

RURAL DEVELOPMENT THROUGH ICT INITIATIVES IN INDIA: POLICIES AND DEVELOPMENTS



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Rural development is a continuous and dynamic process, which aims at promoting the well being of the people. The government has undertaken several projects so as to improve the rural areas. All the projects aim at increasing the level of satisfaction of need of social targets (population). The rural development activities/programmes, may differ in places, solely aim at the gradual removal of disparities among various classes, between regions and within regions. Being different from the process of development elsewhere, the Indian problems have to be examined carefully keeping in view their special needs, parameters, experiences and environment. Though the programmes aim at balanced development, due to flaws in implementation at field level, disparities are widening between the targeted groups. Thus the rural development programmes should be need specific and meet with the requirements of the lowest possible strata of the population viz., need, poor, illiterate, weak, etc.

Due to the lack of amenities, such as Communication facilities, the rural areas are backward and developing in India. The communication facilities include transportation, Mass media, telecommunication, Computers, Internet etc. In India, rural areas are not well equipped with these facilities. 'Information and communication technologies (ICTs) have been with us for many years, and they have played an important role in promoting agricultural and rural development during the last several decades. The role of TV and Radio in rural education and extension services has been well documented. These technologies will continue to play a critical role in and along with the new information and communication technologies. But what characterizes the new ICT revolution is the convergence of three technology sectors, whose convergence has generated a qualitative difference in the way we can generate, disseminate and transfer knowledge, and thus contribute to development. These technological sectors are:

1. Telecommunications technology
2. Informatics: Computers and Information processing technology
3. Data and Image transfer technology and interactive multimedia'. Due to lack of these technologies in the rural areas, the digital divide is created between rural and urban people. This "digital divide" or "information and technology gap" refer to the gap between those who can effectively use new information and communication tools, such as the internet, and those who cannot. This definition, however, is disappointing, as it is rather too simplistic. It is true that the most dramatic kind of digital divide is the global divide: some countries and areas can use the internet, and others cannot, because of the simple fact that the indispensable technological infrastructure is missing. The digital divide is usually referred to as the "inequality of access to the internet." The digital divide is the gap between those people and communities who can access and make effective use of information technology and those who cannot. Simply, A common euphemism that describes the haves and have nots of the information age, usually urban versus rural communities. The digital divide is the socio-economic/technological difference between communities in their access to computers and the Internet. The term also refers to gaps between groups in their ability to use ICTs (Information and Communications Technologies) effectively, due to differing literacy and technical skills, and the gap in availability of quality, useful digital content. The divide is seen as a national/social/political problem. It became an issue among concerned parties, such as governments, scholars, policy makers, and advocacy groups, in the late 1990s.

As such the effect of digital divide is more in rural India. To bring Information and Communication Technology equality among the rural and urban areas, the Government of India, State Governments, Corporate organizations and Non-Governmental Organizations have framed policies and executing different kinds of programmes. The present paper

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explained the ICT initiatives by these organizations and their policies and programmes.

ICT Initiatives in India to bridge Digital Divide

Efforts are now being made in different parts of the country towards developing the information infrastructures, specifically suitable dissemination mechanisms, utilizing Information and Communication Technologies (ICT). These are being done by three types of agencies viz.

* Government (directly or indirectly/ semi government/autonomous agencies) * Non-Government Organizations (NGOs/ associations) *Corporate Agencies (i.e. corporate organizations/ industrial houses, etc.) Some times more than one type of agency is also involved in this work. Even a few International Agencies are also collaborating in some cases.

Governmental Initiatives: In some states the state governments or local self governments have set up information set up information centers or kiosks to disseminate information required by the rural people of the area. Some instances of such efforts are briefly described here.

Akshaya Kendra Kerala Government is setting up information kiosks, named as Akshaya Kendra's in different villages. The scheme has been first implemented in Mallapuram district, where over 600 such kiosks have been set up as every two kilometers by the entrepreneurs, with the assistance of the government. The government jointly with Tulip IT services is setting up rural broadband wireless network eliminating the need of telephone lines to run internet in those kiosks. Other 13 districts of the state are expected to have such Kendra's by 2005. The villagers can make payment of electricity bills, get birth certificates and contact police stations by e-mail.

CLIC Project: Libraries and Information Centres play an important role in developing the knowledge of the rural masses. The Government of West Bengal has taken up a project of setting up in phases around 1500 Community Library and Information Centers in such villages, where there are no public libraries. The centers providing normal library services specially cater information relating to career and vocational opportunities, essential data needed for regional planning and information pertaining to developmental activities being carried out by village panchayats.

Jana Mitra Scheme Jana Mitra is a United Nations Development Programme (UNDP) supported scheme.

Under this scheme information kiosks have been set up in remote areas of Jhalwar district of Rajasthan. The scheme aims at providing access to information pertaining to government services and availing of many such services on-line in remote pockets of the country there by bridging the gap between the local administration and the people of the area.

CIC Project Ministry of Information Technology, Government of India, launched a project in North Eastern States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Sikkim and Tripura to extend the reach of modern technology even to the remote areas and difficult mountaineering of these states in order to enable rapid socio-economic development and bring the area closer to the national mainstream. Under this project community information centers have been set up in all 487 blocks of the North Eastern States and centers are connected through a satellite based computer communication network. This centre provides e-mail, web access services and data bases services also.

CHOICE Chhattishgarh is one of the best states in the country in telephone infrastructure facility connecting all its districts with optical fiber cable. It has initiated e-governance project called CHOICE (Chhattishgarh Online Information for Citizen Empowered) to provide various government services under one umbrella.

Lokamitra Project Himachal Pradesh government has taken up Lokamitra Project to provide the general public, especially those living in distant rural areas of the Himachal state, easy access to government information and the facilities of e-governance at their doorstep. The project was first implemented in Hamirpur district, where a district-wide Internet has been created. Lokamitra Soochana Kendra's have been set up in 25 panchayat areas, which are run by employed youth. These Kendra's provide current information relating to the district, govt. notices and other citizen need information. The funds for the project have been provided by NABARD.

SMART The Govt. of Himachal Pradesh has developed Information Technology Vision 2010 in collaboration with NASSCOM to convert Himachal Pradesh in to an IT destination. The use of IT in governance is aiming at Simple-Moral-Accessible-Responsive and Transparency (SMART) government.

NATP Project National Institute of Agricultural

Extension and Management, Hyderabad under its National Agricultural Technology Project (NATP) has set up Internet kiosks in 24 districts in seven states viz Andhra Pradesh, Bihar, Himachal Pradesh, Jharkhand, Maharastra, Orissa and Punjab. In Andhra Pradesh 10 villages in Ranga Reddy district were selected for special study. Each village received a complete computer system with Internet connectivity. Responsibility was given to the society to run the kiosks. Each kiosks has a CD (Compact Disk) containing databases of Rayatu Panchangam, agricultural expert system for diagnosis of pest related problems, electronic books in telugu on child rearing, etc. These kiosks provide facilities of e-mailing and information regarding weather, examination results, etc.

Raj Nidhi Scheme Raj Nidhi is a web enabled information kiosks system, developed jointly by the Rajasthan's Department of Information Technology and Rajasthan state agency for computer services. The citizens are able to access information /services relating to health, family planning, immunization schedules for children, employment, transportation, distance education, agriculture, water and electricity connections, birth and death registration etc. The first Raj Nidhi Kiosk was inaugurated by Bill Clinton the former President of U S A on 23 March 2000. Such kiosks are being set up in all the 9184 panchayats of the state, which will be finally connected in a network.

NIRD Scheme National Institute of Rural Development (NIRD) Hyderabad has set up two public information kiosks with Internet connection s, one at Vikrabad in Ranga Reddy district and the other one at Tenali in Guntur district. These kiosks provide such information as examination results, directories, agricultural prices, governmental forms, land records, educational opportunities etc.

Wired Village Project About 54 Village information kiosks have been set up in Kolhapur district of Maharastra under this project. The project aims at increasing the efficiency and productivity of the sugarcane cooperatives of Warna and also provides a wide range of information and services to 70 villages around Warna village. The villagers get access to information in their local language about crops and agriculture market prices, employment schemes and educational opportunities through these kiosks. The project was initially formulated by the Information Technology Task Force under the Prime Minister's Office.

TRICGOS TRICGOS is a co-operative venture of Ministry of Social Welfare, Ministry of Local Administration and Ministry of Education covering 29 districts of Tamilnadu through network. TRICGOS start digital mobile services, which will help to cover the remote villages where public transport facility is not available.

Digital Mobile Library Project The Govt. of India with the collaboration of C-DAC aimed at bringing about one million books of digital library at the doorsteps of common citizens. Internet enabled mobile Digital Library is brought for the use of common citizen for promoting literacy. It makes use of mobile van with satellite connection for connectivity of internet. The van is fitted with printer, scanner and cutter and binding machine for providing bound books to the end users.

Bhoomi As part of Govt. of India's initiation of a scheme for computerization of land records in various states with the assistance of National Informatics Centre (NIC) the most successful Bhoomi project of Karnataka was started in 1991. The Dept. of Revenue in Karnataka state has computerized 20 million records of land ownership of 6.7 million farmers in the state. This system works with software called "Bhoomi" designed by NIC.

NGO's Initiatives According to rough estimates, around one million NGOs are functioning in India, majority of which are working for the poor and the downtrodden. Some of the NGOs have taken initiative in setting up information disseminating centers in rural areas. A few such schemes implemented by them are briefly mentioned below.

Dristee Project Dristee has been described as a platform for rural networking and marketing services for enabling e-governance, education and health services. It runs with the help of a state -of-the-art software that facilitates Communication and Information Technology interchange within a localized internet between villages and district centers.

Gyandoot Scheme Gyandoot is basically a community owned technologically innovative and sustainable information kiosk. The project covers 20 village information kiosks in five Blocks of Dhar districts. The entire network of 31 kiosks covers 311 panchayats over 600 Villages nearly 50% of the entire district. The scheme has own several awards including Stockholm Challenge IT Award in 2000. There is a plan to employ Wireless Local Loop Technology to reach interior villages.

SARI Network The sustainable Access in Rural India (SARI) is being implemented in the villages of three Blocks in Madurai District of Tamil Nadu. Under this project 38 far flung villages have been wirelessly connected from a server in Melur since November 2002.

GRID Center General Resources and Information Dissemination (GRID) Center, designed and developed by the Indian Farmers and Industries Alliance (IFIA) and the Federation of Farmers association (FFA) has come up in Gummadidala village in the Medak district of Andhra Pradesh.

Information Village (MSSRF) With a modest grant from IDRC, Canada, M.S. Swaminathan Research Foundation, Chennai initiated in 1998 an imaginative experiment in electronic knowledge delivery in a cluster of villages and hamlets near Pondicherry, to meet the local needs using a mix of wired and wireless technologies and through local web site.

The Simputer Project Scientist from Indian Institute of Science and Encore Software brought this idea into practice. This project grew out of the dare need for an affordable access device for the rural population in the country.

Corporate Initiatives The motive of increasing market base has prompted several corporate houses to take up projects aimed at setting up information kiosks in rural areas in different parts of the country. In most cases such kiosks provide various information required by the rural people, besides information relating to the products and service offered by the respective corporate houses.

Amul's Disk Net The well known dairy giant Amul of Anand, Gujarat has developed a net work of Dairy Information system kiosks (DISK). Till now 2500 village level kiosks have been connected and while completing the project, the network will cover 70,000 village milk societies.

Hindustan Lever's i-Shakti Hindustan Lever Ltd, a corporate giant has embarked upon a project, called i-shakti an IT based rural information service to provide information and services to meet rural needs.

The project envisages setting up of 1500 kiosks by 2005, delivering information services to over 10 million rural people across 7500 villages in Andhra Pradesh.

Ogilvy and Mather's Param Param, sponsored by Ogilvy & Mather's, is an innovative initiative in rural connectivity. This project was originally conceived for marketing communications. This electronic connectivity network can reach the remotest rural area where no land line or media based communication is currently available. "Connect the last mile first" is the theme of the project.

Parry's India agriline.Com E I D Parry & Co., has implemented a scheme in villages around Nellikuppam village in Cuddalore district of Tamil Nadu, using corDECT Technology developed by IIT-Chennai. The facility is extended to 150 odd surrounding villages falling within a radius of 25 kilometers, which would benefit over 25000 farmers in the region.

ITC e-chaupal ITC launched e-chaupal project in 2000. Within a span of four years, e-chaupal has become the largest initiatives among all Internet based interventions in rural India. Around 2700 echaupal's provides services to more than half a million farmers in five states (Madya Pradesh, Karnataka, Andhra Pradesh, Uttar Pradesh and Maharastra states). Rural masses can access information in their local languages on wealth and market prices.

Conclusion ICTs are very important tools now a day for bridge the digital divide in rural areas and also means for the overall development. But even though the above mentioned policies and developments taken place in India to overcome the digital divide in rural India and enable electronic communication development, till now rural areas have less access to ICT based services due to various reasons. A nation can never go ahead keeping a section of its citizens lagging behind. Hence every effort should be made to improve the condition of our rural folk and for that proper telecommunication and networking infrastructure has to be built up.

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