CHAPTER 13

Community Information Centres

Nandita Chaudhri and **Shefali S Dash**
Senior Technical Directors, National Informatics Centre

ABSTRACT

The eight north-eastern (NE) states of India have traditionally been less developed than the other states due to their geographic remoteness and difficult hilly terrain. The Government of India, in 2002, set up 487 community information centres (CICs) at the block level in the eight NE states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. They are equipped with computer communication equipment and are internet-enabled. The CICs, besides offering basic services like internet browsing, e-mail and training in computer fundamentals, also provide citizen-centric or government-to-citizen (G2C) services.

e-Suvidha is a single-window front end for such services and is offered by many CICs. It enables the citizen to apply for government certificates, licenses, etc., at the CIC, monitor the progress of the application and collect the document from the CIC. Examples of documents covered are birth, death, marriage certificates, arms license, etc. *ASHA*, a joint effort by NIC and Assam Small Farmers Agribusiness Consortium facilitates agri-business in the state of Assam through a web portal. A block community portal (BCP) or individual web site has been developed for each CIC. This provides an interactive platform for collaboration within and outside the community and information of local interest.

Several proactive CIC operators are implementing some praiseworthy good practices at the CICs under different categories, such as electoral activity, e-governance services, examination results and other multifarious activities. Awareness programmes on the benefits of IT, in general, and the services offered by CICs, in particular, are conducted by the CIC operators. In addition to using novel means, like debates and quiz competitions for awareness, the CIC operators even conduct door-to-door awareness campaigns. The CICs facilitate global communication access, empower local citizens, enable rural IT education and provide connectivity to the masses.

The CICs have been established against insuperable odds as the region is hilly, and traditional means of communication are poor. A unique team effort has facilitated a very successful project. It has substantially impacted socio-economic development of the region. In the wake of the success of the CIC project in the NE of India, a similar project has been implemented in another remote and less developed region of the country, namely the state of Jammu and Kashmir (J&K). Deliberations are under progress on similar projects in other states of India. This paper elucidates how e-governance services are being delivered virtually at the doorsteps of citizens for their all-round benefit and the development of the region.

Introduction

The CIC project of the Government of India, launched on the historic day of August 17, 2002, is the world's largest telecentre initiative. It has been implemented with the aim of bringing the multifarious benefits of information and communication technology (ICT) to the grass-roots in the relatively remote and less developed regions of India. CICs have already been established in 487 blocks of the eight NE states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. An additional 68 are in the process of being set up. Also in the process of completion are 135 CICs in J&K.

Both the NE states and J&K have difficult hilly terrain, and the NE region is connected with the mainland of India by a narrow strip of land, thus making it very remote as well. These regions do not have robust communication infrastructure and have therefore remained relatively less developed. The role of ICT in catalysing development is well recognised. Connectivity is a critical requirement for these regions to open them up to the rest of India and, in fact, the entire world, and satellite-based connectivity is ideal as it overcomes the challenge of negotiating the tough terrain. With this in view, the Government of India undertook the establishment of CICs in these regions.

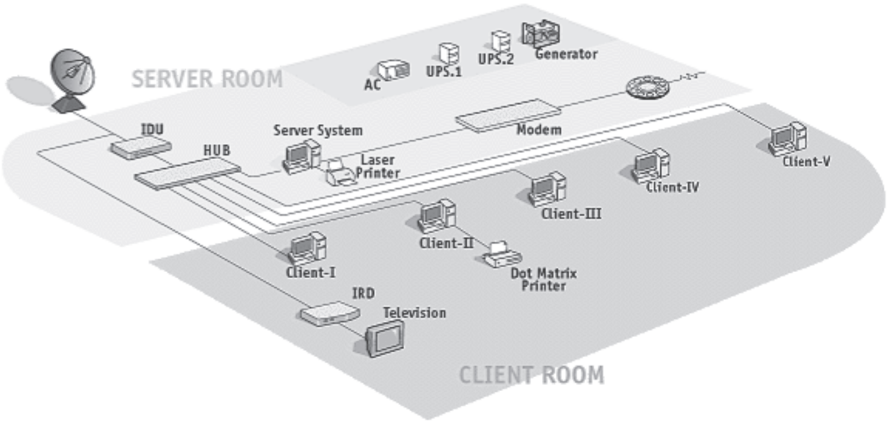
The adversities of terrain and inclement weather, including heavy rains and subsequent landslides, were encountered at the beginning of the project itself, when delivery of equipment was to take place. Equipment was carried in boats, on elephants and as a head load in many remote CIC locations. The untiring dedication of all the stakeholders, i.e., the Department of Information Technology (DIT), National Informatics Centre (NIC), state governments and even the vendors responsible for transporting the equipment, enabled timely delivery and installation in the face of seemingly insuperable odds.

Objectives

The project goals are to set up ICT infrastructure at the block level, to provide web access and internet services such as e-mail, market access and e-commerce facility and access to socio-economic databases. Other services offered are e-learning (computer-aided learning processes) and e-education, e-medicine, e-consulting, e-governance applications, G2C (citizen-centric) services and weather information. It was envisaged that the CICs would create IT awareness among local people, conduct computer training programmes and disseminate tender notification and e-employment notification.

Infrastructure

Each centre is equipped with computer communications equipment: a server and five clients connected to a VSAT on a local area network (LAN). A television has also been provided for edutainment purposes. The CIC infrastructure is depicted pictorially below. Each CIC has two operators for managing and providing services to the public.



Services

The CICs provide some basic services that include internet browsing, e-mail, printing, data entry, word processing and training for the local populace on the fundamentals of computers. Some or all of these services are provided by all CICs. In addition, a large number of CICs offer several services with a G2C orientation.

Services offered by CICs may be classified into five main categories, namely:

1. IT education and training
2. E-mail and internet access
3. Information dissemination
4. Citizen-centric applications
5. Entertainment and news

IT Education and Training

CIC operators regularly conduct training on computer basics for the benefit of the local community. The course content consists mainly of Microsoft Office and, in some cases, fundamental programming concepts. Operators also conduct awareness generation programs through innovative activities such as quiz programmes, debates, discussions, workshops, video shows and door-to-door visits for the local populace, especially students. Select

CICs conduct the Course on Computer Concepts (CCC) of the Department of Electronics Accreditation of Computer Courses (DOEACC) and the Computer Literacy Program (CLP) of the Indira Gandhi National Open University (IGNOU). Online examinations are regularly conducted for candidates appearing for CCC using NIC's Computer-Assisted Paperless Examination System (CAPES) technology.

CIC operators are trained using the CIC network's video broadcast feature by beaming classes from NIC headquarters or state centres to the CICs.

E-Mail and Internet Access

In addition to regular visitors using the e-mail facility, the CICs are used to transfer vital information to and from government offices. Web browsing enables access to the rich and endless repository of Internet resources.

Information Dissemination

CICs provide access to government web sites with rich content on government services and activity; government forms, rules, procedures and notification; government tenders for employment opportunities; schemes for citizens in social sectors; and job and education portals.

NIC has developed a block community portal (BCP) or individual web site for each of the 487 CICs. The BCP acts as a gateway for interactive collaboration within and outside the community and enables the user to connect to knowledge sources and services tailored towards local needs. After the creation of 487 BCPs with the address http://blockname.nic.in, these are populated the with content described below:

- Census information relating to the block, e.g., area, population, number of schools, colleges, hospitals primary health centres, etc., is already uploaded in each BCP.
- Information of job advertisements in the state of Arunachal Pradesh is updated continuously.
- Information on market prices of agricultural commodities available in the *mandis* of the block is updated on a day-to-day basis in the block web sites of Meghalaya.
- Information on agri-business is available from all CICs of Assam.
- Health-related videos are updated on a weekly basis and accessible to the doctors through all CICs.
- Information on students and teachers in each school, enrollment rate, pass out rate, drop rate, etc., is being collected from the schools.
- Information on unique local features, for example, local culture, cuisine, local songs, customs, etc., has been uploaded.
- Information on indigenous biodiversity, traditional remedies and medicine and innovative and indigenous farming techniques/practices of indigenous crops is also being collected from NGOs and other local organisations.

Users can barter products, debate on key issues and view information on their district and state. The content being generated using BCP is continuously assessed and modified based on the requirement of the particular block.

Results for an exhaustive group of school boards, colleges and entrance examinations for educational institutions are available for immediate access at the CICs, as soon as they are declared. Market information, especially in the area of agriculture, is available. CICs provide massive support for local, Legislative Assembly and Lok Sabha elections, allowing free flow of information from blocks to district, state and central levels. Data entry for BPL schemes is done at CICs, sometimes by CIC operators. Status of court cases, general information on municipal councils and awards and scholarships are also available. Information on the internet is disseminated to non-governmental organisations (NGOs), self-help groups (SHGs) and farmers. Census information, electoral rolls and administrative- and syllabus-related information on educational institutions and instant weather forecasting for farmers are examples of some of the types of information available at the CICs.

Citizen-Centric Services

CICs offer G2C services, thereby virtually taking government services to the citizen's doorstep. Most of these services are collectively offered under an umbrella application called e-Suvidha.

e-Suvidha

e-Suvidha is a one-stop service facilitation window application that has been developed by NIC and implemented in the CICs in NE India. This web-based application enables citizens to submit requests for government services and monitor the status of their applications.

e-Suvidha attempts to automate some of the processes and provide a mechanism to the applicant to monitor the status of the application after submission. e-Suvidha also provides the government officials responsible for providing services with a tool to monitor the status of applications being processed by their offices.

e-Suvidha has been implemented in about 50 CICs. It has obviated a great deal of travel, effort and inconvenience for citizens and brought citizens closer to the government, thus rendering governance more efficient, effective and transparent. A nominal amount is charged per applicant for the service, which serves as a source of revenue for the paper used for printing this information.

Some of the services covered by e-Suvidha are given below.

Application for and issue of:

- Land-holding certificate
- Income certificate for service holder
- Income certificate for cultivator/farmer

- SC/ST certificate
- Land valuation certificate
- Natural calamity certificate
- No encumbrance certificate
- Residential certificate
- Family member certificate

In Assam, *Gana Seva*, under *e-Suvidha*, enables monitoring status of grievances.

ASHA

NIC Assam, in partnership with Assam Small Farmers' Agribusiness Consortium, has developed a model 'ASHA – Making Farmers Prosperous through CIC using ICT' for facilitating agri-business in the state of Assam. The portal used for this is http://www.assamagribusiness.nic.in. CIC operators update the web site regularly and are helping to promote it. A registration process for farmers and unemployed youth has been initiated to provide regular capsules and on-demand information, which has been very successful. In addition to local citizens, ASHA has also received appreciation from non-resident Indians (NRIs).

Online submission of forms and public grievances, delivery of land records, printing and distribution of e-mails to the local population, health teleconsultation and updating of treasury data are some of the other citizen services provided. In Tripura, under the service for Hospital Appointment Booking, patients can book appointments for specialist consultancy or medical tests at the government hospital in Agartala, from the CICs. This accounts for a big saving in expense and effort on the part of the patient, as he or she does not have to travel repeatedly to the hospital for information on availability of appointments or cost of services. Rural Bazaar has been implemented in Meghalaya. It is an e-commerce solution to address the marketing need of rural producers of handicraft and other products. Showcasing or full e-commerce are possible.

Entertainment and News

The television sets installed at CICs receive their feed from the CIC network and not regular television sources. This network has a video broadcast feature, wherein a program/session can be simultaneously beamed to all CICs. The televisions are also used for entertainment as DD-I and DD News are broadcast from NIC headquarters. Also, special events are often video broadcast over the CIC network to all CICs. Electronic delivery of newspapers, in areas where the normal delay in receipt of the printed versions is considerable, has had a huge impact on the local population who desire currency of news.

Best Practices

The CICs provide some very novel and innovative services for the benefit of the local populace that are a result of the dedicated efforts of the CIC operators, NIC officials and local government. These best practices may be categorised as follows:

1. Electoral activity
2. e-Governance services
3. Examination results
4. Other multifarious activities

Electoral Activity

The electoral process in India—the world's largest democracy—is a huge logistical exercise and requires an efficient communications infrastructure. Thus, in a region where the traditional communication modes are not effective, the satellite-based connectivity provided by the CICs plays a crucial role. This was comprehensively demonstrated all over the NE states during the last Lok Sabha Elections and the Legislative Assembly elections in Assam in April 2006.

With the online declaration of the polling results, citizens congregated at the CIC centres to get all the information from the voters' list to the final results on the web. In Sikkim, a remarkable turnout of approximately 70–80% of all eligible voters undertook the verification of their names in the voters' list in select districts at the CICs. The local public also visited the CICs to watch the live telecast of the results on television. The CICs also provided information details to the returning officers and polling officers on other pertinent election issues. Despite heavy landslides and lack of an efficient communication system, election-related information was easily sent and received via the CICs. The CICs were used as Control Rooms during the counting of votes. Operators received poll results of different districts and constituencies and passed these to the Election Commission. The CICs were also pressed into action for citizen awareness services. For example, many CICs demonstrated the use of the Electronic Voting Machines to the local people using a CD-based tutorial developed by NIC. In addition, results of the State Assembly, District Council and Parliamentary Elections were disseminated over the internet.

CIC workforce and infrastructure in Assam was mobilised in a big way during the Legislative Assembly elections in April 2006 to support the efforts of the Election Commission of India in all IT-related aspects. The ECI saved lakhs of rupees that would have been required if resources were hired from the market.

e-Governance Services

The Indian government is using IT to facilitate e-governance. The effective use of IT services in government administration can greatly enhance existing efficiencies. It can help drive down communication costs and increase transparency in the functioning of government departments. It also provides citizens with easy access. The convenience of downloading application forms, submitting online forms, online bills and payments are just some of the services that can touch and change citizen lives. These services are available at the CICs. The government proposes more complex forms of e-governance such as distance education and telemedicine for which, once again, the CICs will become nodal centres.

Many CICs have implemented a number of citizen-centric services under e-Suvidha. For example, in Arunachal Pradesh, the BPL (below poverty line) Income Certificate application has been implemented at all CICs of Tawang district, namely, Tawang, Lumla and Thingbu-Mukto under e-Suvidha. Many CICs have taken up block-level computerisation by creating BPL data bases. The CIC at Kakching in Manipur issues various certificates (SC/ST certificate, income certificate, land ownership certificate, land valuation certificate, natural calamity certificate, no encumbrance certificate, residential certificate and family member certificate) and collect Rs. 10 per certificate as printing charges. At the CIC at Samdong in Sikkim, the CIC is distributing various forms for social welfare schemes to the local people under e-Suvidha. These include old-age pension, physical disability, opportunities for handicapped and widow pension. In addition, a 10-day free training program was conducted for panchayat members and handicapped persons. Market prices are being disseminated by many CICs. In Meghalaya, there is an agri-marketing portal that ensures that rural farmers are aware of the current prices of agricultural commodities, thus preventing them from being exploited by unscrupulous intermediaries. The portal is updated daily at the CICs and captures the current prices of various agricultural commodities from markets across the state.

Examination Results

The NE states have a large student population. The CICs have been beneficial in providing immediate access to examination results. Students in these states have instant access to Central Board Examination results, All India Entrance Examination results for various engineering and medical colleges, State Bank recruitment results, etc. The provision of printed Central Board of Secondary Education (CBSE) results is another source of income for the CICs. The students can get a hard copy of the mark sheet for as little as Rs 5. Droves of students throng the CICs to access their results. For example, at Tikrikilla, District West Garo Hills, Meghalaya, the Secondary School Leaving Certificate (SSLC) results were accessed by nearly 1200 students.

Students enrolled at IGNOU, undergoing various courses such as B. Ed., Master in Tourism Management (MTM), Bachelor in Tourism Studies (BTS), etc., are regular visitors of the CICs like the one at Tezu, where they can access information on the availability of study material, data sheets and examination results. In all the states, the results of national competitive exams at the school, college and university level are disseminated from several CICs.

Other Multifarious Activities

The CICs have been equipped with TV sets for edutainment purposes. This attracts many visitors and generates awareness about CIC services. Doordarshan Sports Channel was video broadcast over the CIC network, and visitors were able to watch the Olympic Games 2004 live at the CICs.

Awareness generation through innovative activities such as quiz programmes, debates, discussions, workshops and video shows for local populace, especially students, is a prevalent activity at the CICs.

At CIC Khawzawl, District Aizawl, Mizoram, an awareness campaign is organised once every week for the students of Model High School and Higher Secondary (Pvt.) School. Besides printing documents for the public, the examination question papers for the government primary schools, government high schools and private schools were compiled and printed at Mizoram CICs.

The operators of CIC Kobulong, Nagaland, take printouts of local, national and international news from the web sites (4–5 pages on a regular basis) and paste them on the Youth Bulletin Board for the general public every week. At CIC Khagam, District Changlang, Arunachal Pradesh, the Department of Power uses CICs to send FBMS meter reading of weekly power consumption to their concerned offices.

The prospectus, forms, syllabi of different universities and colleges, driving license, treasury vouchers, NPSC and IGNOU forms, SC/ST certificates, etc., are downloaded at the CICs in Nagaland. The CICs provide utility forms and certificates of the state government to the government employees and general public.

Many government officials visit the CICs to learn the basics of computers and to type official documents and reports. Many also use computers for chatting and net browsing. Interestingly, at the Yuksam CIC, in Sikkim, the youngest visitor, aged 10, draws pictures, and the oldest visitor, aged 78, uses the facility to read newspapers.

The CIC operators in Tripura are actively involved in extending services like Health Booking Information System and Data Update for *Gramodoy* (Gram-Panchayat-Level Planning Database), Below Poverty Line (BPL) Survey Database, *Sampoorna Gramin Rozgar Yojna* (SGRY) and allied rural development solutions implemented by NIC Tripura. The CICs regularly contribute towards the total sanitation campaign. Workshops on social issues like total literacy, total sanitation and citizens' participation in preparation

of block-level yearly master plan for development are also organised. Since the flood-affected areas at Dhakuakhana produce superior quality of rice, the CIC at Dhakuakhana, Lakhimpur District, Assam, has taken up an ambitious project to market organic rice in the region. The Dhakuakhana CIC has involved students in this project. The students, with the help of an NGO, have set up a portal and a community development forum to make this venture a success. The project is expected to benefit the rural economy in the region where agriculture is the only means of livelihood. The members of the community development forum propose to visit the local farmers to establish a streamlined marketing process. The members also plan to put the entire rice production process on the portal. As soon as the portal is functional, the orders will be acknowledged through e-mail, and the community volunteers will carry out the packaging and payment procedures. The members plan to convert the portal into a secure online financial transaction system in the next 2–3 years.

M/s Frito Lay India is India's largest potato chips manufacturer and marketer. During the months August–November, they experience shortage of raw materials and require access to market information. The general manager (Agro), through the agricultural marketing portal accessed at a CIC, found out that Meghalaya produces potato during these lean periods, shortlisted Shillong as the ideal location to source chip-grade potatoes and has tied up with the Department of Agriculture for contract farming including buy-back.

A young entrepreneur from Shillong, with an MBA from the International Institute of Foreign Trade, New Delhi, presently engaged in the business of supplying ginger to various markets in the country shared how the agricultural marketing portal, which he accessed at a CIC, has helped him in checking current market prices and in his marketing decision making. He appreciated the portal for its price accuracy. This case is one among many of businessmen using the portal for creating opportunities from market arbitrage that prevails in the agriculture marketing system.

At CIC Imphal East I, operators downloaded information from the internet to guide foreign tourists on how to travel along the Indo–Burma road to Myanmar.

CIC Mathurapur is providing a new online service for the people of the block, namely, online PAN card application. The Income Tax Department, Government of India, has designed a portal for e-delivery of taxpayer services, and the operators bring the information about this service to the people through the CIC infrastructure. The CIC has also been allocated *Know Your PAN* services by the Income Tax Department.

CICs located at sites that are relatively easy to access are able to earn considerable revenue by charging, albeit nominally, for services. They often procure additional infrastructure like colour printers, scanners, etc., to augment the already existing services.

Accolades

Bouquets have been forthcoming for the project. For example:

- e-Suvidha has been awarded the e-ASIA Award 2004 in Taipei, Taiwan, by the Asia Pacific Council for Trade Facilitation and Electronic Business (AFACT).
- The CIC project received the prestigious Skoch 2005 award for e-Governance projects.
- 14 CIC operators from Assam were awarded the Jamsetji National Virtual Academy Fellowship offered by the M.S. Swaminathan Research Foundation (MSSRF) to promote the knowledge revolution in the country using ICT. They were selected for their meritorious work in providing services through ASHA project. The Fellowships were presented by His Excellency, the President of India.

CICs for Development

A CIC has recently been launched in Sherathang, Nathu La Pass, at the Indo-China border in Sikkim. It is 13,600 ft above sea level and is the highest cyber café/internet kiosk in the world. It is to be acknowledged shortly by the Limca Book of Records. It is strategically located to facilitate Indo-China trade, as the route has recently been opened after a long period of time. On visiting the CIC, it is heartening to see a well-constructed, well-maintained, fully equipped centre at such a height and remote location. The two recently posted operators, striving hard to provide a bouquet of services have already had some appreciable success.

The CICs have helped to accelerate IT usage in the rural areas of the NE states of India. Internet is now emerging as the principal medium of communication for every state. The CICs have provided innumerable benefits to the citizens of NE India. Some of the more popular usages have been career guidance and distance-learning opportunities, online admissions at various educational institutes, results of various examinations, online railway reservation booking and status, e-mail and chat, television viewing for entertainment and information, access to exam results, citizen-centric services and access to government departments.

The CIC operators teach the villagers how the internet can help them obtain necessary information regarding farming, agriculture, health, education, etc. Most of the CICs have been organising occasional free internet camps, training camps and computer awareness camps to familiarise the local people, especially the student population, with the usage and benefits of IT. The establishment of CICs has helped bridge the digital divide between the NE region and the rest of the country.

The CIC services entail an IT-enabled interface for public dealings of the government. Some examples are Comprehensive Household Survey,

Member of Parliament Local Area Development (MPLAD) schemes, schemes for the underprivileged, local market information and so on.

Replication

Its enormous success has prompted the government to replicate the CIC project in regions other than the NE, with difficult terrain, poor communication infrastructure and comparatively lesser development. CICs are being set up in 135 blocks in the J&K.

Sustainability and Cost–Effectiveness

Although CICs charge nominally for services provided, the revenue thus generated is, in some cases, not enough even to meet day-to-day running costs like those for paper and other consumables, electricity bills, etc. Depending on the location of the CICs, however, some of them are profitable, even able to purchase additional equipment like colour printers, scanners, etc. It is the remoteness/centrality of the CIC site and the consequent paying capacity of the user that determines the amount of income generated. Moreover, the project requires financial support from the government to cover other major expenditures like bandwidth, maintenance of equipment, salaries of operators, etc. However, in view of the enduring salutary social impact of the project, it is felt that financial sustainability is not of key relevance. The positive impact on all-round development warrants that the CICs be supported to continue providing invaluable service to the local community of the NE.

Conclusion

Evaluation studies and social cost–benefit analyses conducted for the CIC project indicate tangible developmental benefits accruing to the local community. Income levels have been seen to increase, and students who have received training at CICs have found gainful employment. G2C services offered by CICs have brought the government to the citizen's doorstep. Communication enabled by CICs has opened up the NE to the rest of the nation and indeed the whole world. Services offered by CICs have favourably impacted the lives of the local denizens in a myriad different ways, proving that telecentres like the CICs can be a boon to less developed regions all over the third world. CICs have demonstrated how e-governance can be a cutting-edge tool for development.