

## Rural E-Governance in India

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*By means of active participation in political and government discussions, citizens can contribute their own ideas, and share their knowledge and information*

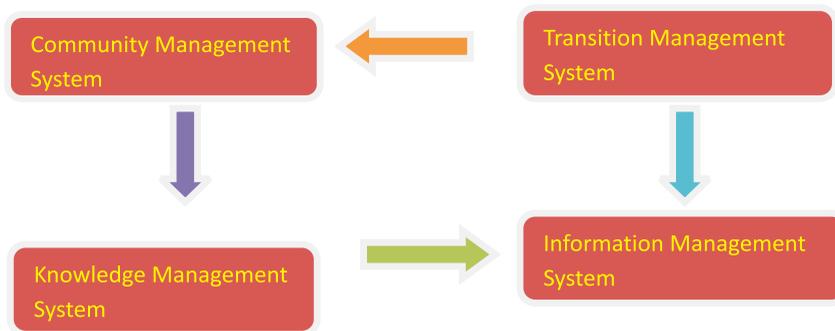
**I**N THE year 2005, UNDP defined, “e-Governance is The Information and Communication Technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective.” India is a nation of villages. The rural mass in the nation comprises the core of Indian society and also represents the real India. According to the Census Data 2011, there are 638,387 villages in India that represent more than 72 per cent of the total population. In a participatory democratic society, ICT can be used for good governance, enhance democratization and citizen empowerment. The digital governance creates better connections between citizens and government and encourages their participation in governance. The process gives chance to open up the avenues for direct participation of women in government policy making process. It is very significant in rural areas where people deprived of getting benefit of the different integrated development programmes.

Definition of e-Governance: World Bank, 2001 e-Government is the government owned or operated systems of information and communication technologies that transform relations with citizens, the private sector and/or other government agencies so as to promote citizens’ empowerment, improve service delivery, strengthen accountability, increase transparency, or improve government efficiency

### **Application of e-governance for inclusive development**

The Fig. shows how a transition is feasible from ‘open doors to open hearts’, with the application of ICT. The application of e-governance can create an open door administration and transparent government. To describe the designing message for rural development through e-governance, it is considered that it should have citizen-centric services and dependable. In this system, the selection of appropriate (dependable, maintainable and cost -effective) technologies for rural connectivity and information processing solutions should focus on the betterment of society. However, we should keep in mind that the inequity of economic condition of

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*e-Governance Community Management System*

rural masses should not create any hindrance to access their required information, which is considered one of the basic constraints in any participatory development.

### **Rural e-government initiatives**

*Computerized Rural Information System Project [CRISP]:* It aimed at facilitating the District Rural Development Agency [DRDA] in the monitoring of exercise of poverty alleviation programmes through Computer based Information System. Till date four version of CRISP application software packages have been developed. Rural soft 2000 allows online monitoring of processes right from the desktop of monitoring agencies at Centre and State and enables a common man to access information using a browser based interface provided by the software.

*National E-Government Action Plan [2003]:* National E-Government Action Plan suggested a list of core policies: [1] Overall vision, mission strategy approach. [2] E-Governance technology architecture, framework and guidelines. [3] Human Resource Strategy. [4] Policy for front end facilitation counters, kiosks, integrated service centers. [5] Policy on back-end department automation.

*State Wide Network Area Project [SWAN]:* This project aims at providing high speed, high connectivity network connecting offices at block level for faster access to Government services.

### **Rural e-government projects**

*e-Choupal:* Agriculture is the backbone of India. Indian farmers have to depend on many agents, right from the process of procuring raw materials to selling their produce. Each agent will add his/her profit margin, thereby increasing the cost of product. Some agents even try to block the market information. To protect farmers from such practices, the International Business Division of Indian Tobacco Company (ITC-IBD) came out with an e-government initiative called e-Choupal (which means a village meeting place). E-Choupal is useful not only to the agricultural products but also for selling home appliances and consumer goods. Each e-Choupal is equipped with a PC, internet connection, printer and Uninterrupted Power Supplies (UPS). In case the power supply is erratic, a solar panel is provided and if internet connectivity is not up to the mark, then a Very Small Aperture Terminal (VSAT) connection is provided along with another solar panel to support that. There are 6,500 E-Choupals today. Indian Tobacco Company Ltd. is adding 7 new E-Choupals a day

and plans to scale up to 20,000 E-Choupals by 2012 covering 100,000 villages in 15 states, servicing 15 million farmers.

*Drishtee:* Drishtee is a rural model of distribution and promotional network for consumer goods and basic services. Information is provided to the users in the form of services via internet. Drishtee made a presence in Dhar, Seoni and Shahdol districts in Madhya Pradesh, Sirsa district in Haryana and Jalandhar district in Punjab. A village entrepreneur is trained to handle the software that works on MS SQL Server at the back-end and runs on ASP, Java script, VB Script at the front-end. The hardware includes a web server, a district server, kiosks and dial-ups. The district server regularly gets connected to the web server and performs updates. The database of kiosk gets updated whenever the kiosk gets connected to the district server or the web server. Soochanalayas or centres have been established to cater to 25–30 surrounding villages and buildings of Gram Panchayats.

*Akashganga:* Akashganga uses ICT to facilitate rural milk producers by integrating all the operations of rural co-operative society right from milk procurement to accounting. First pilot model of Dairy Information System Kiosk (DISK) is currently under implementation at Uttarsanda Dairy Cooperative Society in Gujarat. Each farmer is given a plastic identification card. When farmers arrive at the Raw Milk Receiving Dock (RMRD) counter, his/her identification is updated in the PC. The milk is emptied out in a steel trough kept over a weighbridge and the weight of the milk is displayed as well as entered into the PC. One operator is required for filling of

cans and another for measuring fat content and updating the PC. The infrastructure used to carry out these operations includes weighing balance, microprocessor, printer, milk analysers and a display.

*Gyandoot:* Gyandoot has been established as community-owned, technologically innovative and sustainable information kiosks in a poverty-stricken, tribal-dominated rural area of the state of Madhya Pradesh. The server system runs on Windows NT with Internet Information Services (IIS) server; client PCs run Windows 98. Information kiosks have dial-up connectivity. The server hub is housed in the computer room in the district panchayat. Kiosks have been established in the village panchayat buildings. Typically, villages that function as block headquarters or hold weekly markets in tribal areas, or located at major junctions, were chosen for setting up kiosks. The entire network of 31 kiosks cover 311 panchayats (village committees), over 600 villages and a population of around half a million (i.e. about 50% of the entire district). [5] *Jagriti E-Sewa:* The emphasis of Jagriti is deployment of appropriate, affordable, scalable and sustainable technologies available in the developing countries. The system works on LINUX, which is a 'License-Free' operating system. Old computers (e.g. Pentium I) are used in some places. The project uses dial-up telephone lines. The whole system can be adapted to any language in the least time. The kiosks are located in villages where there is a sizeable flow of public on a regular basis. Each kiosk is set up to serve about 25,000–30,000 people and is owned and operated by a 'Kiosk Franchisee' who is typically an educated youth or an ex-serviceman. It is ensured that the kiosk generates adequate

revenue streams so as to justify its operations.

*Rural Access to Services through Internet (RASI):* Sustainable Access in Rural India (SARI), now renamed as RASI, provides internet and voice connectivity to the villages of Madurai district in Tamil Nadu. The project has 100 internet kiosks in more than 100 villages. Current network technology is based on the CorDECT that was jointly developed by the TeNet group at IIT Madras, Analog Devices Inc. and Midas at Chennai. A CorDECT access centre is located roughly 25 km from the kiosks. Internet facility is provided with the help of Wireless Local Loop (WLL). Each kiosk is connected to the website containing information relating to revenue, registration, rural development, education, health, agriculture and animal husbandry. The major source of income for the operators has been computer education for children.

*Tata Kisan Kendra (TKK):* Tata Chemicals Ltd. came out with TKK to help farmers in states of Uttar Pradesh, Haryana and Punjab. The TKK tracks key parameters relevant to farmers, such as soil, ground water and weather on a real-time basis with the help of Geographic Information Systems (GIS). The GIS software provides spatial information regarding roads, rivers or buildings. It works by imposing layers of data in digitised maps with information about administrative, socio-economic and physical set-up. Satellite image processing can help detect unproductive farming practices, track the progress of insect attacks across states, get crop estimates or update maps. Currently there are 11 main kiosks and around 300 franchisees. TKKs and is looking to set up 40 more kiosks and 800 franchisees to serve 48,000 villages.

*LokMitra:* LokMitra project was developed by the National Informatics Centre (NIC) in Himachal Pradesh, in order to provide easy access at remote areas and to redress complaints. The LokMitra Intranet in Hamirpur district consists of two Pentium III based servers, with four Pentium III-based client systems. The servers and the clients are connected on a LAN. The hub is placed in the Deputy Commissioner's office. The client systems are used by the officials from concerned departments for answering the complaints and queries received and for updating with information. The LokMitra software interface is web-enabled, user-friendly and has two modules: one for the citizen information centres and the other for the control room.

*N - L o g u e :* N - L o g u e Communications Pvt. Ltd. provides telecom and internet services in small towns and rural areas of India. For operational purposes N-Logue divides the country into service areas corresponding approximately to a taluka (Tehsil). Eighty-five percent of taluka headquarters in India have optical fibre today which acts as the backbone for telecom and internet connectivity. N-Logue ties up with a number of content providers such as state government, rural development ministry, agricultural ministry and fertiliser/pesticide manufacturers. N-Logue employs WLL technology as the basis for its village-level communications. The CorDECT technology used operates on the same principles as regular wireless technology, providing internet access at 35–70 kbps to 1 gbps. The subscriber set can transmit both voice and data signals simultaneously to an access centre which must be located within a 25 km distance.

*Bellandur Project:* Bellandur Project is a gram panchayat e-government solution. Working closely with the panchayat members and village residents, the software was designed to suit the needs of panchayat administration. Bellandur Rational Unified Process (RUP), a set of software engineering tools, enables a phased and interactive approach to e-government. At present, the panchayat office has three computers, one for each of the bill collectors. All the district offices, taluka offices and gram panchayats are connected. The committee meetings are aired on the cable television.

*Kisan Call Centers:* Is mainly to respond to the issues raised by farmers instantly in the local language on a continuous basis. The Department of Agriculture & Cooperation, Ministry of Agriculture has launched this scheme during April 2002 with a view to leverage the extensive telecom infrastructure in the country to deliver the extension services to the farming community. But most of the farmers are not aware, so there is a need to improve the awareness among farmers on Kissan Call Centres (KCC) - particularly its cost free services through toll free telephone so as benefit needy farmers. Therefore Ministry of Agriculture has developed plans to strengthen the communications of KCC through the Agriculture and line departments, SAUs, ICAR organizations. They also exhibit in publicity material (posters, charts, banners etc.) of toll free number in all programs viz., training, demonstration etc.

### **Suggestions**

*Cost Reduction and Efficiency Gains:* The appropriate application of ICT may possibly reduce the number of inefficiencies in

processes by allowing file and data sharing across government departments, thereby contributing to the elimination of mistakes from manual procedures, reducing the required time for transactions. Efficiency is also attained by streamlining internal processes, by enabling faster and more informed decision making, and by speeding up transaction processing.

*Quality of Service Delivery to Businesses and Customers:* In the traditional model of public service delivery, the procedures are long, time consuming and lack transparency. A business that wishes to obtain a license or a permit has to fill out a number of application forms, has to visit a number of different offices and spend a considerable amount of time. If a citizen wishes to be issued with a certificate or any other official document, he or she will have to travel to the central government office, go to different offices and spend a lot of time for a simple service. The consequences are high costs and citizen and business dissatisfaction. An eGovernment initiative, on the other hand, which puts government services online, thereby reducing the bureaucracy, offers round the clock accessibility, fast and convenient transactions, and obviously enhances the quality of services, in terms of time, content and accessibility

*Transparency, Anticorruption and Accountability:* EGovernment helps to increase the transparency of decision-making processes. In many cases eGovernment offers opportunities for citizens to directly participate in decision-making, by allowing them to provide their own ideas and suggestions in forums and on-line communities. If web sites are designed carefully and openly, they can be valuable resources for transparency as

citizens, businesses and other stakeholders should be able to see political and governmental information, rules and policies. Previously it was often necessary to go directly to government offices to obtain information, but now this information should be available on the web. The availability of a diversity of publications regarding the activities of the public administration, as well as economic and legislative aspects, increases the transparency too.

*Network and Community Creation:* ICT creates both pressures and opportunities for network creation and community building. As argued before, an eGovernment initiative requires a complex web of interrelationships among government, customers, businesses, employees and other governmental agencies. Moreover, the very nature and function of eGovernment require a network approach to put together skills, technologies, information and knowledge that span the boundaries of different governmental agencies. It is generally impossible to find all of them in one single governmental agency.

*Improve the Quality of Decision Making:* Community creation, forums, continuous interaction and communication between government and its citizens contribute further to the decision making process. By means of active participation in political and government discussions, citizens can contribute their own ideas, and share their knowledge and information. This will in turn lead to building trust in government and improving the relationships between the government and the governed. □

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