4.1 Introduction

4.1.1 Recognising the increasing importance of electronics, the Government of India established the Department of Electronics in 1970. The subsequent establishment of the National Informatics Centre (NIC) in 1977 was the first major step towards e-Governance in India as it brought 'information' and its communication in focus. In the early 1980s, use of computers was confined to very few organizations. The advent of personal computers brought the storage, retrieval and processing capacities of computers to Government offices. By the late 1980s, a large number of government officers had computers but they were mostly used for 'word processing'. Gradually, with the introduction of better softwares, computers were put to other uses like managing databases and processing information. Advances in communications technology further improved the versatility and reach of computers, and many Government departments started using ICT for a number of applications like tracking movement of papers and files, monitoring of development programmes, processing of employees' pay rolls, generation of reports etc.

4.1.2 However, the main thrust for e-Governance was provided by the launching of NICNET in 1987 – the national satellite-based computer network. This was followed by the launch of the District Information System of the National Informatics Centre (DISNIC) programme to computerize all district offices in the country for which free hardware and software was offered to the State Governments. NICNET was extended via the State capitals to all district headquarters by 1990.

4.1.3 In the ensuing years, with ongoing computerization, teleconnectivity and internet connectivity, came a large number of e-Governance initiatives, both at the Union and State levels. A National Task Force on Information Technology and Software Development was constituted in May 1998. While recognising Information Technology as a frontier area of knowledge per se, it focused on utilizing it as an enabling tool for assimilating and processing all other spheres of knowledge. It recommended the launching of an ‘Operation Knowledge’ aimed at universalizing computer literacy and spreading the use of computers and IT in education. In 1999, the Union Ministry of Information Technology was created. By 2000, a 12-point minimum agenda for e-Governance was identified by Government of India for implementation in all the Union Government Ministries/Departments. The agenda undertaken included the following action points:

i. Each Ministry/Department must provide PCs with necessary software up to the Section Officer level. In addition, Local Area Network (LAN) must also be set up.

ii. It should be ensured that all staff who have access to and need to use computer for their office work are provided with adequate training. To facilitate this, inter alia, Ministries/Departments should set up their own or share other’s Learning Centres for decentralized training in computers as per the guidelines issued by the MIT.

iii. Each Ministry/Department should start using the Office Procedure Automation software developed by NIC with a view to keeping a record of receipt of dak, issue of letters, as well as movement of files in the department.

iv. Pay roll accounting and other house-keeping software should be put to use in day-to-day operations.

v. Notices for internal meetings should be sent by e-mail. Similarly, submission of applications for leave and for going on tour should also be done electronically. Ministries/Departments should also set up online notice board to display orders, circulars etc. as and when issued.

vi. Ministries/Departments should use the web-enabled Grievance Redressal Software developed by the Department of Administrative Reforms and Public Grievances.

vii. Each Ministry/Department should have its own website.

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Source: http://it-taskforce.nic.in/prem.htm

Adapted from ‘Minimum Agenda for e-Governance in the Central Government’; http://darpg.nic.in/darpg-website/ReformInitiatives/eGovernance/IndianExperience/EgovExp73.doc
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x. The Hindi version of the content of the websites should as far as possible be developed simultaneously.

xi. Each Ministry/Department would also make efforts to develop packages so as to begin electronic delivery of services to the public.

xii. Each Ministry/Department should have an overall IT vision or strategy for a five year period, within which it could dovetail specific action plans and targets (including the minimum agenda) to be implemented within one year.

4.1.4 Tax administration departments both at the Union and State levels were among the first to use ICT to improve their internal working. ICT was used to have better reporting systems, preventing leakages and faster processing of returns. The Tax Reforms Commission of Karnataka (2001) had the following to say:

Complexity and diversity are the defining characteristics of government at the level of the State as well as the Centre. The State would serve itself best by developing a unified e-Governance plan and assigning priorities inter-ministerially, inter-departmentally and intra-departmentally to achieve and maintain minimum break-evenness during a defined plan period. This makes it easier to provide adequate funds for optimum computerization. It also brings in the essential discipline of managing to projected costs and returns.

A unified plan and prioritization at the State level allows government to maintain the right balance between its interests and those of the citizen. Frequently the focus appears to settle on citizen satisfaction through citizen visible e-Governance initiatives, such as kiosks and citizen charters. While this is not, by itself, objectionable it is not clear whether computerization within the department should not also focus on attaining higher internal productivities and efficiencies. While popular appeal was essential in the early days to give a fillip to e-Governance initiatives, it is time now to adopt a more tough-minded approach.

4.1.5 Prior to 2006 when the Government of India formally launched its National e-Governance Plan (NeGP), which is discussed in Chapter 7 of this Report, some Departments of Government of India as well as State Governments had initiated steps to adopt e-Governance. In this context it would be useful to highlight some of the important e-Governance initiatives implemented by the Union and State Governments in the last 10 to 15 years, assess their strengths and weaknesses and identify the lessons learnt from them. These initiatives are discussed under the following categories:

i. Government to Citizen (G2C) initiatives

ii. Government to Business (G2B) initiatives

iii. Government to Government (G2G) initiatives

4.2 Government to Citizen (G2C) Initiatives

The e-Governance scenario in India has come a long way since computers were first introduced. The focus now is on extending the reach of governance to have a major impact on the people at large. As stated earlier, e-Governance is an important tool to enhance the quality of government services to citizens, to bring in more transparency, to reduce corruption and subjectivity, to reduce costs for citizens and to make government more accessible. A large number of initiatives have been taken in this category by the Union and the State Governments. Some of these are described in the following paragraphs.

4.2.1 Computerisation of Land Records (Department of Land Resources, Government of India)

4.2.1.1 A Conference of the Revenue Ministers of States/UTs had advocated such computerization as early as in 1985.20 Based on the recommendation, the Union Ministry of Rural Development selected 8 districts in 8 States for a pilot project on Computerization of Land Records, which was 100% centrally-sponsored. From 1994-95 onwards, it was implemented in collaboration with the NIC.

The main objectives of the scheme were:21

i. Ensuring that landowners get computerized copies of ownership, crop and tenancy and updated copies of Records of Rights (RoRs) on demand.

ii. Realizing low-cost and easily-reproducible basic land record data through reliable and durable preservation of old records.

iii. Ensuring accuracy, transparency and speedy dispute resolution.

iv. Facilitating fast and efficient retrieval of information for decision making.

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v. According legal sanctity to computer-generated certificates of land records after authentication by the authorized revenue official.

vi. Setting up a comprehensive land information system for better land-based planning and utilization of land resources.

vii. Focusing on citizen-centric services related to land and revenue administration.

4.2.1.2 The phased coverage of this scheme is given below:

i. During the Seventh Plan, funds were sanctioned for taking up the programme in 24 districts;

ii. During the Eighth Plan, funds were sanctioned for taking up the programme in additional 299 districts;

iii. During the Ninth Plan, funds were sanctioned for taking up the programme in additional 259 districts;

iv. In 1997-98, it was decided that the scheme be extended to the taluk or tehsil or block level to facilitate distribution on demand, of computerized copies of RoRs from the tehsil or taluk computer centre. Accordingly, in the Ninth Plan period, funds were sanctioned for setting up computer centres at 2787 tehsils or taluks; and

v. During the Tenth Plan period, the scheme was extended to cover 1615 more tehsils / taluks / blocks / anchals / circles, setting up of computer centres in 1019 sub-divisions, land records data centres in 365 districts and monitoring cells at 16 State Headquarters.

4.2.1.3 The status of implementation of this scheme is as follows:

A. States which have completed RoR data entry: Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Sikkim, Uttar Pradesh, Uttarakhand and West Bengal.

B. States which have stopped manual issue of RoR: Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu, Uttar Pradesh, Uttarakhand and West Bengal.

4.2.1.4 Due to the unsatisfactory implementation of the scheme, the Union Ministry for Rural Development constituted a Committee to suggest practical steps to implement the scheme. The Committee on Computerisation of Land Records submitted its Report in April 2005. This Report suggested that:

i. In addition to computerizing Records of Rights, all States must computerize the details of crops, cultivation, soil classification, irrigation, etc. Scanning of basic land records and digitization of cadastral maps / village maps may also be taken up under the Scheme of CLR.

ii. Village / cadastral maps / tippan should be digitized under the scheme of CLR for integration, updation and preservation of maps, which will enable a land owner to get a computerized copy of the Records of Rights along with plot boundaries. Due to variations in the system of maintenance of cadastral map, States may adopt the strategy suitable to their requirements. However, priority for digitization should be given to those districts, which have successfully completed computerisation of textual land records.

iii. Integration of computerisation of land records and computerisation of land registration should be initiated at the earliest on pilot basis in some States without waiting for amendments suggested in the provisions of the Registration Act, 1908. Funds for setting up of computer centre in the office of the Sub-Registrar may be given under the scheme of CLR equivalent to funds provided to sub-divisions. (The Committee also suggested making amendments to the Registration Act, 1908 to simplify registration and its integration with the land records).

iv. There should be a time frame for the implementation of this scheme.

4.2.1.5 However, the process continued as earlier and so far, 582 districts, 4423 taluks / tehsils / circles and 1021 sub-divisions have been covered under the scheme. In 3356 tehsils, computer centres have been set up and in 2902 tehsils / taluks / circles computerized copies of RoRs are being issued to landowners on demand. Thus, even in twenty years, this scheme has not been able to cover the entire country.
v. According legal sanctity to computer-generated certificates of land records after authentication by the authorized revenue official.

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4.2.1.6 Lessons:

i. The scheme failed to address the main problem in case of land records in India, i.e. the land records do not reflect the factual ground reality. Computerisation of existing land records without corroborating it with the actual field position only led to perpetuation of existing loopholes and errors.

ii. Complex e-Governance projects have various components all of which need to be implemented for which a holistic approach is needed during implementation.

4.2.2 Bhoomi Project in Karnataka: Online Delivery of Land Records

4.2.2.1 Bhoomi is a self-sustainable e-Governance project for the computerised delivery of 20 million rural land records to 6.7 million farmers through 177 Government-owned kiosks in the State of Karnataka. It was felt that rural land records are central conduits to delivering better IT-enabled services to citizens because they contain multiple data elements: ownership, tenancy, loans, nature of title, irrigation details, crops grown etc. In addition to providing the proof of title to the land, this land record is used by the farmer for a variety of purposes: from documenting crop loans and legal actions, to securing scholarships for school-children. These records were hitherto maintained manually by 9,000 village officials. Through this project, computerised kiosks are currently offering farmers two critical services - procurement of land records and requests for changes to land title. About 20 million records are now legally maintained in the digital format. To ensure authenticity of data management, a biometric finger authentication system has been used for the first time in an e-Governance project in India. To make the project self-sustaining and expandable, Bhoomi levies user charges. The need for a project such as Bhoomi was felt for the following reasons:

i. In the traditional system, land records were not open for public scrutiny resulting in manipulation and favouritism.

ii. The process for applying for transfer of title was cumbersome, time consuming and prone to harassment.

iii. There were instances of Government land being illegally transferred in the name of influential persons.

iv. It was not possible for the administrators to procure, collate and analyse data from the manually maintained records.

v. Land records offered a unique opportunity to make people in the rural areas aware of the benefits of e-Governance. A number of benefits were attached with successful implementation of such projects: for example, the sanction of crop loans, since banks would insist on production of land records; reducing delay in the disposal of court litigation due to non-availability of records etc.

4.2.2.2 To achieve its objectives, certain IT innovations had to be carried out. These included:

i. Due to limited exposure of the officials in the use of IT and the critical nature of the data, the project relies on fingerprint biometrics for not only authentication of identity but also at each stage of any transaction relating to updation of data. This multi layered security access looks beyond the obvious danger of hacking of passwords and ensures accountability at all levels with no scope for repudiation.

ii. To ensure that the officials are responsible for the decisions they take on Bhoomi, the original papers connected with the decisions are scanned. To contain frivolous litigation by people claiming that notices seeking possible objections to change of titles were not served on them, the notices are also scanned on to the system.

iii. To convince a farmer of the genuineness of a computer interaction, a second computer screen facing him has been provided at the kiosk. Separate touch screen kiosks linked to the database are also available for farmers to independently verify the records in question.

iv. In order to protect the data from physical threats like fire or calamities, backing up of data was done by way of online replication.

v. Bhoomi software runs on a First in First Out process.

4.2.2.3 During project implementation, all the officials involved were assigned well-defined roles and responsibilities, down to the grass roots level. However, in the initial stages, in spite of elaborate and detailed guidelines, these were not percolating down. This was finally achieved through State level workshops and intensive trainings for bringing about changes in the attitude among departmental staff.
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Source: Based on information furnished by Government of Karnataka and their web-site.
4.2.2.4 The Bhoomi project is a noteworthy effort and sets an example for other projects in its approach towards piloting a project, as well as its rolling out and sustenance. It may be mentioned here that manually written Records of Right, Tenancy and Cultivation (RTC) have been declared illegal. Based on the success story of this project and its innovations, the Union Ministry of Communications and Information Technology has announced that Bhoomi would be a national model for computerisation of land records and replicated throughout the country. In fact, Bhoomi now envisages offering some additional services in the future:

i. Issue of land records with digital signature

ii. Providing connectivity with Bhoomi to courts and banks

iii. Scanning of survey sketches/maps and linking them with Bhoomi

iv. Decentralisation the issue of land records to Hobli (sub taluk) level on a PPP model along with RDS project.

4.2.2.5 Lessons:

i. A well conceptualized and executed BPR is a pre-requisite for success of e-Governance projects.

ii. There should be end-to-end computerization.

iii. Large e-Governance projects, having large scale impact require total support at the political level.

iv. Continuity in the Project Management team helps in proper implementation of e-Governance projects.

v. If benefits to citizens are real and substantial, projects become sustainable.

vi. A holistic approach is necessary for e-Governance. Adequate time and resources need to be devoted in conceptualization, implementation and maintenance of projects.

vii. Systems should have a strong back-up mechanism.

4.2.3 Gyandoot (Madhya Pradesh)28

4.2.3.1 Gyandoot is an Intranet-based Government to Citizen (G2C) service delivery initiative. It was initiated in the Dhar district of Madhya Pradesh in January 2000 with the twin objective of providing relevant information to the rural population and acting as an interface between the district administration and the people. The basic idea behind this project was to establish and foster a technologically innovative initiative which is owned and operated by the community itself. Initially, computers were installed in twenty village Panchayat centres and connected to the District Rural Development Authority in Dhar town. These were called Soochanalayas which were operated by local rural youth selected for this purpose (called Soochaks). No fixed salary or stipend was paid to them. Later, 15 more Soochanalayas were opened as private enterprise. The Soochanalayas are connected to the Intranet through dial-up lines. The services offered through the Gyandoot network include:

i. Daily agricultural commodity rates (mandi bhav)

ii. Income certificate

iii. Domicile certificate

iv. Caste certificate

v. Public grievance redressal

vi. Rural Hindi email

vii. BPL family list

viii. Rural Hindi newspaper.

4.2.3.2 There is a prescribed service charge for each service which is displayed at each kiosk along with the information about the expected delivery time. The citizen generally submits his application online (with the help of the Soochak) and has to go back to the Soochanalaya to collect the response. If the service is related to obtaining some certificates or documents, the citizen will have to collect them by visiting the government department. Alternatively, they are mailed to the citizen.29

4.2.3.3 The implementation of this project assumes significance as it throws light on the issues involved in taking e-Governance to rural areas. For example, the ‘India: e-Readiness Assessment Report 2003’3 mentions issues of connectivity and electricity supply as major

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4.2.2.4 The Bhoomi project is a noteworthy effort and sets an example for other projects in its approach towards piloting a project, as well as its rolling out and sustenance. It may be mentioned here that manually written Records of Right, Tenancy and Cultivation (RTC) have been declared illegal. Based on the success story of this project and its innovations, the Union Ministry of Communications and Information Technology has announced that Bhoomi would be a national model for computerisation of land records and replicated throughout the country. In fact, Bhoomi now envisages offering some additional services in the future:

i. Issue of land records with digital signature

ii. Providing connectivity with Bhoomi to courts and banks

iii. Scanning of survey sketches/maps and linking them with Bhoomi

iv. Decentralisation the issue of land records to Hobli (sub taluk) level on a PPP model along with RDS project.

4.2.2.5 Lessons:

i. A well conceptualized and executed BPR is a pre-requisite for success of e-Governance projects.

ii. There should be end-to-end computerization.

iii. Large e-Governance projects, having large scale impact require total support at the political level.

iv. Continuity in the Project Management team helps in proper implementation of e-Governance projects.

v. If benefits to citizens are real and substantial, projects become sustainable.

vi. A holistic approach is necessary for e-Governance. Adequate time and resources need to be devoted in conceptualization, implementation and maintenance of projects.

vii. Systems should have a strong back-up mechanism.

4.2.3 Gjandoot (Madhya Pradesh)

4.2.3.1 Gjandoot is an Intranet-based Government to Citizen (G2C) service delivery initiative. It was initiated in the Dhar district of Madhya Pradesh in January 2000 with the twin objective of providing relevant information to the rural population and acting as an interface between the district administration and the people. The basic idea behind this project was to establish and foster a technologically innovative initiative which is owned and operated by the community itself. Initially, computers were installed in twenty village Panchayat centres and connected to the District Rural Development Authority in Dhar town. These were called Soochanalayas which were operated by local rural youth selected for this purpose (called Soochaks). No fixed salary or stipend was paid to them. Later, 15 more Soochanalayas were opened as private enterprise. The Soochanalayas are connected to the Intranet through dial-up lines. The services offered through the Gjandoot network include:

i. Daily agricultural commodity rates (mandi bhav)

ii. Income certificate

iii. Domicile certificate

iv. Caste certificate

v. Public grievance redressal

vi. Rural Hindi email

vii. BPL family list

viii. Rural Hindi newspaper.

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bottlenecks. It also mentions that “Since the cost of Gyandoot E-commerce transactions for most villagers is high, it is important for basic services (e-mail, government databases) rather than high-end applications.” The Centre for Electronic Governance, Indian Institute of Management, Ahmedabad also made an evaluation of this project for the World Bank in 2002. It concluded that power supply, connectivity, and backend support are the essential pre-requisites for such projects and significant re-engineering of backend processes and introduction of services that directly contribute to poverty alleviation are needed to make such initiatives sustainable.

4.2.3.4 Lessons:
1) Supporting infrastructure is a pre-requisite for e-Governance projects
2) User charges may act as a deterrent, especially in rural areas
3) The interface with the users should be simple and citizen-friendly
4) Technology should be tailored to the environment.

4.2.4 Lokvani Project in Uttar Pradesh

4.2.4.1 Lokvani is a public-private partnership project at Sitapur District in Uttar Pradesh which was initiated in November, 2004. Its objective is to provide a single window, self-sustainable e-Governance solution with regard to handling of grievances, land record maintenance and providing a mixture of essential services. As 88 per cent of the District population resides in villages and the literacy rate is only 38 per cent, the programme had to be designed in a way which was user-friendly and within the reach of the people both geographically as well as socially. To achieve this, the programme format uses the local language, Hindi, and is spread throughout the district to a chain of 109 Lokvani Kiosk Centres. These Kiosks have been established by licensing the already existing cyber cafes. The services offered by Lokvani are:

a. Availability of land records (khataunis) on the internet
b. Online registration, disposal and monitoring of public grievances
c. Information of various Government schemes
d. Online availability of prescribed Government forms
e. Online status of Arms License applications
f. GPF Account details of Basic Education teachers
g. Details of work done under MPLAD/Vidhayak Nidhi
h. Details of allotment of funds to Gram Sabhas under different development schemes
i. Details of allotment of food grains to Kotedars (fair price shops)
j. Other useful information of public interest.

4.2.4.2 As was the case in the Gyandoot project in Madhya Pradesh, no loan or government subsidies were involved in this project. Since existing cyber cafes are being used to run the project, capital outlays are not involved. The system is expected to generate its own funds from the citizens and also contribute to the earnings of the Kiosk operators. However, like Gyandoot in Madhya Pradesh, low literacy rate combined with minimal computer literacy, poor internet connectivity and only 5 to 6 hours availability of power in rural areas constitute major bottlenecks. Despite these bottlenecks, the response to this project has been overwhelming. The main attraction for the citizens is the online grievance redressal system. The Lokvani Centre enters the complaint on behalf of the complainant. The user need not be literate or computer expert to lodge his / her grievance. A copy of the complaint is given to the complainant along with the complaint number (like the PNR No. of the railway ticket) and the database keeps track of all the complaints filed by a particular Lokvani Centre. All complaints lodged through this site are monitored and sorted at the District Magistrate’s Office. The complaints are then marked to the concerned officers. A time frame is determined for the redressal, depending on the nature of the complaint. It varies from 15 to 40 days. The name of the officer, to whom the complaint has been marked, along with the deadline, is uploaded on the server the next day. The complainant can access these details within 2 to 3 days of lodging the complaint. In case, the complainant is dissatisfied with the decision, he/she can lodge a new complaint enclosing the previous complaint number and other details. The new complaint lodged will carry a history sheet containing all the details about the previous complaint and its resolution.

4.2.4.3 Due to the unprecedented and positive response to the grievance redressal mechanism mentioned above, the project is considered a success.

4.2.4.4 Lessons:
1) e-Governance projects should be broken into components for the purpose of implementation. Those components which lend themselves to ICT should be taken up first.
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http://sitapur.nic.in/lokvani/rojgar/tt.htm (27.08.08)
India: e-Readiness Assessment Report 2003; chapter 3, page 42
Source: Based on information furnished by the State Government of Uttar Pradesh
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http://sitapur.nic.in/lokvani/rojgar/tt.htm (27.08.08)
2) Reach of e-Governance projects can be enhanced through PPP models which would also be cost effective.

4.2.5 Project FRIENDS in Kerala

4.2.5.1 FRIENDS (Fast, Reliable, Instant, Efficient Network for the Disbursement of Services) is a Single Window Facility providing citizens the means to pay taxes and other financial dues to the State Government. It was launched in Thiruvananthapuram in June 2000 and replicated in other district headquarters during 2001-02. The services are provided through FRIENDS Janajeevan Kendrams located in the district headquarters.

4.2.5.2 This project is a classic case of achieving front end computerized service delivery to citizens without waiting for completion of back end computerization in various government departments. This project thus tries to avoid the complex issues involved in business process re-engineering in the participating departments. In fact, the FRIENDS counters are not even networked with the participating departments/entities. Print-outs of payments made through the counters are physically distributed to participating entities for processing. To remove bottlenecks at the time of processing, a government order was issued to treat a receipt from a FRIENDS counter as equivalent to a receipt from the concerned government entity.18

4.2.5.3 Owing to the success of the project, efforts have been initiated to develop FREES (FRIENDS Re-engineered and Enterprises Enabled Software) which would incorporate the ‘Any Centre Any Payment Mode’.19

4.2.6 e-Mitra Project in Rajasthan20

4.2.6.1 This e-Governance initiative builds upon the experiences gained through the LokMitra and JanaMitra pilot projects launched in 2002. While LokMitra was centred in the city of Jaipur, JanaMitra was piloted in Jhalawar district to provide information and services under one roof to urban and rural populations. e-Mitra is an integration of these two projects in all the 32 districts using PPP model. There are two major components – ‘back office processing’ and ‘service counters’. Back office processing includes computerization of participating departments and establishing an IT enabled hub in form of a mini data centre at the district level (e-Mitra data centre). All participating departments and the service centres hook up to this data centre. It is managed by the Facility Management Service Provider on behalf of the district e-Governance Society (under Chairmanship of the district collector). Private partners (Local Service Providers) run the kiosks/centres. In case of collection on account of payment of utility bills and government levies, the Local Service Provider does not charge the citizen, but gets reimbursement from the concerned organization through the e-Mitra Society. In case of other services, the transaction fees is prescribed by the Society.

4.2.6.2 Thus, this project is an improvement on earlier schemes as it also involves back office computerization. Further, the citizen is not required to pay any fees for availing of the facility for making payment for government utilities.

4.2.6.3 The e-Mitra project has been chosen by the Government of Rajasthan to roll out the Community Service Centre project under NeGP.

4.2.7 eSeva (Andhra Pradesh)

4.2.7.1 This project is designed to provide ‘Government to Citizen’ and ‘e-Business to Citizen’ services. Originally, it was implemented in the form of the TWINS (Twin Cities Integrated Network Services) project in 1999 in the twin cities of Hyderabad and Secunderabad. The highlight of the eSeva project is that all the services are delivered online to consumers / citizens by connecting them to the respective government departments and providing online information at the point of service delivery. The network architecture is designed as an Intranet on a Wide Area Network (WAN). The network is designed in three tiers,21 each tier being physically located in different places. The first tier for the client-end is located at the eSeva centres. The second tier consists of the data servers and the application servers. The third tier comprises Departmental servers as the backend in the concerned departments (Electricity, Municipality, Passport Office, Transport Department, Registration, Commercial Tax, etc.). These servers keep consolidated databases. Presently, eSeva is providing ‘One-stop-shop’ for over 66 G2C and B2C services in 46 eSeva centres in the twin cities and Ranga Reddy district. Centres have also been opened in 20 other districts. The services include online payment of utility bills, issuing certificates, issuing licenses & permits, e-forms etc. Payments can be made by cash/cheque/DD/credit card/Internet.22

4.2.7.2 The project has become very popular among the citizens especially for payment of utility bills. In fact, it has been asserted that the success of this project is largely based on payment of electricity bills.23 This project exemplifies the potential for integration of delivery of Union, State and Local Government services at one point. However, it also shows that the model based on payment of utility bills could not be rolled out in the rural hinterland.

4.2.7.3 Lessons:

a. Support from the highest political level helps in overcoming problems in implementation.

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18Source: India e-Readiness Assessment Report 2005
19Source: ‘Fast Reliable Instant Efficient Network for the Disbursement of Services’; by Krishna R. Nair; Compendium of e-Governance Initiatives in India
21http://www.apdip.net/resources/caseat97/view
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4.2.7.3 Lessons:

\(a\). Support from the highest political level helps in overcoming problems in implementation.
b. Convergence and coordination between the activities of different departments/organizations leads to better services under e-Governance.

c. Long-term sustainability of e-Governance projects depends on financial viability, especially if they are to be implemented in the PPP mode.

d. Front end e-services are possible without back end computerization. E-Governance projects could be broken into various components and their computerization could then be phased according to the ease of implementation.

e. Government servants need to be motivated to adapt and work in an ICT environment.

4.2.8 Revenue Administration through Computerized Energy (RACE) Billing Project, Bihar

4.2.8.1 The Patna Electric Supply Undertaking (PESU), which is one of the seven area boards of the Bihar State Electricity Board (BSEB), caters to the energy requirements of the Patna Urban Area. The entire billing and payment process was manual and anomalies in the system were resulting in harassment to the consumers and loss of revenue to the Board. The major problems which had cropped up in the system were irregular billing cycle, ineffective data management, lack of transparency and delayed accounting. To address these problems, it was decided by the BSEB to take the assistance of ICT in providing value added and consumer-friendly service to the clients. A separate department of IT was created in BSEB to implement the project and the software was designed by NIC.

4.2.8.2 To begin with, a pilot was executed in one of the divisions for implementing the RACE software in 2001. Different modules were implemented incrementally and by July 2007, payment of bills of any division at any one of the 31 collection counters as per convenience was facilitated. Bills are now being generated with a barcode and consumers can download the bills using the internet and also see the details of payments made by them.

4.2.8.3 A number of problems were faced during implementation of the project:

i. Adequate stress was not laid on capacity building and generating interest among the staff members. Thus, in the initial phase, the project was not owned up by the staff members.

ii. There was lack of planning. Working manuals and documentation were lacking resulting in delayed use.

4.2.8.4 Once these problems were resolved, the project could be taken forward and the system is now moving towards online payment of bills.

4.2.8.5 Lessons:

i. Active involvement of staff and capacity building is necessary for success of e-Governance projects.

ii. E-preparedness of the organization must be kept in mind while planning for projects and fixing time frames.

4.2.9 Admission to Professional Colleges – Common Entrance Test (CET)

4.2.9.1 With the rapid growth in the demand as well as supply of professional education, the process of admission to these institutions became a major challenge in the early 1990s. Recourse was then taken to ICT to make the process of admission transparent and objective. One of the pioneering efforts was made by Karnataka. The State Government decided to conduct a common entrance test based on which admission to different colleges and disciplines was made. The allocation of seats in different colleges/disciplines is done through a process of ‘computerized counseling’ where the student can choose the discipline he/she wants – based, of course, on merit. Use of ICT in the admission process has helped in making the admission process totally transparent, fair and objective. Many institutions have now switched over to similar ICT based admission process.

4.2.9.2 Lesson:

i. ICT initiatives which bring tangible benefits to citizens are always sustainable.

4.3 Government to Business (G2B) Initiatives

G2B initiatives encompass all activities of government which impinge upon business organizations. These include registrations under different statutes, licenses under different laws and exchange of information between government and business. The objective of bringing these activities under e-Governance is to provide a congenial legal environment to business, expedite various processes and provide relevant information to business.

4.3.1 e-Procurement Project in Andhra Pradesh

4.3.1.1 Prior to the introduction of an e-Procurement system in Andhra Pradesh, procurement in Government departments was done through a manual tendering process.
b. Convergence and coordination between the activities of different departments/organizations leads to better services under e-Governance.

c. Long-term sustainability of e-Governance projects depends on financial viability, especially if they are to be implemented in the PPP mode.

d. Front end e-services are possible without back end computerization. E-Governance projects could be broken into various components and their computerization could then be phased according to the ease of implementation.

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4.3.1 e-Procurement Project in Andhra Pradesh

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The process consisted of a long chain of internal authorizations and scrutiny which necessitated several visits by the suppliers to government departments. The manual tender system suffered from various deficiencies, including discrimination, cartel formation, delays, lack of transparency etc.

4.3.1.2 The Government of Andhra Pradesh introduced the e-Procurement project in 2003 with the following objectives:

i. To reduce the time and cost of doing business for both vendors and government;

ii. To realize better value for money spent through increased competition and the prevention of cartel formation;

iii. To standardize procurement processes across government departments/agencies;

iv. To increase buying power through demand aggregation;

v. To provide a single-stop shop for all procurements; and

vi. To allow equal opportunity to all vendors.

4.3.1.3 In order to achieve these objectives, the entire e-Procurement process was designed to avoid human interface i.e., supplier and buyer interaction during the pre-bidding and post-bidding stages. The system now ensures total anonymity of the participating suppliers, even to the buyers, until the bids are opened on the platform. The e-Procurement application provides automatic bid evaluation based on the evaluation parameters given to the system. These improved processes have eliminated subjectivity in receipt and evaluation of bids and has reduced corruption to a significant extent.

4.3.1.4 Further, to bring transparency in e-Procurement, tender documents containing all details are hosted on the website. The documents can be downloaded by the interested suppliers free of cost, from the day of publication of a tender. At any time in the procurement cycle, any person associated with the transaction can check and know the status of the transaction. This saves time and effort involved in finding out the status of a purchase order, besides enabling better planning of inventory.

4.3.1.5 At the outset, an effort was made to standardize the procurement processes and forms followed by various departments especially for public works tenders. Today, all the departments are following a common tendering process and forms for works tenders. These processes have been re-engineered to further improve the efficiency and curtail subjectivity in tender evaluation by the department users.

4.3.1.6 The benefits of the new system are as follows:

- **Reduction in tender cycle time:** In the pre e-Procurement era, the departments would take 90-135 days for finalization of high value tenders. The tender cycle time gradually came down to an average of 42 days over a period of one year and further reduced to 35 days at the end of the second year.

- **Reduction in opportunities for corrupt practices:** The e-Procurement system allows ‘any where’ and ‘any time’ access for bidders and suppliers from the Internet. The entire e-Procurement process has been designed to eliminate the human interface i.e., supplier and department interaction during pre-bid and post-bid processes. The automatic tender evaluation mechanism inherent in the system has reduced subjectivity in tender evaluation and helped to curb opportunities for corrupt practices to a significant extent and increased the accountability of procurement officials. In terms of transparency, any supplier or citizen can get information about tenders through a search engine on the home page. A supplier participating in a tender knows the list of other participating suppliers, the documents furnished by his competitors, price quotations and the evaluation result, as soon as a stage is completed by the departments in the system.

- **Cost Savings:** The cost savings could be visualised in the following manner:

  - Supplier participation has increased from an average of 3 per tender in the conventional mode to 4.5 in the e-Procurement mode. Cartels have been eliminated and even small and medium suppliers are now able to bid, as the platform facilitates ‘anywhere anytime’ bidding. The departments have made significant cost savings by an average reduction of 20% in costs for procurement transactions done through the exchange during 2003-04 and 12% in 2004-05 due to a competitive environment.

  - There is also substantial reduction in the advertisement costs in the press media, as e-Procurement tender notices were shortened to contain only basic information on the name of work, estimated costs and the URL of the e-Procurement site. There has been a 25% saving in the column space used, resulting in savings of approximately $0.56 million in a year.
The process consisted of a long chain of internal authorizations and scrutiny which necessitated several visits by the suppliers to government departments. The manual tender system suffered from various deficiencies, including discrimination, cartel formation, delays, lack of transparency etc.

4.3.1.2 The Government of Andhra Pradesh introduced the e-Procurement project in 2003 with the following objectives:

i. To reduce the time and cost of doing business for both vendors and government;
ii. To realize better value for money spent through increased competition and the prevention of cartel formation;
iii. To standardize procurement processes across government departments/agencies;
iv. To increase buying power through demand aggregation;
v. To provide a single-stop shop for all procurements; and
vi. To allow equal opportunity to all vendors.

4.3.1.3 In order to achieve these objectives, the entire e-Procurement process was designed to avoid human interface i.e., supplier and buyer interaction during the pre-bidding and post-bidding stages. The system now ensures total anonymity of the participating suppliers, even to the buyers, until the bids are opened on the platform. The e-Procurement application provides automatic bid evaluation based on the evaluation parameters given to the system. These improved processes have eliminated subjectivity in receipt and evaluation of bids and has reduced corruption to a significant extent.

4.3.1.4 Further, to bring transparency in e-Procurement, tender documents containing all details are hosted on the website. The documents can be downloaded by the interested suppliers free of cost, from the day of publication of a tender. At any time in the procurement cycle, any person associated with the transaction can check and know the status of the transaction. This saves time and effort involved in finding out the status of a purchase order, besides enabling better planning of inventory.

4.3.1.5 At the outset, an effort was made to standardize the procurement processes and forms followed by various departments especially for public works tenders. Today, all the departments are following a common tendering process and forms for works tenders. These processes have been re-engineered to further improve the efficiency and curtail subjectivity in tender evaluation by the department users.

4.3.1.6 The benefits of the new system are as follows:

- **Reduction in tender cycle time:** In the pre e-Procurement era, the departments would take 90-135 days for finalization of high value tenders. The tender cycle time gradually came down to an average of 42 days over a period of one year and further reduced to 35 days at the end of the second year.
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Transparency in the bidding process and in the system of automated tender evaluation through smart forms with parameterized qualification criteria has reduced subjectivity in the tender award process and consequently reduced corruption. The MIS feature in the system reveals data on government procurements instantaneously to bureaucrats and ministers. Besides, it has made a visible social impact, as citizens are assured that government procurement is conducted in a transparent manner, saving taxpayers’ money.

4.3.1.7 The current trends from the portal (http://www.eprocurement.gov.in) are shown below in Fig.4.1 and provide an indication of the stability, growth and success of the project.

![Graph showing e-Procurement Trends](image)

4.3.2 e-Procurement in Gujarat

4.3.2.1 The system of e-procurement was introduced in the State of Gujarat from October 2004 onwards. Roll out of the system was carried out in a phased manner starting from few works/items for limited departments and was made compulsory for all government departments in 2007. The project was funded by the State Government with the objective of deriving the benefits of increased efficiency from e-enablement of business processes.

4.3.2.2 It aims to establish transparency in procurement process, shortening of procurement cycle, availing of competitive price, enhancing confidence of suppliers and establishing flexible and economical bidding process for suppliers. It has been introduced to cover the following transactions:

- purchases and procurement of goods, plants, equipments, machinery, medicines, medical and surgical supplies and stores items, food and civil supplies stores items and purchases, printing and stationery items and purchase, all types of vehicle purchases, furniture and fixtures etc.
- All types of civil construction and related work
- Outsourcing of required services
- Auctioning of old plants, equipments, machinery, buildings, vehicles, furniture and fixtures, lands, properties, etc
- All other purchases and work orders.

4.3.2.3 As the project followed defined procurement guidelines of the State Government, no changes were required in the legal framework. However, the process of submission of bids underwent a major change as physical submission of bids got converted into online data submission. Assessment of the bids and comparative data is presented by the system itself. Initially, the project was launched on a pilot basis and after successful handling of tenders, the roll out was extended to all departments. One to one training was given to all core team members. The project has resulted in reduction in cycle time to 6.6 days from the earlier 30 days.

4.3.2.4 The project highlighted the importance of training of the stakeholders involved – departmental employees and bidders/suppliers/vendors. This project became a success story because of sustained capacity building and awareness generation.

4.3.2.5 Lessons:

a. All stakeholders must build capabilities in order to enable them to participate in and take advantage of e-Governance initiatives, especially in G2B projects.

b. Some of G2B processes like e-procurement do not require extensive back end computerization and hence can be taken up easily.
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- Some of G2B processes like e-procurement do not require extensive back end computerization and hence can be taken up easily.
4.3.3 McA 21

4.3.3.1 The Ministry of Corporate Affairs has implemented the McA 21 Mission Mode Project under the NeGP in September 2006 and presently the project is in the post-implementation phase. The project aims at providing easy and secure online access to all registry related services provided by the Union Ministry of Corporate Affairs to corporates and other stakeholders at any time and in a manner that best suits them. The goals of this project were formulated keeping in mind different stakeholders. These were:

a. **Business**: to enable registration of a company and file statutory documents quickly and easily.
b. **Public**: to get easy access to relevant records and effective grievances redressal.
c. **Professionals**: to enable them to offer efficient services to their client companies.
d. **Financial Institutions**: to easily find charges for registration and verification.
e. **Employees**: to enable them to ensure proactive and effective compliance of relevant laws and corporate governance.

4.3.3.2 The technical aspects of McA 21 cover the following areas:

i. Design and development of application system
ii. Setting up of IT infrastructure
iii. Setting up the Digital Signature/PKI delivery mechanisms and associated security requirements
iv. Setting up of Physical Front Offices (PFOs)
v. Setting up of temporary FOs for the peak periods to meet with the requirements and subsequent shutdown of temporary FOs at the end of such peak periods
vi. Migrating legacy data and digitization of paper documents to the new system
vii. Providing MCA services to all McA 21 stakeholders in accordance with the Service Oriented Approach
viii. Providing user training at all levels and all offices (Front and Back Offices).

4.3.3.3 The McA 21 is designed to automate processes related to the proactive enforcement and compliance of the legal requirements under the Companies Act, 1956.

4.3.3.4 The implementation of Front Offices (FO) is done in two ways. These can be called as Virtual Front Office (VFO) and Physical Front Office (PFO). The VFO is what the citizen has in front while accessing the MCA21 portal. The PFO is a replacement to the existing RoC counters. Although the PFO accepts paper documents, these are converted into electronic documents by customer service agents manning PFO. The authorised person(s) are required to sign these documents digitally. The back office is what an MCA employee has in front while accessing the back office portal. The back office processes relate to:

i. Dynamic routing of documents that have been electronically filed to the concerned official within MCA, based on the type of service request
ii. Electronic workflow systems to support speed and certainty in service delivery
iii. Storing of all approved documents of companies as part of electronic records, including provision of access to electronic records for the stakeholders
iv. Enhancing identification of defaulters
v. Increasing efficiency of Technical Scrutiny
vi. Ensuring close follow-up on matters related to compliance management including prosecutions
vii. Enabling quicker responses to investor grievances
viii. Providing alerts when the tasks are not carried out within the stipulated period.

4.3.3.5 Accomplishments of MCA 21: The accomplishments of the MCA 21 can be presented under the following heads:

a. **Providing access to citizens/stakeholders (G2C services)**: Section 610 of the Companies Act, 1956 allows inspection of documents kept by the Registrars
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of Companies by the various stakeholders on payment of statutory fees. After the implementation of MCA 21, this has become history. Presently, nearly 5 crore pages of legacy records consisting of permanent documents of companies (MOA, AOA, subsisting charge documents etc.) and Annual Returns and Balance Sheets for a period of two years preceding have been scanned, digitized and made a part of the MCA 21 electronic Registry. The electronic Registry has been further enriched with the e-filing of all the documents in various Registries with effect from the dates of roll-out of the programme and further mandated for the entire country with effect from September 16, 2006. Accordingly, the facility of inspection of documents granted under Section 610 of the Companies Act, 1956 has been converted into the facility of ‘View Public Documents’ under the MCA 21. Further, keeping in view that not all legacy records were scanned and digitized, a facility of ‘on-demand scanning’ has been provided. Under this facility, a stakeholder can request for certain documents (subject to availability) to be scanned and made available online.

b. G2B services: Companies are required to interface with the Registrar of Companies (ROCs), the Regional Directors (RDs) and the Union Government in accordance with various provisions of the Companies Act. Prior to the implementation of MCA 21, all filings by the companies were in physical paper mode requiring a stakeholder or his representative to physically visit these offices or send the same by post. Handling large volumes of paper was a major problem and there were complaints on account of all sorts of undesirable practices such as loss of paper documents, ante-dated filings, replacement of statutory documents etc. A check on the quality of filings (correct and complete information) had virtually become impossible. Under MCA 21, various Forms have been re-engineered and converted into electronic Forms (e-Forms) to make them compatible with the e-Governance processes. The e-Forms have been designed with the in-built “pre-fill” feature whereby the data in the required fields is captured from the database available in the electronic registry in an automated manner. Requirements of repetitive data entry have been significantly reduced. The process of electronic filing also incorporates the facility of “pre-scrutiny” of the e-Form. This is a completely electronic process where the system verifies if the Form is complete in respect of mandatory fields. This is, however, limited to such checks as can be performed by the computerized system. Secondly, the system of payment of statutory fees has been re-engineered as a part of the overall process. In addition to the conventional challan-based off-line payment system in the pre-MCA 21 system, online payment systems have been introduced, including use of digital signatures based on a Director Identification Number (DIN) database. Third, services are now available on a 24 X 7 X 365 time frame. The outcome is that record management is automatic, digital records have largely replaced paper records and there is no question of ante-date filings or loss or substitution of documents. Elements of speed, certainty and integrity in filing of documents are in place.

c. G2G services and linkages: The architecture of MCA 21 has been designed to meet future challenges and scalability. It is capable of sharing information with other Government Departments/ Ministries/ Regulators in the Corporate Sector and introduction of joined-up services in due course. Presently, free access to company documents having been allowed to the following organisations:

i. Reserve Bank of India;
ii. Financial Intelligence Unit (FIU-IND);
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iv. Intelligence Bureau; and

Access has been permitted to designated officers in these offices through a secure DSC based login. Once the other Departments implement their e-Governance programmes, and the NSDG develops the national Gateway, the MCA 21 system can be linked with more organizations.

4.3.3.6 The implementation of MCA 21 has provided an enabling environment for stakeholders to approach Government for seeking a complete basket of services in an easy and transparent manner. The implementation of e-Governance has also enabled plugging the leakages. Further, the stakeholder is now in a position to track the transaction status at every stage from making payment to the processing and ultimately the approval status. The time taken in delivery of services has shown remarkable improvement. These improvements are shown in Table 4.1.

Source: Annual Report 2007-08, Ministry of Corporate Affairs
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16Source: Annual Report 2007-08, Ministry of Corporate Affairs
4.4 Government to Government (G2G) Initiatives

Within the government system there is large scale processing of information and decision making. G2G initiatives help in making the internal government processes more efficient. Many a time G2C and G2B processes necessitate the improvements in G2G processes.

4.4.1 Khajane Project in Karnataka

4.4.1.1 It is a comprehensive online treasury computerization project of the Government of Karnataka. The project has resulted in the computerization of the entire treasury related activities of the State Government and the system has the ability to track every activity right from the approval of the State Budget to the point of rendering accounts to the government. The project was implemented to eliminate systemic deficiencies in the manual treasury system. The aspects of the project which require highlighting are:

6. stakeholders should be allowed to identify errors in the data through a fool-proof system.

7. flexibility in the system is a must (e.g. validation of digital signatures required creation of the Director Identification Number database and creation of linkages with the professionals’ database of ICAI).

8. in the transition period, certain processes from the old system may be allowed to continue.

9. initiatives aimed at making the new system acceptable to the users need more focus and resources.

10. benchmarks for service delivery need to be created and communicated to the users.

11. A focused approach towards implementation of e-Governance projects is needed. For this, a separate team needs to be created within the organization. Implementation of e-Governance projects should not be in the form of an additional responsibility.

12. Assessment of changes to be made in the legal framework needs to be done in advance.

### Table 4.1 Efficiency in Delivery under MCA 21

<table>
<thead>
<tr>
<th>Service Metrics</th>
<th>Type of Service</th>
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<th>After MCA 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name Approval</td>
<td>7 days</td>
<td>1-2 days</td>
<td></td>
</tr>
<tr>
<td>Company Incorporation</td>
<td>15 days</td>
<td>1-3 days</td>
<td></td>
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<tr>
<td>Change of Name</td>
<td>15 days</td>
<td>3 days</td>
<td></td>
</tr>
<tr>
<td>Charge Creation/Modification</td>
<td>10-15 days</td>
<td>2 days</td>
<td></td>
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<tr>
<td>Certified Copy</td>
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<tbody>
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<tr>
<td>Balance-sheet</td>
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<tr>
<td>Change in Directors</td>
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4.3.3.7 Lessons:

1. installation and stabilization of the system takes time.

2. acceptability by staff and efficient usage takes much more time.

3. extensive staff participation is essential, despite best vendors and cutting-edge technology.

4. involvement of domain specialists is a key pre-requisite.

5. digitization and validation of data is a slow and error-prone process, especially when migrating from a paper-based system.

---

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<td>Instantaneous</td>
</tr>
<tr>
<td>Change in Directors</td>
<td>60 days</td>
<td>1-3 days</td>
</tr>
<tr>
<td>Change in Registered Office Address</td>
<td>60 days</td>
<td>1-3 days</td>
</tr>
<tr>
<td>Increase in Authorised Capital</td>
<td>60 days</td>
<td>1-3 days</td>
</tr>
<tr>
<td>Inspection of Public Documents</td>
<td>Physical appearance</td>
<td>on-line</td>
</tr>
</tbody>
</table>

### Lessons:

1. Installation and stabilization of the system takes time.

2. Acceptability by staff and efficient usage takes much more time.

3. Extensive staff participation is essential, despite best vendors and cutting-edge technology.

4. Involvement of domain specialists is a key pre-requisite.

5. Digitization and validation of data is a slow and error-prone process, especially when migrating from a paper-based system.

---


47Source: Based on ‘Khajane: The Comprehensive Online Treasury Computerisation Project’; [http://www.cii-ngages.org/assets/docs/06_khajane.pdf](http://www.cii-ngages.org/assets/docs/06_khajane.pdf)
4.4.1.2 The system includes features such as budget control, online funds transfer etc. This project manages to minimize efforts devoted earlier to reconcile the entries in the accounts and provides accurate information on a timely basis. Thus it has contributed in bringing efficiency in the government and aids the decision making process. This project has turned out to be success story.

4.4.1.3 Lessons:

a. Important lessons can be drawn from the experience of other organizations in similar projects. There is no need to re-invent the wheel in every e-Governance project.

b. Close monitoring and continuous feedback are necessary to ensure proper functioning of e-Governance projects.

c. Close cooperation between the technology solution provider and the in-house domain experts is crucial for success of e-Governance projects.

4.4.2 SmartGov (Andhra Pradesh)\footnote{Source: NISG}

4.4.2.1 The Andhra Pradesh Secretariat comprises a number of departments. The processing of information in the Government is predominantly workflow intensive. Information moves in the form of paper files from one officer to another for seeking opinions, comments, approvals etc. SmartGov has been developed to streamline operations, enhance efficiency through workflow automation and knowledge management for implementation in the Andhra Pradesh Secretariat. The solution automates the functioning of all levels of Government entities and provides a well defined mechanism for transforming the “hard copy environment” to a “digital environment”. It enhances productivity through use of IT as a tool. SmartGov replaces the paper file with an e-file. SmartGov provides the features of creation, movement, tracking and closure of e-files, automation of repetitive tasks, decision support system through knowledge management, prioritization of work, easy access to files through an efficient document management system and collaboration between departments. This project is being extended to more departments.

4.4.2.2 Lessons:

a. Political support from the highest level coupled with wholehearted involvement of the staff substantially increase the chances of success

b. Capacity building of staff is essential for success of any e-Governance project.

4.5 The potential of such initiatives becomes evident from Table 4.2:\footnote{Source: Based on Subhash Bhatnagar and Arsala Deane (World Bank, 2003); retrieved from www.infodev.org/en/Document.63.aspx}

<table>
<thead>
<tr>
<th>Country</th>
<th>Type of Government Application</th>
<th>Time to process before application</th>
<th>Time to process after application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Registration of 29 documents</td>
<td>Several days</td>
<td>20-30 minutes per document, one day for business licenses</td>
</tr>
<tr>
<td>Chile</td>
<td>Taxes online</td>
<td>25 days</td>
<td>12 hours</td>
</tr>
<tr>
<td>India, Andhra Pradesh (AP)</td>
<td>Valuation of property</td>
<td>Few days</td>
<td>10 minutes</td>
</tr>
<tr>
<td>India, (AP)</td>
<td>Land registration</td>
<td>7-15 days</td>
<td>5 minutes</td>
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<tr>
<td>India, Gujarat</td>
<td>Interstate Check Posts for Trucks</td>
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<td>2 minutes</td>
</tr>
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<td>Customs Online</td>
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52
53
A prior study of deficiencies of the system was conducted. The best practices of the treasury system of some other States (Andhra Pradesh, Maharashtra, Tamil Nadu and West Bengal) were studied.

To eliminate redundant processes, systematic re-engineering was done. Processes were adopted to suit computer applications. A procedure manual was brought out.

Staff feedback was obtained. Motivation of staff was accorded high priority. User-friendliness of the software, simplification of processes and reduction of drudgery was highlighted.

Software development was supervised by treasury teams. Software was tested in representative treasury environments. Feedback was utilized in modifying the software.

Training was provided before software roll-out.

4.4.2.2 The system includes features such as budget control, online funds transfer etc. This project manages to minimize efforts devoted earlier to reconcile the entries in the accounts and provides accurate information on a timely basis. Thus it has contributed in bringing efficiency in the government and aids the decision making process. This project has turned out to be success story.

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Source: NISG


52

53
4.6 The broad lessons from these independent initiatives undertaken at various levels are as follows:

i. Political support at the highest level is a sine qua non for successful implementation of e-Governance initiatives;

ii. Major e-Governance projects bear fruit only when application of IT is preceded by process re-engineering;

iii. Successful projects require an empowered leader with a dedicated team who can conceptualise and implement e-Governance projects with the help of officials at all levels and technological solution providers;

iv. Initiatives which save the citizens’ time, money and effort are able to succeed even when back-end computerization is not done. However, these successes are generally limited to cases where payment of bills for public/private utilities is involved but for complete transformation of governance there has to be an end-to-end ICT enablement coupled with process re-engineering;

v. Scaling up should be attempted only after the success of pilot projects. Systems should have the flexibility to incorporate changes mid-way;

vi. In rural areas, issues of connectivity and electricity supply are of paramount importance; and

vii. In case of complex projects, all components need to be identified and analysed at the outset, followed by meticulous planning and project implementation.

The objectives, salient features and limitations of some of the e-Governance initiatives are presented in Table 4.3.

---

**Table 4.3: Evaluation of Select e-Governance Projects**

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<thead>
<tr>
<th>Project</th>
<th>Goals</th>
<th>Viability</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRIENDS (Kerala)</td>
<td>To provide one-stop, front-end, IT enabled payment counter facility for citizens for making payments for bills originating from government entities.</td>
<td>Provided G2C and B2C services to citizens including online payments, issue of certificates, permits, etc.</td>
</tr>
<tr>
<td>Gandoot (Madhya Pradesh)</td>
<td>To provide useful information and services to people in rural areas and act as an interface between the district administration and rural people.</td>
<td>Provided G2C and B2C services to citizens including online payments, issue of certificates, permits, etc.</td>
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<tr>
<td>bhoomi (Karnataka)</td>
<td>Computerisation of land records; allowing access to land records, updation of land records etc.</td>
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</tr>
<tr>
<td>eSeva (Andhra Pradesh)</td>
<td>To provide G2C and B2c services to citizens including online payments, issue of certificates, permits etc.</td>
<td>Provided G2C and B2C services to citizens including online payments, issue of certificates, permits, etc.</td>
</tr>
<tr>
<td>Lokvani (Uttar Pradesh)</td>
<td>To provide information and services to citizens of the district, especially those related to land records and grievance redressal.</td>
<td>Provided G2C and B2C services to citizens including online payments, issue of certificates, permits, etc.</td>
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The SMART Way Forward

- Political support at the highest level is crucial for successful implementation of e-Governance initiatives.
- Major projects require an IT-first approach followed by process re-engineering.
- Empowered leadership and dedicated teams are essential for the success of e-Governance projects.
- Initiatives that save citizens' time, money, and effort are more likely to succeed without back-end computerization.
- Scaling up should be attempted after the success of pilot projects, with systems designed to incorporate changes mid-way.
- In rural areas, connectivity and electricity supply are paramount.
- For complex projects, all components need to be identified and analyzed at the outset.

---

*Based on India: e-Readiness Assessment Report 2003
*Based on India: e-Readiness Assessment Report 2004
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*http://www.gyandoot.nic.in/gyandoot/intranet.html (extracted on 22.08.08)
*Source: http://esevaonline.com (extracted on 22.08.08)
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<th>Reason for choosing</th>
<th>Reach</th>
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<th>Lokvani (Uttar Pradesh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whether scaling up done</td>
<td>Extended to 14 districts</td>
<td>No</td>
<td>Yes. Implemented in four sub-districts; later implemented on pilot basis in one sub-district county in each of the 27 districts; finally rolled out to all 177 sub-districts in the State.</td>
<td>No</td>
<td>Not fully. Although the project was launched on a pilot basis in 1999 itself (TWINS project), eSeva centers have been opened in only 21 districts so far.</td>
</tr>
<tr>
<td>Whether preceded by process re-engineering</td>
<td>No. Even back office computerization not done in participating department agencies. Further, the FRIENDS counters are also not networked with the participating entities; payments made through counters are physically distributed to participating entities for processing.</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>N.A.</td>
</tr>
<tr>
<td>Whether preceded by process re-engineering</td>
<td>N.A. (However, it required a governmental order training a receipt from a FRIENDS counter as equivalent to a receipt from a participating entity).</td>
<td>N.A.</td>
<td>Manually written Record of Right. Tenancy and Cultivation (RTC) declared illegal.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td></td>
<td>If yes, then whether changes made in (1) laws, (2) Institutions (3) processes only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Model adopted</td>
<td>Completely Government funded. Core of Counter Personnel borne by participating entities. However, in case of payments related to non-State Government entities (e.g. BSNL), transaction charge of roughly 1.2% is charged.</td>
<td>Project financed by the panchayats, the village community or private entrepreneurs. In the case of panchayat centres, local youth selected to operate centres without any salary or stipend. User charges are levied for specific services.</td>
<td>Centres/kiosks have been established in Sub-district offices. User fees are charged.</td>
<td>Public-Private Partnership. Existing cyber cafes/computer training institutes given licence to function as Lokvani centres. A society was formed in the name of Lokvani to implement the project. Hardware and software provided by NIC free of cost.</td>
<td>Public-Private Partnership.</td>
</tr>
<tr>
<td>Impact/evaluation</td>
<td>Limited formal evaluation by ASCII based on 200 responses.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual driven or institutionalised</td>
<td>Individual driven</td>
<td>Institutionalised from top to bottom.</td>
<td>Individual driven. Chief Minister's idea implemented by hand-picked civil servants.</td>
<td>Individual driven. Initiative of a particular District Magistrate. Depends on initiative taken and interest shown by the DM.</td>
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</tr>
<tr>
<td>Nature of benefits</td>
<td>Transaction time and waiting time reduced. Demonstrate the advantages of ICT.</td>
<td>Agriculture-related information to rural people.</td>
<td>Records computerized, transparent dealing with requests for records, scope for use in planning.</td>
<td>One point integration of services. Transaction time and travel time substantially reduced.</td>
<td>Maint benefit is seen in the disposal of grievances petition.</td>
</tr>
<tr>
<td>Funding</td>
<td>Dependent on Union Government funding.</td>
<td>Panchayat/community funding.</td>
<td>Sponsored by Union Ministry of Rural Development and implemented by the State Government.</td>
<td>P-P-P model.</td>
<td>Existing private kinds were used.</td>
</tr>
</tbody>
</table>

1http://tnaprasad.in/sitapur/Intro_eng.doc
2Source: Subhash Bhatnagar: One Stop Shop for Electronic Delivery of Services: Role of Public-Private Partnership (http://www.iimahd.ernet.in/~subhash/pdfs/OneStopShopForElectronicDeliveryJun2005.pdf)
3Subhash Bhatnagar; op cit
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<td>Ltd. to implementing partners and transaction charge of roughly 12% is charged.</td>
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<td>Project financed by the panchayats, the village community or private entrepreneurs. In the case of panchayat office, local youth selected to operate centres without any salary or stipend. User charges are levied for specific services.</td>
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<td>P-P-P model. Existing cyber cafes/computer training institutes given license to function as Lokvani centres. A society was formed in the name of Lokvani to implement the project. Hardware and software provided by NIC free of cost.</td>
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<td>FRIENDS (Kerala)</td>
<td>Very low connectivity; if any, irregular supply of electricity; illiterates; e-payments could not be made in rural areas.</td>
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<td>bhoomi (Karnataka)</td>
<td>Success based largely on payment of electricity bills.</td>
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<td>Lokvani (Uttar Pradesh)</td>
<td>It is dependent on existing cyber cafes/computer training institutes – it is difficult to roll out in the rural areas.</td>
</tr>
<tr>
<td>eSeva (Andhra Pradesh)</td>
<td>Revenue generation is still not much (success of eSeva project in Andhra Pradesh depends largely on payment facility for electricity bills).</td>
</tr>
</tbody>
</table>

### The SMART Way Forward

#### Specific lessons:
- **Exemplary approach in piloting the project, rolling out and sustenance of the online public grievance redressal facility.**
- **Offers potential for integration of Union, State and Local Government services at one point.**
- **Most popular service is 'Services on Demand' for government officials and civil society at large.**
- **Business process reengineering is a prerequisite in case of complex projects.**
- **Large-scale projects require political support at the highest political level.**
- **Reach of e-Governance projects can be enhanced through public partnerships, which could also be cost effective.**
- **User charges act as a deterrent to make such innovations tangible benefits arise to the citizens.**
- **A holistic approach is necessary.**
- **E-Governance projects can be broken into components and implemented in a phased manner.**
- **A business process reengineering approach was adopted for planning the phases and milestones of the project.**
- **A large number of projects appear to be a compensation for the lack of technological solutions.**
- **The technological solution should be tailored to the environment.**
- **The interface with the citizens should be friendly.**
- **Public awareness, forming partnerships with academic institutions – public and private, of citizens would be the necessary elements for creating a conducive environment.**
- **Raising actual grievances. Thus, the positive approach of government personnel towards the needs of e-Governance. In the end, the environment should be such that the perceived threat to change old habits and acquire new skills. In the public, awareness needs to be created so that there is a constant demand for reforms in governance through implementation of e-Governance. In the end, the environment should be such that the perceived threat to entrenched interests is removed and resistance to change is addressed by dealing with actual grievances. Thus, the positive approach of government personnel towards the needs of citizens would be the necessary elements for creating a conducive environment. Raising public awareness, forming partnerships with academic institutions – public and private, **is involved.**

### CORE PRINCIPLES OF e-GOVERNANCE

In the previous chapter the experience regarding e-Governance initiatives in India prior to the formal launch of the National e-Governance Plan has been recounted and the reasons for the successes and failures of these initiatives have also been analyzed. Based on this experience as well as those in other countries, it would be useful to formulate the core principles essential for the success of e-Governance initiatives. This would be particularly relevant and appropriate at a time when government has undertaken the mammoth NeGP programme throughout the country.

#### 5.1 Clarity of Purpose

5.1.1 There needs to be a clear understanding and appreciation of the purpose and objectives to be achieved through e-Governance. In the past, a large number of projects appear to be based on what technology can achieve rather than what the citizens need. A corollary to this would be a precise definition of the parameters against which any future evaluation would be done. e-Governance should not be taken up merely to demonstrate the capability of an existing technology, but the technology should be adopted to solve an existing problem. Citizen-centrity should be at the heart of all e-Governance initiatives.

#### 5.2 Environment Building

5.2.1 There is need to change the mind-set of all the stakeholders involved, i.e. politicians, government officials and civil society at large. This would require a strong will to change among various stakeholders in the governance system. As the task involves redesigning governmental processes at various levels, implementing e-Governance would require political support at all levels. On the other hand, government personnel would have to be incentivised to change old habits and acquire new skills. In the public, awareness needs to be created so that there is a constant demand for reforms in governance through implementation of e-Governance. In the end, the environment should be such that the perceived threat to entrenched interests is removed and resistance to change is addressed by dealing with actual grievances. Thus, the positive approach of government personnel towards the needs of citizens would be the necessary elements for creating a conducive environment. Raising public awareness, forming partnerships with academic institutions – public and private, **is involved.**