineering colleges is a worthwhile initiative.

8.4 Change management issues must be addressed as new work practices, new ways of processing and performing tasks are introduced through ICT. Correctly designed e-government projects, supported by change management, not only save costs and improve service quality, they also revolutionize and reinvent government processes and functions. Employee resistance to change is still the biggest barrier to successful change. Employees fear changes in general and ICT applications, in particular as they believe that ICT would replace them and contribute to loss of jobs. Moreover, it is very difficult in a short time to turn off traditional methods of working and learn new ones. Addressing resistance successfully means ensuring the existence of incentives for employees to learn and change and the establishment of well-structured plans that embrace employee participation throughout all stages of a change process.

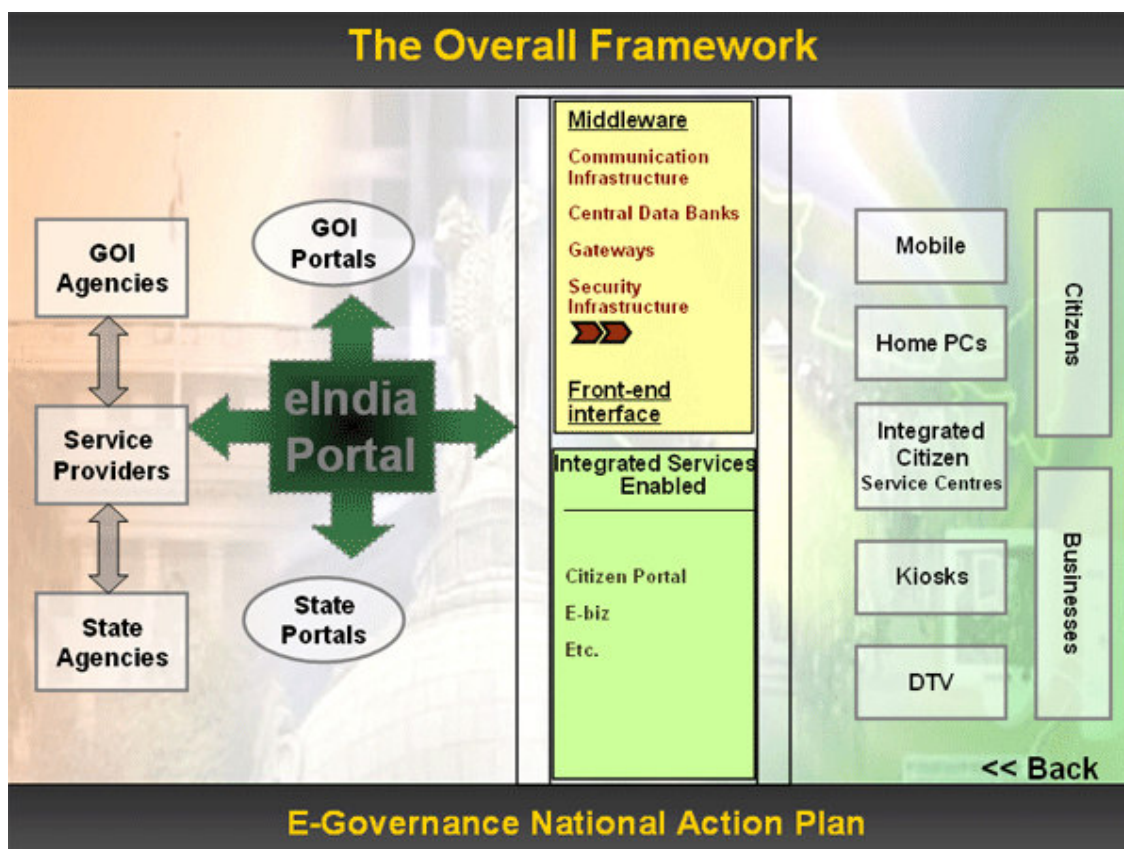
9. National e-Governance Action Plan (NeGAP)

9.1 The recently formulated National e-Governance Action Plan of India attempts to address many of the key issues of e-Governance in India with a view to harnessing the power of ICT to improve governance for the common citizen. The structure of NeGP (2003-07) encompasses a set of core policies to provide integration and support, a set of integrated projects or cross-cutting initiatives, a set of Mission Mode Projects at national and state levels.



Design of NeGP

Central Government Projects	State Government Projects (Sub Programme)	Integrated Projects
<ul style="list-style-type: none"> • National ID • Central Excise • Income Tax • DCA 21 • Passport/ Visa & Immigration • Pensions 	<ul style="list-style-type: none"> • Land Records • Property Registration • Transport • Agriculture • Municipalities • Gram Panchayats • Commercial Taxes • Treasuries • Police • Employment Exchange 	<ul style="list-style-type: none"> • EDI • e-BIZ • Common Service Centres • India Portal • EG Gateway • e-Procurement • e-Courts
Programme Components		
<ul style="list-style-type: none"> • Core Policies • Core Infrastructure • Support Infrastructure 	<ul style="list-style-type: none"> • Integrated Services • Technical Assistance • HRD & Training 	<ul style="list-style-type: none"> • Awareness & Assessment • Organization Structures • R & D



9.2 The National e-Governance Action Plan demands wide-ranging reforms in governance processes. Simple automation of processes does more harm than benefit. The syndrome of “garbage in – garbage out” will operate if complicated processes are automated without simplification and establishing their usefulness for the people. Thus, process reforms hold the key to successful e-Governance. This is where the NCGG can play a key role. Moreover, NCGG will be the national centre of knowledge on governance with significant application of ICT for networking with state and international knowledge centres and governments. It would make effort to document and propagate e-tools for good governance while addressing capacity building and change management issues.

9.3 Knowledge is power. Harnessing the power of ICT for e-governance has the power of transforming government and making knowledge-based good governance a reality. While the challenges faced by governments are colossal, the new technologies provide tremendous opportunities for enhancing the power of governments to handle data, take better informed decisions, and provide transparent, cost-effective and accountable solutions and services to citizens and business. Good governance requires process reforms and input-output-outcome-impact tracking. Automation of reformed processes and tracking systems can assist in the delivery of good governance to citizens in developing countries. As good governance is the single-most important factor for socio-economic development and poverty reduction, e-Governance can make a distinct impact on the development scenario, especially for the poor and weaker sections of society, including women. There is an urgent need to address the issues of using new technology for transformation of governance and leapfrogging development.

10. Role of Centre for Good Governance

10.1 The Centre for Good Governance is emerging as model for the country in designing e-Tools for good governance based on process reforms.

10.2 The following are some of the initiatives taken by the Centre for Good Governance to design e-tools for good governance in Andhra Pradesh. Many of the tools are under use and can be replicated in other states.

e-Thesaurus and e-Data Dictionary

Internet has opened up a whole gamut of instantly accessible information available at our finger tips. The vast information resources available with the government need to be structured for better management, reach, accessibility and easy search. Obviously managing such a vast information pool would require precise identification, classification, structuring, easy retrieval and utilization of information. Metadata, which is data about data, can be used by search engines when they search the web or an intranet looking for information on a particular subject. Adding metadata involves tagging information resources to help people navigate through masses of electronic information sources and confidently locate what is sought after. For metadata to be effective across the whole range of government it must be well structured and consistently applied. A document titled “AP Metadata Framework, Standards & Operational Specifications” [AP-MFSOS] has been prepared by the Centre for Good Governance (CGG) which provides the framework, standards and operational specifications for structuring and managing meta-data. This will add to repertoire of interoperability standards for effective e-governance. To start with, 22 meta-data elements, 15 of which are based on the Dublin Core format, have been incorporated. There may be a need to increase the number of elements forming the Meta-data structure over time as the structure is implemented in practice and grows out of the experience of the user.

Lack of Data Standard Definitions hampers interoperability among various e-governance applications. The adoption of data standards for use across the Government will enable easier, more efficient exchanging and processing of data. It will also remove ambiguities and inconsistencies in the use of data. Inevitably the migration to these new standards may appear at the outset to be costly and time-consuming to some parts of government. It will also be easier and cheaper to use these standards from the outset in systems development rather than making changes during the life of the systems. An e-Data Dictionary comprising Data Standard Definitions for all the data elements comprising the Multipurpose Household Survey conducted Andhra Pradesh has been prepared and documented by CGG. This enables the developers of e-governance applications to adhere to the set of Data Standards, thus making communication between the systems clear.

Online Energy Audit

Energy losses, comprising technical and commercial losses, have been one of the major factors responsible for the financial sickness of the power sector utilities. Of these losses, commercial loss due to pilferage, theft and unmetered supply is a major component which can be reduced by monitoring at the feeder level backed by energy audit to bring in accountability to the system at all levels.

The Online Energy Audit System is a web based tool to demonstrate the use of Information Technology to track the extent of commercial losses at the 11KV feeder level. The input energy to the feeder is reconciled with the energy billed to the consumers to arrive at the gap between the energy supplied to the feeder and the energy billed to the consumers. Performance indicators based on various parameters have been developed for all the functionaries to bring accountability into the system. A performance management system for APTransco is under implementation.

Legal Cases Management System

Legal Cases involving the Government departments are thousands in number at various levels of courts in the state. Many a times the Government loses cases in the courts due to avoidable reasons such as Government Pleaders not attending court on the date of hearing/arguments due to non-availability of timely information. The present stage of the cases is also not known due to improper maintenance of records. The higher level functionaries are not in a position to know the number of cases, their status, the courts in which they are pending, case details and the action taken by the department officials in response to the judgments. The online legal cases management system is a web enabled software which enables the Government to track the status of cases from the time of filing to disposal/judgment/appeal. The system enables the departments to provide timely information to the Government Pleaders and closely monitor the status of the cases. The system is under use in selected departments.

Parishkaram - Call Centre

A Call Centre titled "Parishkaram" has been started by the Government of Andhra Pradesh to enable citizens to query information about government services or for redressal of grievances. Parishkaram means resolving complaints and problems. Using this facility, a citizen can dial a toll-free number "1100" to get information on various state departments or register his grievance. "Parishkaram" was first started for services relating to the agriculture department and later extended to thirteen other departments. If the query is information-related, the call is answered by the operator by giving the necessary information, and the details of the call are recorded into the system. If the query cannot be answered by the operator, the query along with details is then forwarded to the concerned department official. A Management Information

System (MIS) enables the operator to route the calls to the officials of concerned departments to obtain the response and convey the same to the citizen. If a call is not attended in time, the call automatically escalates to the higher level.

Stores Automation and Information System

Stores Automation and Information System has been developed with the objective of automating the system of stores management in Andhra Pradesh Transmission Corporation (APTransco) and the Distribution Companies (Discoms). The existing stores management system involving several books, ledgers, and abstracts and the process was laborious, time-consuming and complex. This software replaces existing manual processes, which involve accepting, storing, processing, outputting or transmitting data/Information. It has automated the entire process of stores accounting, thus eliminating the delays involved in the manual processes. The stock position in any store is available at the click of a mouse and has thus enabled decision support with regard to transfer of material from one store to the other.

Online Letter of Credit (LoC) Tracking System

The public works departments take up projects worth several hundred crores every year. Funds are released for projects in the form of Letter of Credit (LoC) against which the banks arrange funds to the contracting agencies. Due to inefficient work flow and reporting mechanisms, communication gaps exist between the works departments and finance department resulting in delays in release of funds for projects. This leads to slippage in milestones for completion of projects leading to time and cost overruns. The Online Letter of Credit System leverages the tool of Information Technology (IT) to automate the entire process of release of funds and thus enables officials to send proposals and receive allocations "online". The system ensures transparency and accountability and enables the department functionaries and the Secretaries to monitor the budget, releases and expenditure on a day to day basis. It also reduces red tape and corruption.

Instantaneous Access to Information Station (INSTAX)

INSTAX is an instant information system set up in the offices of the Chief Minister and Chief Secretary to enable them to monitor and take action on all important incidents taking place in the state. The information system enables officials from any where in the state to report any incident by various means of communication like SMS, Fax or by hard copy. A team of officials in a control room in the Secretariat also monitor the events reported in the media on a 24x7 basis. The messages are updated in the system enabling officials in the office of Chief Secretary/Chief Minister to view the messages and direct the concerned officials to take prompt action. The messages can be relayed to the concerned department functionaries by various means of communication such as e-mail, Fax or SMS. Instructions can also be instantaneously transmitted from various levels.

Online Petition Monitoring System

An Online Petition Monitoring System (OPMS) was developed and deployed in the Office of the Chief Minister of Andhra Pradesh. The Chief Minister receives hundreds of petitions in his office on a regular basis. In addition to the petitions, the assurances made by the Chief Minister during his tour of the districts and villages are also recorded and followed up through this system. The OPMS enables officials in the Chief Minister's Office to register the petitions into the system including details pertaining to the petitioner and the nature of grievance.

The petitions and assurances can be routed automatically through the system to the District Collectors and the Heads of Department for prompt action and redressal. The District Collectors and Heads of Department can access the system and get

information on all petitions and assurances. The Collectors/Heads of Department then forward the petitions and assurances to the concerned department officials for redressal. The status of grievance redressal is updated by the Collectors/Department Officials and is monitored at the Chief Minister's Office. The system thus enables tracking of petitions on a regular basis and helps the Chief Minister's Office in ensuring prompt redressal of grievances and assurances. OPMS is being extended to all Departments and Districts.

Online Performance Tracking System

Government of Andhra Pradesh has taken initiative to install a Performance Management System (PMS) based on performance indicators to track, measure, review and improve the performance of Government Departments. The PMS model, depicted in Figure 8, is designed to link development goals, policies, priorities, plans, programmes, projects, budgets and action plans with performance towards achieving the desired objectives. It involves performance indicators, performance targets, performance monitoring, performance measurement, performance-based evaluation, performance-based review and evidence-based policy-making.

The steps followed in a Performance Management System include the following:

- Develop vision and mission;
- Set out development objectives and priorities;
- Identify performance outcomes and impacts;
- Set appropriate performance indicators as yardsticks for measuring performance;
- Set measurable targets;
- Monitor performance;
- Measure and review performance;
- Improve performance;
- Establish a process of regular reporting;
- Draw lessons for the next round of planning process.

Performance Indicators have been adopted by several Government Departments. The targets and achievement for indicators are monitored monthly, quarterly and annually at the Department and District levels.

The Centre for Good Governance has developed a 4-F model-based Online Performance Tracking System for tracking performance: Function, Functionary, Finance and Field. Measurement of performance is done for every department by deploying a Hexagon Model; tracking the following:

- Monthly achievement as percentage of monthly target; Monthly achievement of as percentage of annual target
- Cumulative achievement as percentage of cumulative target
- Relative cumulative achievement compared to relative cumulative achievement for the similar period of last year
- Cumulative achievement as percentage of the target of the forward jurisdiction, e.g. District vs. State or State vs. Country
- Achievement compared to benchmark, fixed if any
- Achievement compared to that for similar colleagues.

An example of the Performance Management System (PMS) under execution is provided by Revenue Administration Performance Tracking (RAPT) System being implemented by the Revenue Department.

Revenue Administration Performance Tracking (RAPT) System

Revenue Administration Performance Tracking System aids the Revenue department in the effective management of various activities including building the repository of data concerned with various modes of revenue collection as well as land administration. The reporting is based on authenticated, authorized reporting down from the village level.

RAPT includes the compilation and consolidation of the following aspects.

- Revenue Collection
- Water Tax
- Non-agricultural Assessment
- Road Cess
- Inam Abolition Act
- Estate Abolition Act
- Issue of Pattadar Passbooks and Title Deeds
- Issue of various Certificates
- Assignment of Land for Agriculture and House Site
- File Monitoring System
- Online Correspondence

The major stakeholders in the RAPT system include:

- Chief Commissionerate of Land Administration Office
- District Revenue Officers (DROs)
- Mandal Revenue Officers (MROs)

Features of RAPT

- Login accounts for various functionaries at various levels;
- RAPT is designed to make the reporting of various periodicals easy;
- Village-wise information is fed into the computer by MROs through MRO logins and the District information (only in the cases of e mail and FMS) has to be fed at the District level through DRO Logins;
- Reporting to include Village wise, Mandal wise, District wise split up in collection.

11. Some Emerging Challenges

11.1 While providing numerous opportunities for better governance, globalization and ICT have also brought in many new challenges for governments. These pertain to creating networks and an environment for absorption and growth of information technology, bridging the digital divide, management of laws and regulations, knowledge management, and capacity building for information management. The Global Information Technology Report uses a Networked Readiness Index (NRI) to assess the comparative progress of countries along different dimensions of progress in ICT. NRI is defined as "the degree of preparation of a nation or community to participate in and benefit from ICT developments". The Index is a composite of three components: the environment for ICT offered by a given country or community; the readiness of the community's key stakeholders (individuals, businesses, and governments) to use ICT; and finally, the usage of ICT amongst these stakeholders. Comparisons on NRI between countries over the years suggest that the differences between nations and regions in terms of ICT readiness are large, with considerable polarization. Further, disparities in the levels of ICT readiness and usage translate into disparities in the levels of productivity and prosperity. The governments need to take steps to enhance e-readiness and e-capability of all sections of the society. They need to bridge the digital divide. The Government of Andhra Pradesh is taking

a number of steps increase its NRI including creating broad band connectivity links to all villages.

11.2 While new technologies have the potential of improving governance, they are by no means sufficient for good governance. Governments need to understand, manage and lead change effectively. There is a need for building capability of the state and its apparatus to adapt to the new realities and exploit the opportunities for development and poverty reduction presented by globalization. The Government of Andhra Pradesh is attaching utmost importance to building capability for use of IT for good governance. Its Chief Information Officer programme to create champions and change agents for using IT is a role model worth emulation by other states.

(Paper prepared for the Second Administrative Reforms Commission)