Research Reports Series - 97

e-Connectivity of Panchayats

Dr. P SATISH CHANDRA

Shri D S R MURTHY

Shri DHIRAJ BARPUJARI

NATIONAL INSTITUTE OF RURAL DEVELOPMENT

(Ministry of Rural Development, Government of India)

RAJENDRANAGAR, HYDERABAD- 500 030

ISBN No. 978-81-85542-91-1

March, 2013

Published by
NATIONAL INSTITUTE OF RURAL DEVELOPMENT
(Ministry of Rural Development, Government of India)
Rajendranagar, Hyderabad - 500 030. India
Telephone : 040 - 24008473
www.nird.org.in

Printed at : VAISHNAVI LASER GRAPHICS, Ph. 040 - 27552178

ACKNOWLEDGEMENTS

The report on e-Connectivity of Panchayats has been taken up to see and understand how Panchayat connectivity (via Tele-connectivity/Internet) is going on in the States of Gujarat, Karnataka, Madhya Pradesh, Sikkim and West Bengal.

Firstly, we would like to place on record the great support and encouragement received from Shri Mathew C Kunnumkal, IAS, former Director General, NIRD for allowing us to carry out the study in five States of the country.

We are indebted to Dr. M V Rao, Director General, NIRD for his help and guidance to complete the study on time.

We also thank Dr. V Madhava Rao for his academic support and key inputs from time to time for improving the report. And sincerely thank all our academic friends who have given useful insights into the e-connectivity of Panchayats. We thank all the officials from various institutions, agencies, Ministries, Government Departments who directly or indirectly helped in sparing their valuable time and discussing with the team to enrich the report with valuable suggestions/comments/views as far as connectivity of Panchayats is concerned.

The team expresses special thanks to all the officials at three levels of administration, namely District, Block and Gram Panchayat for providing with necessary information and ideas. All the staff concerned in Rural Development and Panchayati Raj Departments, Science and Technology Departments in the respective states had extended full cooperation and help in furnishing both primary and secondary information for timely completion of the study. We want to thank everybody who has helped us in one way or the other to enhance the quality of the report.

The team personally thanks Dr. K. Papa, for going through the draft report and offering valuable suggestions. The team thanks Mr. Bhoomaiah, Mr. A L Kumar and Mr. Nageshwar who had consistently assisted in collecting data from various sources as well from the field. Special thanks to Ms. Saroja who had taken lot of pains to type the manuscript carefully and timely into report form.

Authors

PREFACE

Telecommunications is one of the prime movers of modern economies. Information flow, accessing, sharing and utilisation help boost local economies and help immensely for better decision making and effective planning. The growth in connectivity is expected to increase substantially interactive communication between distant centres, permit improved governance through more efficient delivery of information and a range of social services in rural areas as well as expand access to the Internet and the benefits it can provide.

India needs around 100 million broadband connections and the government is focused on connecting 250,000 Panchayats across the country through broadband.

We have today about 10 million broadband connections for a country of a billion people, which is no good. Ideally this country needs 100 million broadband connections. If we say 100, even 80 or 70 million is good enough says Pitroda, who is also known as father of India's telecom revolution.

Large number of broadband connections will soon reach 100 million in five years i.e. under project vision 2012. We will see a sea change in the rural areas. We all are working on it. But we are first focused on connecting 250,00 Panchayats through broadband now, because that is the nerve centre of our decentralised governance. Rural India is ready but we have not given them connectivity. Once connectivity is given a lot of back offices will emerge in rural India.

"Next decade is going to be the most important decade in putting institutions and infrastructures related to information systems in place to be able to take advantage of a connected billion people." There are various models and solutions of connectivity of Panchayats in the country. However, a cost-effective solution is always preferable.

The Governments all over the world are interested in enhancing the quality and quantity of services to the citizens in a cost-effective manner. Another major problem the Governments are facing today is to create more employment opportunities for its citizens at least cost. The system proposed shall address these issues also very effectively with a well defined strategy.

The state Governments have created several Panchayati Raj Institutions to ensure grassroot level development. At village level, the Gram Panchayats are the grassroot level institutions.

At the intermediate level, i.e. Tehsil/ Block/Mandal level there are nodal executive authorities; they coordinate the implementation of welfare schemes and services.

What this boils down to is that governments alone will not be able to bring in the necessary changes, but multi-stakeholder partnerships and linkages among civil societies, local communities, government agencies, etc., will certainly help bring about the desired results. With the advance in technologies, particularly in ICT, the possibilities of creating inclusive knowledge societies appear brighter than ever before. A mere Website or a laptop does not empower the underprivileged. Developing countries like India need technology, yes, but what they need more are coherent connectivity projects with reliable delivery systems that link technology to the country's needs.

CONTENTS

1. INTRODUCTION

Rural connectivity assumes a significant position as far as rural development and poverty alleviation are concerned in India. The recent digital technology in the telecom industry has transformed the citizens' life dramatically to connect to any part of the world much faster and also making available the common services at one stop location. Telecommunications constitute the core of, and provide the infrastructure for the information economy as a whole. We are heading towards an Information Society, where everyone can create, access, utilise and share information and knowledge, enabling individuals, communities and people to achieve their full potential in promoting their sustainable development and improving their quality of life.

To provide telecom access to rural areas, the Government of India has drawn up an ambitious Project Vision 2012 for Rural India under which 200 million rural telephone connections will be provided by 2012 which will translate into a rural teledensity of 25 per cent Broadband connectivity that would also be provided to schools, health centres and Panchayat offices. Each village would have at least one broadband enabling kiosk.

Affordable use of ICTs in India is critical, not for the mere ability to transact by electronic means, or to improve the delivery of government and business services to isolated rural and disadvantaged communities, but it is central to the core objective of empowering people through literacy, education, knowledge, employable skills, poverty reduction and wealth creation.

In developing countries, the issue is one of how to expand access to basic connectivity such that users in these countries can take advantage of the opportunities for economic and social development offered by

communications. In Sweden, for example, apartment buildings are being wired for broadband Internet access at very high speed and low prices (UTI, 2010).

Today, access to advanced communication infrastructure and services is more prominent than ever before in policy discussion covering nearly all areas. The main reason for this is the increasing recognition given to the role that a more efficient and dynamic communications sector can play in overall economic and social development.

The two major drivers of growth continue to be wireless communication and the Internet. The rapid growth in Internet use poses challenges for existing policies on IT administration and regulation. Internet governance covers a broad range of subjects, from technical administration to wider public policy issues such as content regulation. Although the Internet is a global network, many policies are set nationally. Some decisions require international cooperation, and there are often difficulties in agreeing to uniform rules.

Internet Connectivity Across the World Vs India

The top 10 countries account for over 71 per cent of the total global unique IP addresses.

* There were 179 countries with fewer than one million unique IP addresses connecting in the third quarter of 2009;

* 137 with fewer than 100,000 unique IP addresses; and

* 30 with fewer than 1,000 unique IP addresses;

The average connection speed, worldwide stands at 1.7 Mbps. South Korea maintained its position as the country with the highest average connection speed.

Figure 1 : Unique IP Addresses Seen By Akamai

Unique IP Addresses Worldwide

Internet Governance

The rapid growth in internet use poses challenges for the existing policies on IT administration and regulation. Internet governance covers a broad range of subjects, from technical administration to wider public policy issues such as content regulation. Although the Internet is a global network, many policies are set nationally. Some decisions require international cooperation, and there are often difficulties in agreeing to uniform rules.

There is debate over which issues comprise Internet Governance, World Summit on the Information Society (WSIS), held in two stages in 2003 and 2005. Its intent was to discuss the creation of a 'global information society' through increasing access to information and communication technologies, including the Internet. However, much of the debate centred on technical administration. One of the key outcomes was the establishment of the Internet Governance forum or IGF. It was convened for "multi-stakeholder policy dialogue" among governments, industry and civil society.

Broadband Speed World-wide

While South Africa has a half of the top 10 fastest cities in Africa, with average speed ranging between 1-1.5 Mbps, South Korea, has six of the top 10 fastest cities in Asia, all with average speed above 15 Mbps. 19 per cent of the Internet connections around the world were at speed greater than 5 Mbps and South Korea continues to dominate the list.

Broadband in India

Broadband service has considerable potential for contributing to growth of GDP and enhancement in quality of life through societal applications including tele-education, tele-medicine, e-governance, entertainment as well as employment generation by way of high speed access to information and web based communication. Well-developed information and communication network infrastructure and applications, adapted to regional and local conditions, through easily-accessible and affordable broadband can accelerate the social and economic progress of country, and the well-being of individuals as well as communities. Taking into account these considerations, the Government has announced Broadband Policy 2004.

The following targets as proposed in the Broadband Policy 2004 are taken as a benchmark for future growth of broadband and Internet in the country.

Year Ending	Internet Subscribers	Broadband Subscribers
2005	6 Million	3 Million
2007	18 Million	9 Million
2010	40 Million	20 Million

RS 97

Key Statistics for India

As on 2010 there were 3,343,157 Unique IPs with an Average Speed – 879 KBPS (only 0.7 per cent above 5 MBPS, 4.9 per cent above 2 MBPS and 26 per cent below 256 KBPS).

Telephone

The current world average penetration for the developing world is six telephone lines per 100 people and the average for the world as a whole is 10 lines per 100 people. In India it is roughly 60 lines per 100 people, as of November 2010. There are about 40 million fixed lines and about 600 million wireless phones, as of November 2010.

Telephone Penetration in India (Total Working Lines)

Mar.1968	Mar. 1998	Mar. 2005	Jul. 2008	Nov. 2010
800,000	18.6 Million	98.37 Million	333.84 Million	650 Million

Source: Indian Department of Telecommunication.

Cell Phones

Total number of Cellular Phones in India (GSM + CDMA)

Dec. 1999	Jul. 2005	Dec. 2008	Nov. 2010
1.59 Million	65.65 Million	296.8 Million	600 Million

Source : Cellular Operators Association of India/ IBEF.

Major Cell Phone Players of India

Cell Operators	Subscribers (As on 31 July 2005)
Bharti	12,789,502
Reliance	12,502,486
BSNL	10,724,498
Hutch (Orange)	8,844,908
Idea	5,729,344

A substantial change has come about in terms of mobile versus fixed phones and public versus private participation. Thus, while the number of telephones has been increasing at a compound annual growth rate (CAGR) of 37 per cent, wireless subscribers increased at CAGR of 97 per cent.

Village Panchayat Telephones (VPT)
(Total 600,000 Villages in India)

Category	September 1999	July 2008
Number of Villages with Telephone Connection	343,000	550,000 (including 30,500 with Broadband)

Source : Department of Telecommunications, Ministry of Communication in IT.

More Indians can now afford a telephone. It is one of the most beneficial and exemplary outcomes of liberalisation. Abolition of monopoly, foreign direct investment in the sector and induction of new technologies bring the factor which facilitated this growth.

S.No.	Service Area	Total No. of uncovered villages	VPTs to be provided using satellite Technology	VPTs to be provided using other Technology	VPTs provided up to 30.9.05
1.	Andhra Pradesh	1074	115	959	208
2.	Assam	8931	279	8652	1976
3.	Jharkhand	1694	1694	0	30
4.	Gujarat	4144	0	4144	1657
5.	H.P	1002	275	727	234
6.	J & K	1755	465	1290	206
7.	M.P.	11894	443	11451	3454
8.	Chhattisgarh	5043	88	4955	675
9.	Maharashtra	6441	496	5945	1844
10.	North East –I	2128	578	1550	76
11.	North East-II	1550	1289	261	30
12.	Odisha	4899	4899	0	0
13.	Rajasthan	12386	18	12368	2493
14.	Uttaranchal	3881	3544	337	195
	Total	66822	14183	52639	13078

Source : D/o Telecommunications, M/o Communications & IT.

Percentage Distribution of Telecom Services in Rural and Urban Areas

Indicator	Rural	Urban
Population	74%	26%
Teledensity	0.2	3.4
No. of Exchanges	84.7%	15.3%
DELs	17.8%	83.2%

Source : CMIE.

Shift of Demand Over the Years from Metro to Non-Metro Areas

Metro Lines as % of All-India Lines	1989	1991	1993	1995
DELs	33.7%	31.9%	31.2%	29.3%
Waitlist	36.5%	32.8%	25.5%	14.8%
Demand	39.3%	33.8%	31.3%	27.7%

Source : D/o Telecommunications, M/o Communications & IT.

Vision 2012 for Rural India

To provide telecom access to rural areas, the Government of India has drawn up an ambitious project Vision 2012 for Rural India under which 200 million rural telephone connections will be provided by 2012 which will translate into a rural teledensity of 25 per cent. Broadband connectivity would also be provided to schools, health centres and Panchayat offices. Each village would have at least one broadband enabing kiosk.

Need for Connectivity of Panchayats

India has emerged as a superpower even though only eight per cent of its population has access to Internet. There would be a paradigm shift

soon if a larger chunk of population has access to the Internet. The Indian government wants to grant financial and electronic empowerment and as part of this mission each of the Panchayats (lowest level of administration) would be provided with high speed broadband access. Internet is penetrating into rural areas of the country fast and so far nearly a lakh Village Panchayats had got broadband connectivity. Under the Bharat Nirman - 11 Programme, a total of 97, 392 villages are covered. And nearly a lakh Village Panchayats will get broadband connectivity.

e-Governance Project for Panchayati Raj Institutions (e-Panchayat) will cost India ₹ 4,500 crore over three years. This includes providing computers as well as connectivity to all 236,000 Panchayats in the country across 31 States and Union Territories. e-Panchayat has the potential to revolutionise Panchayats by inducing mass ICT usage which will help in increasing efficiency at all levels. The project will focus on three activities: identification of information and services needs of all stakeholders, process re-engineering and preparation of detailed project report (DPR) for Mission Mode Project (MMP). e-Panchayat is considered to be an umbrella MMP since it is the basic unit for planning and implementation of Central and state programmes and schemes.

The ICT deployment will also help in online self-learning medium for elected representatives and official functionaries of Panchayati Raj Institutions. Focus is on providing 20 services like birth certificate, caste certificate, tribe certificate, death certificate, applying for old age pension, widow pension, ration card, register land/property, registration with state employment exchange, registering complaints/grievances with Women Commission, check land records, and check agriculture market process online.

Against this backdrop, we see that Indian telecom sector has grown during the last two decades and has taken interest to replicate some of its best practices. There are indeed many experiments under way in India, which seek to use telecommunications to improve the quality of life of the disadvantaged population. Government of India has initiated a flagship programme, Bharat Nirman Yojana, that has a component of Rural Telephony.

It is to transform the rural India in a large way. The main objectives of the study are indicated below:

1. To study the current scenario of tele connectivity in the country;
2. To study the programmes and policies of connectivity for Gram Panchayats;
3. To study the technology alternatives in tele connectivity;
4. To suggest appropriate strategies and policy options for rural tele connectivity promotion in India.

Methodology

The study concentrates on five States namely Gujarat, Karnataka, Madhya Pradesh, Sikkim and West Bengal. Representative samples of villages from each State were studied, including north-eastern region. Interactions with officials of PRIs and department heads looking after teleconnectivity at district, block and village levels were held. Besides, a cross-section of people who are accessing IT/Internet facilities including national and international agencies deriving these services were contacted to elicit information pertaining to e-gram/e-panchayat in the study area.

The same was also cross-checked then and there by having in-depth interactions with village leaders, sarpanches and self-help-groups in the selected/visited sites. Wherever possible focus group discussion were conducted among different categories of people to understand the whole gamut of policies related to tele/e-panchayat connectivity issues thereon.

The first three chapters are dealt with Gujarat, while the remaining chapters focus on other states. The report is based on a thorough field study undertaken covering the districts, Sabarkanta and Junagadh in Gujarat State. Two blocks and a few gram panchayats where e-gram project is in progress were studied in the selected districts during November 11–20, 2010. Detailed discussions were held with the District Collectors, Director DRDAs, DDOs, SLEs, DLEs and TLEs, Nodal officers in charge of e-gram

project, and TSTSP, Airtel and FL&ES officials associated in the operation and maintenance and management of the whole e-gram project. On certain occasions the researcher had even accompanied the e-gram team which was on a supervisory visit to the select blocks and Gram Panchayats. Most importantly, the researchers had an opportunity to interact with a cross section of e-Panchayat officials who are directly involved.

Major Findings

Gujarat has been a leader in computerising Village Panchayats under a scheme labeled as e-Gram. From State to District the connectivity is excellently provided through GSWAN, while from Block to Gram Panchayat the connectivity is well established via VSAT.

The e-gram is a Public Private Partnership (PPP) model deployed to leverage IT resources at the Village Panchayat. e-gram services are provided at a fee which is shared between the Panchayat, and Village Computer Entrepreneur (VCE) in addition to providing operational expenses. The model provides additional income to the village Panchayat, self-employment opportunity for the rural youth and prompt services to public.

A rapid roll-out of the scheme was possible as special purpose vehicle called the e-Gram Vishwa Gram Society was created under the chairpersonship of the Chief Minister and an executive body headed by the Principal Secretary to oversee the whole project is functioning as expected.

The e-gram, as can be seen, is an innovative experiment for bridging the digital divide that exists between urban and rural areas. Through e-gram the rural masses have been empowered to have online information on important programmes and schemes of government of Gujarat. This in a way has given a boost to the GPs and people living in these areas to avail of a host of services at their doorsteps.

Airtel Connects Rural Gujarat

Airtel has partnered with Gujarat government to connect 13,716 Panchayats and common service centres (CSCs) under ‘eGRAM Connectivity

Infrastructure Project' of the State. Airtel has signed an MoU with the State Panchayat, Rural Housing and Rural Development Department, government of Gujarat. The project was completed in 2008 enabling the Panchayat Offices/eGRAMs to be connected and is expected to bring a powerful socio-economic network and support information dissemination and facilitating e-governance initiatives in the State. This partnership will ensure Airtel's endeavour in the implementation of e-gram successfully.

Basically, the project is to empower its citizens. This partnership reiterates Airtel's endeavour to collaborate with the government's e-governance plans and efforts to bridge the 'digital divide' by providing connectivity to the rural areas. This is an important step as the country moves into the next phase of economic growth.

The researcher has also kept in mind the following parameters such as timeliness of providing information, quality of service, reliability, transparency, usage of the utility as well as the payment/charges aspects while evaluating the e-gram. The model envisaged is good and serving the Aam Admi/rural masses within its jurisdiction at affordable cost for the services rendered, once completely operationalised the VCE will be able to sustain his/her monthly earnings substantially. Since more and more services are visualised to make it a revenue generating model B2B. There are certain factors which try to influence this project.

* Senior officials of the Union Panchayati Raj and Communication and Information Technology Ministries have already hinted that the Centre was keen to replicate the Gujarat model of e-gram in other states.

* Various channels were attempted to bring about awareness of e-gram among the public.

* Training modules were specially designed in the vernacular language and all user employees of the PRIs have been provided hands-on training in the use of applications in Gujarati also. Professional computer training has been provided to nearly 10,000 VCEs with special focus on e-gram and close to 6000 revenue officials trained

under e-gram. And to cover 19,000 elected representatives of all district panchayats, taluk panchayats is on anvil.

* By and large, people know what is e-gram and its purpose, and the services that are offered.

* All activities of e-gram are systematically coordinated by different agencies like TSTSP, IL&FS and Airtel (NOC) for its upkeep and day-to-day functioning on 24X7.

* The unique advantage of having uninterrupted power supply in all its GPs has made the implementation of e-gram smooth and fast.

* Connectivity using VSAT technology has been appropriately selected taking the geography and terrain into account.

* Moreover, the road network connecting the rural areas is well developed.

* The mindset of all the people associated with e-gram is noteworthy for the success of the project.

* Most importantly, the political will, the IT policy, and preparedness for setting up IT industry, liberal licensing, investor-friendly environment are all conducive for the growth of business. Government and public private partnership, especially in the State of Gujarat when compared with other states is encouraging.

Airtel (NOC) Staff Monitoring the Activities of e-Gram

2. e-CONNECTIVITY OF PANCHAYATS STATE REPORT - GUJARAT

Introduction

It is widely recognised that the potential for increasing welfare in rural areas could be substantially enhanced if there is a greater telephone and Internet access in these areas. Telephone provides voice connectivity and becomes useful for gathering economic information, requesting emergency services and keeping in touch with distant relatives and importantly removing the distance as well as time constraints. With Internet telephone all of the above can be realised in a cost-effective manner and with Internet network many services can be availed of by the rural masses at an affordable price in far flung remote areas.

The adoption of e-governance has given a fillip to IT development in the State as can be seen by the introduction of e-gram project in providing various types of services at the doorsteps of its citizens. Under national e-governance plan, e-panchayat proposes to provide a whole range of IT related services. It includes decentralised database and planning, budgeting and accounting, implementation and monitoring of Central and State sector schemes, citizen-centric services, unique codes to Panchayats and individuals and essential GIS based applications.

Geography

Gujarat, located in the west of India, is the sixth largest economy in the country with its population, 4.9 per cent of India's population, contributing 6.2 per cent of India's national income. A State with a rich tradition in trade and banking, Gujarat is India's second most industrialised State, ranking just behind Maharashtra in manufacturing gross State domestic product (GSDP). It has the longest coastline in the country and hosts India's only chemical handling port at Dahej.

State at a Glance

* Capital : Gandhinagar
* Geographical area : 1,96,0240 sq.km (6.2 % of India)
* Population 2001 : 5,06,71,017 (5.0 % of India)
* Density of population per sq km : 258
* Average annual growth rate of population 1991-2001% : 2
* Gross State Domestic Product (GSDP) : US$ 45.3 Billion
* Per Capita Income : US$ 915 at current prices (₹ 31,128)
* Urbanisation : 37.4 %
* Literacy Rate : 69.14 %

* Number of Districts : 26
* Number of Towns : 242
* Number of Villages : 18545
* Industrialisation : Gujarat is home to over 800 large industries and 3,20,000 micro, small and medium enterprises.

The economy is dominated by the service sector, which contributes 43.3 per cent of the State's income with the secondary sector accounting for 37.6 per cent of the GSDP. Economic growth which averaged 7.7 per cent annually in the nineties has picked up since 2000 to average a rate of 8.8 per cent.

The 59.8 per cent of the population depends on the primary sector for its livelihood, with crop cultivation and animal husbandry as the main sources of income. Agriculture shows extremely variable growth, with its high dependence on rainfall as only 31 per cent of the net area sown benefits from irrigation.

Cash crops are the dominant features of the State, as Gujarat is one of India's leading producers of castor, cotton, tobacco, groundnut, sesame seeds and fennel seeds. Gujarat is well known for its success in dairy cooperatives as the brand Amul, owned by the Gujarat Cooperative Milk Marketing Federation, is a significant player in the national market for dairy products. The chemical industry in the State accounts for more than 20 per cent of India's chemical output as the world's largest grassroots refinery has been set up at Jamnagar. Gujarat accounts for 40 per cent of India's pharmaceutical production and also has significant contribution to the textile manufacturing and gems and jewellery industries. The Gujarati community is known for its financial acumen, and trading and finance are both key entrepreneurial activities in the State. Ahmedabad Stock Exchange, set up in 1894, is the second oldest exchange in India after the stock exchange in Bombay.

On the human development front though, the gains that the State has made in provision of education and health, are less than the gains

made in economic growth and there has been a deceleration in the rate of progress in the last decade. The United Nations Development Programme (UNDP) ranks Gujarat sixth among the large States on the HDI in 2001, as it fares poorly, particularly, on health indicators. Life expectancy at birth at 62.5 years for males and 64.1 years for females are lower than the national median levels of 63 and 65, respectively.

The literacy rate in the State is 69.14 per cent. The State has provided fairly well for other basic amenities. In fact, 85.4 per cent of villages are connected by pucca roads and 87.3 per cent of the households have electricity connections. The Jyotigram programme of the State government has been quite successful in providing 24 hour power supply to domestic and cottage industries in more than half of the villages in the State.

Seventeen per cent of rural households and 80.2 per cent of urban households have drinking water on their premises and access to toilets. Moreover, 87.5 per cent of urban households have access to piped sanitation services compared to the national median of 72 per cent, while 16.5 per cent of rural households have access to this facility compared to the national median of 11.7 per cent.

Information Technology (IT)

Gujarat is recognised as one of the most e-prepared States in the country; frontline State in the implementation of e-governance policies and projects. Gujarat occupies the highest tele-density in the country and has the longest OFC network (over 65,000 kms). The IT policy is very favourable and supports comprehensive IT infrastructure development through joint ventures with private players. On the other hand, it has ready to use State-of-the-art infrastructure such as Mind Space, DLF IT Park, Info-City, at Gandhinagar and V Tech ITZ Park, Million Minds, GNFC Info-tower, Astron IT Park etc. at Ahmedabad. Most importantly, 17 IT/ITeS/Electronics Special Economic Zones are being set up in the State by large corporate players such as Tata, DLF, Adani Group, Raheja group, L & T, GIDC, Hiranandani etc. Shortly an International Finance Tec-City (GIFT), a 500 acre mega project for global financial services industry is likely to come up at Gandhinagar.

District Profile

S.No.	District	Headquarter (City)	Population (2001)	Area (km^2)	Density (km^2)
(1)	(2)	(3)	(4)	(5)	(6)
1.	Ahmedabad	Ahmedabad	5808378	8707	667
2.	Amreli	Amreli	1393295	6760	206
3.	Anand	Anand	1856712	2942	631
4.	Banaskantha	Palanpur	2502843	12703	197
5.	Bharuch	Bharuch	1370104	6524	210
6.	Bhavnagar	Bhavnagar	2469264	11155	221
7.	Dahod	Dahod	1635374	3642	449
8.	The Dangs	Ahwa	186712	1764	106
9.	Gandhinagar	Gandhinagar	1334731	649	2057
10.	Jamnagar	Jamnagar	1913685	14125	135
11.	Junagadh	Junagadh	2448427	8839	277
12.	Kutch	Bhuj	1526321	45652	33
13.	Kheda	Kheda	2023354	4215	480
14.	Mehsana	Mehsana	1837696	4386	419
15.	Narmada	Rajpipla	514083	2749	187
16.	Navasri	Navasri	1229250	2211	556
17.	Patan	Patan	1181941	5738	206
18.	Panchmahal	Godhra	2024883	5219	388

(Contd.)

District Profile : *(Contd.)*

(1)	(2)	(3)	(4)	(5)	(6)
19.	Porbandar	Porbandar	536854	2294	234
20.	Rajkot	Rajkot	3157676	11203	282
21.	Sabarlamtja	Himmatnagar	2083416	7390	282
22.	Surendranagar	Surendranagar	1515147	10489	144
23.	Surat	Surat	4996391	4657	653
24.	Tapi	Vyara	0	0	0
25.	Vadodara	Vadodara	3639775	7794	467
26.	Valsad	Valsad	1410680	30334	465

Source: Census of India 2001.

Growth of IT in Recent Years

The Information and Communication Technology (ICT) sector in Gujarat is projected to see high investments up to US $ 3.7 billion by 2011-12. Moreover, the IT/ITeS sector turnover is projected to grow from US$ 60 million in 2005 to US$ 2.4 billion in 2010-11. The software exports has recorded growth rate of 107.3 per cent to reach US$ 134 million in FY 2006-07 as compared to that of FY 2005-06. Particularly IT services, ITeS and IT hardware industry are the main growth areas of Gujarat's IT industry.

Attractive IT Policy and Incentives

The Government of Gujarat has formulated its IT policy very carefully in order to attract lot of investors from within and outside the country. Gujarat provides excellent incentives such as:

1. Promotion of IT Investment Regions (ITIR) in the areas as per GoI policy.

2. Stamp duty exemption on purchase of land for IT park developers.

3. Financial assistance @ 50 per cent of fixed capital investment on land, buildings and infrastructure facilities to IT park developer up to a maximum of US $ 0.61 million.

4. Special incentives for projects (including semiconductor fabrications and other micro/nano technology manufacturing units as per GoI policy) on case by case basis with investment of US $ 12.2 million and above.

5. State will facilitate/grant SEZ status to IT industry/IT parks subject to the provision of SEZ Act/rules.

6. Additional floor space index (FSI) allowed for IT/ITES parks in urban centres.

7. Nomination of one Escort Officer for each IT mega project including IT parks.

8. Special incentives for mega IT projects on case by case basis creating employment for more than 1000 persons in case of IT unit and 1500 persons in case of an ITeS unit.

IT Services and Spending

IT services in Gujarat form the largest segment of the world-wide spends on technology products and related services. Spending on IT services is estimated at US$ 470 billion growth of 5.9 per cent over US$ 444 billion in 2005. In IT services, outsourcing is the largest and fastest growing category. During 2006 the spending on IT outsourcing has crossed over US$ 170 billion, which is 36 per cent more than in 2005.

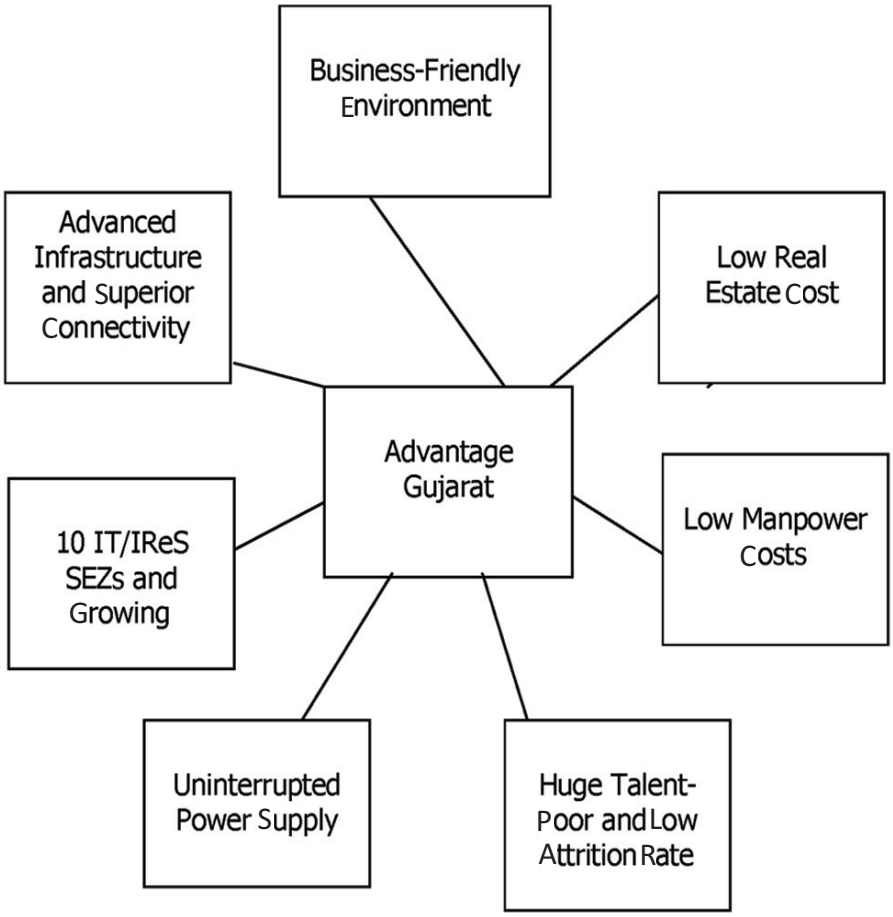
IT/ITES Contribution

The contribution of IT/ITES is approximately 5.4 per cent of India's GDP, up from 4.8 per cent in 2006. The Banking, Financial Services and Insurance (BFSI) vertical registered the largest share of exports from India

at 38.10 per cent (FY 06). The market size is estimated at over US$ 1.5 Trillion. Software and IT-BPO services account for over 70 per cent of the total market size.

As a result 1.29 million people were employed in the software and software services segment in the FY 06 and the figure is expected to have reached 1.6 million for FY 07. Besides, MNC investments reached an unprecedented scale, over US$ 10 billion announced in FY 2006-07.

The prime factors that are influencing the growth and development of IT sector in Gujarat are depicted in the diagram given below.



In addition, the following reasons are the main focus for the promotion of IT/ITeS/IT hardware units in the State:

1. Exemption of IT/ITeS units from zoning regulations.
2. Continuous government support for enhancement and development of quality manpower for the IT/ITeS industry.
3. Stamp duty exemption @ 50 per cent for IT/ITeS units in IT parks.
4. All new IT units exempted from the payment of electricity duty for a period of five years and exemption from power cuts.
5. Waiver of 'no objection certificate' from Gujarat Pollution 'Control Board' for IT/ITeS units engaged in provision and production of IT services and IT software
6. Simplification of labour laws.
7. Permission to have 24/7 operations plus women to work at night.
8. Self-certification-cum-consolidated annual returns scheme.
9. Strengthening of cyber crime detection cell for security purposes.
10. Gurjarat IT Venture Fund set up to provide venture capital for development of IT, ITeS and IT products industry.

Software Technology Parks of India (STPI)

* It is a society set up by the Department of Communication and Information Technology, Government of India with the objective of encouraging, promoting and boosting the software exports from India.
* A single-point contact centre providing consultation, training and implementation services to its member units.
* The software technology park in Gandhinagar is one of the first five STPI centres of India.

* There are 350 registered units and 172 operational units in the Park.

* 91 units have been issued in-principle (provisional de-bond) approvals.

* A new Software Technology Park is coming up in Surat and approval has already been received from Government of India (GoI).

* There are also plans to set up an STP each in the districts of Rajkot, Bhavnagar and Jamnagar.

e-Governance

Government of Gujarat in February 1999 established Gujarat Informatics Limited (GIL) as a nodal agency to promote IT and accelerate the process of e-governance in the State. GIL is also responsible for the implementation of IT projects in the State.

The Bhaskaracharya Institute for Space Applications and Geoinformatics (BISAG) is a State-level nodal agency meant to facilitate the use of spatial and geo-spatial technology for planning and developmental activities pertaining to agriculture, land and water resource management, wasteland, watershed development, forestry, disaster management, infrastructure and education etc.

State Data Centre

The State Data Centre has been set up basically for web hosting of all government departments. Also to provide government e-mail server facility on nominal charges and support helpdesk 24X7 in an integrated manner.

Sachivalaya Integrated Communication Network (SICN)

A separate SICN is setup to help the electronic telephone system and better connectivity access between various government offices. As many as 7,000 voice/data connections are connected and also saving costs on telephone bills. Managing daily around 125,000 internal and 70,000 external calls.

RS 97

Gujarat State-wide Area Network (GSWAN)

One of the best networks in Gujarat which connects over 12,000 nodes of more than 3,000 offices in 26 districts and 225 talukas, for video conferencing and data exchange with the State headquarters in a closed user group (Largest IP based network in the Asia-Pacific region). Enhancing its bandwidth from 64 Kbps (2002) - 2 Mbps (2005) - 4 Mbps (2006) ->8 Mbps.

The GSWAN was initiated to ensure efficient, effective, economical and transparent tax administration by promptly capturing data at its origin in digitised form so that the VAT administration could be more informed and controlled. GSWAN has been implemented very well in the State of Gujarat compared to any other State and many applications are being linked to optimally utilise the network at all levels of administration.

The objective of Gujarat SWAN (GSWAN) is to provide better delivery systems to the citizens. The government understands that IT is not an end in itself but the means to provide a better quality of life. It does not aim at merely automating existing process but to use IT to improve overall organisational efficiency and pass the benefits to the citizens.

The GSWAN connects all government offices at the State secretariat at Gandhinagar called Sachivalaya Campus Area Network (SCAN), district headquarters known as District Centres (DC) and Taluka headquarters called Taluka Centres (TC). The network consists of one SCAN, 25 DCs (one is a Super DC at Ahmedabad) and 230 in TCs. The GSWAN provides voice, video and data services, using Internet protocol having flexibility to expand and/or upgrade. GSWAN is implemented on 2 Mbps dedicated lines from the SCAN to DC and on 64 Kbps lines from DCs to TCs. The government of Gujarat (GoG) uses existing BSNL capacity for the network.

e-City

Ahmedabad Municipal Corporation is the first Municipal Corporation in India to facilitate better delivery of municipal services like birth and death registration, building plan, primary health and education, city

cleanliness, water supply, sewage roads, street-lights, parks and garden through e-governance.

State-Wide Attention on Public Grievance by Application of Technology (SWAPGAT), a unique online public grievance redressal system introduced by the State Government to put the common man directly in touch with the highest office in administration as followed in Manchester University illustrating e-transparency.

Integrated Workflow and Document Management System (IWDMS)

* Standard solution to streamline document management by leveraging the LAN & GSWAN network.

* Umbrella solution- applications for all Government department functions connecting 2,300 users in the secretariat.

Location of Reputed Educational and Research Institutes

1. Indian Institute of Management (IIM)
2. National Institute of Fashion Technology (NIFT)
3. National Institute of Design (NID)
4. Institute of Rural Management (IRMA)
5. Indian Institute of Technology (IIT)
6. Mudra Institute of Communications, Ahmedabad (MICA)
7. Centre for Environment Planning & Technology (CEPT)
8. Gujarat National Law University (GNLU)
9. Dhirubhai Ambani Institute of Information & Communication Technology

Why Gujarat is the most attractive destination for IT/ITeS is determined by the following facts:

1. One of the most e-prepared States in the country;
2. Industry-friendly IT Policy;
3. Flexible labour laws;
4. One of the lowest start ups and operational costs in India;
5. Low cost of living;
6. Premier R & D centres and quality educational infrastructure;
7. 24/7 uninterrupted power supply;
8. State-of-the-art infrastructure;
9. Technology-related spending;
10. Assured Quality Manpower; and
11. Well connected with the world.

This is also evident from the NASSCOM, AT Kearney study that stated that Gujarat has good IT potential to attract IT/BPO destination, Surat and Vadodara are more suitable for non-voice BPO Companies. Ahmedabad, Vadodara and Surat have a cost advantage of 32, 38 and 39 per cent respectively, in comparison to the average cost of operations across all the Leader locations like Bangalore, Hyderabad, Chennai, Mumbai etc.

TSTSP Staff Attending to the Calls

3. EMPOWERING RURAL GUJARAT

Connecting Rural Villages

Initially the e-gram stage-1 work started during 2006 by providing Gram Panchayat Building creation, in stage-2, electrification process through Jyothigram completed in 2007, in stage-3 computerisation of Gram Panchayat was taken up by providing one computer, laser printer and UPS, and simultaneously e-connectivity in stage-6 and services to be rolled out from e-gram was completed during 2008. Under Public Private Partnership (PPP) model on a revenue sharing basis has evolved to select a local person with minimum qualification of 10th pass. Also rolled out some basic G2C services & B2C services through e-gram were finalised. To oversee the technical problems and also to impart training to the newly selected Village Level Entrepreneur a Technical Support and Training Service provider (TSTSP) were identified, whose main responsibility include:

* To provide technical support (hardware and software) to e-gram;
* To provide training and service to VCE;
* Assist the e-gram centre in roll out of G2C services and;
* To monitor and implement new projects like GCI and CSC, besides generation of regular monthly MIS reports.

Finally the e-gram Vishwagram Project was officially launched on 23 January, 2009 for the public offering broadband connectivity to all 13693 Gram Panchayats of the State from Haripura village. It has also helped 10000 rural entrepreneurs in getting employment in the first instance. The motto was while the *world becomes global village, e-Gram Panchayat turns villages global.*

e-gram Vishwagram Mission

e-gram Vishwagram Mission is a large Government of Gujarat initiative that harnesses Information and Communication Technology (ICT) to raise the level of access and quality of services the government delivers to rural citizens. The Mission seeks to fulfil the requirements of the rural public at the village level itself by simplifying their interaction with the government.

The use of ICT in government operations serves as the platform to facilitate speedy, transparent, accountable, efficient and effective interaction with the people, businesses and other agencies.

Objectives

* To develop Village Panchayats as the delivery point of e-services of different government departments;
* To fulfil the objectives of the 73rd and 74th Constitutional Amendments;
* To infuse the five E's of governance – ease, economy, efficiency, effectiveness and ethics;
* To bridge information and technology gaps between the urban and the rural sectors; and
* To provide other commercial services through e-gram.

Transforming Villages

Under the Jyotigram Yojana, all villages in Gujarat receive 24x7 three phase power supply and that too 100 per cent rural electrification is complete. e-gram Vishwagram Mission has been designed as the next logical step for empowering rural communities by leveraging upon the excellent electricity availability in rural Gujarat.

The other key facility is that Gujarat is currently the only State in the country to provide village-level connectivity for broadband internet facilities.

Alongside Gujarat boasts of one of the best road networks in India with its highways connecting remote rural habitats. It has now embarked on an ambitious plan to develop an elaborate digital super expressway that connects villages with the rest of the world.

Digital Revolution

The e-gram initiative works in close tandem with line departments to collate and digitise information in social service sectors, the specific ICT application consists of a digitised databank of family information on the basis of which certificates are issued. To ensure authenticity of data, a rigorous household family survey was conducted which comprised all the family information about the members including the family's income. Through the implementation of e-gram, computer printouts of documents such as certificates, records and application forms can now be easily handed over to rural citizens within their villages.

Information Access up to GPs Through ICT

Since the ushering of e-gram Project in Gujarat in March 2003, most interactions with the government can be done within villages through a single counter at the people's convenience, without waiting in lines at different government offices. The village Panchayat, equipped with a computer and internet connection, is the basic delivery point for providing government services. It has access to high-quality and cost-effective video on topics, such as agriculture, e-governance, health and education.

Funds

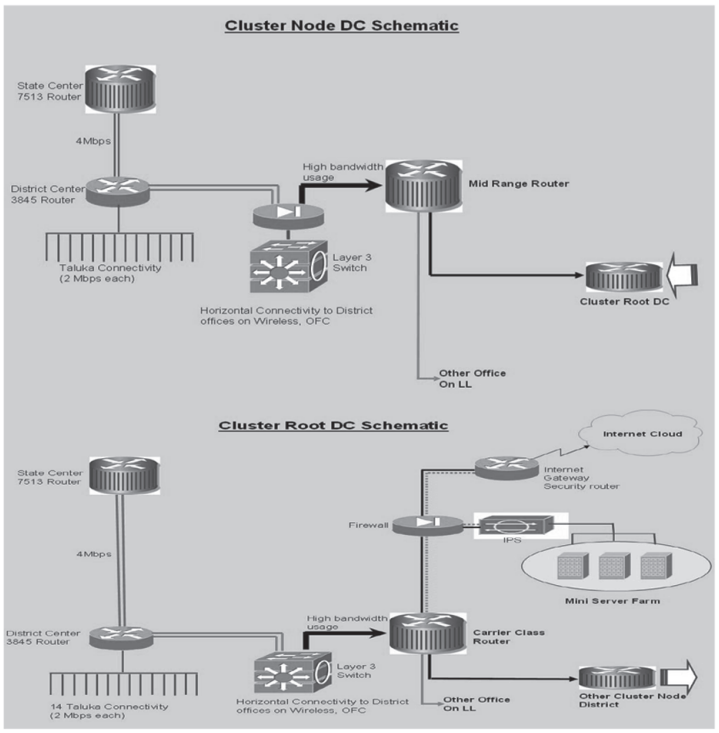
Separate budget has been created by the Department of Panchayat, Rural Development and Housing for the laying of IT infrastructure up to the village level. Presently, every village has basic computer hardware and connectivity worth approximately ₹ 1.15 lakh. Since its inception in 2003, the total cost of the e-gram Vishwagram Mission was to the tune of an estimated ₹ 138.50 crore.

RS 97

The Government of Gujarat has taken the pioneering and path breaking initiative by bearing most of the project expenditure from the State exchequer.

In addition, the following hardware has been provided at 3-tier systems which include computers, software and accessories such as laser printers installed in all Gram Panchayats, Touch screen kiosks for all Taluka Panchayats and Laptops and projectors for all District Panchayats.

Network Diagram of the Existing Network and After Proposed Expansion Cluster Root Districts Diagram



Salient Features of GSWAN

- BOOT (Build Own Operate Transfer) for 8 years.
- Connecting 26 Districts to State Centre at Gandhinagar on 2 Mbps leased circuits upgradeable to 8 Mbps

* Connecting 225 Talukas to 25 District HQ on 64 Kbps leased circuits upgradeable to 2 Mbps.

* Interconnecting more than 1900 GoG offices all over the State for voice and data services.

* Facilitating uninterrupted and easy IP based video-conferencing between various GoG offices.

* Over 11000 E-mail IDs created for Government officers all over the State.

* Over 125 Websites are hosted for various departments.

Connectivity Architecture

* Broadband Internet connectivity through Very Small Aperture Terminal (VSAT) technology in all Gram Panchayats.

* 7400 Direct Digital Reception System.

* Gujarat State Wide Area Network (GSWAN) connectivity up to Taluka Panchayat.

* 35 Channels of Video Conference @ 384 Kbps

* 200 Concurrent User Voice Chat @ 16 Kpbs

* 1 Dedicated Video Broadcast Channel @ 4 Kpbs

* 1300 Concurrent Users @ 16 Kpbs burstable up to 256 Kpbs/site.

Effective, Transparent and Responsible Governance

The e-gram Vishwagram Mission's aim is fundamentally supporting and simplifying governance for all three parties viz., the government, the rural citizens and business. Particularly the use of ICT helps stimulate good governance by connecting all the three parties. The Mission tries to transform the relationship between the State and the rural public by engaging, enabling

and empowering the communities through better services. It thereby strives for a stronger, more accountable and inclusive democracy in keeping with the objectives of the 73rd and 74th Amendments to the Constitution.

Good-governance

As time passed, the e-gram has fostered improvement in government process and the internal workings of the administration. It has improved the communication channels across government agencies and among different levels of government. The Mission has also enabled electronic information sharing and integration between government offices in rural areas. For instance, due to facilities for Voice over Internet Protocol (VoIP), all village Panchayats can now communicate and share information with each other with considerable ease, while video conference facilities and GSWAN has improved connectivity at the Taluka Panchayat levels considerably.

G2C : Government to Citizen

e-gram provides to the rural population of all villages meaningful, useful and ongoing access to the vast array of information created, collected or maintained by the government. The computerised records and forms that are now accessible to villagers pertain to those such as birth, death and marriage; income; property; residence proof; tax; agriculture and land ownership.

Advantages

The sheer increase in numbers of basic certificates and forms issued by the village Panchayats is indicative of the success and growing popularity of the Mission. The ease with which rural citizens can now obtain government certificates has positive repercussions for their access to jobs, loans, education, reservations and other benefits.

Simple Procedures

e-gram has radically simplified the lives of rural dwellers for access to critical utilities. By the year 2010 being Golden Jubilee Year of Gujarat,

all Gram Panchayats are supposed to provide bill payment facilities for electricity dues.

Common Service Centres

The Common Service Centre (CSC) Scheme envisages the setting up of IT enabled access points for government and private sector services for all rural citizens. The Mission will undertake to establish 6,000 CSCs, where one CSC will cater to a cluster of about six villages.

* *Focus on rural entrepreneurship :* CSCs are being designed with world-class IT infrastructure and connectivity with focus on rural entrepreneurship and market mechanisms.

* *IT infrastructure :* Each CSC will be equipped with hardware such as PCs and biometric devices; imaging hardware like cameras and webcams; printers; networking facilities; projection systems and power back-ups.

* *Education and Training :* In addition to e-commerce, CSCs will specially be used for offering job-focused training and skill building through education and industry partnerships.

* *Agriculture :* CSCs will provide information solutions for agriculture and will help farmers develop market linkages for aspects such as procurement, storage and contract farming.

* *Financial Services :* The services model for delivering cheaper financial services to rural clients includes advocacy and networking, and provision of value added services through linkages with banks and micro-credit institutions.

Host of Services Available at CSCs

CSCs will provide G2C and Business to Citizens (B2C) services on a commercial basis such as :

RS 97

* Internet surfing
* Online payments and bookings
* Online education
* Online banking
* Online filing of tax returns
* Obtaining and renewal of licenses and permits
* Video conferencing
* Information updates for agriculture and other key sectors
* Insurance services
* E-tenders and online bidding
* Telemedicine
* E-newsletters and online subscriptions
* Photocopying facilities
* DTP services

e-Classes

Weekly cyber classes have been introduced on a pilot basis to impart quality education to primary school children. The classes are conducted by award-winning teachers during school hours from the studio of Bhaskaracharya Institute of Space Applications and Geo-Informatics (BISAG).

* Classes are being held for core subjects including Science, Maths, Social Studies, English and Gujarati

* NCERT guidelines and system of education are followed. Innovative methods along with practical demonstrations are utilised to explain new concepts and curriculum.

* Cyber classes are easily accessible to students and teachers through village schools and Gram Panchayats.

* Centrally organised and planned classes are especially effective in cases where schools lack the required teaching aids or when teachers need help with complex concepts.

The Researcher Interacting with VCE

Village Computer Entrepreneurs

Major technological barriers prevent rural dwellers from easily accessing government information resources that are vital to their well-being. While the government moves towards transforming and making itself more transparent and accessible, it also has to be ensured that all rural citizens, regardless of their physical location, socio-economic status or computer literacy benefit from the information technology.

The role of the Village Computer Entrepreneur (VCE), specially created by the Mission, is a unique measure to ensure that e-services of the government can be availed of by the people. The VCE is a local under-employed youth with adequate computer skills appointed by the Mission who delivers e-services on a revenue-sharing basis with the village Panchayat. He provides G2C and B2C services and also undertakes data entry tasks and updating of records for the village Panchayat.

Implementation Process

Digitisation of government services is a complex mix of technological, managerial and policy-related challenges. The transition to e-government calls for acknowledging that technical and computer skills need to be developed at the grassroots level for the Mission to be successful.

Capacity Building of Officials

* Orientation programmes and capacity building measures are being implemented for stakeholders at all levels including the State, district, taluka and village levels.

* Specially designed training modules have been developed for PRIs with a specific focus on Talatis

* and elected members.

* Professional computer training with refresher courses is also being imparted to VCEs and revenue officials.

Technical Support and Training Service Provider

To ensure sustained backend support in e-governance to PRIs until they are self-reliant, competent organisations have been inducted to act as Technical Support and Training Service Providers (TSTSP). The role of TSTSP is to:

* Provide troubleshooting and maintenance solutions for hardware or software problems and breakdowns.

* Make monthly visits to the e-gram centre and offer technical training and assistance for rolling out G2C and other e-services.

* Generate monthly MIS reporting for corrective actions.

Collaborative Model - Public-Private Partnership

The e-gram is being implemented along the public-private partnership model where operations are outsourced through competitive bidding but the government retains control over the activities.

* Software for the e-gram programme;

* National Informatics Centre under the Union Ministry of Information Technology;

* Broadband Internet Connectivity : Bharti Airtel;

* Setting up of Common Service Centres : Reliance Communications, CMS and s3i Infotech;

* Programme Management Agency for CSC Scheme : IL & FS;

* Promotion of Internet Usage among rural citizens : Google India; and

* Technical Backstopping : HCL, Aptech, NIIT, CMS and ITI.

Emergence of Vishwagram Society

The e-gram Vishwagram Society has been established by the Government of Gujarat as a special purpose vehicle for the smooth and efficient implementation of the e-gram services. The society is registered under the Mumbai Public Trust Act, 1950 and Society Registration Act, 1860. It receives funds from the State and Central Governments as well as

public contributions. With the State's Chief Minister as the chairperson of the Society, the Mission is assured of political commitment and guidance at the highest level.

Monitoring

A Monitoring cell has been established under the e-gram Vishwagram Society to coordinate the day-to-day progress of the Mission.

* State-level Monitoring : Done by the Principal Secretary, Department of Panchayat, Rural Development and Housing along with the Development Commissioner and Officer on Special Duty.
* District-level Monitoring : Done by respective District Development Officers with the support of e-gram Nodal officers
* Taluka and Village-level Monitoring : Done jointly by the respective Taluka Development Officer and Talati.
* Capacity Building : Continuous capacity building and handholding of PRI personnel.
* Hardware : Maintenance and upgrading of hardware.
* Bandwidth : Upgrading of bandwidth for better connectivity.
* Data Protection : Continual upgrading of security, encryption and verification aspects to safeguard digitised government databank.
* e-services : Expansion of basket of e-services on offer.
* Equity Through IT : Ensuring weaker sections such as BPL households are reached and have access to e-services.

A Farmer Receiving ROR from e-gram Centre

At Block Level Video Conference is in Progress

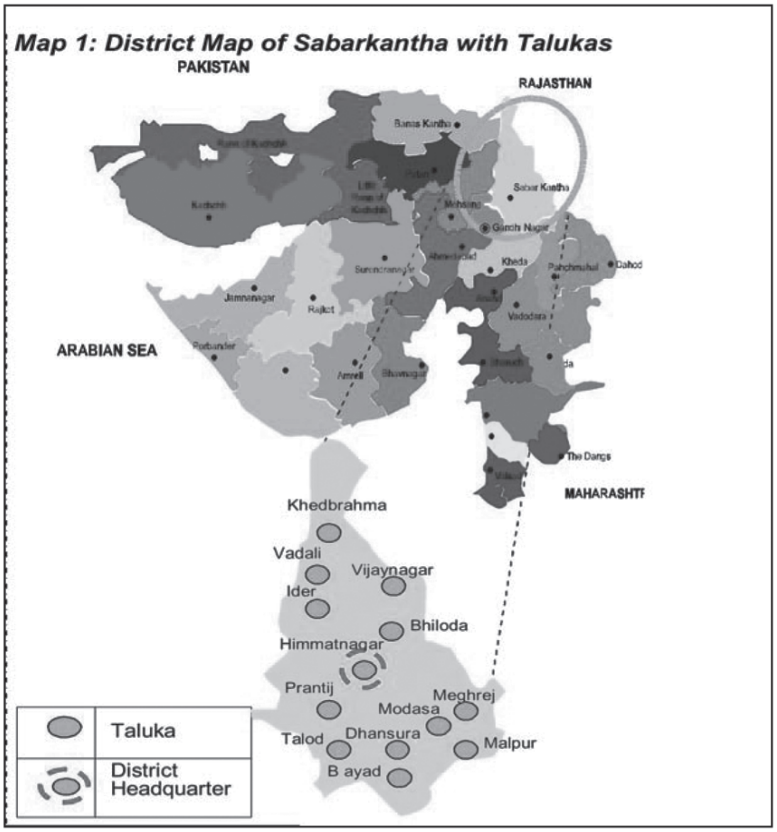
District Profile

S.No.	Indicators	State	Junagadh	Sabarkanta
1.	Rural Population	31740768	1736645	1857402
2.	Male	16317771	885414	952287
3.	Female	15422996	851531	905115
4.	Urban Population	18930250	711528	225129
5.	Male	10067806	366936	117267
6.	Female	8862444	344592	107862
7.	Area	196024	8846	951.6
8.	Density	258	277	282
9.	Literacy Rate	69.1	78.7	66.6
10.	SC	7.1	9.6	8.3
11.	ST	17.8	0.8	20.2
12.	No. of Villages	18539	1038	1389
13.	Inhabited	18066	923	1372
14.	Uninhabited	473	115	17
15.	No. of Towns	168	12	8
16.	No. of Households	9691362	432884	399847

Source: Census of India 2001.

Sabarkanta District

Sabarkanta district derives its name from the Sabarmati river that separates Sabarkanta from the neighbouring districts. The district is bounded by the Rajasthan State to the north, Banaskantha and Mahsana districts to the west, Gandhinagar, Kheda and Panchamahal districts to the south. Himmatnagar (district headquarter) and talukas Prantij , Modasa, Talod are major industrial locations in Sabarkantha. The geographical area is 7390 sq km. The literacy rate is 67.31 per cent. The languages spoken are Gujarati, Hindi and English. The average rainfall is 500-1000 mm. The major industries are agriculture, ceramics, chemicals and milk processing. The tourists are attracted to visit Idar, Shamlaji Temple, Polo Forests, Vijaynagar. Key agricultural produce abundantly available are groundnut, cotton, oilseeds and tobacco. Clay is the raw material available in plenty.



Some Highlights

1. Sabarkanta district is the eighth district in terms of population in the State.

2. Sabarkanta district has 13 talukas and 1,372 inhabited villages.

3. Population density per sq km is 282 persons.

4. Sabarkanta district is 13th dense district in the State.

5. Sex ratio is 947 females per 1000 males .

6. Sabarkanta district has 7th rank in sex ratio in the State.

7. Village Vadali is the most populated village with 18,054 persons whereas Mahadevpura and Deson villages are the least populated with 283 persons.

8. Economy of the district basically depends on agriculture, 62.8 per cent are engaged on primary sector.

9. Sabarkanta district enjoys 24 hours uninterrupted power supply and has three 220 KV, two 132 KV and thirty five 66 KV substations supply power throughout the district.

10. In respect of villages the lowest 57 villages are in Vadali Ttaluka while the highest 165 villages are in Bhiloda Taluka.

11. Important crops are wheat, pulses and groundnut.

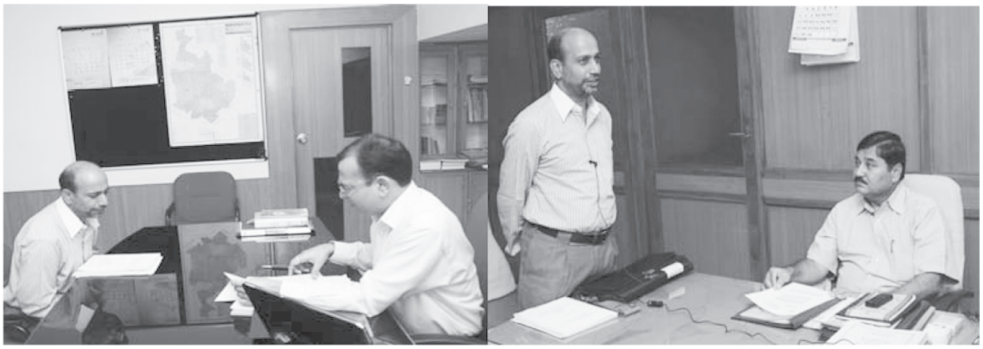
From the above Table, we can infer that all the talukas in Sabarkanta have 100 per cent electricity, 50 per cent and more post offices and 70 per cent telephone facility, except Khedbrahma which has 39 per cent only. As regards financial institutions, the coverage is minimum 4 per cent in Khedbrahma and maximum 20 per cent in Idar. Hence Sabarkanta seems to be better-off than Junagadh district as far as these key facilities are concerned.

Visited Sites - I

S.No.	Name	No. of Households	Banks	Telephones	Power	Post Offices
1.	Sabarkanta	400,636	132 (9.6%)	981 (71 %)	1372 (100%)	692 (50%)
2.	Khedbrahma	37,521	5 (3.8%)	52 (39 %)	133 (100%)	69 (52%)
3.	Idar	48,737	28 (20%)	134 (96%)	139 (100%)	85 (61%)
4.	Talod	26,626	6 (8.2%)	56 (77%)	73 (100%)	36 (49%)

Source: Census of India 2001.

After discussion with block level officials as well as with the Village Computer Entrepreneur concerned the following observations have emerged.

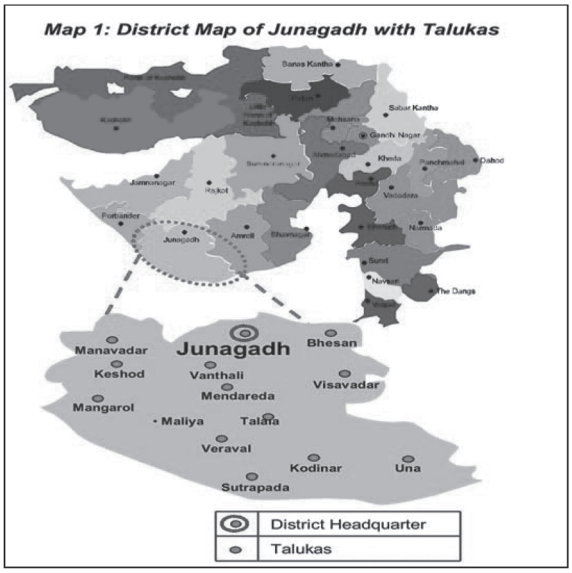


The Researcher Interacting with District Level Officials at Himmatnagar

A Glimpse of e-gram Services
(June 2008 – January 2009)

S.No.	Name of Certificate	Number issued
1.	Birth & Death Certificate	14,25,392
2.	Character Certificate	7,06,781
3.	Farmer's Certificates	1,40,379
4.	Tax Collection Certificates	1,45,712
5.	Other Department Forms	4,02,563
6.	Rights of Records	5,00,932

Source : e-gram Statistics.



The Junagadh district area is 8846 sq km and is located in western Gujarat and is surrounded by Arabian Sea to its south. The district is divided into 14 talukas of which major ones include, Veraval, Junagadh, Kodinar, Manavadar and Mangrol. The average rainfall is 787 mm. The common languages spoken in the area are Gujarati, Hindi and English. The literacy rate is 68.35 per cent.

Major sectors include mineral based cement industry, fish processing industry, agriculture based industry and power.

Some players such as Ambuja Cement, Gujarat Siddhi Cement, Gujarat Heavy Chemicals and Hindustan Lever limited have their presence in the district**.** Junagadh is famous for the Gir Sanctuary, the only abode to Asiatic Lions and mountain range Girnar, whilch is a major pilgrimage destination.

Some Highlights

1. Junagadh district ranks seventh in terms of population among all the districts of the State.

2. The density of population in the district is 277 persons per sq.km.

3. Junagadh district is the 14th dense district in the State.

4. Junagadh district ranks 4th in sex ratio in the State.

5. Sex ratio is 955 females for 1000 males.

6. The economy of the district mostly depends on agriculture, 63.8 per cent of workers are engaged in agricultural activities.

7. Junagadh has a well developed network of substations to cater to the needs of electricity for industry and residential use.

8. There are five substations of 220 KV, four substations of 132 KV and fourteen substations of 66 KV each with a total of 16 substations in the district.

9. Village Sutrapada of Sutrapada taluka is most populated with 22, 404 persons. And Bheriya village of Talala taluka is least reported with only one person.

10. The lowest number of 46 villages are registered in Vanthali taluka while highest of 220 villages are in Una taluka.

11. Junagadh is famous for its extensive Gir forests located in the heart of the district. This forest consists of 22.64 per cent of total area of the district.

Visited Sites - II

S.No.	Name	No. of Households	Banks	Telephones	Power	Post Offices
1.	Junagadh	432,201	8 (11%)	68 (91%)	74 (100%)	36 (48%)
2.	Keshod	33,172	8 (15%)	52 (98%)	53 (100%)	36 (68%)
3.	Talala	22,097	6 (9%)	38 (55%)	60 (87%)	38 (55%)
4.	Bhesan	13,073	4 (9%)	28 (64%)	43 (98%)	24 (55%)

Source: Census of India 2001.

From the above Table, we can infer that all the talukas in Junagadh have 87 - 100 per cent electricity, 48 - 68 per cent post offices and 55 - 91 per cent telephone facility. As regards financial institutions, the coverage is minimum 9 per cent in Bhesan and maximum 15 per cent in Keshod. Facilities-wise, Junagadh lags behind Sabarkanta district.

The Researcher Interacting with e-gram Officials in a GP

Airtel (NOC) in Full Command of e-gram Network

4. MAJOR FINDINGS

The evolution of e-gram is a very prestigeous project of Gujarat in reaching the unreached people in far flung rural areas. On the whole, the e-gram project has created sensational news in other parts of the country and can be showcased as the best model by which the rural connectivity is continuously established with the-state-of-art technologies and bridging the digital divide. Most of the project expenditure has been met by the State exchequer only. The mandatory clause that applies to all staff working in IT/ITeS departments/wings/sections need to undergo C++ and advance Java training is really a wonderful concept. All application software is in Gujarati language, supported by Unicode is well thought of for easy dissemination of information/data at all three-tier system of PR administration. Village level Gram Sabha meetings can now be monitored online from the control room in Gandhinagar.

An online standardised reporting mechanism has been developed which provides information on aspects such as the number of villagers and officials present, and the issues raised and resolved at these meetings. The online monitoring system allows the State level government machinery to establish more direct contact with the villages and garner a more accurate assessment of rural needs. The State government claims this project as Asia's biggest rural connectivity project, with total computerisation of all the 13,693 village Panchayats across Gujarat. The government has also selected three private operators, Reliance Communications, CMS and 3i InfoTech to set up "common service centres" to provide e-services from the village Panchayat offices. Gujarat Government has OFC spreading over 65,000 kilometres and is Asia's the first and biggest Intranet.

1. Orientation and hands-on-training given on hardware and the new MS office Unicode version to 1300 staff of DPs and TPs.

2. Besides, specific 40-hour professional computer training was already given to 5681 e-gram employees with focus on e-gram.

3. These trainings have proved to be adequate and they are able to manage the activities of e-gram effectively.

4. However, electricity bills are received on bi-monthly basis. Both electricity department and e-gram are receiving the collection of payments. Hence it is suggested that if one agency is entrusted the whole work, then it would be alright.

5. The farmers mostly require the RoR (land details) which is now being issued at village level itself. However, the Talati has to endorse the document and as a result a lot of money is received on account of this service.

6. The software also allows the VCE to download different forms that are stipulated for availing of benefits by the citizens by different departments which otherwise would have been collected only at district/block/taluka.

7. The students mostly avail of Internet facility to know their results online and it has made their life easy, instead of going to district/ block for obtaining these certificates which otherwise would have taken time as well as travel cost.

8. The work distribution (receipt of payments) is not uniform over all e-grams as it varies from village to village.

9. Usually the e-gram functions from 10 am – 6 pm on all working days.

10. Whenever the VCE goes on leave, the Talati will take over his/her duties.

11. When the VSAT has a problem, the same is attended by the TSTSP/ TLE that will try to restore the same.

12. The Gram Panchayat is utilising e-gram effectively, but the income earned by VCE is relatively less (₹ 2000 – ₹ 5000 per month) since it is all based on number of transactions done per day.

13. Apart from routine work the data entry work of NREGA is also entrusted to the VCE for which payment is made separately from its own budget.

14. Shortly issue of attested copies/certificates are also being entrusted to e-gram, this would help the end-users/Aam Admi considerably to a large extent.

Positive Aspects

1. All the 26 District Panchayats (100 per cent) and 224 Taluka Panchayats (nearly 100 per cent) of Gujarat have been connected through the Gujarat State Wide Area Network (GSWAN). 7400 Village Panchayats have been linked to BISEG studio, Gandhinagar using KU Bands.

2. Bharati Airtel has grabbed this prestigeous job and executed the complete job. The satellite based technology has the following inherent benefits:

    * It is easy to connect all 13693 villages;

    * Cost-wise it is economical; and

    * Fewer breakdowns compared to landline (frequently cut when the soil is dug in a particular cable lying area).

3. The Microsoft Corporation has also played a significant role by supplying the MS-Office to e-gram project at a nominal cost of ₹ 6000 only.

4. The giant Google company came forward to create all Gram Panchayats (13693) with e-mail facility free of cost and also provided group mails for specific departments/Institutions.

5. Connectivity has enabled further the departments/Institutions to pass on important information/message up to district/block/village level or even for selected Gram Panchayats as the case may be.

6. A plan of action is usually drawn by the government to manage the whole operations systematically. Under e-gram each Gram Panchayat is provided with one computer, printer, e-gram software developed by NIC and others include Adobe Reader, MS-Office, Windows XP and Anti-Virus (Trend Micro).

7. There is a toll free No. 1800-233-7939. The restoration of breakdown system has to be attended within 8 – 48 hrs as per their SLA.

8. The Internet/VOIP broadcast is pre-planned by Airtel and video conference up to 22 Mbps bandwidth is possible between village to village and ranges between 256 - 384 Kbps. At Gram Panchayat a soft phone for voice or USB phone with a web camera is available for interaction. Video conference is arranged on receipt of request one day prior to the programme by the user. Every month around 13000 people are utilising this facility. The complete VC allows programme schedules to be arranged and controlled from Bangalore Hub. The total charges for a quarter workout to be ₹ 17 crore.

9. The Airtel (Network Operating Centre) will fully monitor the Network operations on 24 X 7 and reports are generated every 10-12 hrs as per their SLA.

10. Interface of Gujarati language in the application software has played a critical role.

Important reports that are generated on daily basis

1. Bandwidth utilisation;

2. Know the status of sites logged on at any point of time;

3. District-wise calls made/received;

4. Highly used sites with utilisation graphs; and

5. Type of problems encountered at different levels.

Based on these reports further analysis is carried out to take future course of action from time to time.

The Science and Technology Department, Government of Gujarat is instrumental in issuing the following landmark policies which has enabled the government to move forward with accelerated development:

* IT Policy -2006.

* Website Policy- 2007 (with specified standards for interphase of language Gujarati fonts to be incorporated).

* Security Policy on IT Act – 2009.

* Assert Management Policy for Integrated Work Flow Data Management System at 25 departments of Government of Gujarat.

* Likely to introduce paperless IT office in 25 departments of the Secretariat involving around ₹ 7 - 8 crore as a project and to be completed in three years time-frame.

* All employees working in IT/ITES of Government of Gujarat are required to qualify or pass CCC and C++ language certificate for getting further promotion in their career.

* Three per cent of the plan outlay of each department/agency should focus on purchase of IT equipment.

Negative Aspects

1. At Gram Panchayat level sometimes the NIC software needs to be uplinked with new version and it may not be possible to provide to a particular location immediately. As witnessed, this hampers the job on hand.

2. The remuneration received by the VCE is very low and it is not very encouraging. Therefore, additional works had to be taken-up on piece-meal basis like data entry works of NREGA and updating of records etc.

3. In certain GPs, the transactions per day/per week/month are less, in turn affecting the salary of the VCE. Therefore, it is suggested that standard payment norms may be worked out on his/her qualifications/experience.

4. Different forms of various schemes/programmes of different departments are being printed as per requirement at e-gram, this may be priced per copy basis.

5. Instead of collecting electricity bills by electricity department and e-gram, henceforth e-gram may be fully entrusted this job.

6. All e-grams in due course should be in a position to provide all services/faculties on demand instead of limiting to certain services only.

7. The earlier CSCs run by private agency in long run be taken over by e-gram and jobs like recharge of mobile phones be introduced.

8. VC programmes may be communicated to all concerned at all levels before hand for better sharing of information to achieve maximum benefits.

RS 97

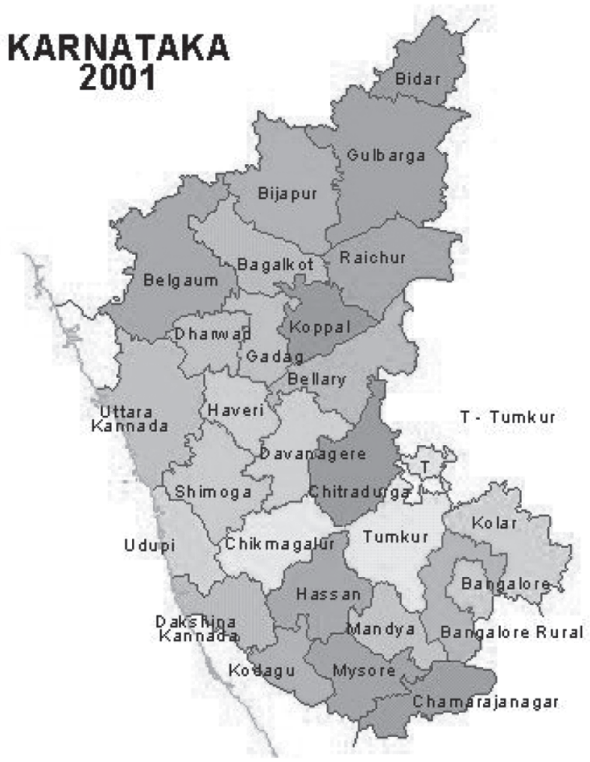
5. e-CONNECTIVITY OF PANCHAYATS STUDY REPORT – KARNATAKA

Introduction

The importance of the flow of information in modern economy has witnessed fast economic growth in India. The Telecommunication sector has played an important role to achieve this development. Telecom tariffs in India are the lowest in the world due to competition, new innovations in technology and privatisation of telecom sector paved the path to development. Even then there exists large digital divide that needs to be narrowed. Indeed, this division between urban and rural is still continuing. Tele-density in rural India is 20 per cent whereas it is 100 per cent in towns and cities. In this context, India must double its rural tele-density to match with rural economy and make it more powerful and balanced.

The availability of broadband in India is mostly confined to the urban areas and towns only. This creates a problem to rural population to access information and makes them not to access opportunities available. To address this, Government of India has decided to implement a massive programme of broadband connectivity in rural areas. Under this programme all the 2, 50,000 Gram Panchayats in our country will be provided with high speed broadband connectivity. Access to broadband connectivity in rural India will have multiple effects. It will make a real difference to the lives of farmers, by enabling them to discover prices for their produce in nearby mandis and markets. Remote and far-flung areas will be able to benefit from applications like tele-medicine and tele-education will become possible. It will help increase the pace of economic growth.

State Profile



Geography

Karnataka is the eighth largest State in India in both area and population. It was formerly known as Mysore. On November 1,1973, the name Mysore was changed to Karnataka.

Karnataka lies between 74° and 78° East longitudes and 11° and 18° North latitudes. It is situated on the western edge of the Deccan plateau and is surrounded by Maharashtra and Goa on the north, Andhra Pradesh on the east, and Tamil Nadu and Kerala on the south. On the west, it opens out on the Arabian Sea. Geographically, Karnataka has three natural regions like the Coastal strip, the Sahyadris and the Deccan plateau. They are known in Kannada as Paschima Karavali, Malnad and Maidan, respectively.

Demography

Indicators	Unit
Capital	Bengaluru
Geographical Area	191,791 sq.km
Administrative Districts	29 Districts
Population Density	276 persons/ sq.km
Population (2001)	52.85 million
Male	26.89 million
Female	25.95 million
Literacy Rate	67.04 per cent
Male	76.29 per cent
Female	57.45 per cent

Source : Census of India 2001.

Status of Telecommunication Services

* Leading telecom companies in the sectors of telecommunication network, basic telephony services (both wireline and wireless) and networking services for telecommunication equipments are operating in the State.

* Entire State is networked through Optic Fibre Cable (OFC) by the State-run BSNL (formerly DOT) as well as private companies like Bharti, Reliance, VSNL and TATA Tele services.

* Last Mile Access is provided by BSNL as well as TATA Tele services in various parts of the State. Bharti and Reliance Communications

provided the last mile access directly to the customer in all major cities in Karnataka.

* Seven new telephone exchanges were opened during 2007–2008.

Telecom Service Providers	Status
BSNL	Cellular Subscribers : 10 Million
Bharti Airtel	Internet/Broadband Subscribers : 0.8 Million
Reliance Communications	Telecom Towers: 14,000
Vodafone Essar	Post offices : 9826
Spice Communications	Telephone Connections : .2610 Million
Tata Teleservices Ltd	Telephone Exchanges: 2727

Source : Economic Survey of Karnataka 2008–2009, Directorate of Economics.

Tele- Density : The Telephone density in Karnataka is 116.11 connections per 100 population, which is one of the highest in the country.

IT Policy of Karnataka

Karnataka is in the forefront of Information Technology and is called the Silicon State of India. Karnataka was the first State in India to announce an IT Policy in the year 1997. The Government of Karnataka has recently revised this policy and has announced Mahithi, the Millennium IT Policy, the primary objective of which is to utilise the power of Information Technology in the overall goal of the Government of Karnataka in eradicating poverty and empowering women.

The Karnataka Government has initiated various e-governance systems for enhancing rural development such as Panchayath(an exhaustive Management Information System for Zilla Panchayats), Mukhya Vahini, Initiative on Examination results (computerisation of details of over 18 lakh

students and display of examination results on a website of Grade X, Grade XII and university courses), Bhoomi (Computerisation of land records of farmers, recording the agricultural crop details for obtaining loans from banks), Khajane (Computerisation of 225 Treasuries all over Karnataka, handling over ₹ 20,000 crore annually (USD 4.38 billions). The treasuries act as bankers to 4,500 Zilla Panchayats, Taluk Panchayats, Gram Panchayats, Municipal Corporations and other funds and handle pensions for over 13.7 lakh people across the State, Reshme (Online transactions of silkworm cocoons), Initiative programmes prove Agricultural Price Information (A system of recording and displaying on the spot prices of agricultural commodities exists at selected market places in the State), Yuva (A scheme to give basic computer education to rural youth).

Objectives

* To utilise the power of Information Technology is the overall goal of the Government of Karnataka in eradicating poverty and empowering women

* To effectively reduce unemployment by absorbing the major share of educated youth into the IT Industry

* To promote the usage of Kannada in Information Technology

* To use e-governance as a tool and deliver a government that is more pro-active and responsive to its citizens

* To unleash the Karnataka Incubation engine

* To encourage business with non-English speaking countries, and, to maintain the pre-eminent position of both Bangalore and Karnataka in the field of Information Technology.

Eradicate Poverty and Empower Women

1. One of the primary goals of the Government of Karnataka is to eradicate poverty and empower women. The eradication of poverty was attempted via several poverty alleviation schemes. These

schemes are generally targeted at the poorest beneficiaries and provided credit for them. The Information Technology is proposed to be used as a tool to eradicate poverty and empower women.

2. The IT Department would be involved in several rural development projects i.e. providing drinking water via follow-on project of the World Bank, computerising Village Panchayats, building MIS system for the Zilla Panchayats and many more.

3. It is proposed to build 'Panchayath', an exhaustive Management Information System for Zilla Panchayats. This system will include both routine accounting reports for the review at various levels, as well as decision support systems for critical management decisions.

Employment

1. The employment is likely to be generated in sectors of Information Technology that include the hardware development, software services, network services as well as several sectors in the IT and Enabled Services.

2. Incentives for companies for creating employment opportunities in Information Technology.

3. Software Technology Parks are being established at different locations in the State to provide entrepreneurs who want to take up software development, setting up of Call Centre, Business Process Outsourcing (BPO) etc.

4. IT enabled Training Institutes: This policy seeks to establish 225 training centres all over the State, primarily for the purpose of training the unemployed educated youth in various IT skills and finishing schools to make unemployed youth employable by imparting soft skills.

IT in Schools and Colleges

The Government plans to take Information Technology to school children and college students in all parts of the State. These centres will also provide resources for the students for their class projects. The private companies will also be allowed to use the same centres for commercial use before and after the school hours.

e-Governance

The Government of Karnataka believes that effective implementation of e-governance will take IT to the common man. The Government now proposes to establish a Centre for e-governance under the Department of Information Technology to facilitate the use of Information Technology by the common man quickly and effectively.

Education Department

The Government of Karnataka's commitment to education shows up in the projects implemented in the State. The department has already computerised payroll accounting system of all 2.4 lakh teachers in the State. The details of over 18 lakh students that take SSLC, PUC and University examinations have already been computerised and the results of SSLC are made available on the website. The department has used IT in Common Entrance Test for professional courses in a big way.

Bhoomi

The record of rights (ROR) play a vital role in the life of the millions of farmers. The records are required for establishing ownership of land, for recording the succession of ownership, for recording the agricultural crop details and for obtaining loans from banks. The land records of all the villages in Karnataka have already been computerised. Immediate steps are taken to make these computerised land records available to the villagers in the State.

Training Centres

This policy seeks to establish 225 training centres all over the State, primarily for the purpose of training the unemployed educated youth in various IT skills. The Government will encourage private sector initiatives in setting up these centres.

Promoting Kannada in IT

Kannada is being used in all the Government offices. It is important to promote Kannada usage via Information Technology.

IT Corridor

To establish International Standard IT Parks and exclusive parks for International Companies the State government has announced a special IT Corridor in and around Bangalore City. This Corridor project will provide extensive space and State-of-the-art facilities for the development of knowledge based industries.

Incentives and Concessions

Fiscal : Exemption to IT companies from payment of entry tax on certain capital goods, concession on stamp duty and registration charges, rebate on cost of land is available;

Power : Continuous and uninterrupted supply of power at industrial rates is provided;

Simplified Procedures/Laws : Pollution control clearances, urban planning/zonal regulations, relaxation in labour laws, facilitation through single window agency;

Financial Support : Venture capital from government for start- ups; and

Infrastructure : IT parks, electronic city, export promotion, industrial park, software technology park for venturing and encouraging new external investments are allowed under the policy.

RS 97

The Major Government Initiatives

1. The Government of Karnataka has specified the lowest ever taxation of only 0.25 per cent on computers and computer peripherals;

2. Information Technology Industries are exempted from payment of entry tax and purchase tax on computer hardware, computer peripherals and other capital goods ; and

3. Software companies will be treated as industrial (and not commercial) and electricity tariff applicable to the industrial consumers will be levied on such companies.

Rural IT Initiatives of the State Government

Karnataka, known as the Silicon State of India, is the first State in India to announce IT Policy in the year 1997. The Government of Karnataka has recently revised this policy and has announced Mahithi and the Millennium IT Policy.

The Karnataka Government initiated various e-governance systems for enhancing rural development such as exhaustive Management Information System for Zilla Panchayats, Mukhya Vahini (A comprehensive database of information along with a sophisticated decision support system for decision makers at the village and district levels), Bhoomi (Computerisation of land records of farmers, recording the agricultural crop details for obtaining loans from banks) etc. are the implementation of IT initiatives by the government in Rural Karnataka.

Apart from State government initiatives, there are many private bodies that are focusing on computerisation in the villages of Karnataka. The 'Azim Premji Foundation' is installing multi-media computers in village schools to promote CD based education at the primary school level. ITC, a corporate firm, has introduced a web based market place for agricultural produce procurement directly from the farmers. The National Dairy Development Board has implemented a web-based marketplace for horticultural and dairy produce for Karnataka. The Karnataka Telemedicine Project was initiated in

one of the district hospitals and one taluk hospital with a super-speciality hospital in State capital, Bangalore. Tata Consultancy Services, a Bangalore based software corporate has started a pioneering work for imparting functional literacy to adults using computer based training tutors with duration of 10-12 weeks. These private companies are working on their individual mandates for the welfare of the people at large with corporate social responsibility.

Visited Sites

District	Block	Gram Panchayat
Dharwad	1. Dharwad	1. Yadavada
		2. Uppin Betageri
		3. Narendra
		4. Mammi Gatti
		5. Belur
	2. Kalghatgi	1. Devikoppa
		2. Dastikoppa
		3. Hirehonnalli
		4. Develingekoppa
		5. Dummwada
Gulbarga	1. Sedam	1. Kodla
		2. Malkhed
		3. Mudhole
		4. Adiki
		5. Itkal
	2. Afzalpur	1. Gudur
		2. Chodaour
		3. Ganagapur
		4. Atnoor
		5. Gobur

District Profile

Dharwad district is one among 29 districts of Karnataka State. It lies between N $15^0$15" to 15^0:35' and E 75^0. 00' to E – $75^0$20'. Towards north the Belgaum district, towards south Haveri district, towards west Gadag district, and to east Uttar Kannada district, bounded Dharwad district.

Geography

Dharwad district is situated in the western sector of the northern half of Karnataka State. The district encompasses an area of 4263 sq.km lying between the latitudinally parallel of 15°02' and 15°51' north and longitudes of 73°43' and 75°35' east. The district is bounded on the north by the district of Belgaum, on the east by the district of Gadag, on the south Haveri and on the west by Uttar Kannada district. All these districts which surround Dharwad district belong to Karnataka State.

Climate

Dharwad district has a moderate temparture during winter season, could be of 16^0'c and in May the climate goes up to 390c to 40^0c. South

West Monsoon is from June to September and North West Monsoon is from October to December.

Socio-economic Situation

In these districts there are various religions like Hinduism, Islam, Jainism and Christianity. Hindus are spread across rural and urban areas. The widely spoken language in the district is Kannada and other languages like Urdu, Marathi, Hindi, Telugu, Gujarati and Malayalam are also fluently spoken.

Revenue Blocks

1. Dharwad
2. Hubli
3. Kalaghatgi
4. Kundagol
5. Navalagund

Dharwad District Profile

S.No.	Particulars	Unit
1	Total No. of Villages	390
2	Total No. of Gram Panchayats	127
3	Total Population (2001)	1604253
4	Rural	722336
5	Urban	881917
6	SC	131969
7	ST	70442
8	Literacy Rate	71.87
9	Density Per Sq Km	377
10	Number of Telephone Connections	78249

Source : Census of India 2001.

District Profile

Gulbarga was known as 'Kalburgi' in former days which means stony land in Kannada. Gulbarga district is situated in the northern part of Karnataka State. Gulbarga is 613 km north of Bangalore and is well connected by road to Bijapur, Hyderabad and Bidar. The district is one among the 29 districts of Karnataka State. It is located in the Northern part of the State and lies between north latitude $17^0$10 and $17^0$45 and between east longitude $76^0$10 and $77^0$45. The district is the biggest in the State covering 8.4 per cent of the area and 5.9 present of population of the State.

The district covers a total area of 16174 sq. kms. This constitutes 5.9 per cent of the area of the State with 9 blocks, 220 Gram Panchayats and 873 villages.

Demography

Gulbarga district is experiencing rapid growth of population since 1951. The decimal growth rate has increased from 14.5 to 21 per cent between 1999 and 2001. The population of the district as per 2001 census is 31, 30,922 of which male population 15,92,789 and female population 15,38,133. The sex ratio is 966 females per 1000 males. The density of population is 192 per sq.km.

Gulbarga District Profile

Particulars	Unit
Total No. of Villages	873
Total No. of Gram Panchayats	220
Total Population (2001)	2174742
Rural	1485176
Urban	574166
SC	517137
ST	47135
Literacy Rate	36.20
Density Per Sq Km	192
No. of Telephone connections	88265

Source : Census of India 2001.

Researcher Interacting with Block Level Officials

Researcher Interacting with Gram Panchayat Officials

Major Findings

1. The numbers of telephone/mobile users is 55 per cent in Afzalpur and 35 per cent in Sedam block of the Gulbarga district. Whereas it is 9 per cent in Kalghati and 16 per cent in Dharwad, respectively.

2. BSNL is the main ISP provider in Karnataka and Internet facility is available 100 per cent in all the GPs.

3. All GPs in Gulbarga and Dharwad districts are fully connected. The presence of AirTel, Reliance, MTS and Tata Photon is also noticed. However, Internet usage in Gulbarga block is less, 6 per cent, whereas in Kalghatigi it is 16 per cent and in Dharwad block 69 per cent.

4. Out of 5628 Gram Panchayats only 3000 have Internet connectivity with 256 Kbps and the remaining are getting connected.

5. Computers and other equipments are procured through MGNREGA funds, Development funds, Gram Swaraj funds, Jalanirmal Scheme funds and 12th Finance Commission funds at Gram Panchayats.

6. P4 Computer systems with a Printer and a Modem are provided at all GPs and loaded with Window XP operating system and other

software like MIS NREGA, Panchatantra, Photoshop are supplied to handle day-to-day works of GPs.

7. Panchayat staff felt that due to use of computers the work at the Panchayat would be done smoothly and fast.

8. Gram Panchayat computers are being used for data entry of MGNREGA works in online and offline mode. This arrangement is helping to avoid delay in payments through file transfer facility to job seekers engaged in MGNREGA works. For this purpose NIC has developed separate MIS package. This online reporting mechanism facilitates to monitor MGNREGA activities from any part of the world.

9. The maintenance of the hardware equipment is done through the reserve fund available at GP level. Whereas at block level, systems are maintained using Stamp Duty Fund.

10. The information sharing is taking place from GP to block and district through e-mail. From GP to district 71 per cent, and from district to GP 28 per cent.

11. 2500 Laptops were being distributed to the Gram Panchayats with **'data card'** where the Internet connectivity is not available, this facility was extended by the Government of Karnataka.

12. On an average there are 40 per cent of Internet users in Namchi block and there is a good chance of this number growing in future, because more and more people are now taking due advantage of the Internet.

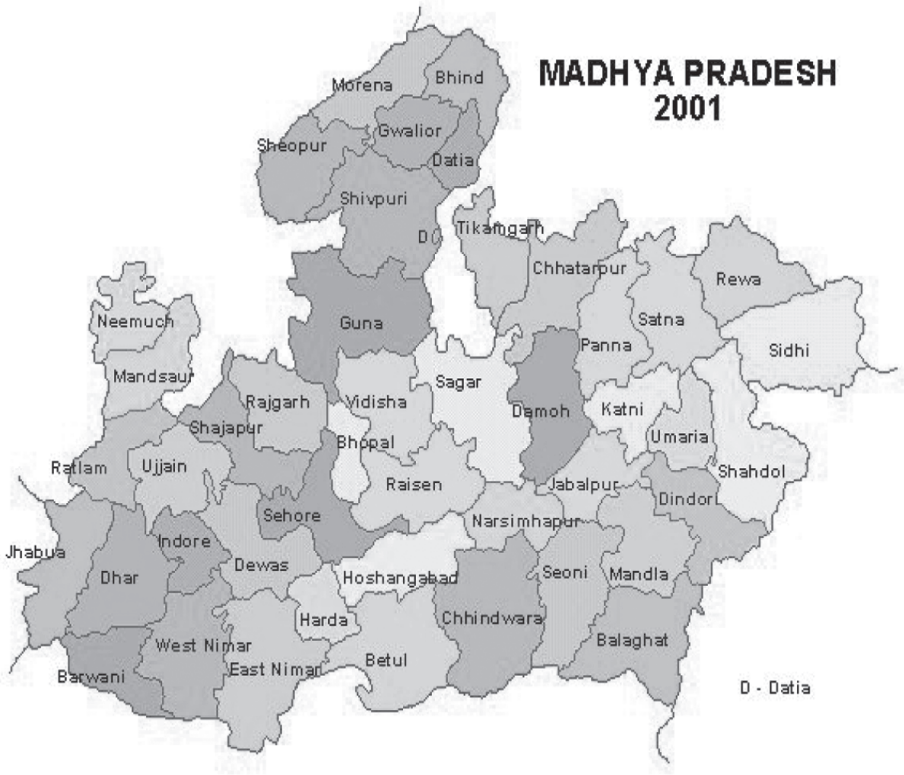
13. Out of 5628 Gram Panchayats, 1341 GPs are provided with 2 KV Solar based UPS (8 hour backup) and in the remaining GPs 2 KV UPS (10 hour backup) is provided.

14. Staff at block and district are well acquainted with computer and Internet usage and its applications.

15. Students within the Panchayat are utilising the computer and Internet facility most often for surfing public exam results, downloading their higher education particulars for various colleges/university on web.

6. e-CONNECTIVITY OF PANCHAYATS
STATE REPORT - MADHYA PRADESH

Madhya Pradesh State which was formed on November 1, 1956 is situated in the Central part of India. The border States of Madhya Pradesh are Rajasthan in the north–west, Uttar Pradesh in the north-east, Chhattisgarh in the south-east and Maharashtra in the south-west. It is the biggest State in the country with an area of 3, 08,245 sq. km. The main rivers that are flowing in the State are the Narmada and the Tapti, running from east to west and the Indravati from west to east.



Administration

Madhya Pradesh has 48 districts with equal number of elected Zilla Panchayats and has 52,000 inhabited villages under 21,999 Gram Panchayats and 313 Janpad/ Block Panchayats.

S.No.	Administrative and Political Divisions	Unit
1.	Districts	48
2.	Tehsils	260
3.	Inhabited Villages	51.806
4.	Total Villages	55.84
5.	Zilla Panchayats	48
6.	Janpad Panchayats/Blocks	313
7.	Gram Panchayats	21.838
8.	Municipal Corporations	14
9.	Nagar Palikas, Population: 20000 - 100000	85
10.	Nagar Panchayats, Population : <200000	235

Source : Census of India 2001.

Demography

Madhya Pradesh has a total population of 60.4 million. The rural to urban ratio is approximately 73:27. The Scheduled Castes and Scheduled Tribes ratio is 15.4 and 19.9 per cent of the total population. Tribal population has decreased from 23.3 to 19.9 per cent of the total population of the State after the creation of Chhattisgarh State. The population density is 196 per sq km. Population density in rural areas is about 116 per square kilometer.

Indicators	Unit
Total Population	60.4 Million
Rural	73.3 %
Urban	26.7 %
SC	15.4 %
ST	19.9 %
Male-Female ratio Female/1000 Male	920
Literacy Level	64.1 %
Female Literacy level	50.3 %

Madhya Pradesh Telecom Circle covers the entire State of Madhya Pradesh. Presently the BSNL is playing an important role in providing infrastructure in the State. In Madhya Pradesh Telecom Circle is the first Circle in the country to introduce Internet services up to the District and Tehsil Head Quarters at local calls rates. A total of **2791** Telephone Exchanges are functioning in the State. The OFC Network covers a length of 27,222.7 kms. Almost 100 per cent of Exchanges are on reliable (OFC /Radio/Satellite) media. The Cellular Mobile Service has been launched since 2002.

Current Status

No. of Districts	48
No. of SSAs	34
No. of SDCAs	249
No. of Taluks	272
No. of Blocks	313
Switching Capacity (Wired-16,63,650,	

WLL 3,23,500 & GSM 7,07,150)	26,94,300
Working DELs (Wired-12,03,458, WLL 2,66,212 & GSM 8,87,990)	23,57,660
No. of Cellular Mobile Subscribers	8,87,990
No. of Exchanges	2791
Tele-density	3.9 %
OFC Route Length (kms)	27,222.70
Radio Route KMs	2542.22
Exchanges on Reliable Media (100%)	2791
Exchanges on STD (100% Exchanges)	2791
Total inhabited Revenue Villages	51806
Villages having VPT Provided by BSNL	49,193

IT Policy of Madhya Pradesh

The broad vision of the State on IT policy is as follows:

* Improving the life of the common man leveraging the strengths of e-governance;
* Attracting investment in the sector, so that the educated youth are able to contribute to the development of the State;
* Creating a pool of highly skilled professionals who are on par with the best in the country; and
* Transforming resource based economy to knowledge based economy.

Salient Features

* Adequate development of Telecommunication infrastructure in the State;

* Increase in number of IT and computer science graduate engineers;

* Increased penetration of computers in the government offices; and

* Implemented a few major IT projects such as issue of smart card based driving licenses & registration certificates, computerisation of mandi board, treasuries and commercial taxes etc.

IT Policy Incentives

The State has announced its IT Policy to promote e-governance in the State basically to attract IT investments to a large extent. In addition, the State has decided to provide rebate on government lands for establishing companies for employment generation.

The State is committed to implement the NeGP. For this purpose, the State Wide Area Network (MPSWAN) is well established. Over 9200 IT Kiosks are opened to provide all types of citizen centric services information to the rural areas. e-governance, e-business and e-banking are possible to the last mile.

To meet these requirements the government has promoted IT in education on a large scale through IT companies and implementing computer training in schools and colleges to upgrade the skills of prospective manpower in order to meet the IT demand and employment.

Objectives

1. To propel the growth of Information Technology (IT) in Madhya Pradesh and implementation of the State IT Action Plan for socio-economic development of the State;

2. To coordinate with all the Government Departments/agencies for sectoral and cross-sectoral promotion and use of IT in Government and prescribe guidelines to enable smooth and widespread induction of IT skills. - Coordinate and Network with investors and industry, trade organisations and financial institutions in public and private sector to promote growth in IT sector;

3. To generate awareness amongst citizens and demystification of IT so as to promote its use as a comprehensive and cost-effective means of disseminating information;

4. Coordinate manpower needs and human resource development efforts for the above objectives;

5. Coordinate and pursue development of all support infrastructure including telecom infrastructure in the State with the State Government and the Government of India and allied agencies;

6. Marketing the State as an attractive IT destination for investment; and

7. Identifying and developing opportunities for furthering innovative research of world standard on its own or in collaboration with one or more institutions and/or industry.

Highlights

1. Establishment of First Software Technology Park in Indore district;

2. Common Service Centre (CSC) contributing to a large share to the total IT output of the State;

3. Crystal IT Park, at Indore ready for potential investors to start business immediately;

4. Huge demand for ITES / BPO operations in the State exists;

5. Upcoming sites for software technology parks include Bhopal and Gwalior on the anvil; and

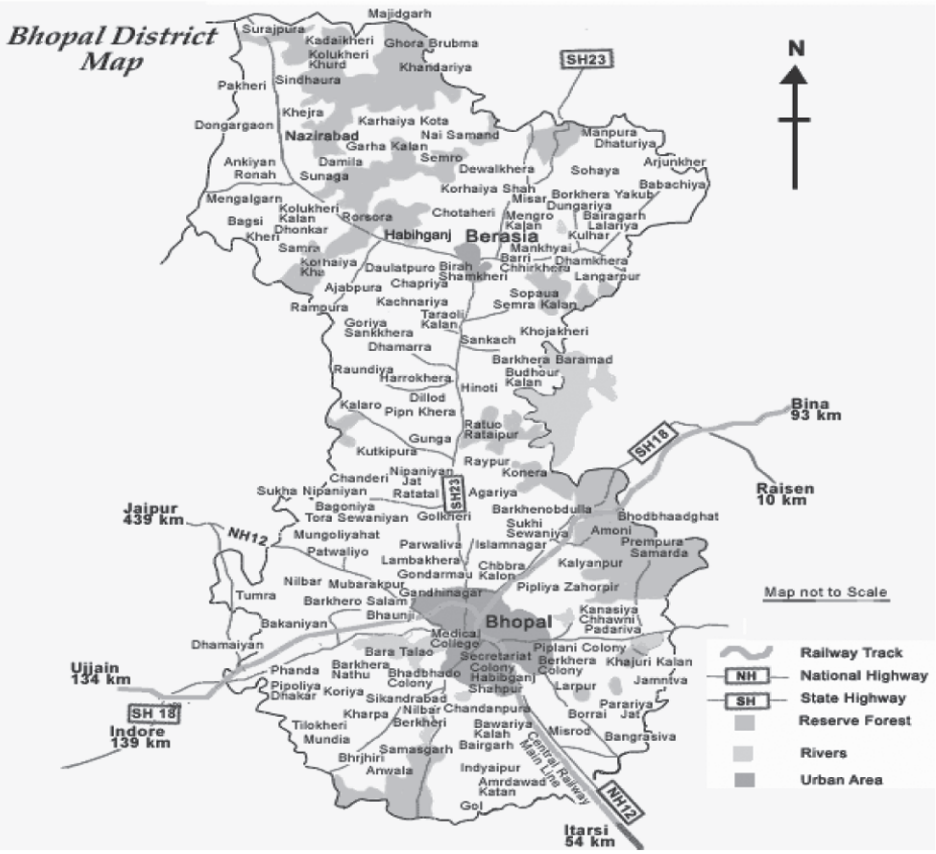
6. The IT policy is very investor-friendly and attracting many investors to invest in the State.

Visited Sites

District	Block	Gram Panchayat
Bhopal	Phanda	1. Goal Khedi
		2. Khajoori Ratatal
		3. Raipur
		4. Neepaniya Zat
		5. Entkhedi
	Bearisiya	1. Pardhi
		2. Rathuvarthan Pura
		3. Hinoti Sadak
		4. Harrakheda
		5. Sonkutch
Indore	Indore	1. Bilawali
		2. Kailord Kartal
		3. Paldha
		4. Limbodi
		5. Umerikheda
	Mhow	1. Simrole
		2. Memdi
		3. Joshiburadiya
		4. Goshi Kheda
		5. Shiv Nagar

Bhopal District

Bhopal district covers an area of 2,772 sq.kms with a total population of 1,836,784. The population of Bhopal district increased by 51 per cent from 1981 to 1991, and by 36 per cent from 1991 to 2001. Bhopal district is bounded by the districts of Guna to the north, Vidisha to the north-east, Raisen to the east and south-east, Sehore to the south-west and west, and Rajgarh to the north-west.



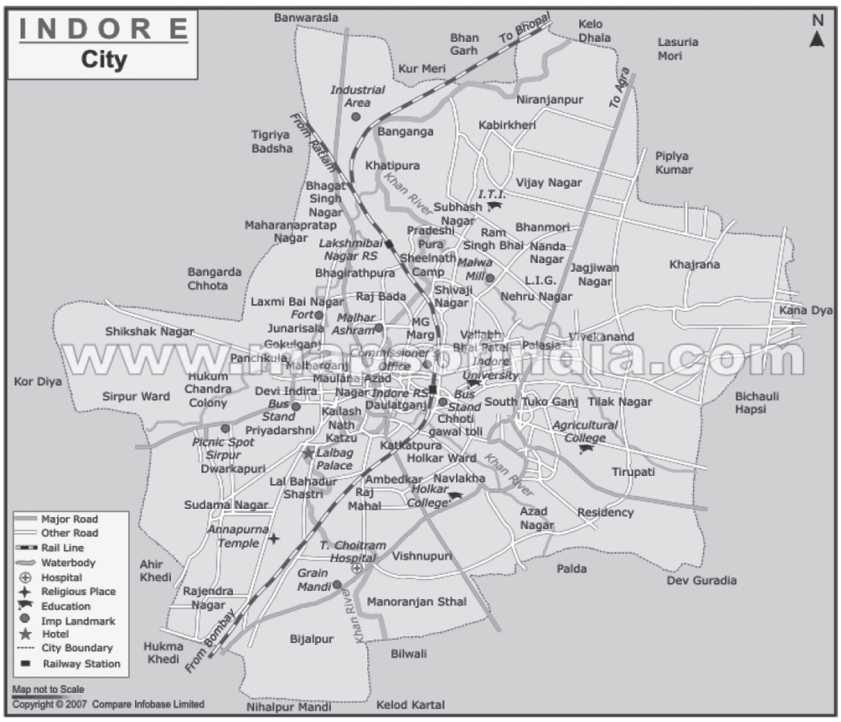
Indicator	Unit
Area	2772 Sq. Km
Population (2001)	1843510
Males	971649
Females	870861
No. of Tehsils	02
No. of Blocks	02
No. of Towns	02
No. of Villages	542

Source : Census of India 2001.

Climate

The summer in Bhopal remains very hot and dry with 47.7°C (maximum), 24.9°C (minimum). The summer starts from April and lasts until June. The winter in Bhopal is very cold. During winters the maximum temperature is 24.5°C. The rainfall during the rainy season is around 1200 mm and isolated rains occur throughout the year.

Indore District



Geography

Indore district is surrounded by the districts of Ujjain to the north side, Dewas to the east side, Khargone (West Nimar) to the south side, and Dhar to the west side. Geographical area of Indore district is 3,898 sq.km.

Rivers

Chambal, Kshipra are the main rivers of Indore. Other rivers are Gambhir and Khan. The district derives its name from the city of Indore, which serves as its Administrative Headquarters.

Tehsils

In Indore there are four Tehsils namely Depalpur, Sanwer, Indore and Mhow.

Number of Blocks	4
Number of Tehsils	4

Name of Blocks	Number of Panchayats	Number of Villages
Depalpur	100	149
Sanwer	78	128
Indore	84	161
Mhow	73	177
Hatod	-	62
Total Number of districts	335	677

Source: 11 Point Programme, GoMP, 2009.

Major Findings

1. The number of telephone users in Phanda is 21 per cent and 4 per cent in the Bairasia block of Bhopal. The number of telephone users in Indore is 63 per cent and in Mhow it is 11 per cent.

2. The average cell phone users in both blocks of Bhopal is very less i.e. 18 per cent. Whereas it is 42 per cent in Indore and 24 per cent in Mhow.

3. The Internet users in both blocks of Bairasia and Phanda are 7 and 11 per cent, respectively. Whereas it is 72 per cent in Indore and 8 per cent in Mhow.

4. It is suggested that the Internet awareness is necessary to create proper understanding in Bairasia, Phanda and Mhow to improve the existing status.

5. MGNREGA data entry works are taken up at block level for which suitable remuneration is paid from its funds.

6. IT equipment is procured through MGNREGA funds, Development funds, Gram Swaraj funds, Jalanirmal Scheme funds and 12th Finance Commission's funds which are at their disposal.

7. All Block Panchayats are equipped with printers, scanners, modems and UPS.

8. Video conference is done periodically on scheduled dates.

9. The software available at Block Panchayats include MGNREGA, PARAKH Software, Pagemaker and MS Office.

10. Accounting and Financial Management system of PRIs is loaded to tackle bookkeeping and transparency is maintained in collection of revenues and expenditure of Gram Panchayats under double entry system of accounts. However, double entry bookkeeping in some Panchayats is picking up.

11. The maintenance of the hardware equipment is done through the funds available under MGNREGA scheme.

12. Around 50 per cent of households have at least one mobile/landline phone connection.

13. At GP level the IT infrastructure has to be strengthened for more and more use of IT applications for better information/data sharing, and transfer purposes.

14. Government of Madhya Pradesh is encouraging NGOs to establish 'Samadhan Kendras' for providing hardware, software and other support services. Besides, each Janpad Panchayat has five computers with Internet connectivity.

15. Indore district has better penetration of telephones than Mhow.

16. 50 per cent of households are utilising Village Public Telephones for making STD/local calls.

17. The ISP Service Providers include BSNL, AirTel and Reliance, the bandwidth at block level is 256 Kbps.

18. At present all GPs do not have computers and Internet access. The Internet facility is available up to Janpad/Block level. People at GP are asking for computers to deal with their day-to-day work more effectively in days to come.

19. The information pertaining to development works, expenditure patterns, milestones achieved could be made public, if web facility is available.

20. Needs capacity building and manpower at GP level to handle all IT related works independently.

21. It is suggested that suitable incentives/rewards may be considered to GPs level staff who are utilising ICT infrastructure in all official works.

7. e-CONNECTIVITY OF PANCHAYATS STATE REPORT – SIKKIM

Introduction

The National Policy stipulates that every Panchayat in the country is being planned to have high speed broadband internet access by 2012. Optical Fibre Cable connection will be laid to all Panchayats across the country as connectivity is an important component to ensure quality in the process of development.

Creation of infrastructure in the 21st century is a big challenge and this will be met successfully and it would be an unmatched infrastructure, with a view to ensuring financial and electronic empowerment of its machineries, and to equip every Panchayat in the country with high speed broadband Internet access by 2012, for recognising ICT as an important tool to ensure quality of service and transparency in the process of development.

Only 8 per cent of the people in the country use internet in India. There would be a paradigm shift soon if a larger chunk of population has access to the internet. For financial and electronic empowerment, the Panchayats need to be provided with high speed broadband access.

India is also acting as a developing country in the Broadband connectivity, as it is expanding its services from urban to rural areas because the need of new technology is also realised in the rural and backward areas of India. Therefore, the new broadband connectivity is provided to more than 2.5 lakh Panchayats so that the people of rural and backward areas can communicate with one another easily and also get the latest updates that take place in every domain of activity.

The IT revolution has catalysed growth and innovation across the world in a manner which has few parallels in modern history. Around 72 per cent of India's population lives in villages. These villages typically consist of around 250 households and are located between two to three kilometers from each other. There are larger market towns located every 30 to 40 kilometers, which are served by optic fiber backbone. These act as a Point of Presence (PoP) for telecommunication for the surrounding villages, with each PoP serving around 250 to 300 villages. The problem of connecting these PoPs to the villages can be regarded as the problem of last mile rural connectivity.

Cellular phone coverage around the market towns typically extends only for about five kilometres. This is because traditional cellular coverage proves too expensive to connect all villages to their nearest PoP. Income levels for rural India are lower than the national average. Average monthly income in rural India is around INR 2500, and it is estimated that the average household can spend less than INR 100 per month on telecom services. Since Average Revenue Per User (ARPU) from villages is too low to recover infrastructure and service costs, cellular coverage in rural India is negligible at present.

The key to Internet and telephony access for rural India is a public kiosk which provides a basket of services. A kiosk can expect one or two voice calls to be made on a continuous basis, and most of a kiosk's income is expected to be from voice traffic. Assuming two kiosks per village, the revenue of each can only be of the order of INR 5000 per month. Most existing initiatives for the last mile focus on extending reach from the PoP to the village kiosk.

The Department of Telecommunications (DoT), through its Village Public Telephone (VPT) scheme, aims to have at least one telephone installed in each of approximately six lakh villages identified in the 2001 census . As of August 2005, VPTs were deployed in 83.3 per cent of the targeted villages. The next phase involves installing a second telephone in villages with a population over 2000. Besides DoT and TRAI (Telecom Regulatory Authority of India) initiatives, WLL (Wireless in Local Loop) solutions using corDECT,

RS 97

WiFiRe designed to operate in the unlicensed band, and the Digital Gangetic Plain project using multi-hop 802.11 links with directional antennas are recent attempts to address the last mile issue.

Geography

Sikkim, a small Himalayan State lying between 27 to 28 degrees North latitude and 88 to 89 degrees East longitude is the second smallest State in India. It is barely 7,096 sq km in size, yet has an elevation ranging from 300 m to 8585 m above sea level. Its Geography is dominated by the most majestic mountain chain in the world which includes the Kanchenjunga, the world's third highest mountain and is worshipped as the guardian deity to their land. One of the smallest States of India, it is bounded by Nepal to the west and Bhutan to the east; by the Tibet Autonomous Region of China to the north and north-east and by West Bengal to the south.

Administration

Sikkim is the 22nd State of the Indian Union. It became a State of the Indian Union under the Constitution (Thirty-eight Amendment) Act, 1975. Sikkim has the largest area and the highest production of large cardamom in India. Under the unicameral legislature, it has 32 seats of legislative assembly. One member each represents the State in the Lok Sabha and Rajya Sabha. It has 9 Sub-divisions, 92 Zilla Panchayat Wards, 159 Units of Gram Panchayat and 452 Village Councils.

Demography

The population of Sikkim is 0.54 million according to 2001 census and is scattered over 4 districts and 452 villages. The State has the density of 76 persons per sq. km. As against decadal growth rate of 21.54 per cent at the national level, the population of the State has grown by 33.06 per cent over the period 1991-2001. The sex ratio of Sikkim at 875 females to 1000 males is lower than the national average of 933. Female literacy of the State rose to 61.46 per cent from 46.76 per cent in 1991. The population of Sikkim is mainly made up of the Lepehas, the Bhutias and their allied clans and the Nepalese.

The entire State of Sikkim has an area of 7,096 sq.km and a population of 0.54 million is being served by 46 Nos. of modern state of the art digital electronic exchanges having a total equipped capacity of 49,492 lines. The total subscriber base is 33,884 as on 2002.

Indicator	Unit
Total Geographical Area	7,096 Sq. Km
Capital	Gangtok
No. of Districts	4
No. of Sub-divisions	9
No. of Blocks	453
No. of Villages	452
No. of Towns	9
Largest City	Gangtok
Population (2001)	540,851
Population Density	76 per Sq. Km
Male	288,484
Female	252,367
Literacy Rate	68.80%
Per Capita Income (2003-04)	₹ 23786

Source : Census of India, 2001.

Telecom Services in Sikkim

1.	Total No. of Telephone Exchanges	46 (All Electronic)
2.	Total Equipped Capacity	49,492 Lines
3.	Digital Electronic Exchange	33,884
4.	Optic Fiber Cable (OFC)	501 RKM
5.	Microwave	180 RKM
6.	WLL (Wireless in Local Loop) Capacity	1,000 Lines
7.	Trunk Automatic Exchanges (TAX)	5,000 Circuits
8.	Internet Node (IN)	4 Nodes are at Gangtok, Gayzing, Namchi & Rangpo to cover all the four districts of Sikkim.
9.	Intelligent Network(IN) Service	Available at Gangtok
10.	Computerised Fault Booking & Billing Services	Available at Gangtok

Source : Telecom Report.

Future Plans

* Equipped capacity addition: 2,500 lines

* Installation of the most modern new technology OCB exchanges at Gangtok, Deorali and Rangali. The main OCB exchange at Gangtok is in the advanced stage of commissioning, which will drastically improve the performance of the telecommunication system of the capital city Gangtok.

* Installation of two additional new exchanges in the rural area of Sikkim – one is already commissioned at Mamring.

* To provide 2,100 new telephone connections (DEL).

* To provide telephone connections on demand.

* To cover the remaining 61 villages with Village Public Telephone (VPT) – 53 of them will be through satellite telephones.

* To lay 65 kms of Optic Fiber Cable (OFC) cable.

* To install 3 Nos. of satellite Terminals for STD connectivity.

* Capacity of Cellular Mobile Telephone services at Gangtok would be expanded by about 4750 lines by this financial year. Mobile equipment of 1000 line capacity each would be installed in the other three district headquarters at Mangan, Namchi and Gayzing by March, 2003.

* To expand the WLL capacity by 1,000 lines.

* The total capital outlay will be ₹ 38 crore.

Tele Density	The Telephone density of Sikkim is 6.27 connections per 100 population, which is one of the highest in the country. (All India average is 4)
Telephone on Demand	Telephone connections are available on demand in the entire State of Sikkim.
Rural Coverage	The State has 427 revenue villages. Village Public Telephones (VPTs) have been provided in 374 villages. The remaining 53 villages which are very remotely located cannot be accessed either through cable or through WLL systems and will be provided through satellite link during this financial year (2011).

WLL Service	Telephone service through Wireless in Local Loop has also been extended in the State of Sikkim. For this purpose 2 BTSs have been installed at Gangtok and Ravangla. So far 300 WLL connections have been provided. Through this WLL system, connections can be provided on demand in remote/inaccessible areas.
Transmission Media	Out of total 46 telephone exchanges, 39 exchanges are connected through OFC media. Five Exchanges are connected with digital Microwave system and the remaining two through satellite. Thus, Sikkim is one of the States where all the telephone exchanges are connected through highly reliable digital transmission media.
Intelligent Network (IN) Service	In service is also available at Gangtok which can provide important Value Added Services such as Virtual Card Calling (VCC) service, Free Phone Service (FPS), Premium Rate Service(PRS) etc. By using ITC (India Telephone card), customers can make Local/STD/ISD calls. IN service is at present available at Gangtok only.

IT Policy of Sikkim

The Government of Sikkim is aware of the transformational changes of IT technology and would like to harness its capabilities for the welfare of the State by having up-to-date citizen services, ensuring greater accountability through e-governance and also promote IT investments in the State. The Government of Sikkim has placed Information Technology high on its agenda. The Information Technology Policy has been formulated to put Information Technology on a firm footing in the State. The Department of Information Technology will essentially play the role of a catalysing agent.

Objectives

The IT policy of Sikkim is centred around the following premises and the Mission Statement.

* Empowering citizens and making life easier for them through E-Governance
* Facilitating income and employment generation in the private sector
* Improving productivity in the Government Departments through computerisation
* Using information tools in the administrations to improve governance
* Making Sikkim a totally computer literate State
* Reducing the digital divide
* Using Information Technology to map the resources of the State
* Using Information Technology to bring succour to the disabled

Employment Generation

* Information Technology will come up as a major source of income in the State. Information Technology as a service industry is characterised by less transportation costs and is environmentally friendly. It can propel the State on the path of eco-friendly development.
* Sikkim has an advantage of high literacy, absence of labour problems, a population that speaks good English and a pleasant climate. These attributes can be leveraged for the development of IT enabled services in the State. In fact, IT enabled services and Business Process Outsourcing (BPO) can come up as a cottage industry in the State in which entrepreneurs can sit at home and do software development for offshore companies.

* Software Technology Parks will be established at vantage locations in the State to provide incubation space to prospective entrepreneurs who want to take up software development, setting up of Call Centre, Business Process Outsourcing etc.

* People of Sikkim are artistic in nature. This potential can be tapped by establishing Digital Animation Centres where cartoon and animation films can be prepared.

* IT enabled Institutes of Training would be established in the coming years.

* Sikkim has become a favoured destination for all IT enabled services.

* The Information Technology Department will provide Computer Aided Design (CAD) support to local handloom and handicraft industry, E-Governance and Computerisation in the Government

* An e-governance steering committee headed by the Chief Secretary will be constituted to provide direction and to monitor all e-governance projects being implemented in the State under the National e-governance Plan (NeGP).

* Departmental Nodal Officers will be designated to liaise with the Information Technology Department for implementing computerisation in their respective departments.

* Procedures in the Government would be re-engineered to make them amenable to computerisation and e-governance.

* As far as possible, content will be localised. Text to speech software will be developed in local languages.

* Attempts will be made to make all E-governance projects self-sustaining through Public Private partnership.

* Planning all key sectors to be computerised: Land Records, Property Registration, Taxation, Treasuries, Municipalities, Panchayat, Employment Exchanges etc.

* Each Government office is being equipped with computers with 24 x 7 Internet Connectivity. (This would include field level connectivity officials like VLO's & VLW's).

* The Community Information Centres setup in the State would evolve into integrated citizen centric centres in which citizens can pay their utility bills, register births and deaths and even obtain trade and driving licenses.

* All citizens will be issued citizen smart cards.

* The Department of Information Technology is assisting other Government Departments in computerisation and development and maintenance of websites.

* The Department of Information Technology is creating an environment whereby citizens can submit applications on-line for availing of various Government facilities.

* All departments are procuring powerful servers for back office servers. A working Management Information System will be in place.

* Video conferencing facility will be made available till the Sub-Division level.

* Telemedicine facility will be available till the PHCs (Public Health Sub-Centre) level.

* Proposals for procurement of computers and peripherals by Government Departments will be vetted by the Department of Information Technology with an aim to get value for the money and standardise the equipment.

* Business processes in Government Departments would be re-engineered, improved, and integrated with the department functions. They would be supported with modernised, standards-based information systems which provide "end-to-end" flow of information. Information analysis would be a prerequisite for the required process re-engineering.

Resource Mapping

* All old heritage records in monasteries, libraries, State archives will be digitised. All gazettes and notifications will also be digitised. A mechanism for archiving all current documents will be in place.

* The rich biodiversity of Sikkim which include its flora and fauna would be inventoried through bioinformatics.

* All natural (viz forest, rivers etc) and man-made (roads, PHC sewerage pipes etc) resources will be mapped through Geographical Information System (GIS).

* Using satellite imagery, disaster-prone areas (viz landslide, glacial outburst) will be identified and monitored.

* The human resource of the State, specially those persons practising traditional medicine etc. will be kept in a database.

Capacity Building in Information Technology

* Sikkim is poised to become a completely knowledge based society in which every citizen will be computer literate.

* Training Programmes in computer familiarisation will be taken up for Government employees and citizens on a mass scale. To begin with all Government employees will be trained in the use of computers.

* Distance Education through satellite/CORDECT/Optical fiber/ WiFi to each and every household.

* Particular emphasis will be given to career oriented courses like Call Centre Training, Desk Top Publishing, Multimedia, Animation, CAD etc.

* Computer education will be imparted to all school children.

Infrastructure

* High speed Optical fibre will be available to District Headquarters and Sub-Division Headquarters.

* Like electricity, internet bandwidth will be ubiquitous. All households will be connected with the Internet through Cordect, WiFi and normal telephone line. Sikkim will therefore, be a totally wired society. A State Wide Area Network (SWAN) would be in place.

Cyber Laws, Security and Intellectual Property Right (IPR)

* The Information Technology Act is being implemented in its letter and spirit. Cyber Laws that confer legal status to electronic transactions and documents will be in place.

* There will be a legal mechanism to control piracy of information technology products.

* Intellectual Property Right (IPR) protection support is extended to all entrepreneurs developing software and animation.

* All online transactions would be secured by a fool proof mechanism of digital signature and biometric like fingerprint and its recognition.

IT for the Disabled

* Information Technology will be used to bring about succour to the physically challenged like those suffering from visual, speech and hearing impairments.

* Special localised software for persons suffering from visual impairment, cerebral palsy, speech and hearing disorders etc. will be developed in association with National Association for the Blind, Spastics Society and other similar institutions.

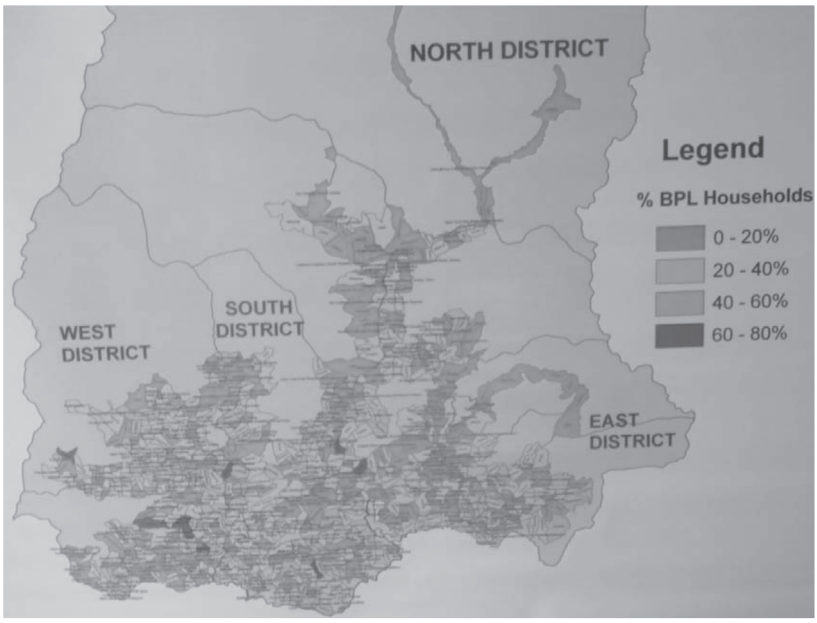
Publicity and Interaction with Local Entrepreneurs

* The IT Department in collaboration with local entrepreneurs is preparing to participate in national level exhibitions to showcase Sikkim as a favoured IT destination.

* Seminars and workshops on a regular basis would be organised highlighting the IT scenario in the State.

Visited Sites

District	Block	Gram Panchayat
East	Gangtok	27 Tathangchen Syari
		33, Vomlr
		Samlir Marchaki
		13, Gnathang
		26,Nature Nadde
		25, Assam Lingzly
	Ranka	29, Ranka
		30 Ray-mindu
		31 Ranotry-Rumtele
		28, Living Perbring
South	Namchi	Tingrithng
		Chemeluy
		Mikkhola
		Assangthang



Major Findings

1. The number of telephone/mobile users is 70 per cent in the Gangtok and 14 per cent in Ranka block of East district.

2. Internet facility in GP is 29 per cent in Gangtok and 14 per cent in Ranka.

3. Internet users in Namchi block is 40 per cent and as informed by the GP officials there is a good scope for increasing the number of users in near future.

4. The type of Network prevalent in both the Gangtok and Ranka block is found to be BSNL and ISP provider is mainly BSNL.

5. The Internet users are 59 per cent in Gangtok and 9 per cent in Ranka block which is very less and hence it is suggested that appropriate Internet awareness activity within the Ranka Gram Panchayat should be organised.

6. The number of telephone users is 25 per cent and mobile users 19 per cent in Namchi block of the South district.

Computers in 29 Ranka Gram Panchayat

VRC Operator at 29 Ranka Gram Panchayat

BPL Household in Radang Village

Namli Gram Panchayat Officials

Namchi Mahotsav Addressed by CM

Maize & Ginger Cultivation in Radang Village

Conclusion

It has been observed that East and South districts of Sikkim are much better in terms of tele-connectivity. BSNL is the major player in terms of tele-connectivity. Other service providers like Hutch, Airtel, Vodafone, Tata Indicom etc. are very less. The State Wide Area Network (SWAN) is providing network connectivity support up to block offices across the State

(mostly in East and South) and is in the process of providing connectivity from Block to Gram Panchayat in the next phase. The connectivity is in terms of wired and wireless using Optical Fiber Cable and RF-Link.

The East and South district population is mostly concentrated and hence connectivity is mostly reliable. Whereas in North and West districts the population is very scanty due to difficult terrain conditions and also in terms of good road network. Private Service Providers are not showing any interest in establishing connectivity in these areas although BSNL has set up a couple of communication towers.

An alternative technology that would be required to establish connectivity in these remote districts would be via Satellite Communication which suits better and also cost-effective. The Government of Sikkim may have to establish certain collaborations with organisations like ISRO, NRSA through Government of India support for providing Satellite connectivity in the North and West districts of Sikkim.

Village Resource Centres (VRCs) are also playing a prominent role in terms of online education and information dissemination. During the visits of the researcher to Ranka block a fully operational VRC is being seen consisting of a Video Camera, a UHF Micro device, a VID Control Ver 3.1.1.2 and Trainnet software. This VRC is used to get connected to the district headquarters from where various Rural Development/Panchayati Raj programmes are telecast.

8. e-CONNECTIVITY OF PANCHAYATS STATE REPORT - WEST BENGAL

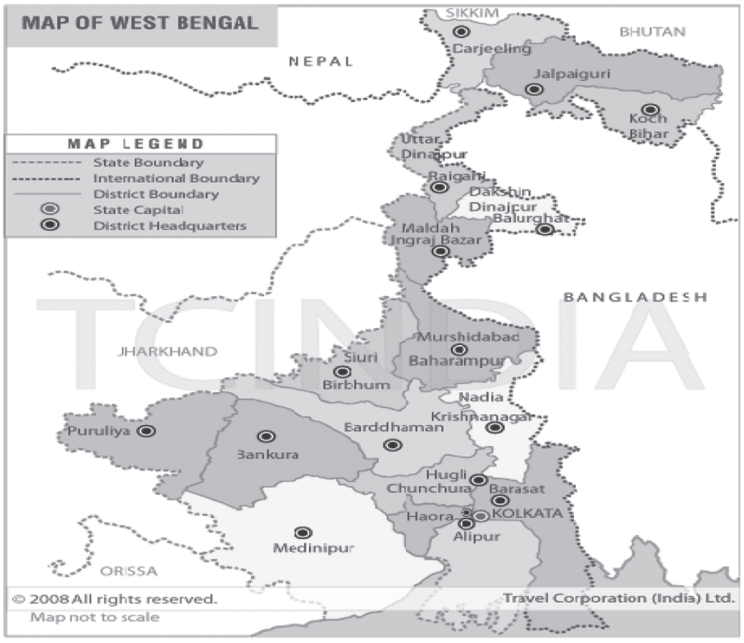
Introduction

The IT revolution has catalysed growth and innovation across the world in a manner which has few parallels in modern history. Around 70 per cent of India's population lives in villages. These villages typically consist of around 250 households and are located between two to three kilometers from each other. There are larger market towns located every 30 to 40 kilometers, which are served by optical fibre backbone. These act as a Point of Presence (PoP) for telecommunication for surrounding villages, with each PoP serving around 250 to 300 villages. The problem of connecting these PoPs to the villages can be regarded as the problem of last mile rural connectivity.

Cellular coverage around the market towns typically extends only for about five kilometers. This is because traditional cellular coverage proves too expensive to connect all villages to their nearest PoP. Income levels for rural India are lower than the national average. Average monthly income in rural India is around INR 2500, and it is estimated that the average household can spend less than INR 100 per month on telecom services. Since Average Revenue Per User (ARPU) from villages is too low to recover infrastructure and service costs, cellular coverage in rural India is negligible at present.

The key to Internet and telephony access for rural India is a public kiosk providing a host of services. A kiosk can expect one or two voice calls to be made on a continuous basis, and most of a kiosk's income is expected to be from voice traffic. Assuming two kiosks per village, the revenue of each can only be of the order of INR 5000 per month. Most existing initiatives for the last mile focus on extending reach from the PoP to the village kiosk.

The Department of Telecommunications (DoT), through its Village Public Telephone (VPT) scheme, aims to have at least one telephone installed in each of approximately six lakh villages identified in the 2001 census. As of August 2005, VPTs were deployed in 83.3 per cent of the targeted villages. The next phase involves installing a second telephone in villages with a population over 2000. Besides DoT and TRAI (Telecom Regulatory Authority of India) initiatives, WLL (Wireless in Local Loop) solutions using corDECT, WiFiRe designed to operate in the unlicensed band, and the Digital Gangetic Plain project using multi-hop 802.11 links with directional antennas are recent attempts to address the last mile issue.



		1991	2001
Population	Total	68077965	80176197
	Male	35510633	41465985
	Female	32567332	38710212
	SCs	931 (922)	949 (936)
	STs	964 (972)	982 (978)
	Children of (0-6)	967 (945)	960 (927)
Population Density (Per Sq.Km) (India)		767 (274)	903 (324)
Decadal Growth Rate (%) (India)		24.73 (23.85)	17.77 (21.34)
% of BPL Families (P&RD,2002)	36.38	% of BPL Families (P&RD,2002)	36.38
% of Population Below Poverty (1999-2000) (NSS) (India)	Total	27.02 (26.10)	% of Population Below Poverty (1999-2000) (NSS) (India)
	Rural	31.85 (27.09)	
	Urban	14.86 (23.62)	

Source : Census of India 2001.

Administrative Information

No. of Sub-Divisions	66
No. of Municipalities (2004)	120
No. of Municipal Corporations (2004)	6
No. of Blocks	341
No. of Mouza	40782
No. of Police Stations (2004)	456
No. of Gram Panchayats	3354
Inhabited Villages (2001)	37945
Area (Sq. Km)	88752
Percentage of Electrified Villages	83.6
Electrified Households (%) (2005)	24.34

IT Policy of West Bengal

Information Technology in Public Life

The State considers IT as a basic mission that can help the people uplift the standard of social life. It is clear that people will embrace IT only if it is able to add value to their daily lives. The State will strive for a situation where every citizen is able to leverage IT. However, individual ownership of the facilities by all the citizens will remain a utopia. Therefore, the State's approach will be to provide community possession of IT hardware, software and accessories that will be adequately networked with the external world.

The State has undertaken an aggressive e-Governance policy to connect almost 3600 local self-governments (Gram Panchayats) and all the

Municipalities. These democratically elected Panchayats and Municipalities, empowered with IT, will ensure community participation of people.

This IT network will provide all necessary information of the State to its people, and simultaneously allow the people to provide inputs to the State's decision-making authorities. This, in turn, will guarantee a true participatory and transparent decision-making process. The State's long tradition of a truly decentralised development approach will enable IT to reach its people. With this, the State will have emerged as an IT-enabled State in its fullest meaning. The State plans to create a conducive environment for the participation of NGOs (Non Governmental Organisations) to take the impact of IT to the common man. In this regard, Government plans to encourage NGOs to take up specific initiatives.

From the beginning, the State has realised that government initiatives to increase IT usage will play an important role in creating internal demand and spurring growth in the industry during the formative years. Some broad initiatives were identified in the goals set in January 2000, namely:

* Set up a State-wide delivery backbone to support e-governance, e-commerce, distance education and provide an efficient government citizen interface.

* Transit to an IT enabled government by adopting e-governance appropriately.

* Address IT in education to produce IT professionals, proliferate an IT culture at the grassroot level and promote specialised education institutions.

Government Support

The State realises the important role of government initiatives to increase IT usage play in creating internal demand and spurring growth in the industry during the formative years. It also realises that increased IT literacy improves both the demand for IT as well as the supply of trained IT workers. Hence it has already taken multiple e-governance and IT literacy initiatives.

However, the government recognises that most of the current e-governance initiatives are still department-centric and information-based. It intends to quickly move to transaction-based applications (i.e. to enable actual processing of transactions online) and then further to the launch of user-centric applications (e.g., a one stop shop government portal). It also intends to increase the intensity of the IT literacy efforts to address more people (especially government servants) as well increase the sophistication of the training. To ensure successful execution of these initiatives, the State will draw up a public-private funding model that will ensure that necessary investments are made in this sector. These initiatives have also been supported through the regulatory framework and incentives detailed in the 'Regulatory support' section.

The Government has addressed most issues related to IT operations. These include permission for women to work at night, permission to run three shifts irrespective of national holidays, relaxation in building and zoning laws (e.g., ability to construct centres in residential areas), exemption from zoning laws for purposes of regulations, exemption from statutory power cuts and exemption from purview of West Bengal Pollution Control Act (except for diesel generator sets).

IT and e-Governance Initiatives in West Bengal

As part of the goal for adopting e-Governance, West Bengal has introduced significant computerisation at various levels in several Government Departments and Directorates. These include Finance, Labour, Transport, Panchayat & Rural Development, Land & Land Reforms, I & CA, Tourism Forest, Youth Services, Municipal Affairs, Higher Education, Environment, Housing etc.

Computerisation of land records, which started as a small pilot project in the district of Bardhaman, has since been extended to all other districts in West Bengal. Out of 341 blocks in the State, 238 have already been computerised. Digitisation of cadastral maps is now being initiated. Specifically, a pilot project has been started in Hooghly district for digitisation of Cadastral maps. Further, a Land Acquisition Information System has been

recently developed to ensure speedy disposal of land acquisition cases. It generates various reports relating to notification, declaration, land schedule, estimate preparation etc. speedily and efficiently. The system has been on trial in land acquisition cases for the New Township Project at Rajarhat.

Tele-medicine in Midnapore

Tele-medicine is a client-friendly high tech system used for critical patients. Purulia district hospital is linked with the medical colleges like NRS, Medical College and Burdwan Medical College. Patient's history is sent to the higher centres through the internet facility and the prescriptions are sent to the sending hospital through. If required, patients and medical officers of the sending hospital may consult with the specialists of the medical colleges through video conferencing facility.

Smart Card

Web-enabled West Bengal is all set to become the first State among all to implement Smart Cards by the Ministry of Road Transport and Highways. Government of India has given direction for standardisation of transport applications in the entire country by way of 'Smart Card' based Driving License & Registering Certificate using 'Sarathi' and 'Vahan' thus bringing uniformity in the system throughout the country. Smart Card, a small electronic card, resembling a credit card in size and shape, contains

an embedded microprocessor, "Smart" enough to hold its own data/ information with possibility of reading/ writing information any number of times.

Advantages of Smart Card

* Easy retrieval of information
* Self-Tracking/Data/Transaction Flow with the carrier
* High security on improved law enforcement
* Scaleable and inter-operable system
* Easy to get the card updated on payment of tax / penalty, etc.
* Complete check on duplicity & forgery
* Inter-operability throughout the country

Computerisation of Government Departments

Webel is in the process of implementing the Government of West Bengal's computerisation programme for three common applications viz.

directing the movement of files, setting up of departmental personnel information systems and the monitoring of funds deployment in several Government Departments and Directorates. Sixteen departments viz. Finance, Labour, Transport, Panchayat & Rural Development, Land and Land Reforms, I & CA, Tourism, Forest, Youth Services, Municipal Affairs, Higher Education, Environment, Housing etc. have been identified for introducing the above applications.

GIS for Municipalities

A Geographical Information System (GIS) has been implemented in 10 Municipalities in the State. The spatial data survey and implementation of GIS for Pujali, Kurseong, Budge, Kalimpong and Bidhan Nagar Municipalities have already been completed.

Public Interface through Info Kiosks/Websites

The official website of the Government of West Bengal provides detailed information on the Government initiatives and various other details to the citizens. Webel has also facilitated a number of websites of different government departments and public interface through Information Kiosks.

Higher Education Department

Database is now developed for the department which can be accessed through their website and kiosk with Touch Screen and IVR which is of immense help to students seeking admission in various streams in colleges.

Tourism Department

A website and Touch Screen Information kiosks for the Tourism Department have been developed which provides detailed information of tourist interest that is of great help to both the domestic as well as international visitors. Webel has also implemented a web-based application for WBTDC for easy reservation of tourist lodges and various tourist services.

Information and Cultural Affairs Department

A touch screen based Information kiosk has been implemented which offers public utility services to the citizens. An Information kiosk and website are now implemented for Bidhan Nagar Municipality where provision for downloading of various application forms and other data relating to grievances etc. are available.

Geographical Information System

The job of implementing Geographical Information System (GIS) in 20 Municipalities in the State is now on. The spatial data survey and implementation of GIS for Pujali, Kurseong, Kalimpong and Bidhan Nagar Municipalities have already been completed.

Connectivity

Through the ISP service, a quality internet bandwidth is now available for common people as well as corporate, educational institutions, hospitals and many other organisations across the State at an affordable price. This service spreads across the rural areas bringing social and economic stability and opportunity, new channels for learning, better communication with Government and improvements in health and welfare. This can be seen as the first step to make the rural India the back office of urban India including tele-education, tele-medicine, e-Governance, entertainment as well as employment generation by way of high-speed access to information and web based communication.

West Bengal State Wide Area Network (WBSWAN)

West Bengal State Wide Area Network is the backbone network for data, voice and video communication throughout the State of West Bengal and this Government Intranet, through which e-Governance activities of the Government of West Bengal are being undertaken, is based on IP (Internet Protocol) technology.

Salient Features of WBSWAN

* WBSWAN network provides connectivity of data, voice and video communication facilities from State Switching Centre at Kolkata up to all district headquarters as well as some important cities on 2 Mbps (E-1 link) leased line of BSNL.

* All block headquarters will be connected with their district headquarters on 64 Kbps leased line upgradeable to 22. Mbps bandwidth.

* Selected Panchayats will be connected with their block headquarters during subsequent phases of expansion of WBSWAN.

* State Capital as well as each district headquarter has video conferencing, multi conferencing facility through Multipoint Conferencing Unit (MCU) at Kolkata.

* Provision for horizontal expansion for connectivity at all levels.

WBSWAN Services and Applications

* This intranet is aimed at providing seamless connectivity among Government departments / directorates as well as among the various offices of each department / directorate all over West Bengal.

* Government Application Service Provider (ASP) project will be based on this network.

* Improve the Government-Citizen and Government-Industry interface as well as efficient intra-Government information flow resulting in effective, efficient and transparent administration.

Cooch Behar District

1.	Geographical Area	:	3387 Sq.Km
2.	Number of Blocks	:	12
3.	Number of Panchayats	:	128
4.	Number of Villages	:	1188
5.	Number of Hamlets	:	3 (Forest Village)

Population	Male	Female	Total	% of BPL Families as per 2001
SC	636446	605928	1242374	80%
ST	7425	6821	14246	98%
Others	628223	594312	1222535	31%
Total	1272094	1207061	2479155	

7. Occupational Pattern

Number of Working Persons	:	966705
Cultivators	:	290598
Agricultural Labourers	:	188400
Landless Wage Labour	:	60547
Artisans	:	29171
Others	:	2461428

8. Tele Density

Category	**2001**	**2010**
No. of Households connected with telephones	916	22000
No. of Households not connected with telephone	406000	453000

9. Quality of Connectivity/Internet	:	Good
10. No. of Villages Electrified	:	1102, Poles-21286
11. No. of STD Booths/ISDN Facility	:	1100
12. No. of Telephone Exchanges	:	42

13. No. of Villages Having Internet Connectivity	:	250
14. No. of GP's	:	128
15. GP Minimum Population	:	6870 (Putimari-II of Dinhata-I)
16. GP Maximum Population	:	24147 (Khagrabari of Cooch Behar – II)
17. Literacy Level	:	70.51%
18. No.of Major ISP Providers	:	9
19. No. of Schools Having Internet	:	220 (Broadband)
20. No. of Colleges Having Internet	:	12
21. No. of TVs	:	450000
22. No. of Cable Operators	:	10
23. Connection Charges per year/MBPS/KBPS	:	3000/- per annum
24. No. of Radios	:	48000
25. No. of ATMs	:	21
26. No. of Banks	:	131

Name	2005-06	2006-07	2007-08	2008-09	2009-10
ZP (1)	1	1	1	1	1
PS(12)	4	5	7	12	12
GP(128)	0	0	0	31	45

27.	Length of OFC	:	475.90 Kms
	Present Status	:	<500-
	- Possible Completion year	:	2011
	- Who has been identified for this work	:	BSNL
	- Appropriate cost	:	Rs.200 lakh

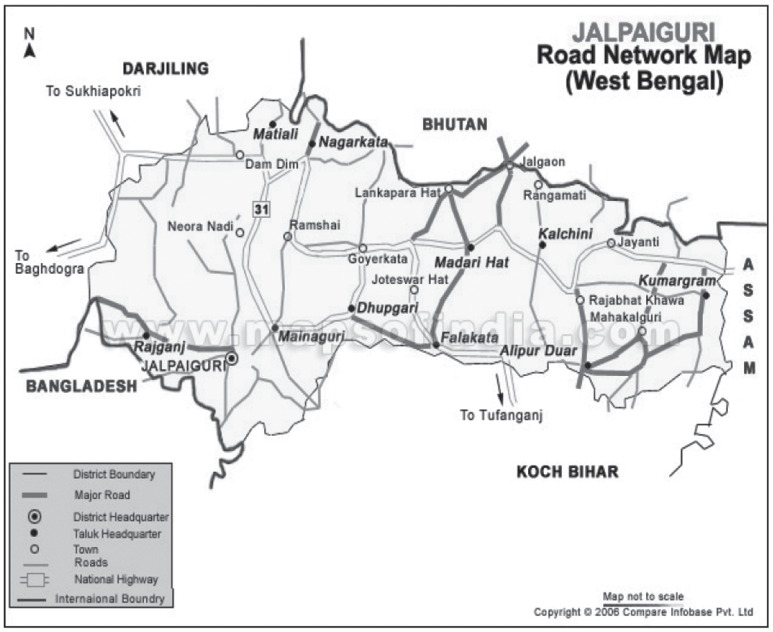
28. Funds received for connectivity of Panchayats/Blocks during last three years

29.	Budget proposed in X Five Year Plan	:	₹ 5 Crore
30.	IT/Connectivity/e-gov	:	All
31.	Budget proposed in XI Five Year Plan	:	₹ 6 Crore

32. No. of ICT equipment in GP/Agency/Departments (Approx)

S.No.	Type	Number	Year of Purchase	Approx. Cost
1	Computers	2612	2008 - 09	₹40000
2	Printers	1092	2008 - 09	₹ 5000
3	Scanners	316	2008 - 09	₹ 2500
4	E-mail Accounts	10000	2008 - 09	-
5	Modems	565	2008 - 09	₹ 3000
6	Fax Machines	298	2008 - 09	₹ 2000
7	Digital Cameras	3601	2008 - 09	₹ 12000

Jalpaiguri District



1.	Geographical area	:	6227 Sq. Km
2.	Number of Blocks	:	13
3.	Zilla Panchayat	:	1
4.	Panchayats Samiti	:	13
5.	Gram Panchayats	:	146
6.	Number of Villages	:	756
7.	Number of Hamlets	:	774 Mouzas, 681435 Households

Population	Male	Female	Total	% of BPL Families as per 2001
SC	642828	605749	1248577	37 %
ST	324250	317438	641688	19 %
Others	786200	726739	1512939	44 %
Total	1753278	1649926	3403204	-

Source : Census of India 2001.

8. Occupational Pattern

Number of Working Persons	:	1305668
Cultivators	:	269944
Agricultural Labourers	:	230163
Others	:	2097536

9. No. of GP's : 146

10. Literacy Level : 73.64%

Visited Sites

District	Block	Gram Panchayat
Jalpaiguri	Dhupguri	Barogharia
		Magurmari-II
		Sakoajhora-I
		Gadong-II
	Sadar	Baropatia Notun Bos
		Mondalghat
		Boalmari Nandanpur
		Kharia

Cooch Behar	Cooch Behar -I	Guriahati-II
		Ghugumari
		Dewanhat
		Dewaguri
	Cooch Behar -II	Chilkirhat

Source : Census of India 2001.

Major Findings

1. ISP service providers include BSNL, Vodafone, Hutch, Reliance and Airtel. Major coverage is done by BSNL.

2. The Network bandwith at each Block and Gram Panchayats ranges between 256 Kbps to 4 Mbps.

3. Number of mobile phone users is approximately one lakh in Cooch Behar district itself.

4. In Cooch Behar district the total length of OFC cable is 475.90 km laid by BSNL with approximate cost involved of ₹ 200 lakh.

5. IT infrastructure is available except in few GPs, almost all of them are well connected with Internet facility.

6. All Gram Panchayats are provided with Computer, Printer, Scanner, Modem and UPS.

7. All Block Panchayats are equipped with Computers, Printer, Scanner, Modems, Digital Cameras, UPS and Fax machines and at district headquarters IT staff namely district Information Analyst, Computer Assistant and Data Entry Operator are looking after the IT related works. These staff are recruited on contract basis.

8. The computers and other equipment are procured through MGNREGA funds, Central Government funds, Government of West Bengal funds and 12th Finance Commission funds in all the Block Panchayats.

9. The software installed at all the Block Panchayats is MIS NREGA/ GPMS Software and MS Office.

10. The maintenance of hardware equipment is done through Block officials who take the help of third party vendors by utilising MGNREGA funds.

11. Tathya Mitra Kendra, a special kind of Computer Service Centre is introduced at GPs. This provides basic citizen centric services like birth, death, caste, income certificates and also payment of utility bills.

9. MAIN OBSERVATIONS - CONSOLIDATED

The following is a concise recapitulation of the observations from the field across the five States namely, Gujarat, Karnataka, Madhya Pradesh, Sikkim and West Bengal that the study has covered in all India. The sample covers 10 districts and as many as 20 blocks and 100 Gram Panchayats. Observations are based on a multilevel interaction with various officials, non-officials and other stakeholders at all the three tiers of PR administration. Brief discussions were held with officials concerned looking after the e-connectivity of Panchayats of various States and departments/agencies directly involved in its implementation.

The first and foremost, among the five States, Gujarat occupies a predominant position with excellent IT policy and other initiatives for improvement of IT infrastructure for development of the sector. The ways and means adopted to attract national and international investors is very attractive. Similar is the case in Karnataka, which too has created excellent IT infrastructure and ranks high as far as IT policy and related strategies are concerned. Madhya Pradesh and West Bengal are equally balanced in this regard. However, Sikkim is also making strides in this direction but comparatively a little behind.

The Government of Gujarat and Karnataka have initiated major steps for use of IT and also taken due advantage of NeGP funds in contemplating new and innovative projects leveraging ICT technologies in providing quality-of-delivery–of-services in the best manner by largely integrating tele-connectivity as well as Internet access for the welfare of the masses, irrespective of urban/rural disparities at an affordable price. Madhya Pradesh, West Bengal and Sikkim are doing their level best to compete with them in recent years.

Bharat Sanchar Nigam Limited (BSNL), the erstwhile (DTS), and Videsh Sanchar Nigam Limited (VSNL) held a monopoly in their respective areas but after globalisation and liberalisation the trend in telecom sector has changed drastically with many private players entering into the field and have taken lead role to reach the rural base to a large extent. The new telecom policy in one way and Bharat Nirman - 11 has contributed to the growth of telecom industry. In Gujarat it is Airtel which played a very major role in completely transforming the existing scenario as can be witnessed from e-gram with its widespread coverage (13693) of Gram Panchayats through VSAT technology. In a similar way BSNL has played a key role in connecting all Gram Panchayats in Karnataka. The situation in Madhya Pradesh is slightly different where BSNL could only connect up to Janpad /Block level but connectivity up to Gram Panchayat needs to be enhanced. Whereas in West Bengal, BSNL has a major stake in the Gram Panchayat connectivity. In Sikkim too, BSNL has connected the East and South districts but the connectivity to West and North districts is not yet taken off because of the terrain of the region, probably WiFi or satellite options are in the pipeline to be explored.

Senior officials of Union Panchayati Raj and Communication and Information Technology Ministries have already hinted that the Centre was keen to replicate the Gujarat model of e-gram in other States.

Some significant observations that have emerged in this connectivity study have been compiled State-wise and are mentioned below.

Gujarat

Gujarat State Wide Area Network (GSWAN) is intended to provide better delivery systems to its citizens. The government understands that IT is not an end in itself but the means to provide a better quality of life. It does not aim at merely automating existing process but to use IT to improve overall organisational efficiency and pass the benefits to the citizens.

The GSWAN connects all government offices at the State secretariat at Gandhinagar called Sachivalaya Campus Area Network (SCAN), district headquarters known as District Centres (DC) and Taluka headquarters called

Taluka Centres (TC). The network consists of one SCAN, 25 DCs (one is a Super DC at Ahmedabad) and 230 in TCs. The SGWAN provides voice, video and data services, using Internet protocol having flexibility to expand it further. GSWAN is implemented on 2 Mbps dedicated lines from the SCAN to DC and on 64 Kbps lines from DCs to TCs. The government of Gujarat (GoG) uses existing BSNL capacity for the connectivity.

The Government of Gujarat adopted a standard solution to streamline document management systems by leveraging the LAN & GSWAN network. It acts as an umbrella solution for a host of applications for all Government department functions connecting 2,300 users in the secretariat. Over 11000 E-mail IDs are created for Government officers all over the State. Over 125 websites are hosted for various departments.

The evolution of e-gram is a very prestigious project of Gujarat in reaching the unreached people in farflung rural areas. On the whole, the e-gram project has created sensational news in other parts of the country and can be showcased as the best model by which the rural connectivity is continuously established with the-state-of-art technologies and bridging the digital divide. Apart from this, the Government has taken the pioneering and path breaking initiative by bearing most of the project expenditure from the State exchequer.

In this project the Microsoft Corporation has also played a significant role by supplying the MS-Office to e-gram project at a nominal cost of ₹ 6000 only. The giant Google's company came forward to create all Gram Panchayats (13693) with e-mail facility free of cost and also provided group mails for specific departments/institutions. Google has already created a site www.e-gram.co.in which one can surf in Gujarati, thanks to a Gujarati language keyboard provided on the site.

Gujarat Government is integrating the NeGP, the Common Service Centre (CSC) scheme with e-gram scheme. Government of India had approved 3000 CSCs for Gujarat, which has doubled to 6000 by the State government (about 3090 new CSCs and 2910 existing EGCs) to cover the entire rural population of 31 million. Each CSC is established to cover three villages

RS 97

and to serve approximately 10,000 populations. GPs that are not selected as locations for CSC would continue as e-grams. All CSCs are to be broadband enabled. CSCs/EGCs will be located within Gram Panchayat office or adjacent to it. Since the connectivity up to Village Panchayat is complete it is expected that the existing GSWAN would provide data, voice and video (over IP) services up to the Panchayat offices. The sources of funding include grants from State and Central Governments, the World Bank and public contribution.

Gujarat is becoming the knowledge Hub of India. Thus, Gujarat has undertaken the mammoth task of creating society where learning is the DNA of the social fabric and learning is life-long ... knowledge society where what counts is what you know, not who you know. It is observed that simple innovation changes the lives of thousands of Indians. Research shows that one per cent increase in the number of Internet users can boost GDP growth by 4.3 per cent. It is Gandhian Engineering, where the basic philosophy is all about 'getting more from less for more and more people of the world'. A phone call at the cost of a post card is not a dream any more for millions who can afford a mobile phone today, 'More from less for more' is the mantra of the 21st century.

The Government of Gujarat has announced that the Government alone cannot bring qualitative changes in the society, but people can. If the gap between the Government and society is bridged, the State can reach new heights. And in turn Gujarat will emerge as a preferred global platform for consensus, harmony and cooperation for all inclusive growth, probably because of the following reasons :

* Pro-active governance
* Strong political will
* Best infrastructure facilities
* Trained manpower
* Futuristic vision for better tomorrow
* How hi-tech technology can be incorporated in the development of the State

Karnataka

Karnataka, known as the Silicon State of India, is the first State in India to announce IT Policy in the year 1997. Effectively implementing IT for the common man, the State has the most extensive network in India with high quality, high speed telecom and Internet connectivity. Cutting edge Broadband Connectivity provided by both private and public sector players like Reliance, VSNL, Tata Teleservices, Bharti Infotel, Hathway, Iqara Broadband, Power Grid Corporation of India etc., is covering almost all districts of Karnataka. With the IT enabled Training Institutes' policy, Government of Karnataka seeks to establish 225 training centres all over the State, primarily for the purpose of training the unemployed educated youth in various IT skills and finishing schools to make unemployed youth employable by imparting soft skills.

To establish International Standard IT Parks and exclusive parks for International Companies, the State government has announced a special IT Corridor in and around Bangalore City. This Corridor project will provide extensive space and state-of-the-art facilities for the development of knowledge based industries.

The Government of Karnataka has specified the lowest ever taxation of only 0.25 per cent on computers and computer peripherals. Information Technology Industries are exempted from payment of entry tax and purchase tax on computer hardware, computer peripherals and other capital goods. The software companies will be treated as industrial (and not commercial) and electricity tariff applicable to the industrial consumers will be levied on such companies.

The use of ICT in government operations serves as the platform to facilitate speedy, transparent, accountable, efficient and effective interaction with the people, businesses and other agencies. A new facility has been extended by the Government of Karnataka to provide 2500 Laptops, being distributed to the Gram Panchayats with 'Data Card' where the Internet connectivity is not available. BSNL is the main ISP provider in Karnataka and Internet facility is available 100 per cent in all the GPs. All GPs in Gulbarga

and Dharwad districts are fully connected. The presence of AirTel, Reliance, MTS and Tata Photon is also noticed.

The telephone density in Karnataka is 116.11 connections per 100 population, which is one of the highest in the country. Bangalore City also holds the largest resources of IT professionals over 3,50,000 (one-third of the total IT professionals in the country). As many as 1721 IT companies are located in Karnataka.

Most of the Gram Panchayat computers are being used for data entry of MGNREGA works on online and offline mode. This arrangement is helping to avoid delay in payments through file transfer facility to job seekers engaged in MGNREGA works. For this purpose, NIC has developed separate MIS package. This online reporting mechanism facilitates to monitor MGNREGA activities from anywhere on the globe.

Out of 5628 Gram Panchayats, 1341 GPs are already covered with 2 KV Solar based UPS (8 hour backup) and in remaining GPs 2 KV UPS (10 hour backup) is provided.

Staff at block and district are well acquainted with computer and Internet usage and its applications. Panchayat staff were motivated to use computers at the Panchayat level, which improved its working and enabled more and more people to avail of integrated services of various government departments and private organisations by introducing 'One Stop-Shop' facility spread in rural and urban areas.

Madhya Pradesh

The State has announced its IT Policy to promote e-governance in the State basically to attract IT Investments to a large extent. In addition, the State has decided to provide rebate on government lands for establishing companies for employment generation. The broad vision of the State on IT policy is given below.

* Improve the life of the common man leveraging the strengths of e-governance;

* Attracting investment in the sector, so that the educated youth are able to contribute to the development of the State;

* Create a pool of highly skilled professionals who are on par with the best in the country; and

* Transforming resource based economy to knowledge based economy.

Madhya Pradesh Telecom Circle covers the entire State of Madhya Pradesh. Presently the BSNL is playing an important role in providing infrastructure in the State. Madhya Pradesh Telecom Circle is the first Circle in the country to introduce Internet services up to the district and tehsil headquarters at local calls rates. A total of 2791 Telephone Exchanges are functioning in the State. The OFC Network covers a length of 27,222.7 kms. Almost 100 per cent of Exchanges are on reliable (OFC /Radio/Satellite) media. The Cellular Mobile Service has been functioning since 2002.

In Madhya Pradesh 51987 villages are covered with VPT and still 130 villages remain uncovered. There are no staff appointed exclusively for monitoring and supervision of VPTs. However, the repair and maintenance of VPTs is only done by regular staff of BSNL.

Currently BSNL uses the latest WLL and GSM technology for the VPT schemes. They have further plans for providing additional services like broadband and Internet facilities through VPTs, BSNL coverage is good and availability of information regarding business and job to the villagers through VPTs is the main strength.

The officials at the State level are of the view that telecommunication services have not become commercially viable in rural areas, due to factors like acute power shortage, poor infrastructure, increased expenditure on maintenance of VPTs and low paying capacity of customers. Hence they suggested that power supply must be ensured by the State Government, road networks must be strengthened and economic conditions of rural areas to be improved through government schemes.

Sikkim

The IT policy of Sikkim mainly focuses on the following :

* Sikkim will become a completely knowledge based society in which every citizen will be computer literate.

* Training Programmes in computer familiarisation will be taken up for Government employees and citizens on a mass scale. To begin with all Government employees will be trained in the use of computers.

* Distance Education through satellite/CORDECT/Optical fiber/ WiFi to each and every household.

* Particular emphasis will be given to career oriented courses like Call Centre Training, Desk Top Publishing, Multimedia, Animation, CAD etc.

The telephone density of Sikkim is 6.27 connections per 100 people, which is one of the highest in the country. When compared to all India average of 4, telephone connections are available on demand in the entire State of Sikkim. The State has 427 revenue villages. Village Public Telephones (VPTs) have been provided in 374 villages. The remaining 53 villages which are very remotely located cannot be accessed either through cable or through WLL systems and will be provided through satellite link during this financial year 2011.

West Bengal

The State considers IT as a basic mission that can help the people uplift the standard of social life. It is clear that people will embrace IT only if it is able to add value to their daily life. The State will strive for a situation where every citizen is able to leverage IT. However, individual ownership of the facilities by all the citizens will remain a utopia. Therefore, the State's approach will be to provide community possession of IT hardware, software and accessories that will be adequately networked with the external world.

This IT network will provide all necessary information of the State to its people, and simultaneously allow the people to provide inputs to the State's decision making authorities. This, in turn, will guarantee a true participatory and transparent decision-making process. The State's long tradition of a truly decentralised development approach will enable IT to reach its people. With this, the State will have emerged as an IT-enabled State in its fullest meaning. The State plans to create a conducive environment for the participation of NGOs (Non- Governmental Organisations) to take the impact of IT to the common man. In this regard, we plan to encourage NGOs to take up specific initiatives.

Some salient features of WBSWAN are mentioned here through which the State is able to expand its ICT initiatives many fold basically to provide information to the common man so that every citizen can access basic information and reach out fast on 24 x 7 in this information era.

* WBSWAN network provides connectivity of Data, Voice & Video Communication facilities from State Switching Centre at Kolkata up to all district headquarters as well as some important cities on 2 Mbps (E-1 link) leased line of BSNL;.

* All block headquarters will be connected with their District headquarters on 64 Kbps leased line upgradeable to 22. Mbps bandwidth;

* Selected Panchayats will be connected with their block headquarters during subsequent phases of expansion of WBSWAN;

* State Capital as well as each district headquarter has video Conferencing, multi conferencing facility through Multipoint Conferencing Unit (MCU) at Kolkata;

* Provision for horizontal expansion for connectivity at all levels;

* All Block Panchayats are equipped with Computers, Printer, Scanner, Modems, Digital Cameras, UPS and Fax machines and at district headquarters IT staff namely district Information Analyst, Computer

Assistant and Data Entry Operator are looking after the IT related works. These staff are recruited on contract basis;

* In Cooch Behar district the total length of OFC cable is 475.90 km laid by BSNL with approximate cost involved of ₹ 200 lakh;

* IT infrastructure is available except in few GPs, almost all of them are well connected with Internet facility; and

* Tathya Mitra Kendra, a special kind of Computer Service Centre is available in GPs. It provides basic citizen centric services like, birth, death, caste, income certificates and also payment of utility bills.

From Table 1 one can observe that the number of villages with direct access to telecom facilities in the States under study shows that VPTs covered by public by and large is higher compared to private. The private agent had no role especially in the States of Karnataka and West Bengal.

Table 1 : Number Of Villages With Direct Access To Telecom Facilities

S.No.	Circles/States	No.of Villages Total	No. of Villages Rev. w.e.f Oct, 07	Villages Covered with VPTs as on			PCOs as on (Local+STD+Highway)			
				Public	Private *	Total VPTs				
				31.3.08	31.3.09	31.3.08	31.3.08	31.3.09	31.3.08	31.3.09
1	Gujarat	18125	18159	14978	16504	4114	19092	20618	106021	89587
2	Karnataka	27066	27481	26425	27254	0	26425	27254	256305	242020
3	Madhya Pradesh	51806	52117	49636	51893	611	50247	52504	56377	56992
4	West Bengal	38337	37365	30110	31533	0	30110	31533	65685	60181
	All-India	607491	593485	519616	549294	12665	532281	561959	2290541	2088680

Source : BSNL Annual Report 2009.

Table 2 : Number Of Mobile Phone Service Providers And Mobile Density India

S.No.	Circle	No. of Mobile Phone Service Providers (As on 30.09.2009)	Overall Mobile Tele-Density (In %)
1	Gujarat	6	46.98
2	Karnataka	7	49.31
3	Madhya Pradesh	6	33.92
4	North East	6	32.05
5	West Bengal	7	25.79

Source : www.indiastat.com.

Table 2 highlights the number of Mobile Service Providers and overall mobile tele-density as on 30-9-2009. Karnataka and West Bengal have 7 Service providers followed by 6 in other circles namely Gujarat, Madhya Pradesh and North East. The overall mobile tele-density penetration is 49 per cent in Karnataka, followed by 47 per cent in Gujarat, and 34 per cent in Madhya Pradesh. West Bengal recorded 25 per cent which is least mobile-tele-density circle.

From Table 3 above it is evident that the progress with respect to rural telephone connections in the four circles the trend during 2008-09 in West Bengal is maximum with 51 per cent and which is also above all India average, followed by Gujarat 34 per cent, Madhya Pradesh 26 per cent and Karnataka 25 per cent. The same pattern is exhibited during 2007-08, but with slight percentage change in rural telephone connections.

Table 3 : Status Of Rural Telephone Connections As On March 31,2009 & March 31,2008

S.No.	Circle	2008-2009			2007-2008		
		Rural Telephone Connections	BSNL Total Telephone Connections	% age of Rural Telephone Connections	Rural Telephone Connections	BSNL Total Telephone Connections	% age of Rural Telephone Connections
1	Gujarat	1,554,297	4,574,565	33.98	1,485,914	4,379,402	33.93
2	Karnataka	1,251,964	4,916,904	25.46	1,173,746	4,400,013	26.68
3	Madhya Pradesh	8,70,893	3,317,684	26.25	740,782	2,863,189	25.87
4	West Bengal	1,517,134	2,960,002	51.25	1,300,568	2,620,872	49.62
	All-India	29,204,321	81,490,665	35.84	25,565,070	72,339,068	35.34

Table 4 : Status Of Telephone Exchanges And Direct Exchange Lines (As On March 31, 2009 & 2008)

S.No	Circle		As on March 31, 2009		As on March 31, 2008	
		Total Villages as per Census 2001	Villages covered by VPTs	% age of villages covered	Villages covered by VPTs	% age of villages covered
1	Gujarat	18,159	16,504	90.89	14,978	82.48
2	Karnataka	27,481	27,254	99.17	26,425	96.16
3	Madhya Pradesh	52,117	51,893	99.57	49,636	95.24
4	West Bengal	37,512	31,533	84.06	30,110	80.27
	All-India	593,601	549,294	92.54	519,616	87.54

Table 4 presents the status of telephone exchanges and direct exchange lines during 2008 and 2009. On this count, Gujarat has fairly done better by increasing 8 per cent during 2008 and 2009. Followed by West Bengal and Madhya Pradesh had increased coverage of 4 per cent in the corresponding years. However, Karnataka increased its coverage of VPTs by 3 per cent during the same period.

Table 5 represents the broadband coverage of Village Panchayats under Bharat Nirman-II, the target verses achievement is fully met during 2009-10. During 2010-11 the assigned target and achievements are lagging behind and in this connection Madhya Pradesh and West Bengal (more than 75 per cent) perhaps require special efforts to cope with the targets. In case of Sikkim no progress is reported and to accomplish the assigned target new ways or new technologies are to be adopted keeping in view the terrain of the place. Since the Central government had decided to cover all Village Panchayats with broadband connectivity by March 2012, the targets for 2011 -12 could be accomplished only by constant monitoring and reviews of progress from time to time.

Table 5 : Report to DMU PMO for the Month of June 2010
Broadband Coverage of Village Panchayats under Bharat Nirman -II

S.No.	State	Total Number of VPs	2009-10		2010-11		2011-2012		Cumulative Achievement
			Target	Achieve-ment	Target	Achieve-ment	Target	Achieve-ment	
1	Gujarat	14031	7014	7014	452	585	6565	0	7599
2	Karnataka	5652	2460	2460	1032	957	2160	0	3417
3	Madhya Pradesh	23004	2711	2711	7103	1446	13190	0	4157
4	West Bengal	3512	1295	1295	776	292	1441	0	1587
5	Sikkim	163	66	66	34	0	63	0	66

Source : Target of 100 per cent Panchayat Coverage is planned to be completed by March, 2012.

Technology Alternatives and Future Directions

In this millennium providing telecommunications services to the rural parts of developing countries became not only technically and financially feasible, but also a strong priority among governments, development agencies, and the private sector.

A new model is emerging that can harness the expanding power of wireless networks, low-cost technology, and entrepreneurship to create community-based communication networks and to provide over these networks a range of value-added services.

The result is an opportunity to expand markets for telecommunication services, to empower local communities, and to expand economic capacity and commerce in rural areas.

The real challenge is to connect the remote villages, unconnected so far due to geographical remoteness and lack of telecommunication infrastructure. In such a scenario wireless appears to be a very relevant solution to the above connectivity challenges, merited with its ease of deployment and its ability to provide connectivity on a point to point and point to multipoint basis, to cover a large geographical area in comparatively less time.

Connectivity Options

The specific model to cover remote communities, the satellite networks (VSAT) are designed for data transmission. These pure IP VSATs have higher data transmission capacity and generally costs are low for ground stations, in some cases as low as $500 each. Since proposed VSAT networks could bring Internet connectivity to communities, but like WiMAX networks, will not serve end users directly, other than commercial customers (e.g., branch offices of a banking chain or the hub of a community network). Among all technology options for rural connectivity advanced wireless systems are the best suited. It is important to note that the costs and capabilities of each type of wireless technology are rapidly improving. This technology has been best explored in the e-gram project of Gujarat.

India has huge stake in wireless technologies –our best net for connecting a half of India still without access to telephone and, to do it in a short time and without incurring huge cost. 3G technologies may well be our way to expand the dismal broadband coverage.

Access to telecommunications is perceived to have improved connectivity significantly in recent years. Observations related to usage of VPT in various connectivity dimensions confirm that except improvement in personal connectivity, there is no improvement reported in other dimensions of connectivity.

Limitations

Operators cannot readily expand ICT infrastructure in the rural areas if there are inadequate number of ICT literates in the population to take advantage of services or shortages of skilled ICT technicians to perform basic installation, maintenance and repair of the equipment is the need of the hour.

Policy Interventions

1. Harnessing innovative and cost-effective technology. Many of the new technologies connecting rural communities around the world, especially those leveraging wireless and fixed wireless infrastructure are easier, quicker and cheaper to deploy than wired alternatives, meaning many rural communities now represent vast untapped markets for telecommunications and ICT operating companies.

2. Achieving universal service and access is not an easy task and cannot be implemented either by governments alone or private sector alone. Governments, regulators, operators and rural communities in the Asian continent have proven that rural connectivity is best implemented in partnership mode. The key to successful partnerships is to nurture local ownership that keeps the mode community enthusiastic and the project relevant to the diversity of local needs.

RS 97

3. For harnessing ICT pilot projects the essential criteria must include:

* Improve rural ICT connectivity;

* Satisfy local needs for ICT services;

* Must be easily accessible to the rural community;

* Offer services that are affordable to the rural poor;

* Financially sustainable;

* Appropriate partnerships;

* Use the most appropriate, cost-effective infrastructure;

* Provide a reliable and sufficient connection appropriate for the services to be delivered; and utilise local technical support available.

4. Nokia Siemens Networks Village Connection - India

Nokia Siemens Networks Village Connection avails of voice and Internet connectivity to rural communities where traditional GSM network roll-out and operation has been seen as too costly. Using an IP-based network structure and innovative business model, the solution essentially reduces operators' expenditure, making previously unattractive markets potentially profitable. Coverage is established through compact local GSM Access Points, located in both villages and regional access centres. These access points are based on cost-effective infrastructure, aggregating radio frequency, power and standard PC with Access Point software. Furthermore, the access points typically house an antenna on the roof of the building, eliminating the need for costly towers. The project presents an innovative business model which ultimately reduces operators' costs, increasing incentive for expansion and interconnection. One option has a local entrepreneur who runs and manages the Access Points and interconnects with the operator for external connectivity. Alternatively, the operator can own the Access Point, which the local entrepreneur operates and manages for a salary. These village connections, while increasing the availability of

communication options for rural populations, also decrease the costs of such tools for the end-user.

5. Improved lower-cost technologies are finally making it possible to erase the telecommunications divide that persists throughout urban and rural areas. Need for voice services in emerging markets is already so high that the existing networks almost always run at full capacity, and evidence exists that latent demand in rural areas is likely to increase. The powerful combination of Wi-Fi/WiMAX and VoIP now makes it possible to rapidly scale-up networks, offering a lifeline to communities with no fixed-line alternative. The low cost of deployment ensures that service costs remain affordable to the end user, while its ability to offer a data service ensures long-term utility. According to Gartner Study, an increase of just one per cent in wireless broadband penetration could increase GDP by as much as ' 162 billion in 2015. Clearly, the direct and indirect economic impact of wireless broadband, as with much else in Telecom, is immense.

Village Computers

Rural communities generally have limited access to technology, and the cost of a PC is typically more than what the average villager can afford. Village telecentres have been started to provide shared-access to these technology tools, but many are unsustainable, partly due to the high cost of purchasing and maintaining the computers. Today, two leading chip manufacturers are taking the lead on creating the first PCs designed specifically for use in rural village telecentres. These computers further increase the utility of a local community network, providing additional data services not available through a mobile phone.

Gujarat State run PSU Telecom giant Bharat Sanchar Nigam Ltd. (BSNL) to connect Gram Panchayats by Optical Fibre Cable (OFC) in upcoming year provides fast Internet connectivity to Rural India. The Department of Telecom has provided ₹ 60,000-crore project to provide broadband Internet connectivity to Panchayats. "BSNL would be the designated executing agency

BSNL Plays a pivotal role to connect Gram Panchayats by OFC in Gujarat

for establishment, management and operation of the national optical fibre network. It will also ensure that incremental OFC is laid for providing broadband connectivity," as included in its DoT proposal.

The project is to be financed out of the Universal Services Obligation Fund (USOF) contributed by all telecom operators, and BSNL would get a 'charging regime' determined by the Telecom Regulatory Authority of India (Trai). The USOF had ₹ 18,706 crore as of last December 2010, and gets about ₹ 6,000 crore each year. It would be used for entire capital expenditure while operating expenses would be provided for up to five years as "traffic growth in the initial period may not be adequate to meet this expenditure".

Intel's Community PC

Intel's community PC30 has been specially designed to work in the harsh conditions of rural environments. The low-power computer features a 1.3MHz processor, 256 MB RAM, a 40 GB HDD, a CD-ROM drive, 6 USB ports, and a standard VGA display. The PC is installed, maintained, and operated by local firms that offer— through a trained mediator—a broad array of moderately priced computing services to rural residents are emerging in markets. The device will provide massive rural populations access to the Internet and its associated business and personal communication connectivity. By aggregating demand and enable shared access, the computer makes entire rural villages, not individuals, the end-customers.

Advantages

1. Highly reliable system with remote diagnostics, remote control features, highly manageable
2. Capable of delivering online transactions, e-commerce, entertainment, information Kiosk
3. Large built-in storage capacity with high-speed IO
4. Internet access with multiple connection units including wired, wireless, WiMax, and cable
5. Multiple media interfaces including Smart/ID card reader and fingerprint reader
6. Can function through the use of a car battery as its back-up energy supply
7. Intel plans to market the PC initially to India's 600,000 villages, and launched the computer here in late March. The device is expected to cost about $40.

Summing up

In the study area, Gujarat and Karnataka are leading in connectivity of Gram Panchayats because both have very excellent IT infrastructure and other initiatives for the sector growth and development. By implementing the State Area Wide Network and giving priority for NeGP has accelerated its pace. Different States have experimented by adopting new kinds of technologies to connect Block to GPs cost-effective with devices that suit their local requirements. However, Gujarat went for VSAT in this direction. The other key factor being supply of uninterrupted electricity up to GP level for at least 12 hours per day, backed by very good road network connecting rural areas and GPs. This is not the case when it comes to Karnataka, Madhya Pradesh, West Bengal and Sikkim. Interestingly, the framework of IT policies in Gujarat, Karnataka has really impressed the investors to select these two cities compared to the rest of the States, followed by Madhya Pradesh and West Bengal. While Sikkim has to pick up the momentum as far as connectivity of Panchayats is concerned, major player in connectivity endeavour is BSNL in all the five States.

The political will from top to bottom of the administration also played a crucial role as far as connectivity of Panchayats is concerned. By and large, now people at all levels recognise that leveraging telecommunications and ICT would lead to growth of the nation and in particular easy flow of data/information at high speed through Internet which is very essential for taking quick decisions concerning the welfare of the community schemes. Rural people need some more time to adjust and attune to this IT environment so as to lead quality of life on par with their counterparts living in metros/cities/urban areas. Over the passage of time things would certainly change from better to best.

Finally, under the Bharat Nirman–II, the Central government has decided to provide connectivity up to village level and for this purpose to achieve the targets, adequate funds are earmarked to fulfil this vision by 2012. Unless every village and every villager in India has access to modern gadgets (at least one mobile/telephone/computer) to communicate or to receive or pass on information in this millennium, it would be very difficult

to have inclusive growth in a sustained manner. Initially these may seem to be 'costly affair' but time alone can tell the importance as well as its use for *aam admi* to cope with fast transforming society where we are bound to live and lead a happy and dignified life as the saying goes 'think globally and act locally' in an information flooded society (knowledge society), the tele-connectivity will assume very dominant place to overcome the hurdles and challenges. The investment on connectivity infrastructure would pay off the returns ultimately when all the village folk can talk to each other to become globally connected and where distance and time do not have any meaning.

Eventually, when all the Gram Panchayats are connected in one way (technology) or the other, we hope more and more information would get exchanged and shared making delivery of citizen centric services possible at the doorsteps of the beneficiaries. This would also bring in transparency in work culture at affordable cost. Once, the vision 2012 is realised the digital divide will gradually shrink and give path for sustained growth and development in rural areas in particular which hitherto was neglected in the past.

References

1. The India Infrastructure Report: Special Supplement of 1997 to JMJ Book INFO: Relating to New Available Law and Other Publications Plus News from Government Gazettes, Printed, Published and Owned by Narendrar Kumar Jain, J.M. Jaina and Brothers, Mori Gate, Delhi, 1996.

2. The India Infrastructure Report: Volume–III Sectoral Reports: Policy Imperatives for Growth and Welfare, Expert Group on the Commercialization of Infrastructure Projects, Published on behalf of the Ministry of Finance, Government of India by Dr. Rakesh Mohan, 1996.

3. Das, P., "Rural; Telephony: Telecommunications Development in Rural India", Connectworld India Annual, ICICI, India, 1998.

4. Bhatnagar, S.C. and Kedar, "Do Gender Issues have a place in Indian Telecom Policy?" *Voices,* A Journal of Communication for Development, Vol.3, No. 3, December 1999.

5. Enhancing Telecom Access in Rural India, Subhash Bhatnagar, November, 2000.

6. OECD Communications Outlook 2001: Information Society, Published by Organisation for Economic Co-operation and Development, 2001.

7. Singhal Arvind, et al., India's Communication Revolution, Sage, New Delhi, 2001.

8. Srinivasan G.,Rural Telephony, *Kurukshetra,* PD, New Delhi, October 2001.

9. Mishra, S.N., et al, Development of Rural Infrastructure with Special Reference to Telecommunication, *Kurukshetra,* PD, New Delhi, May 2002.

10. The Times of India, dated 12 October 2005.

11. Dr. Jharwal, S.M., Telecom Growth in India-New Initiatives, Employment News, 4-10 June 2005.

12. Tenth Five Year Plan 2002-07, Chapter Communication, Govt. of India, New Delhi.

13. Digital Review of Asia Pacific 2007-2008, Published by SAGE publications India Pvt. Ltd, New Delhi, 2008.

14. Development Programme 2010-2011, Sectoral Profile, General Administration Department, Planning Division, Government of Gujarat, 2010.

RS 97

Websites Visited

S.No.	Organisation	Hyperlink
1.	Government of India	http://indiaimage.nic.in
2.	Indian Government	http://www.india.gov.in
3.	Ministry of Communications & Information Technology	http://www.moc.gov.in
4.	Ministry of Information Technology	http://www.mit.gov.in
5.	Ministry of External Affairs	http://meaindia.nic.in
6.	Bharat Nirman	www.bharatnirman.gov.in
7.	Department of Telecommunications	www.dot.gov.in
8.	India Development Gateway	www.indg.in
9.	Planning Commission	www.planningcommission.nic.in
10.	Digital Review of Asia Pacific	www.digital-review.org
11.	International Telecommunication Union	www.itu.int
12.	Internet World Stats, India	www.internetworldstats.com/asia/in.htm
13.	M.S. Swaminathan Research Foundation, India	www.mssrf.org

APPENDIX

BOX 1 : PRESENT STATUS OF THE TELECOM SECTOR

* Indian Telecom market is one of the fastest growing markets in the world.

* With its 562.21 million Telephone connections as on December 31, 2009, it is the second largest network in the world after China.

* It is the second largest wireless network in the world.

* About 15 million connections are being added every month.

* The target of 500 million telephones by 2010 has been achieved in September 2009 itself.

* Wireless telephones are increasing at faster rate. the share of wireless telephones as on December 31, 2009 is above 93 per cent of the total phones.

* The share of private sector in total telephone is about 82.33 per cent.

* Overall tele-density has reached around 47.88 per cent. Urban tele-density crossed 100 per cent mark whereas rural tele-density is at 21.19 per cent which is also steadily increasing.

* Broadband connections increased to 7.98 million by December 2010.

e-Gram Visit Note

e-Gram Training/Acknowledgement Report

Month: **Visit Date: / /2010**

District : **Sabarkantha** Taluka : _____ e-Gram Name: _____

Contact Person (VCE/TCM) Name & contact No.: _____

Training Details:

Training given (Y/N)_____ If NO, Reason for that _____

Training Subjects :

Computer Training: _____

B2C Training : _____

Other instructions for G2C/B2C or e-awareness (training): _____

_____

Trainee's Remarks about training : **Good** ☐ **Average** ☐ **Poor** ☐

Trainee's sign (VCE/TCM/Sarpanch):_____

Acknowledgement to GP/TP/DP for Uptime of e-Gram center:

Problems at e-Gram Center (Please Tick ☑ on applicable):

1. Electricity supply cut by UGVCL due to unpaid Electricity Bill: ☐
2. GP Building Damage or Under Construction: ☐
3. VCE not Appointed: ☐ 4. VCE not regular: ☐

Status of Hardware:

1. Computer not Working (Out of warranty): ☐
2. **Computer** ☐ **printer** ☐ **UPS** ☐ Not working

   Warranty PC –Call Log Number:_____ Dt:____/_____/2010
3. Earthing not done: ☐
4. Printer cartridges (refilling/replace) required: ☐

RoR Problem (rather than technical) : ☐

Please specify ROR problem: _____

- Responsible person for action: _____
- Action Taken by TLE: _____

VSAT Status:

Complain Ticket Number: _____, if not available then tick ☑ below:

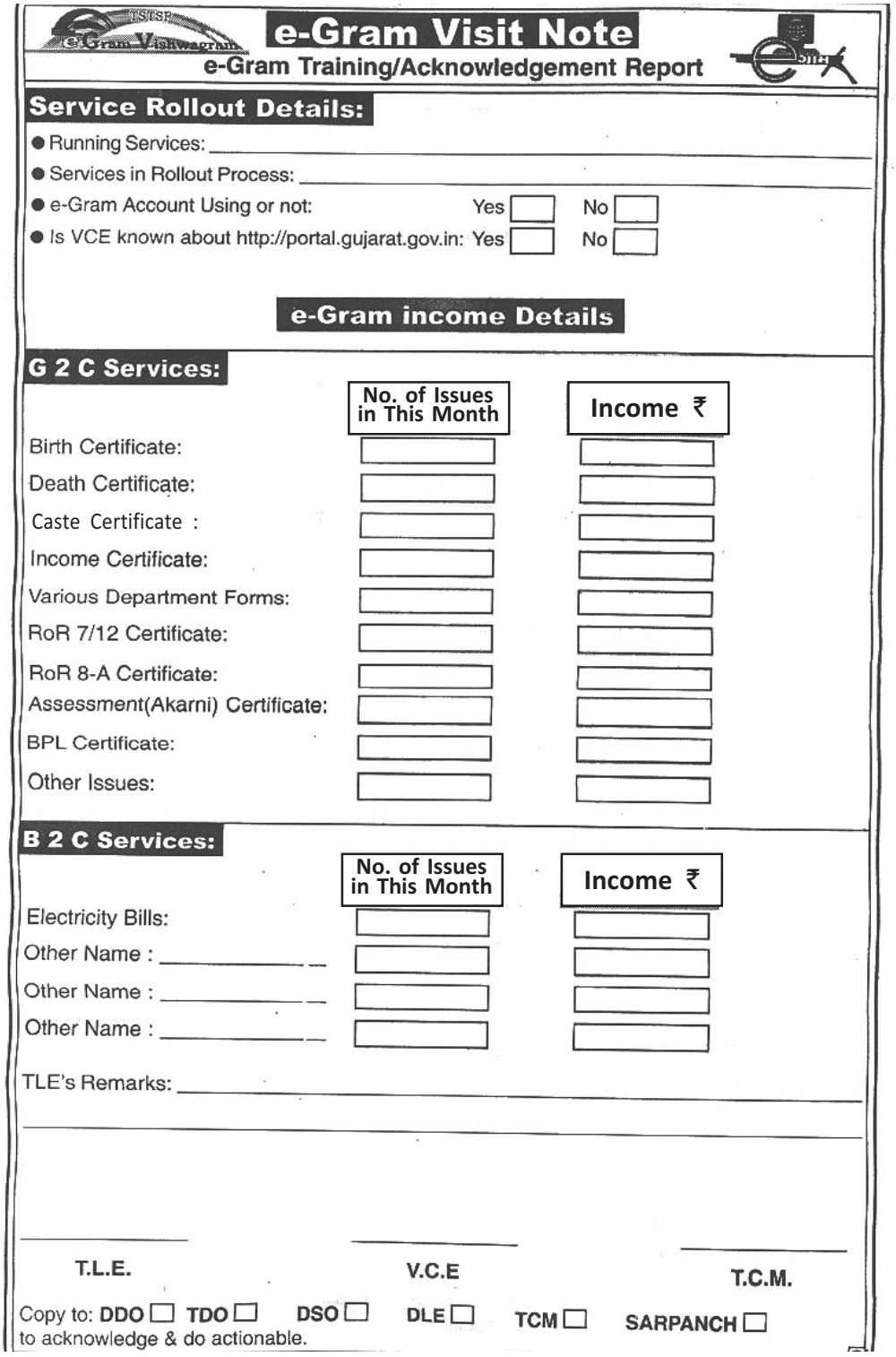
(1) Protection Cage required for VSAT: ☐ (2) FIR required of theft: ☐

(3) Tree or any other hurdle Problem: ☐ (4) Shifting required : ☐

Talati has key of e-Gram and talati not present: ☐

VCE or Concerned Person not using the connectivity daily: ☐

RS 97



e-Gram Visit Note

e-Gram Training/Acknowledgement Report

Service Rollout Details:

- Running Services: _____
- Services in Rollout Process: _____
- e-Gram Account Using or not: Yes ☐ No ☐
- Is VCE known about http://portal.gujarat.gov.in: Yes ☐ No ☐

e-Gram income Details

G 2 C Services:

	No. of Issues in This Month	Income ₹
Birth Certificate:		
Death Certificate:		
Caste Certificate :		
Income Certificate:		
Various Department Forms:		
RoR 7/12 Certificate:		
RoR 8-A Certificate:		
Assessment(Akarni) Certificate:		
BPL Certificate:		
Other Issues:		

B 2 C Services:

	No. of Issues in This Month	Income ₹
Electricity Bills:		
Other Name : _____		
Other Name : _____		
Other Name : _____		

TLE's Remarks: _____

_____

_____ _____ _____

T.L.E. V.C.E T.C.M.

Copy to: DDO ☐ TDO ☐ DSO ☐ DLE ☐ TCM ☐ SARPANCH ☐
to acknowledge & do actionable.

RS 97

બીલ માસ : SEP.-OCT.10 **વીજ—વપરાશ બીલ** IDAR (R)

PATEL SANKABHAI KALABHAI
AT&POST NETRAMALI TA IDAR
TA IDAR DIST S K
VILLAGE : Netramli
TALUKA : Idar
DISTRICT : Sabar Kantha
FEEDER CD 13 DUG308 0000
Dungari

રૂટ કોડ 3/03/13/001 બીલ નંબર : 3/5097

બીલની તારીખ :	બીલ ભરવાની છેલ્લી તારીખ :
૨-૧૧	૨-૧૧

ટેરીફ	મીટર ચાર્જ કોડ	હો.પા./ કિ.વો.	સીઝનલ	દિવસો	સીક્યુરીટી ડિપોઝીટ
LFU1	A	2.0			590

ગ્રાહક નંબર :	મીટર નંબર
24223/00028/4	254052

ફેઝ	મીટર સ્ટેટસ	મહત્તમ વીજભાર
	એકટીવ	રીએકટીવ / રાત્રી
હાલનું રીડીંગ	469	
પાછલું રીડીંગ	279	
વપરાશ	190	
ગુણાંક	1	
કુલ વપરાશ	440	SD-RECVBL
સરેરાશ વપરાશ	110	577
સરેરાશ એમ. ડી.		
પાછલા કુલ વપરાશ / ભરણું	150	620.00
કુલ કંપની ચાર્જ :	1335.44	
પ્રોવિઝનલ બીલની રકમ	0.00	
એડજસ્ટમેંટની રકમ	0.00	

ક્ર.	બીલની વિગત	રૂપિયા	પૈસા
૧	ફીકસ ચાર્જ	10	.00
૨	એનર્જી ચાર્જ	464	—
૩	મીનીમમ ચાર્જ		
૪	રીએકટીવ ચાર્જ		
૫	ફ્યુલ ચાર્જ 62.00 Ps-	117	80
૬	વિધુત શુલ્ક @10P	59	18
૭	મીટર ચાર્જ	20 670	.00 98
૮	વિલંબીત ચાર્જ	5	.92
૯	કુલ રકમ (૧થી૮)	[illegible]	[illegible]
૧૦	પ્રોવિઝનલ બીલ		
૧૧	કુલ રૂ. (૯–૧૦)	676	90
૧૨	પાછલા બાકી રકમ તા. 21 10 2010 સુધી	4	.12CR
૧૩	કુલ રૂ. (૧૧±૧૨)	672	78
૧૪	સરકારી રાહત		
૧૫	કુલ રૂ (૧૩–૧૪)		

પાછલા ત્રણ બીલ ની વિગત

માસ			AUG
વપરાશ	0	0	150
બીલની રકમ	0	0	530

દેશમાં વિજ વિતરણમાં જાહેર સાહસ (PSU) હસ્તક ઉત્સાહક કામગીરી બદલ બ્રોન્ઝ શીલ્ડ મેળવનાર ભારતની સૌ પ્રથમ કંપની

મીટર રીડરની સહી

નોટીસ : ભારતીય વીજધારા – ૨૦૦૩ ની કલમ ૫૬ (૧) મુજબ આથી આપને નોટીસ આપવામાં આવે છે કે, આપની પાસે લેણી થતી વીજળી બીલની કુલ રકમ રૂ. આ બીલ કમ નોટીસ મળ્યેથી પંદર દિવસમાં ભરપાઈ નહીં થાય, તો આપને અપાતો વીજળી પુરવઠો બંધ કરવામાં આવશે અને પુનઃ જોડાણ માટે કંપનીના નિયત કરેલ ચાર્જ સહીત તમામ લેણી નીકળતી રકમ (ચાલુ બીલની રકમ સહીત) એક સાથે ભર્યેથી વિધુત પુરવઠો પુનઃ ચાલુ કરવામાં આવશે.

મુખ્ય ઈજનેર (યુજીવીસીએલ)

ગ્રાહક તકરાર નિવારણ ફોરમનું સરનામું	સલામત વીજ વપરાશ માટે
કન્વીનરશ્રી, ગ્રાહક ફરીયાદ નિવારણ ફોરમ ઉત્તર ગુજરાત વિજ કંપની લીમીટેડ રજીસ્ટર્ડ ઓફિસ, વિસનગર રોડ, મહેસાણા - ૩૮૪૦૦૧	૧. ભીના હાથે ઈલેકટ્રીક સ્વીચોને અડકવું નહી. ૨. આઈ.એસ.આઈ. માર્કાના યોગ્ય ક્ષમતાના ફ્યુઝ, એમ.સી.સી.બી. અને ઈ.એલ.સી.બી.નો ઉપયોગ કરવો. ૩. સર્વીસ કેબલ તેમજ વીજળીના થાંભલા સાથે વળગણી માટે પાતુનો તાર બાંધવો નહી.

વિજળી બીલના નાણાંની ઓનલાઈન ચુકવણી અમારી વેબ સાઈટ "www.ugvcl.com" પરની લીંક "pay energy bills online" અને online bill payment through, "HDFC Bank" વડે કરી શકાશે.

VISIT US AT www.gseb.com

વીજળી બચાવો મર્યાદિત વાપરો

(કાર્યાલયના વપરાશ માટે)

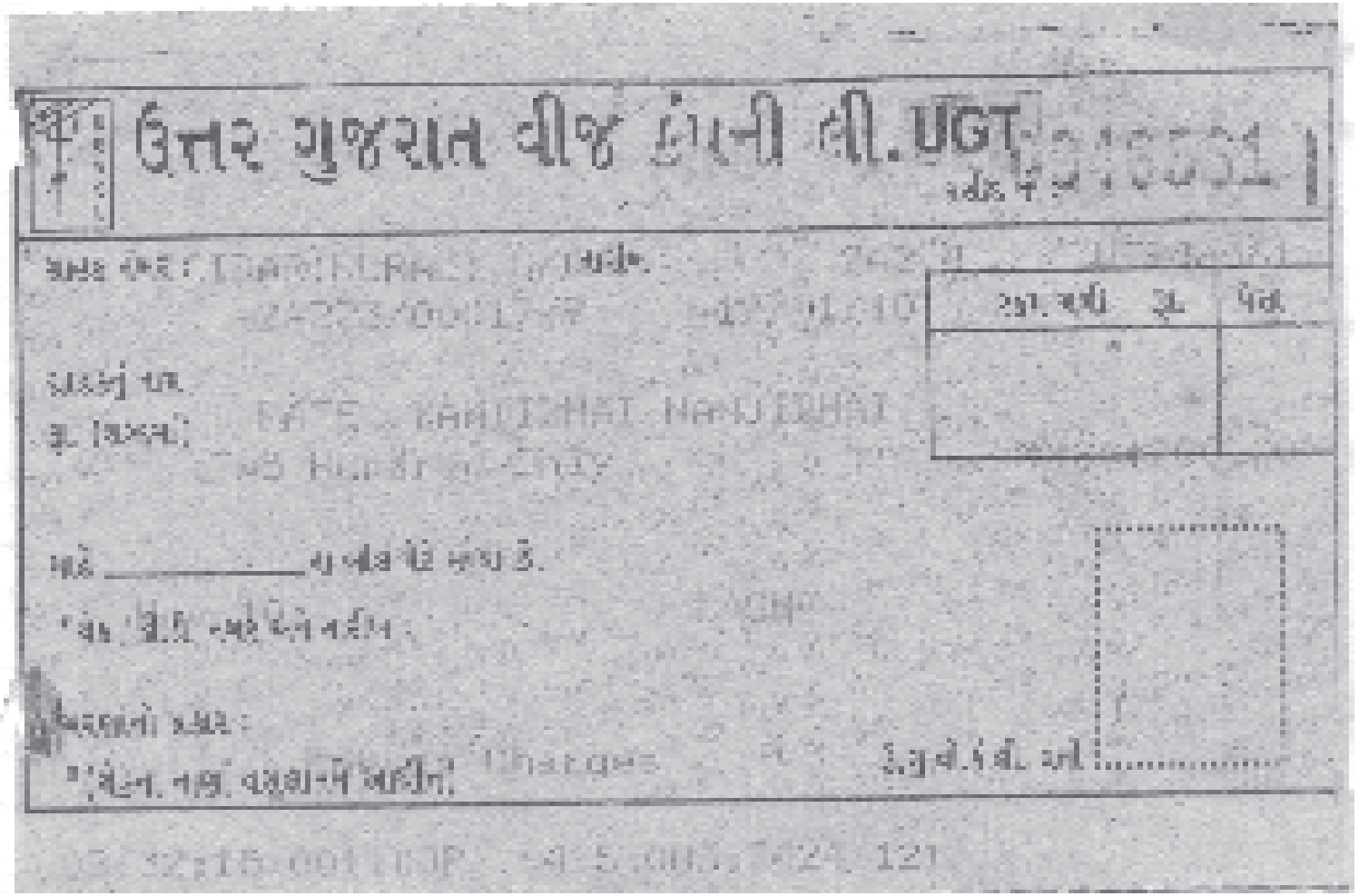
UGVCL	રકમ ભર્યાની તારીખ	સહી	કેશ	ચેક	ભરેલી રકમ
	24223/00028/4	3/5097	OCT-2010		24223/00028/4
	ગ્રાહક નંબર	બીલ નંબર	માસ		ગ્રાહક નંબર

eGram Project ICT Status as on 15th Nov. 2010 (Submission Date 15th Nov. 2010, Time : 6:30 pm)

No.	Taluka Name	Total GPs	No. of GPs Where Computer Working	No. of Where Computer Not Working	No. of GPs where Connectivity Working	No. of GPs Where Connectivity Not Working	Money Cage Prepared	Money Cage Under Process	No. of GPs Where Connectivity Not Working						
									FIR Cases	Shifting Cases	Mis-Alignment	Modern Fail Cases	Adopter Fail Cases	Other (Pls Name Other Prob. Details	Total
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Bayad	60	60	0	60	0	1	0	0	0	0	0	0	0	0
2	Bhiloda	78	77	1	78	0	2	0	0	0	0	0	0	0	0
3	Dhansura	32	32	0	32	0	0	0	0	0	0	0	0	0	0
4	Himatnagar	84	84	0	84	0	6	0	0	0	0	0	0	0	0
5	Idar	93	93	0	93	0	3	0	0	0	0	0	0	0	0
6	Khedbrahma	46	45	1	46	0	0	0	0	0	0	0	0	0	0
7	Malpur	37	37	0	37	0	0	0	0	0	0	0	0	0	0
8	Meghraj	43	42	1	43	0	0	0	0	0	0	0	0	0	0
9	Modasa	54	54	0	54	0	1	0	0	0	0	0	0	0	0
10	Prantij	56	53	3	56	0	10	0	0	0	0	0	0	0	0
11	Talod	57	56	1	55	2	3	0	0	0	0	0	0	2	2
12	Vadali	36	35	1	36	0	1	0	0	0	0	0	0	0	0
13	Vijaynagar	31	28	3	31	0	0	0	0	0	0	0	0	0	0
	0	707	696	11	705	2	27	0	0	0	0	0	0	2	2

No.	Taluka Name	Total GPs	No. of GPs Where Computer Working	No. of GPs Having Electricity Problem			No. of CSC Centre Actual Operational	ROR Roll Out		GEB Bill Collection		VCE Status			
				Earthing Pending	Electricity Not Available	Elect. Available but Meter Not Available		Rolled Out	Under Process	Rolled Out	Under Process	VCE Appointed	VCE Regular	VCE not Regular	VCE not Appointed
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Bayad	60	60	0	0	1	0	57	3	60	0	60	52	8	0
2	Bhiloda	78	77	0	0	1	0	71	7	78	0	78	72	6	0
3	Dhansura	32	32	0	0	1	0	32	0	32	0	32	26	6	0
4	Himatnagar	84	84	0	0	0	0	80	4	84	0	84	76	8	0
5	Idar	93	93	0	0	0	0	90	3	93	0	93	79	14	0
6	Khedbrahma	46	45	0	0	0	0	41	5	46	0	46	39	7	0
7	Malpur	37	37	0	0	0	0	33	4	37	0	37	37	0	0
8	Meghraj	43	42	0	0	2	0	41	2	43	0	43	40	3	0
9	Modasa	54	54	0	0	0	0	54	0	54	0	54	50	4	0
10	Prantij	56	53	0	0	0	0	52	4	56	0	56	52	4	0
11	Talod	57	56	0	0	1	0	57	0	57	0	57	54	3	0
12	Vadali	36	35	0	0	0	0	36	0	36	0	36	36	0	0
13	Vijaynagar	31	28	0	0	2	0	29	2	31	0	31	29	2	0
	0	707	707	0	0	8	0	673	34	707	0	707	642	65	0

1 Total e-Gram Rolledout in Sabarkantha 707
2 New e-Gram in Process 14
3 Total Connectivity Available @ GP 707
4 GEB Software Rolledout @ GP 707
5 Total VCE Available @ e-Gram Centres 707



ઉત્તર ગુજરાત વીજ કંપની લી.

Rjt.. Sr.No.-11 Std.-02 4-2008 10,00,000 A4 Blue I.
R.D. No R.A.M. 102006-1223-L.I. dated : 3-8-2006.

આર. વી. ૨૪ જી. (સુધારેલ

ગામ નમુનો નંબર ૭ અને ૧૨ No. A 5965905

પાનું : 1095965901
1 of 1

બ્લોક/સરવે નંબર : ૨/ પૈકી ૧

સત્તાપ્રકાર : જુની શરત (જુ.શ)

મોજે : લાલોડા

ખેતરનું નામ :

તાલુકો : ઈડર

અન્ય વિગતો : બીન ખેતીના પ્લોટનંબર-૧,૨,૩

જિલ્લો : સાબરકાંઠા

લાયક જમીન	ક્ષેત્રફળ હે.આરે.ચો.મી.	ખાતા નંબર	ક્ષેત્રફળ હે.આરે.ચો.મી.	આકાર	નોંધ નંબરો અને કબ્જેદારોના નામ
પો.ખ. અ	૦-૦૫-૮૭				૯૩૦, ૯૩૧, ૯૩૨,
કુલ ક્ષેત્રફળ	૦-૦૫-૮૭				
આકાર રુ.	૫૮.૭૦	૧૦૩૦	૦-૦૫-૮૭	૫૮.૭૦	પટેલ રેવાભાઈ જેઠાભાઈ<૯૩૦>
જુડી તથા વિશ્વોપધાશે રુ.	૦.૦૦				
પાણી ભાગ રુ.	૦.૦૦				

ગણોતિયાની વિગતો	*બીજા હકો અને બોજાની વિગતો*

ગામ નમૂનો નંબર ૧૨

વર્ષ	ખેડૂતનું નામ	મોસમ	પાક	ક્ષેત્રફળ હે.આરે.ચોમી.	ખેડની રીત	સિંચાઈનું સ્ત્રોત/સાધન	વૃક્ષો અને તેની સંખ્યા	શેરો
૨૦૦૭-૨૦૦૮ વિગત નથી								
૨૦૦૮-૨૦૦૯ વિગત નથી								
૨૦૦૯-૨૦૧૦ વિગત નથી								

ધરા ના.મામ)-E-dhara Dy-mam

#-નામંજૂર ઇ-ત.કરારી *-૨૬
૧૬/૦૯/૨૦૧૦ ની સ્થિતિએ.

ચેચાણની નકલ/અંકે રુ ૫/- (રુપિયા પાંચ પુરા) મળેલ છે, આભાર સહ.

eGram NOC Login Report during October & November 2010

District	Total GP	Site Not come in Oct 2010	1st Nov - Not come at NOC	% Irregular
Ahmedabad	515	1	98	19.03
Amreli	590	6	77	13.05
Anand	352	0	37	10.51
Banaskantha	783	4	275	35.12
Bharuch	543	15	82	15.10
Bhavnagar	772	0	178	23.06
Dahod	459	2	144	31.37
Dang	70	0	10	14.29
Gandhinagar	285	1	37	12.98
Jamnagar	663	8	275	41.48
Junagadh	821	7	134	16.32
Kachchh	615	0	212	34.47
Kheda	559	5	54	9.66
Mahesana	589	3	65	11.04
Narmada	219	0	46	21.00
Navsari	363	0	51	14.05
Panch Mahals	658	0	144	21.88
Patan	464	0	76	16.38
Porbandar	150	3	34	22.67
Rajkot	843	0	115	13.64
Sabar Kantha	707	3	102	14.43
Surat	567	0	73	12.87
Surendranagar	615	41	153	24.88
Tapi	282	1	40	14.18
Vadodara	861	12	149	17.31
Valsad	339	0	113	33.33
Total E-GPs	13684	112	2774	20.27
Per cent		0.82	20.27	20.27

Source : e-Gram Block Office.

e-Gram NOC Login Report during October & November 2010

District	Total GPs	Site not come in Oct 2010	1st Nov - Not come at NOC	2nd Nov - Not come at NOC	Percentage of Irregular
Ahmedabad	515	1	98	71	13.79
Amreli	590	6	77	54	9.15
Anand	352	0	37	29	8.24
Banaskantha	783	4	275	244	31.16
Bharuch	543	15	82	68	12.52
Bhavnagar	772	0	178	142	18.39
Dahod	459	2	144	128	27.89
Dang	70	0	10	6	8.57
Gandhinagar	285	1	37	23	8.07
Jamnagar	663	8	275	263	39.67
Junagadh	821	7	134	114	13.89
Kachchh	615	0	212	109	17.72
Kheda	559	5	54	43	7.69
Mahesana	589	3	65	54	9.17
Narmada	219	0	46	37	16.89
Navsari	363	0	51	38	10.47
Panch Mahals	658	0	144	92	13.98
Patan	464	0	76	64	13.79
Porbandar	150	3	34	30	20.00
Rajkot	843	0	115	67	7.95
Sabar Kantha	707	3	102	81	11.46
Surat	567	0	73	53	9.35
Surendranagar	615	41	153	137	22.28
Tapi	282	1	40	26	9.22
Vadodara	861	12	149	119	13.82
Valsad	339	0	113	98	28.91
Total E-GPs	**13684**	112	**2774**	**2190**	**16.00**
Per cent		0.82	20.27	16.00	

Source : e-Gram Block Office.

eGram NOC Login Report, October 2010

District	Total GPs	CM Event	Remaining Sites for CM Event	Site not come in Oct 2010
Ahmedabad	515	493	22	1
Banaskantha	783	729	54	4
Bhavnagar	772	753	19	0
Gandhinagar	285	269	16	1
Kachchh	615	573	42	0
Mahesana	589	544	45	3
Patan	464	440	24	0
Sabar Kantha	707	665	42	3
Surendranagar	615	499	116	41
Total E-GPs	5345	4965	380	53
Per cent		92.89	7.11	0.99

Source : e-Gram Block Office.

eGram NOC Login Report October 2010

District	Total GPs	CM Event	Remaining Sites for CM Event	Site not come in Oct 2010
Ahmedabad	515	493	22	1
Amreli	590	548	42	6
Anand	352	326	26	0
Banaskantha	783	729	54	4
Bharuch	543	492	51	15
Bhavnagar	772	753	19	0
Dahod	459	401	58	2
Dang	70	70	0	0
Gandhinagar	285	269	16	1
Jamnagar	663	512	151	8
Junagadh	821	759	62	7
Kachchh	615	573	42	0
Kheda	559	541	18	5
Mahesana	589	544	45	3
Narmada	219	209	10	0
Navsari	363	344	19	0
Panch Mahals	658	604	54	0
Patan	464	440	24	0
Porbandar	150	128	22	3
Rajkot	843	815	28	0
Sabar Kantha	707	665	42	3
Surat	567	507	60	0
Surendranagar	615	499	116	41
Tapi	282	263	19	1
Vadodara	861	783	78	12
Valsad	339	293	46	0
Total E-GPs	13684	12560	1124	112
Per cent		91.79	8.21	0.82

Source : e-Gram Block Office.

eGram NOC Login Report during October, 2010

District	Total GPs	Site on Y-day	Remaining Sites	Site Never Come Till Date
Ahmedabad	515	493	22	1
Banaskantha	783	729	54	4
Bhavnagar	772	753	19	0
Gandhinagar	285	269	16	1
Kachchh	615	573	42	0
Mahesana	589	544	45	4
Patan	464	440	24	2
Sabar Kantha	707	665	42	3
Surendranagar	615	499	116	45
Total E-GPs	5345	4965	380	60
Per cent		92.89	7.11	1.12

Source : e-Gram Block Office.

eGram NOC Login Report, October 2010

District	Total GPs	CM Event	Remaining Sites for CM Event	Site not come in Oct 2010
Anand	352	326	26	0
Bhavnagar	772	753	19	0
Dang	70	70	0	0
Kachchh	615	573	42	0
Narmada	219	209	10	0
Navsari	363	344	19	0
Panch Mahals	658	604	54	0
Patan	464	440	24	0
Rajkot	843	815	28	0
Surat	567	507	60	0
Valsad	339	293	46	0
Total E-GPs	5262	4934	328	0
Per cent		93.77	6.23	0.00

Source: e-Gram Block Office.

eGram NOC Login Report during October, 2010

District	Total GPs	Site on Y-Day	Remaining Sites	Site not come in Oct 2010
Ahmedabad	515	493	22	1
Amreli	590	548	42	6
Anand	352	326	26	0
Banaskantha	783	729	54	4
Bharuch	543	492	51	15
Bhavnagar	772	753	19	0
Dahod	459	401	58	2
Dang	70	70	0	0
Gandhinagar	285	269	16	1
Jamnagar	663	512	151	8
Junagadh	821	759	62	7
Kachchh	615	573	42	0
Kheda	559	541	18	5
Mahesana	589	544	45	3
Narmada	219	209	10	0
Navsari	363	344	19	0
Panch Mahals	658	604	54	0
Patan	464	440	24	0
Porbandar	150	128	22	3
Rajkot	843	815	28	0
Sabar Kantha	707	665	42	3
Surat	567	507	60	0
Surendranagar	615	499	116	41
Tapi	282	263	19	1
Vadodara	861	783	78	12
Valsad	339	293	46	0
Total E-GPs	13684	12560	1124	112
Per cent		91.79	8.21	0.82

Source : e-Gram Block Office.

Study Area

State	District	Block	Village
Gujarat	Sabarkanta	Sabarkanta	Khedbrahma
		Khedbrahma	Nethraminali
		Idar	Laloda
		Talod	Lakshmipur
	Junagadh	Junagadh	Bilkha
		Keshod	Dungarpur
		Talala	Vadali
		Bhesan	Virpur
			Malpur
			Talod
Karnataka	Dharwad	Dharwad	Yadavada
			Uppin Betageri
			Narendra
			Mammi Gatti
			Belur
		Kalghatgi	Devikoppa
			Dastikoppa
			Hirehonnali
			Develingekoppa
			Dummwada

(Contd.)

(Contd.)

	Gulbarga	Sedam	Kodla
			Malkhed
			Mudhole
			Adiki
			Itkal
		Afzalpur	Gudur
			Chodaour
			Gangapur
			Atnoor
			Gobur
Madhya Pradesh	Bhopal	Phanda	GoalKhedi
			Khajoori Ratatal
			Raipur
			Neepaniya Zat
			Entkhedi
		Bearisiya	Pardhi
			Rathuvarthan Pura
			Hinoti Sadak
			Harrakheda
			Sonkutch

State	District	Block	Village
	Indore	Indore	Bilawali
			Kailord Kartal
			Paldha
			Limbodi
			Umerikheda
		Mhow	Simrole
			Memdo
			Joshiburadiya
			Goshi Kheda
			Shivnagar
Sikkim	East	Gangtok	
		Ranchi	
	South	Namchi	
West Bengal	Jalpaiguri	Dhupguri	Barogharia
			Magumari-II
			Sakoajhora-I
			Gadong-II
		Sadar	Baropatia Notun Bos
			Mondalghat
			Boalmari Nandanpur
			Kharia

(Contd.)

(Contd.)

	Cooch Behar	Cooch Behar -I	Guriahati-II
			Ghugumari
			Dewanhat
			Dewaguri
		Cooch Behar -II	Chilkirhat

Policy Guidelines for availing of IT / ITES solutions, projects, products and related services

Government of Gujarat
Science and Technology Department
GR. No. TSP-2004-808-DST
Sachivalaya, Gandhinagar

Date : 30th July, 2004

Read : 1. GR No. TSP-2000-11-ITD of IT Division, General Administration Department dated 28-04-2000.

2. GR No. IPR-2003-159-DST of Science and Technology Department, dated 06-06-2003.

Preamble

The State Government had declared the Guidelines for Computerisation by availing IT related services vide G.R. read at (1) & (2) above.

Resolution

The State Government is now pleased to announce the following guidelines for availing IT solutions, products, software and services. This GR will be applicable to all Government Departments, HoD's, Boards, Corporations, Rural/Urban/Local Bodies loosely referred to as Organisations. The Organisations may obtain IT solutions/systems (turnkey/end-to-end/ piecemeal/integrated); products; and services including running of systems and non-core ITES, through IT vendor (s).

A. Role of the Organisation

1. Organisation will form a IT Committee comprising Head of Organisation, Finance/Accounts Rep., CIO/Tech Rep. of Organisation, subject experts, Rep. of Department of S & T and Rep. of GIL.

However, if a budgetary estimate is more than Rs. 1 Crore, Secretary of parent Department, Secretary (Department of S & T), Secretary (Expenditure) and MD GIL shall be included in the IT Committee. The IT Committee is empowered to take decision on all procedural and technical matters.

2. Organisation will prepare a comprehensive 'IT Action Plan' and identify/prioritise projects that are critical to delivering services to citizens or increasing revenues or improving internal processes. The IT Plan of the apex organisation should encompass IT Plans of the lower organisations and avoid conflicting technologies/approach.

3. A project Approach within the overall IT Action Plan and adhering to common standards will yield the best results.

4. Organisation may also designate Project Sponsor/Champion and form a Project Team or Core Committee for assisting, coordinating and monitoring projects.

5. Organisation must ensure that the completion time (including administrative/financial approvals) does not exceed 12 months even for large projects. If any project takes more than 12 months to complete, specific sanction of DST should be taken.

6. Organisation/GIL may obtain full/shared/restricted IPR/Copyrights from IT vendor.

7. Organisation may, at its discretion, refer to and follow in full/part the guidelines given in "Hand Book on Standard Procedures for Computerisation – Volume I" of Gujarat Informatics Limited.

8. If State Government decides to adopt any module / software package etc. in "toto", it will have to be adopted by the concerned department and vendor.

RS 97

B. Guidelines for Selection of IT Vendor

1. IT Vendor may be selected through an open tender system.

2. IT Vendor should have at least 3 years current experience in similar IT projects/solutions.

3. IT vendor should have minimum 5 times turnover of the cost of the IT project estimated by the Organisation/GIL, from similar activity in each of the 2 preceding years.

4. IT vendor must have relevant standard quality certification like CMM (level 3 or above) or appropriate ISO 9001:2000.

5. IT Committee will scrutinise techno-commercial offers and evaluate capability of vendors through presentation, demonstration, documents etc.

6. IT Committee will open financial bid for technically qualified vendors with a minimum technical qualification of 60%. IT committee can decide to raise its higher limit depending on its needs. Work order will be awarded to lowest (L1) bidder. Less than 3 vendors may be accepted in case of re-tendering or if project/solution cost is less than ₹ 50,000 in open tendering.

7. No Vendor will take more than 5 assignments concurrently.

C. Role of GIL and Standardisation in IT Projects

1. GIL will be the nodal standardisation agency on behalf of the GoG. It will define standards in technology/platform, database, coding, usage of Gujarati software, security, system documentation, manuals, etc. Standardisation is vital to ensuring seamless sharing of information and resources in multiple platform/technology/vendor environments.

2. All organisations will consult GIL on Standardisation issues for all IT Projects/Solutions/Products/Services. A fee @ of 1 per cent of the

project cost or as mutually agreed (for free projects) will be payable to GIL for this role.

3. GIL may act as nodal agency for providing IT consultancy to Organisations. The consultancy role should not be given to the vendor/agency that undertakes the actual development or implementation work to avoid conflicts/compromises.

4. The services of GIL are on a charge basis as per IT policy of GoG. The consultancy charge should not normally exceed 10 per cent of total project cost. This would be inclusive of percentage charges mentioned elsewhere.

5. GIL will act as a central Purchase Organisation for procurement of ready software (OS, Databases, Packages, Anti-Virus, Security etc). This will enable GoG to get better pricing through volume discounts and ensure standardisation. GIL may charge 3 per cent of order value.

6. GIL will monitor status of IT solutions/projects/products in all Organisations and disseminate periodical reports/synopsis.

7. Gil will be the nodal agency to keep all IPR/Copyrights of software/ applications implemented in Organisation.

8. GIL will manage and administer Gujarat State/District Hosting Centres (server farms) and provide comprehensive set of centrally managed services. All Organisations, as far as possible, will use these for hosting their websites, databases, applications etc.

9. GSWAN would be the default backbone for all IT projects/solutions. DST may give exemptions on a case-to-case basis.

D. Bid Security, Performance Guarantee and Payment Terms

a) Organisation will obtain a Bid Security from vendor for amount of up to 5 per cent of estimated project value, in the form of bank guarantee from the Nationalised/Scheduled bank. Similarly, Performance

Guarantee will be obtained for the validity period of the project for 10 per cent of the Project Cost.

b) Organisation should follow the payment schedule, for release of payment to vendors, as given below :

1. 25 per cent on acceptance of System Requirement Specifications and System Design Documents (SRS and SDD).

2. 35 per cent on successful installation of software on user's platform and generation of Test reports as well as submission of systems manual and user's manual (Operational Manual) in three sets.

3. 25 per cent on account of user's training and implementation of software with successful completion of first parallel run.

4. 15 per cent on successful completion of two months implementation report.

c) Payment for services like Data Entry, Data Collection, Data-conversion, Database quality assurance Document Imaging, etc. will be against actual cost of work completed.

d) The IT Committee may make appropriate changes in the payment schedules, bid security or performance guarantee on a case-to-case basis. The reasons for changes must be recorded in the minutes of the meetings.

E. If Government department / HOD's/Board/ Corporations/ Society or any Agency / entity of the State Governement intends to availing IT / ITES solutions, projects. Products and related services with the Government organisations like GIL, NIC or INDEXt-B the above open bidding procedure will not be attracted.

F. Validity

This GR is valid till further instructions are issued.

This issues with the concurrence of the Finance Department dated 28.6.2004 on this Department file No. TSP-2000-808-ITD.

BY ORDER AND IN THE NAME OF THE GOVERNOR OF GUJARAT

Vagmin Buch
Joint Secretary (S&T)
Science & Technology Department

Copy to :

1. The Secretary to the Governor, Raj Bhavan, Gandhinagar.
2. The Principal Secretary to the Chief Minister.
3. The Personal Secretaries to all Ministers.
4. The Personal Secretary to the Leader of Opposition Party in Gujarat Legislative Assembly, Gandhinagar.
5. Managing Director, Gujarat Informatics Ltd. Gandhinagar.
6. National Informatics Centre, Block No. 13, New Sachivalaya, Gandhinagar.
7. All Secretariat Departments.
8. The Secretary, Gujarat Vigilance Commission, Gandhinagar.
9. The Secretary, Gujarat Public Service Commission, Ahmednagar
10. The Secretary, Gujarat Legislature Secretariat, Gandhinagar.
11. The Registrar, Gujarat High Court, Ahmedabad.
12. The Secretary, Gujarat Civil Services Tribunal, Gandhinagar.
13. All Heads of Departments.
14. All Heads of Office.
15. All Collectors.

RS 97

16. All D.D.Os

17. The Accountant General, (A&E), Gujarat, Post Box No. 220, Rajkot.

18. The Accountant General (A&E), Gujarat, Ahmedabad branch, Ahmedabad.

19. The Accountant General (Audit)-1, Gujarat, M.S Building, Ahmedabad.

20. The Director of Accounts & Treasuries, Gandhinagar.

21. All Treasury Officers.

22. All Pay & Accounts Officers, Ahmedabad/Gandhinagar.

23. Resident Audit Officer, Ahmedabad/Gandhinagar.

24. Select file, S&T Department.

Website Development and Maintenance

Government of Gujarat
Science and Technology Department
G.R.No. WEB-2006-1178-IT
Sachivalaya, Gandhinagar

Date : 19th September, 2007

Read

(1) GR No.ITP-1099-585-ITD of General Administration Department dated 14.02.2000

(2) GR No.ITP-1099-585-ITD of General Administration Department dated 16.02.2001

(3) GR No.ITP-1099-585-ITD of General Administration Department dated 03.02.2001

(4) Gujarat Informatics Limited Letter No. GIL/Webpolicy/457/SW/478 dated 11.05.2006

Preamble

With the Internet gradually transforming the social and economic fabric of our communities, Government agencies worldwide are adopting e-Governance practices to enable a better and more transparent delivery of public services. Websites and Portals, with their ability to integrate disparate infrastructure and applications, have emerged as the logical front end for delivery of a wide variety of information and services to the citizens. A large number of government websites have been set up by various government organisations at state and district levels over the last few years. However, regular updation and maintenance of these websites has been a matter of concern to the government. In addition, with rapid

improvement in technology and increased competition, the costs of website development and maintenance have gone down significantly. With a view to availing of the benefits of this trend, it is necessary to frame a fresh policy by superseding all earlier GRs stated above.

Resolution

(1) State Government is pleased to decide that only following categories of organisations may have their individual websites while others should discontinue or suitably merge their websites with the websites of concerned line department/heads of the department.

i. Secretariat Departments.

ii. State Level Heads of Departments/Organisations.

iii. Public Sector Units/Government Companies.

(2) Further, the State Government is also pleased to identify and register the following companies for websites Development/Maintenance (details of each company are as per **Annexure-1**).

(1) M/s. Dev ITPL

(2) M/s. CMC Limited

(3) M/s. Cybersurf (India) Private Limited

(4) M/s. Adit Microsys Private Limited

(5) M/s. Indusa Infotech Services Private Limited

(6) M/s. Silver Touch Technology Limited

(3) The following guidelines for selection of web developers for Website development and maintenance would be observed by all government organisations:

i. For Development of New Website/Major Modifications in the Existing Websites

a. Normally an organisaton's website should include the minimum contents and features as mentioned in Annexure-3 of this GR.

b. For new Websites Development all empanelled Web Developers as per Annexure-I will be invited for developing the prototype of the website, which will be evaluated by the I.T. Committee of the organisation.

c. The financial bid should be inclusive of creation, training of the personnel of the organisation, operation and maintenance including uploading etc. Normally, website should be hosted at the state data centre/server farm in Gandhinagar. However, in extraordinary circumstances web hosting may be arranged by the web developer and in that even the cost of web hosting may also be part of the financial bid.

d. Since the website development is a technical work of highly creative nature the IT committee of the organisation may give 50 per cent weightage to the prototype presentation while balance 50 per cent weightage should be given to the financial bid and L1 bidder should be finalised accordingly.

ii. Website Maintenance

For website maintenance the empanelled vendors will be asked to submit the financial bid based on the scope of work for website maintenance. The Organisation will award maintenance work to the L1 bidder.

(4) Role of Gujarat Informatics Limited (GIL)

Government organisation may take their own decision about the web development or maintenance in the I.T. Committee of the department/ HoD declared vide GR No. TSP-2004-808-DST, dated 30.07.2004 wherein representative of GIL may be invited for technical guidance.

i. If GIL is engaged for the website related job under this GR, they will define the standards in technology / platform, database, coding, support of Gujarathi language, security, system documentation, manuals etc. Standardisation is vital to ensure seamless sharing of information and resources in multiple platform/technology/vendor environments.

ii. Government organisation may consult GIL on standardisation issues for website development.

iii. GIL will help the Government departments/organisations in finalizing the objective and scope of website development / maintenance, inviting the empanelled vendors for presentation of prototype websites, technical evaluation of prototype website and finalising the successful vendor.

iv. GIL will coordinate the website development activities between the department and the vendors participate in the various presentations for finalising the conceptualisation of website and final prototype website in consultation with the Government department/ organisation.

v. GIL will also technically evaluate and test the final website.

vi. For website maintenance, GIL will help in finalising the scope of website maintenance and negotiating the rates with the successful vendor.

vii. GIL will help the Government departments/organisations to ensure that the vendors adhere to the design guidelines.

viii. All the Government departments / organisations as far as possible will use Server Farm for hosting their websites.

ix. GIL will charge 3 per cent of the contract value for website development charges/maintenance charges. GIL will raise the invoice for 1 per cent of the website after the successful vendor has been

finalised and remaining 2 per cent, after the website has been launched successfully. In case of website maintenance, GIL will raise invoice towards their 3 per cent charges after the work is awarded to successful bidder.

(5) Terms of Payments

New Website Development/Major modifications in the existing websites:

* 30% After conceptualisation of the whole website

* 40% Successful uploading and installation of Website on User's Platform and generation of test reports as well as submission of Systems manual and user's manual (operational manual) in two Sets and training to employees of organisation.

* 30% After 2 months of successful completion of the work implementation report and handing over of all source code, meta data, licenses certification etc. to the organisation or their authorised representative.

(6) Annual Maintenance / Management of Website

For the AMC / annual management of existing websites, payment will be made directly by the Government department / organisation on quarterly basis to the selected vendor after verifying the satisfactory performance by the selected vendor. If any deductions are to be made due to non-satisfactory performance by the vendor, the same will be deducted from the quarterly payments. The amount of deductions will be decided by the I.T. Committee of Government department / organisation.

(7) Warranty for New Website Development/Major modification in the existing websites

i. If any module of developed software gives continuous trouble and runtime or logical errors during the warranty period, the service provider shall rectify the problems without any additional cost to the client organisation.

ii. Maintenance Service:

1. Free software maintenance services shall be provided by the service provider during the period of **warranty for 36 months**.

2. The maximum response time for complaint from any of the destination shall not exceed 24 hours.

3. In case software is not usable beyond the stipulated maximum downtime the service provider will be liable for a penalty of ₹ 500 per day. The amount of penalty will be recovered from the performance security during the warranty period.

After 3 years of warranty, the Government department/offices may enter into Annual Maintenance/ Management contract after following the procedure and guidelines mentioned in this GR.

(8) Performance Security

A Performance Security will be signed by the supplier as per the enclosed Form at **Annexure-2** for the 10% of the total contract amount within 15 days of receiving the Letter of Intent (LoI).

(9) Award of Contract

The Government department / organisation will sign the contract with the successful vendor for website development / maintenance within 15 days of LoI.

This issues with the concurrence of Finance Department dated: 20.06.2007 on this file of even number.

BY ORDER AND IN THE NAME OF THE GOVERNOR OF GUJARAT.

Sd/-
(Prakash A Patel)
Under Secretary
Science and Technology Department

Copy to:

1. The Secretary to the Governor, Raj Bhavan, Gandhinagar.
2. The Principal Secretary to the Chief Minister.
3. The Personal Secretaries to all Ministers.
4. The Personal Secretary to the Leader of Opposition Party in Gujarat Legislative Assembly, Gandhinagar.
5. Managing Director, Gujarat Informatics Ltd. Gandhinagar.
6. National Informatics Center, Block No. 13, New Sachivalaya, Gandhinagar.
7. All Secretariat Departments.
8. The Secretary, Gujarat Vigilance Commission, Gandhinagar.
9. The Secretary, Gujarat Public Service Commission, Ahmednagar.
10. The Secretary, Gujarat Legislature Secretariat, Gandhinagar.
11. The Registrar, Gujarat High Court, Ahmedabad.
12. The Secretary, Gujarat Civil Services Tribunal, Gandhinagar.
13. All Heads of Departments.
14. All Heads of Office.
15. All Collectors.
16. All D.D.Os
17. The Accountant General, (A&E), Gujarat, Post Box No. 220 Rajkot.
18. The Accountant General (A&E), Gujarat, Ahmedabad branch, Ahmedabad.
19. The Accountant General (Audit)-1, Gujarat, M.S Building, Ahmedabad.
20. The Director of Accounts & Treasuries, Gandhinagar.
21. All Treasury Officers.
22. All Pay & Accounts Officers, Ahmedabad/Gandhinagar.
23. Resident Audit Officer, Ahmedabad/Gandhinagar.
24. Select file, S&T Department/ 09092007 (1).

RS 97

ANNEXURE – 1

A list of registered vendors for the Website Development

1. M/s Silvertouch Technologies Limited
   109, Shreeji Chambers, Nr. Cargo Motors
   CG Road, Ahmedabad – 06
   Tel: +91-79-26443515, 26568608, 26404294
   Fax: +91-79-26561624
   Email: info@silvertouch.com

2. M/s Cybersurf (India) Private Limited
   301-302 J.P.Complex, Opp. CN School
   Ambawadi, Ahmedabad – 06
   Tel: +91-79-30919492; Fax: +91-79-26402371
   Website: www.cybersurfindia.com

3. M/s Adit Microsys Private Limited
   502, Shapath –II, Opp. Rajpath Club
   SG Highway, Ahmedabad – 15
   Tel: 55613045-6-7; Fax: 079-55613048

4. M/s Dev ITPL
   F-1 Janpath Apartments
   B/S Sahajanand College, Ambawadi
   Ahmedabad – 380015
   Tel: +91-79-6305751; Fax: 079-26308854
   Email: info@devitpl.com
   Website: www.devitpl.com

5. M/s Indusa Infotech Services Private Limited
   2nd Floor, GNFC Infotower
   SG Highway, Ahmedabad – 54
   Tel: +91-79-6854666/67; Fax: +91-79-26854668
   Website: www.indusa.com

6. M/s CMC Limited
6th Floor, Premier House – I
Plot – 406/2, Bodakdev
SG Highway, Ahmedabad
Tel: +91-79-268554808/2/3/4
Fax: +91-79-26855175

Annexure – 2
PERFORMANCE SECURITY FORM

To:

.....
(Name of Client)

WHEREAS

.....
(Name of Service provider) hereinafter called "service provider" has undertaken, in pursuance of Contract No. _____date_____to render _____

(Description Services) hereinafter called "the Contract". AND WHEREAS it has been stipulated by you in the said Contract that the service provider shall furnish you with a Bank Guarantee by a recognised bank for the sum specified therein as security for compliance with the service provider's performance-obligations in accordance with the Contract. AND WHEREAS we have agreed to give the service provider a Guarantee : W E , THEREFORE, hereby affirm that we are Guarantors and responsible to you, on behalf of the service provider, up to a total of _____ (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the service provider to be in default under the Contract and without cavil or arguments, any sum or sums within the limit of _____ (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand of the sum specified therein.

This guarantee is valid until the _____ day of _____

Signature and Seal of Guarantors
_____
_____
_____

Date : _____

Address : _____
_____

Annexure - 3

(a) The Website should have the following features/contents :

Mission, Vision, Objectives Client Charter	Website will clearly indicate the subjects assigned to the organisation, its Mission, Vision, Objectives, its Citizens'/Client Charter. It will also carry the messages of the Minister and Secretary, if any. Roadmap of how it intends to achieve various objectives and envisaged outcomes may also be given.
Organisational Set-up and Directory	The website will prominently display the logo of Government of Gujarat and the name of Department/Organisation. The organisational set up with sufficient clarity, containing the details of functional responsibilities entrusted to various Offices/Officers within the Government departments/organisations. The comprehensive and complete list of Attached and Subordinate Offices with links to their Websites needs to be provided. It will have a complete directory with names, designation, e-mail addresses, telephone numbers and postal addresses of Minister, Secretary, Heads of Departments/Directorates, Divisions, Field Offices, departmental and Public Sector Undertakings, Nodal Officers for Public Grievances, Citizen charters.

(Contd.)

Annexure - 3 : *(Contd.)*

Functions	Website will contain a comprehensive functional map of the Department, subjects dealt along with designation of officers concerned, subjects assigned to Attached and Subordinate Offices, rules, procedures, important studies conducted etc. Department may also enclose the list of achievements and milestones and other important events as it may deem fit. The list of publications brought out by the department will also be displayed with associated links for viewing/ downloading such published material. Periodicals, if any, will also be displayed prominently.
Constitutional, Legal and Administrative Framework	Acts, Rules, Gazette Notifications, Statutory Orders, Important Judicial pronouncements, Notifications, Handbooks, Guidelines, Instructions, Compendium of Circulars etc.
Plan, Schemes, Programmes and Websites	Information related to the 5 year plan, Annual Plans and Budget of the Department or Organisation with details of Schemes, Programmes, websites, externally aided websites, Central Schemes, Centrally Sponsored Schemes etc. Brief details of envisaged outcomes, resource allocations, modalities, delivery mechanisms, performance monitoring,

(Contd.)

Annexure - 3 : *(Contd.)*

	ongoing programme evaluation/ assessments, midterm interventions, critical success factors, involvement of stakeholders, inviting feedbacks/ suggestions etc. will also be mentioned.
Services offered	Websites will clearly show the services offered online or through various offices/ facilitation counters etc. being run by the Department, the target beneficiaries, relevant rules, procedures, eligibility criteria, what is expected of Citizens/ Clients and such other relevant information which would facilitate the Citizens/Clients to avail of such services. Discussion forums, theme based chat with Minister/Senior Officers may also be provided.
Publications and Reports	Annual Reports, White Papers, Plan Reviews, Statistical Reports.
Feedback Mechanism	Website will be interactive and will have a mechanism to enable the visitors to give their feedback.
Notice Board, What is new, Announcements, Press Release, Tenders, Procurement and Disposal	Website will have a Notice Board which will prominently display the latest developments, current events, future programmes, information relating to new publications brought out by the organisation. It will also contain

(Contd.)

Annexure - 3 : *(Contd.)*

	information about the seminars, workshops etc. to be held in future and new appointments at senior level.
Advertisement, Public Relations and Promotion	Advertisement and promotional messages/literature relating to the Department may be provided / published through the website.
Approved NGOs/Stakeholders	Details of Collaborating Government, Departments/Organisations/Institutions and Stakeholders along with approved NGOs may be displayed.
Search Engine	Website will have Search Engine to enable the users locate and access information / contents with ease.
Collaborative features for asynchronous information exchange, knowledge sharing	The Ministry / Department should examine the feasibility of providing features that enable users from other government Ministries / Departments, States, Undertakings and other Government as also Non-Government Organisations to exchange information and experience in an asynchronous manner.
FAQ and Help	The Department should also consider putting up relevant information under an active link titled "Frequently Asked Questions (FAQ)" providing details in significant areas of focus.

(Contd.)

Annexure - 3 : *(Contd.)*

Current Events Calender	Details of forthcoming events/meetings, conferences, programmes and other activities scheduled during the quarter/ year may be indicated.
Archives	Website will display original contents and their amended version with date of amendment.
Personnel	Cadres, Civil list, employees corner and related information
Other features	Any other feature which the Ministry/ Department may deem fit and which are specific to the Ministry/Department concerned.

(b) Website Features

The website should have the following essential features.

Bilingual Support	The content will be both in English and Gujarathi
Site Map	Site Map is provided for navigation support
Consistency	Uniform look and feel is maintained in all web pages
Access	Access to contents is logical and intuitive
Layout of Menu, Icons and Hyperlink	The organisation of hyperlinks on the homepage and in the interior pages to intuitively reflect the significance of the

	information or service associated with the link. Floatable and collapsible menus for effective use of space and icons providing cue to hyperlink contents are to be used effectively
Search Engine	To facilitate the users locate and access information / contents with ease
Content Structure	Contents may be organised meaningfully with appropriate metatag/ labeling scheme interfacing with an appropriate uniform electronic record management system adopted in the organisation with features such as version control, information on ownership, storage location, file number, keywords, context description etc.

(c) Some of the other desirable features of the website are as follows:

i. Information is available with minimal number of clicks and the location of the user at any given point while navigating through the site is visually displayed to him/her.

ii. Site is stable and reliable with predictable behaviour of hyperlinks and menus

iii. Site Management /System Administration tasks are facilitated with built-in exception reporting, escalation features in the software

iv. Website does not enforce client side requirements/efforts other than use of browsers

v. Site is well organised and navigation is clear and consistent.

vi. Advanced security analysis and mechanisms such as port scans, Trojan sweeps, vulnerability profiles, firewall setups, network sniffers, software and application faults, e-mail vulnerabilities, database and human interface weaknesses etc., are incorporated in the standard operating procedures.

(d) The Service Provider may be required to provide any or all of the following services, including additional services.

i. The homepage design must clearly specify the role of the Department

ii. The site must be navigable easily

iii. Colours should be live and attractive

iv. Graphics download should be fast

v. The menu-sub-menu structure should be neat and clear

vi. The arrangement of contents should be neat and clear

vii. The website must follow open standards to the largest degree possible, in particular XML and web services.

viii. The website must be built with all the security features incorporated. The detailed document of the website security architecture and features will have to be prepared by successful bidder.

ix. The website must be built with proper authentication/authorisation scheme for accessing secured content/applications.

x. Every page of content should have a self-triggering updation cycle. This will ensure that the content is updated when it should be updated.

xi. The software should facilitate dynamic updation of web-pages using asp/jsp. JavaScript or such other programming languages using database interfaces wherever necessary and capturing records to the extent possible at the stage of their creation.

xii. Meta tags should be used in such a way that the public evaluation of any website can be conducted.

xiii. Primarily this should take care of itself if website has appropriate content placed and crawlable. Most of the department websites (esp Gujarati) are not crawled by search engines because they do not understand the fonts. The other important thing is to adhere to standard web guidelines.

xiv. Gujarati language support should be Unicode compliant

xv. Dynamic fonts should be used so that user need not download for read only facility

xvi. All websites should use some or other form of content Management System

xvii. With Right to Information in place, all website site/content structure should be evolved on the basis of RTI

xviii. Website should be able to target devices like PDAs and mobiles

xix. All websites of the state to have links to all other websites in useful link sections

xx. All websites should be registered as independent domains rather than sub-domains.

xxi. Provide Training to departmental officials

xxii. The web application design and its implementation may envisage seamless integration of other legacy applications through web enabled interface modules and appropriate workflow process for seeking content approval through required levels of scrutiny

xxiii. The website will feed to have features that can provide basic statistics of use or to report on errors, set access/privileges and help in maintenance and management of the website.

xxiv. Facility for measuring the number of hits to the site must be provided, and a monthly report on the number of hits to the site may be provided to the concerned CIO on a monthly basis.

xxv. It will also be necessary to conceptualise the manner in which further revision in the software to enable insertion of new features, deletion of unwanted links, reorganising lay-out, cross referencing content for navigation or other such design aspects and procedures associated with such revision may be carried out easily.

xxvi. The following facilities can be incorporated:

* Search Engine

* Option for User Queries and response (Provision for mailing to the Secretary or any other authority specified by the Department)

* User Feedbacks

* Help Wizards for Citizens/Online help features/Online complaint registration

* Links to useful Government Websites and related Departmental Websites

* Multi-lingual facility

xxvii. Details of public information not published on the Web must be able to be discovered on the Web. A brief summary must be provided together with details on how to access a copy via email, telephone or mail.

WEST BENGAL : INFORMATION TECHNOLOGY POLICY 2003

West Bengal has been one of India's fastest growing States in the last decade, with a 5.2 Per cent growth in per capita net SDP. Over the three-year period (Between 1998-99 and 2000-01), it has also ranked as the fifth most attractive destination[1] for investments. Going forward, the State has identified IT as a priority focus sector to be developed into a growth engine. This focus is reflected in the fact that West Bengal was among the first states to articulate an IT policy (formalised on 1 January, 2000). This was followed by a special incentive scheme introduced in November 2001.

In recent times, there has been explosive growth in the IT- Enabled Services[2] segment, which has recorded over 100 per cent growth in employees in the last 5 years. And it is expected to grow much faster than IT services in the short term. This nascent opportunity, coupled with the specific needs of the ITeS companies, has prompted the Government of West Bengal to articulate a focused ITeS policy (formalised in August 2002).

Core Objective Of The New IT Policy

The State has developed the new IT policy keeping in mind the enhanced opportunities that IT will unleash over the next decade. These opportunities will allow corporate to create immense value, provide significant opportunities for talent development and employment, and enhance efficiencies in governance and social service. Therefore, the core objective of the new IT policy is to allow different constituents within the State to leverage this opportunity.

The aspirations of the State's IT initiative are composite and well-rounded. The focus will not be limited to making the State the most attractive destination for IT investments. In addition, the State will leverage the IT opportunity for upliftment of the quality of life within the State.

In light of the new ITeS policy and the progress made by the State in the last three years, the Government feels the need to revise the existing IT policy to continue to underline the focus on the IT sector as well as give it new direction. Consequently, this policy document has been created to reflect the needs of the IT sector as a whole. It also highlights the progress made by the State since the January 2000 policy and defines additional regulatory support measures to boost the growth of IT in the State.

This policy complements the new ITeS policy by focusing in detail on the IT services segment. This document explains the new IT policy and consists of four sections.

1. Information Technology in public life;
2. West Bengal's IT vision ;
3. West Bengal's winning position on the enablers required to succeed in the sector (with specific reference to the IT services sector) and;
4. The regulatory support offered to investors.

Information Technology In Public Life

The State considers IT as a basic mission that can help the people uplift the standard of social life. It is clear that people will embrace IT only if it is able to add value to their daily life. The State will strive for a situation where every citizen is able to leverage IT. However, individual ownership of the facilities by all the citizens will remain an utopia. Therefore, the State's approach will be to provide community possession of IT hardware, software and accessories that will be adequately networked with the external world.

The State has undertaken an aggressive e-Governance policy to connect almost 3600 local self-governments (Gram Panchayats) and all the Municipalities. These democratically elected Panchayats and Municipalities, empowered with IT, will ensure information of the State to its people, and simultaneously allow the people to provide inputs to the State's decision

making authorities. This, in turn, will guarantee a true participatory and transparent decision making process. The State's long tradition of truly decentralised development approach will enable IT to reach its people. With this, the State will have emerged as an IT – enabled State in its fullest meaning.

The State plans to create a conducive environment for the participation of NGOs (Non-Governmental Organisations) to take the impact of IT to the common man. In this regard, we plan to encourage NGO to take up specific initiatives.

The State Has Set Aggressive Targets in IT

West Bengal has registered steady growth in the IT sector with a CAGR of 90 per cent in the period between 1996-2003. Currently (2003), its STPI export revenues stand at ₹ 1200 crore. It has also managed to attract major IT and ITeS players to West Bengal like Tata Consultancy Services, Cognizant Technology Solutions, ITC Infotech, Computer Associates, SchlumbergerSema, Siemens, The Chatterjee Group, IBM, Wipro, Spectramind, Samsung and United Airlines. The State recognises that the potential is far higher, given its intrinsic capabilities. It has, therefore, set significantly higher targets in both IT Services and ITeS.

A study by McKinsey and Company has helped create the State's IT vision and drawn up a roadmap for success in the sector. The aspiration set for West Bengal is to rank among the top-3 IT States in India by 2010 and contribute 15-20 per cent of the country's total IT revenues. The focus in the long term will be on high value-added IT work, developed through intellectual leadership and supported by Government initiatives. This approach emulates the approach displayed by the world's premier technology hubs (such as Boston, Dublin and Singapore) that have developed through a combination of corporate leadership, intellectual leadership or government leadership.

The vision is in tune with the goals set in 2000 to "build on the state's creative intellectual wealth and focus on one or two areas of

excellence for rapid growth as well as stimulate the growth of IT enabled services and back officer support services". The vision has been broken down to targets at the segment level. In IT services, the State is targeting 10-15 per cent of software services exports, 25 per cent of all product development /R&D outsourcing and 5-10 per cent of domestic software services and products. In ITeS, it is targeting 15 per cent of BPO[3] revenues (transaction processing and customer interaction services, including call centres) and 10 per cent of revenues in other service segments like animation, knowledge services and engineering and design services (including a leadership position in knowledge services and animation). Assuming growth of the India IT space as per projections made by Nasscom, we believe IT and ITeS will be able to create employment opportunities for 400,000 people. In terms of revenues of IT companies, the State's vision will translate into total revenue of US$ 15 billion by 2010. This will imply a CAGR (cumulative annual growth rate) of 65-75 per cent.

The State is well positioned to achieve this vision. It has a high quality and low cost talent pool of graduates and engineers. Its IT policy offers incentives that can greatly reduce the one-time and recurring expenditure of IT companies. West Bengal is the only large State with surplus power and its telecom infrastructure is comparable with all other IT destinations. The State also recognises the strategic imperative faced by IT by helping development of centres of excellence in key industry verticals. Initial focus will be on developing four verticals: financial services and banking, insurance, discrete and process manufacturing and retail and distribution. Besides, the State has a strong creative tradition of different fields of entertainment related to IT and ITeS activities e.g. animation that will significantly help it in attaining its vision.

From the beginning, the State has realised that government initiatives to increase IT usage will play an important role in creating internal demand and spurring growth in the industry during the formative years. Some broad initiatives were identified in the goals set in January 2000, namely:

* Set up a State-wide delivery backbone to support e-governance, e-commerce, distance education and provide an efficient government citizen interface

* Transit to an IT enabled government by adopting e-governance appropriately

* Address IT in education to produce IT professionals, proliferate an IT culture at the grassroot level and promote specialised education institutions.

In the last three years, the State has made significant progress in these initiatives. Today, WBSWAN (West Bengal State-wide WAN), developed by WEBEL[4] and Tata Infotech, connects Kolkata to over 19 district headquarters and nine other important townships in the State. In the second phase, 340 blocks and 3,600 panchayats are planned to be covered. This network forms the State's IT backbone and over time can offer the opportunity for private companies to leverage it to connect to their suppliers, distributors and consumers.

The Department of Information Technology facilitates the development of IT in the State. Specific e-governance projects undertaken include the use of the ASP5 model and government portals in collaboration with TCS to provide public interface to government information, GIS (Geographical Information System) for municipalities and computerisation of government departments (including land records). The State has already introduced significant computerisation in several government departments, district offices, field level agencies and local bodies. Some of the key Departments like Finance, Home including Police, Land and Land Reforms, Panchayat and Rural development, Transport, Commerce and Industries, IT, Labour, Environment, Higher Education and School Education have implemented major e-Governance initiatives in recent years. It has also introduced a 'state-of-the-art' computerised system in the Directorate of Commercial taxes, full automation in all treasuries, smart cards for registration certificates and driving licenses, digitisation of land records in all blocks and is piloting a kiosk based land records data retrieval system.

The State has also launched an aggressive IT literacy programme in schools and colleges in collaboration with IBM, Wipro, NIIT and others. Some initiatives include the provision of hardware and software to schools

as part of the school IT literacy programme (500 schools have been covered); the training of school and college teachers, the setting up of 10 polytechnics for courses in IT and computer science and technology and a distance learning programme with IBM. The school IT literacy programme is being extended to all schools in phases. Phase-I is already complete, Phase –II will have 2,500 schools covered by 2003-04 and during the next three years all 11,000 schools are proposed to be covered.

The State has also made progress in terms of high quality infrastructure through the STP and privately promoted software parks. The November 2001 incentive scheme and the August 2002 ITeS policy are by far the most generous fiscal incentives and regulatory support package currently being offered to investors in India.

The State Is Well-positioned On The Key Enablers Required For Success

The key enablers required to support the ITeS industry have already been outlined in the August 2002 ITeS policy. While the five key enablers required to support the IT services industry are the same, the emphasis is different and is detailed below. The key enablers are: availability of good quality talent, low cost of operations, availability of high quality infrastructure, government support and investor facilitation. A detailed analysis shows West Bengal to be very competitive on all these dimensions.

1. A large good quality talent pool

The State's rich talent pool provides significant advantages to all knowledge-based industries such as IT. The IT-related education programme of the State will open up avenues to further enrich this talent pool.

The State recognises that expanding the talent base will be central to the success of its IT initiative. The State has undertaken a programme to expand basic computer literacy among students in 11,000 Secondary, Higher Secondary and Madrasa schools within the next three years. This programme will cover nearly four million students. The basic nature of IT education will be closely related to market-demand. In order to ensure this,

the content of IT education is aligned to the specific demands of the human resources market.

West Bengal has a large pool of quality talent and has historically enjoyed very low attrition rates.

1.1 Large Pool of Engineers and Analytical Graduates

West Bengal has the highest per capita spending on education among large Indian states. This is reflected in the huge annual intake of undergraduate students (13,000 students for engineering courses and 1,05,000 for science graduate courses). There are 52 engineering colleges in West Bengal. The State also has an existing pool of over 15,000 experienced IT professionals with more being created every year (NIIT has more centres in Kolkata than Hyderabad, Bangalore or Chennai).

Good Quality Talent Pool

The quality of talent available is demonstrated by the fact that over 20 per cent of IIT students belong to this region. A significant section of the NRI entrepreneurship at Silicon Valley too belongs to this region. In addition, premium educational institutes like the Indian Institute of Technology, Kharagpur (IIT-KGP), Indian Institute of Management, Calcutta (IIMC) and the Indian Statistical Institute (ISI) are located in the State. Two of its graduate colleges, Presidency and St. Xavier's are ranked among the top-10 degree colleges in India.

1.2 Domain Knowledge in Financial Services, Insurance, Manufacturing and Travel/Logistics

The local talent has domain knowledge in these verticals due to the presence of local industry:

* *Financial Services*

Three banks are headquartered in Kolkata, while over 15 foreign/ private banks are present in the city and over 4,600 bank branches are present in the State.

* *Insurance*

Kolkata is one of the largest insurance centres in India. It is home to the National Insurance Corporation and the Eastern headquarters of the Life Insurance Corporation (with 29 per cent of their nation-wide agents). Most private sector insurance players have also started operations from here.

* *Discrete and Process Manufacturing*

West Bengal's engineering sector employed about 3.15 lakh people in 5,000 units in 1999. It is home to several major discrete manufacturing units (Videocon, ABB, India Foils, etc.) and process industries (Haldia Pertrochemicals, Mitsubishi chemicals, steel, cement and oil and gas units).

* *Travel and Logistics*

West Bengal has one of the India's largest port complexes (Kolkata and Haldia) and acts as the logistic hub for 11 States in eastern India.

* *Artistic and Creative Talent*

West Bengal is the prime source of artistic talent in India. It has a strong tradition of visual arts, is the home for modern India theatre and cinema. Creative tradition of the State in different fields of entertainment related to IT and ITeS activities e.g. animation that will significantly help it in attaining its vision.

1.3 Low Attrition Rates

Historically, Kolkata has enjoyed low attrition rates as compared to the industry averages (estimated at 10 per cent against industry benchmarks of about 20 per cent).

1.4 State-level Initiatives to Ensure Availability of Quality Talent

The State realises the importance of high quality talent and plans to launch a series of initiatives to ensure its continued availability for IT

companies. In this regard the State has institutionalised an Academic Council that will advise the government on these initiatives. The State has also formed an Industry Academia forum to facilitate regular communication on pertinent issues (e.g., updating of curriculum based on the needs of the industry). Some of the initiatives that the State is considering are:

* *Ensuring Adequate Engineering Talent*

The State plans to take initiatives to ensure adequate seats in existing colleges and sufficient new colleges, required number of high quality faculty and the inclusion of foreign language education in the curriculum of engineering colleges. To ensure successful execution of this strategy, the State will draw up a public–private-funding model that will ensure that necessary investments are made in this sector. It will also take steps to ensure the financial self-reliance of government colleges and viability of private colleges.

* *Attracting Middle and Senior Management Talent*

The State plans to take initiatives to improve the social infrastructure required to attract and retain middle and senior management.

2. Significantly Lower Cost of Operations

Kolkata offers IT players one of the lowest operation costs in the country. This is reflected in the low CMIE consumer price indices[6], compared to other key IT destinations in the country (355 for Kolkata compared to 454 for Chennai, 413 for Bangalore, 410 for Hyderabad and 401 for Delhi). Also, the low attrition levels in Kolkata reduce the training costs incurred by the employers. The State's transport system offers one of the lowest transport costs.

In addition, the State offers best-in-class fiscal one-time and recurring incentives to IT companies. These incentives further strengthen the value proposition of Kolkata as a low-cost centre.

3. High Quality Infrastructure

The State has strengths in all areas of physical infrastructure. This includes international telecom connectivity, physical and social infrastructure and power supply. Kolkata is also well connected to international destinations in Asia, Europe and the US.

3.1 Telecom Connectivity

Kolkata offers about 580 Mbps of International satellite connectivity through VSNL and STPI. About 70 per cent of this bandwidth is available to new players. The State is now planning to set up two more earth stations at Kharagpur (near IIT) and Durgapur. Cable connectivity is provided through leased BSNL lines to Mumbai and onward connectivity through submarine cables. Besides BSNL, private players like Reliance Infocomm and Bharti Telesonic are in the process of connecting Kolkata as well. In addition, multiple local loop options are available from BSNL, STPI, WLL/OFC.

3.2 Availability of Built-up Space and Land

Kolkata offers excellent walk-in physical infrastructure. These include the STPI in the Salt Lake IT hub and privately constructed parks like Bengal Intelligent Park (BIP) and Infinity. These house over 170 IT/ITeS companies, employing some 15,000 IT professionals. In addition, the Government makes plots available for new IT projects at the highly subsidised rate of about ₹ 40 lakh per acre, which is 215-20 per cent of the market price. WEBEL plans to create a new IT infrastructure over a 10 acre plot of land in New Town. The urban infrastructure in the New Town is to have a special focus on the growth of knowledge based industries and will encourage creation of social infrastructure required to sustain the growth.

3.3 Continuous Supply of High-quality Power at a Low Cost

Its high investments in power generation over the last 10 years have made West Bengal one of the few power-surplus states in India. In fact, in the recent surveys, both Nasscom and Gartner have ranked Kolkata as the best place in the country on the dimension of power infrastructure.

The high percentage of thermal power ensures that the supply is not adversely affected during dry season.

3.4 Availability of Social Infrastructure

The Government recognises the importance of social infrastructure in attracting senior/middle management talent to Kolkata. The city has excellent social infrastructure in place. These include social, sports, rowing, swimming and golf clubs of international repute; cultural centres, recreational centres; excellent hotels; some of the best schools in India; privately managed hospitals and a range of tourist destinations nearby. To further improve facilities in and around Salt Lake, a dedicated team has been drawn up from the IT companies that have a presence in the area. Hyatt Regency and IT Sonarbangla Sheraton has started their operations in the city and both these facilities are located in the Salt Lake area.

3.5 Good Connectivity to International Locations

Kolkata is well connected to prime locations overseas and in India. These include the prime Asian hubs of Bangkok and Singapore as well as key Western locations such as London, San Francisco and New York. The city is also well connected to important domestic locations through daily flights.

4. Government Support

The State realises the important role of government initiatives that increase IT usage play in creating internal demand and spurring growth in the industry during the formative years. It also realises that increased IT literacy improves both the demand for IT as well as the supply of trained IT workers. Hence it has already taken multiple e-governance and IT literacy initiatives.

However, the government recognises that most of the current e-governance initiatives are still department centric and information based. It intends to quickly move to transaction-based applications (i.e. enable actual processing of transaction online) and then further to the launch of

user centric applications (e.g. a one stop-shop government portal). It also intends to increase the intensity of the IT literacy efforts to address more people (especially government servants) as well increase the sophistication of the training. To ensure successful execution of these initiatives, the State will draw up a public-private-funding model that will ensure that necessary investments are made in this sector. These initiatives have also been supported through the regulatory framework and incentives detailed in the 'Regulatory support' section.

The Government has addressed most issues related to IT operations. These include permission for women to work at night, permission to run three shifts irrespective of national holidays, relaxation in building and zoning laws (e.g. ability to construct centres in residential areas), exemption from zoning laws for purposes of regulations, exemption from statutory power cuts and exemption from purview of West Bengal Pollution Control Act (except for diesel generator sets). These are discussed in more detail in the 'Regulatory support' section.

5. IT Promotion Cell

The Government of West Bengal has started an IT Promotion cell[7] from August 2003. The cell reports directly to the Minister-in-charge Information Technology and is led by the Principal Secretary, department of Information Technology. This cell will play a crucial role in helping investors setting facilities in the State and also provide them with information (e.g. real-estate available, details of colleges and schools, contacts focuses on two fronts -1) Investor promotion, 2) Strengthening the IT infrastructure in the State through dedicated officers who are in-charge of specific initiatives. As a part of this cell, the State has already started a mechanism of continuous feedback from IT companies located inside the State.

6. Single-window Agency for IT Investors

At the operational level, the Government has made it easy for investors to set up operations in Kolkata through Webel[8], which is the single-window support centre for all IT investors in the State. This policy

document announces the formation of support structures for the single-window-system and lays out the policies and procedures by which it will be run. The IT department has a website www.itwb.org which provides the required information for IT investors. The government intends to add transaction capability and the facility to submit forms online to this website. This website will be upgraded to a Portal designed to take the single-window-system online.

Investors looking to set up operations in West Bengal will need to submit only one form to Webel. The organisation will provide a dedicated escort officer to companies investing more than ₹ 1 crore in the State. The Principal Secretary, Department of IT, will personally supervise investments of more than ₹ 5 crore. The Managing Director of Webel, General Manager – IT, and General Manager – Infrastructure Services will be personally responsible for ensuring ease of setting up operations for AIT investors. Webel will help companies in obtaining building space on rent/lease and in purchase of land, interact with Government bodies such as Telecom providers, WBSEB (power connections) and the local municipality (building clearances) to minimise the company's exposure to multiple authorities. Further, the STPI has authorised Webel to grant registrations on its behalf.

A high-powered Committee of Secretaries under the Chief Secretary is being created to resolve all multi-departmental issues. The committee will be headed by the Chief Secretary, with Principal Secretary to the Chief Minister, Principal Secretary, IT (Convenor) as members. Other department heads will be invited on an as-required basis. The committee will ensure a response on a company application within 14 days of its submission. This committee will also monitor the implementation or major projects being undertaken by the State Government towards the development of the IT sector.

Issues that can be solved at the level of Committee of Secretaries will be forwarded to the Cabinet Committee on Information Technology. The Chief Minister will chair this committee and its members will include the Finance Minister, the Commerce and Industries Minister and the IT Minister. Other ministers will be invited on as and when required basis. This

Committee will meet once a month to push the process on a case-by-case basis (as required). IT will also monitor and implement the outlined policies at the apex level.

The State government has enjoyed the benefits of inputs from industry leaders in the past and especially in the last year while it has created an IT vision and a roadmap to achieving the vision. The government intends to continue soliciting inputs from industry in a structured fashion.

Investors To Get Both Regulatory Support And Fiscal Incentives

The Government has evolved a best-in-class package of fiscal incentives and regulatory support to investors.

A. Supportive regulatory framework set up for investors

Based on the inputs received from investors, West Bengal has granted the following non-fiscal incentives to IT investors to help their day-to-day operations.

1. *Procedures under Existing Labour Laws Simplified to Ensure Smooth Operations :* In IT, where human resource inputs are highly flexible and mobile, the Government recognises the need to simplify procedural framework under the existing labour laws. Accordingly, the Government is committed to move from a regulated administration framework to a promotional framework to facilitate smooth functioning of the business.

1.1. All IT companies are granted the status of 'Public Utility Service' providers under the Industrial Disputes Act, 1947. The majority of employees in IT organisations are outside the purview of the 'blue-collared worker' class. However, in view of the Government's understanding of the primarily export oriented nature of work and hence the need for 24x7 operations of the IT sector, the Government has decided to classify the IT sector as a 'Public Utility Service'.

1.2. All IT units are deemed 'establishment' under the purview of the West Bengal Shops and Commercial Establishments Act, 1963.

1.3. Given the round-the-clock nature of work that is part of the IT industry, the Government grants it permission to work on a 24x7 model. These units are also exempt from the following provisions of the West Bengal Shops and Commercial Establishment Act, 1963.

* Closing an establishment and granting of a weekly holiday under Section 5 (1) of the Act, provided that every individual has at least one day off every week and a compulsory day off in lieu of working on bank holidays. This would enable the IT companies to run their operations on all seven days of the week.

* Opening and closing hours under Section 7 (1) of the Act. This would enable the IT industry to run a three-shift operation.

* Working hours' stipulation under Section 7 (2) of the Act. This will enable 'flexitime' operations for its employees.

* Enabled to engage female employees between 8 pm and 6 am, under Section 10 (b) of the Act subject to (i) Special arrangements being made for protection of female employees during these hours; (ii) Female employees being employed jointly or in a minimum group of 10 female employees; (iii) Arrangement of a separate rest room for female employees; (iv) A minimum of 50 people to be employed during these hours (including female employees).

1.4 Under section 13 of the West Bengal Shops and Commercial Establishment Act, 1963 the IT companies will now have an option of giving compensatory day off to an employee if the quantum of work exceeds 48 hours a week.

1.5 Under the Employment Exchange Compulsory Notification of Vacancies Act, 1963, IT companies will be required to send a consolidated report every quarter on the vacancies to the concerned employment exchange. The exchange will, however, sponsor names only when specifically requested to do so by the company.

2. Self-Certification allowed for IT companies on various acts

Having regard to the Government's responsibility envisaged in the Acts and Regulations mentioned below, the Government permits self-certification to IT companies to the extent possible.

* Payment of Wages Act
* Minimum Wages Act
* Contract Labour (Regulations & Abolition) Act
* Workmen's Compensation Act
* Employees State Insurance Act
* West Bengal Shops and Commercial Establishments Act
* Payment of Gratuity Act
* Employees Provident Fund and Miscellaneous Provisions Act
* Maternity Benefits Act
* Water and Air Pollution Act

3. IT companies awarded special status under various acts to improve infrastructure availability

In addition to the exemptions mentioned above, IT companies are given the following facilities :

* Automatic clearances under the West Bengal Pollution Control Act, except in respect of power generation sets (already granted under West Bengal Incentive Scheme, 2001)
* Exemption from statutory power cuts (already granted under West Bengal IT Policy 2000)
* Exemption from zoning regulations on application of company

4. Structural policy changes made to boost the growth of IT in the State

The State government realises the need for additional structural changes to boost the growth of IT. It commits to making the following changes within a time-frame of one year.

Support for Business Continuity Plans

The state government realises the importance of such plans given global events (e.g. 9/11). It will draw upon its geographical proximity and historical relations with the governments of the nearby countries (e.g. Singapore, Thailand, Malaysia) to support IT companies in the evolving multi-country business continuity plans. The support will be in the form of assisting the companies in discussions with these countries. Such plans would envisage an alternative country 'warm site' to act as a backup to the main site in West Bengal.

Data Protection

The State intends to define a data protection act (this will lay out the nature of information protected under the law, set up a regulatory authority to ensure enforcement, declare penalties for violation, etc.) to help both IT and ITeS companies to provide additional comfort to their customers.

IT Security

The State government is committed to initiating legal proceedings against people compromising the security of government databases (i.e. hacking into government databases) and supporting aggrieved companies in initiating proceedings in similar offences against company databases.

Online Government

The State government intends to move towards accepting payments online along with the acceptance of digital certificates in lieu of signatures for the submission of various government forms/applications. The

government will also issue all government notifications online and through the gazette simultaneously.

* *Anti-piracy Measures*

This policy document declares West Bengal a zero-piracy State. The government has set up an anti-piracy cell to review serious piracy cases and initiate appropriate action. The mandate of the e-governance committee is extended to include steps to increase awareness of anit-piracy measures in various departments and initiate the move towards setting up of compliance infrastructure.

* *Industry-academia Collaboration*

Webel will assist IT companies in obtaining any academic/R&D support they require from the appropriate institutions (e.g. Indian Institute of Technology –Kharagpur, Indian Institute of Management- Calcutta, Indian Statistical Institute – Jadavpur University).

* *Increased Support for Feeder Industries*

Webel will assist support services (e.g. infrastructure developers, training institutes, transport companies and other support services) in obtaining government clearances and support. Such assistance will be triggered by a request from an IT company.

* *Digital Divide*

The State government recognises the potential social issues thrown up by the 'digital divide', i.e. the lack of access of the poor to IT and its benefits. It intends to address these issues early by exploring means of reducing this divide. Some potential measures include free for public use internet kiosks, public terminals in government schools and other public places and free IT literacy classes for the poor.

B. Fiscal incentives for IT investors

The West Bengal IT Incentive Scheme, 2001 offers fiscal incentives that are significantly more competitive than those offered by any other state. The IT investments have been included in the scheme that enables them to avail of the fiscal incentives. Please refer to the West Bengal IT Incentive Scheme, 2001 available on www.itwb.org for details regarding the scheme.

In order to ensure that the scheme stays current, the following additions/modifications (highlighted in italics) have been made to the scheme.

1. One-time Fiscal Incentives

* *Exemption for Consumption Tax*

As per section 2 (b) of the State Tax on Consumption or Use of Goods Act, 2001, IT companies are exempted from consumption tax on computer hardware, computer peripherals and other capital goods including captive power generation sets during the implementation stage.

Quality Linked Incentives

In pursuance of high quality standards by the State, IT companies in the small scale sector will be reimbursed 50 per cent of the expenditure incurred by them to obtain ISO/ISO 9000 certificate or SEI-CMM Level 5 or COPC-2000 or eSCM level 3 with a ceiling of ₹ 5 lakh.

2. Recurring incentives

* *Converting Interest Subsidy into Training Subsidy*

Within the limits of eligibility, an IT company can choose to convert a part of its interest subsidy (as defined in the West Bengal IT Incentive Scheme, 2001) into a training subsidy to pay for the training of its employees in West Bengal. This will help support the government's aim of increasing IT literacy in the State.

Preference for West Bengal Units in Award of e-governance Projects

An IT company with an office in West Bengal and employing a minimum of 20 per cent of its total workforce in its West Bengal operations, and otherwise compliant with the tender requirements, shall be entitled to 5 per cent price preference for all West Bengal government e-governance projects. Given the scale of West Bengal's planned e-government initiatives, the government believes that this could be a huge source of opportunity for the IT industry in the State to grow.

Special Incentives for Mega-Projects

For mega-projects that require investments exceeding ₹ 25 crore and employ more that 750 people in their first year of operation, the Government may consider a Special Package of Incentives on a case-to-case basis. Specifically, for companies with plans to set up large centres, the State may consider a graded incentive package that would increase the incentives offered per employee with an increase in the planned size for the centre.

The Government of West Bengal strongly believes that this policy will create an enabling regularity framework for IT, attract investments and sustain the huge initial momentum already generated in the sector.

Source : IT Department, Government of West Bengal, 2003.

Notes

1 As per the Central Statistical Organisation (CSO)

2 ITeS includes services like back office operation, all centre, content development/animation, data processing, engineering and design, geographic information system services, insurance claim processing, legal database, medical transcription, payroll processing, remote maintenance, revenue accounting, support centre and website services

3 Business Process Outsourcing

4 West Bengal Electronics Industry Development Corporation Limited

5 Application Service Provider

6 CMIE Consumer Price Index (urban non-manual labour)

7 Contact details of the cell are available on www.itwb.org

8 www.webel-india.com

OTHER PUBLICATIONS IN THIS SERIES

I. Role of PRIs in Management of Rural Health Care and Family Welfare Services: An Exploratory Study
2. The State-Sponsored Innovative Rural Development Programmes - The VDB of Nagaland
3. Management of Public Distribution in Two States - Gujarat and Karnataka
4. Viability of Service Area Approach to Small Farmers
5. Social Security to the Poor : Efficacy of PDS and WEPs in Karnataka
6. Participatory Planning : A Study of the Planning Process in Kerala
7. Micro Credit for Micro Enterprises
8. Planning for Kohir Mandal
9. Demography of Crimes in Rural Areas : Causes and Remedies
10. Impact Assessment of Wage Employment (JRY and EAS) Programmes in Selected Areas of Uttar Pradesh
11. Working of Tribal Panchayats in Bilaspur District, Madhya Pradesh
12. Functional and Financial Devolution on Panchayats (A Study in Daman & Diu and Dadra & Nagar Haveli)
13. People's Perception of Panchayati Raj in Kerala
14. Nyaya Panchayats in India : A Study
15. Emerging Leadership among SCs/STs under New Panchayati Raj Act in Karnataka
16. The Role of Panchayati Raj in Natural Resource Management: A Study of Two Village Panchayats in Tamil Nadu
17. Community Polytechnics and Rural Development
18. Role of Melas in Marketing of Rural Industries Products
19. Impact of Committee System in Promoting Devolution of Panchayats : A Study in West Bengal
20. Planning for Sustainable Rural Environment through Watersheds and Water Harvesting Structures : A Process Study
21. Impact Assessment of Wage Employment (JRY & EAS) Programmes in Selected Areas of Bihar
22. Decentralisation of Power in Schedule V Areas : Interface Between Panchayati Raj Institutions and Line Departments
23. Participatory Micro Level Planning : A Study of the 11th Janmabhoomi Programme of Andhra Pradesh
24. Management of Panchayati Raj Finances in Andhra Pradesh : A Study in Medak District
25. A Study on Wage Employment Programme in Kumool (Andhra Pradesh) and Surat (Gujarat) Districts
26. Self-employment Projects-Group Approaches
27. Management of Public Distribution System in Two States (Kerala and Orissa)
28. Capacity Building of SHGs to take up Micro-Enterprises under SGSY : A Quick Study in Jalna District, Maharashtra
29. Rural Infrastructure and Welfare of the Poor
30. Organisational and Institutional Arrangements across the Watershed Programmes: A Study of Kerala Model
31. Rural Road Links : A Study of Sagar District in Madhya Pradesh
32. Micro Credit Interventions in Promoting Micro Enterprises
33. Impact of Integrated Wasteland Development Programme (Phase-II) (IIWDP) : A Study in Uttar Pradesh

RS 97

34. Entrepreneurship Development among Rural Women
35. Employment. Earnings and Environment among Diamond Cutting Workers in Gujarat
36. Direct Funding to Watershed Community : Process and Impact
37. Employment and Levels of Living Among Cane and Bamboo Artisans in Tripura
38. Strategies for Marketing of Rural Industries Products
39. Activities for Women under Cluster Approach and their Capacity-Building under SGSY - A Study in Five States
40. Management of Rural Development Programmes with Special Reference to JGSY: A Study
41. Changing Pattern of District Administration with Particular Reference to the Role of the Collector in Panchayati Raj
42. Panchayati Raj Finances in Maharashtra : A Quick Study
43. Institutional and Infrastructural Impediments in Rural Industrialisation in Dindigul District, Tamil Nadu
44. Gram Sabha : A Study in Two States
45. Social Mobilisation for Elimination of Child Labour : A Study of MVF
46. Participatory Management of Land Resources with Special Reference to JFM : Impact on Andhra Pradesh
47. Functioning; Performance and Leakage in Public Distribution System : A Study in Three States
48. Impact Assessment of JRY and EAS Programmes in Tripura
49. A Case Study of Savings and Investments of Rural Households in Sagar District of Madhya Pradesh
50. Emerging Leadership in the Tribal Area
51. Partnership in Community-initiated Forest Management System : Conflicts and Prospects
52. Training Towards Capability-Building among Various Clientele Groups In Watershed
53. Muga/Eri Silk Production and Constraints : A Process Study in Assam and Mizoram
54. Community Interventions in Traditional Rain Water Harvesting-Drinking Water
55. Capacity Building of Community-Based Organisations : A Study
56. Empowerment of Weaker Sections - The Barefoot College, SWRC, Tilonia
57. Positive and Inhibiting Factors in Cluster Approaches and Group Functioning of Micro Enterprises under SGSY
58. Post-Literacy and Continuing Education : A Study in Yamunanagar District of Haryana
59. Infrastructure for Rural Poor
60. Functioning of PDS in North-Eastern States
61. Assessment of Targeted PDS in Rural India
62. Rural Road Connectivity : A Process Study of PMGSY
63. Marketing Channels for Select Products of SGSY
64. Farmers' Suicides in Andhra Pradesh and Karnataka
65. Working of Women's Thrift Cooperatives under MACS Act in A.P. - A Study
66. Decentralised Planning and Management of Primary Health Care Services under Panchayati Raj Institutions
67. Implementation of SGRY in Chhattisgarh

68. Quick Study on Performance of SHGs and DWCRA Implemented by Government and Non-Government Organisations
69. Poverty, Gender and Reproductive Choice - An Analysis of Linkages
70. Empowerment of Women in PRIs : A Study in Six Select States
71. Flood Disaster Management: A Study
72. Risk, Vulnerability and Coping Mechanisms in Rainfed Agriculture : A Study in Three States
73. Gramsat: Utility and Effectiveness
74. Micro-Level Experiments in Food Security - A Study across States
75. Community Based Resource Management - A Study of Forest Panchayats of Uttaranchal
76. Agrarian Relations and Rural Poverty in Post-Reforms Period : A Study of Bihar and Orissa
77. Implementation of IAY : Issues and Achievements : A Nation-wide Study
78. Interventions of Livelihood Options for HIV and AIDS Affected People in the Rural Areas
79. Effectiveness of Watershed Development on Environment Conservation : A Case Study in Jharkhand and Madhya Pradesh
80. Gender and MGNREGS
81. Stakeholders' Participation and Equity Aspects of Watershed Development: A Study in Andhra Pradesh and Rajasthan
82. Stress Audit : For Rural Development Institutions At District and Block Level
83. Marketing Strategies for Traditional Fishery Products
84. Approaches to Forest Management : A Comparative Study of JFM and Self - Initiated Forest Management
85. Crisis in Handloom Industry: A Study in Andhra Pradesh and Tamil Nadu
86. Competency Mapping : For Rural Development Officials
87. Status of Land Allotted to Poor under Land Distribution Programmes - An Evaluation in Selected States
88. Behavioural Competencies Requirement for MGNREGS Administration
89. Pro-Poor Strategy for Micro-Credit Delivery System
90. Comparative Study of Institutional Arrangements and Farming Systems : Viable Options for Small and Marginal Farmers
91. A Study on Marketing Infrastructure for Fruits and Vegetables in India
92. Impact of Antyodaya Anna Yojana (AAY) on the Food Security of the Poorest of the Poor in Rural Areas
93. Impact of Federations in Economic Improvement of SHG Members : A Study Across Two States of India
94. Inclusion Of Persons With Disabilities Under MGNREGS : A Study Across Three States
95. Role of Exclusive Credit Linkage Programme for Occupational Dynamics among Fisherwomen – A Study in Andhra Pradesh & Tamil Nadu States
96. Land and Water Use Practices for Sustainable Smallholders' Livelihoods : A Study in Four States