Information and Communications Technologies for Development: A Comparative Analysis of Impacts and Costs from India

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I. Introduction

1.1 There is growing recognition and a desire in India, that the impact of Information and Communication Technologies (ICTs) potentially extend beyond the software export success enjoyed by the country in the last two decades. Since the direct impact of the export success is limited to a few metropolitan centers, and to a small segment of the labor market, privileged enough to have access to tertiary education in a country with high rates of illiteracy and poverty,[1] political and social compulsions also drive the hope that the deployment of ICTs will lead to economic growth and social change. In other words, much hope is vested in ICT for Development (ICT4D) projects.

1.2 E-governance is an important aspect of ICT4D projects that are meant to help transform the government' s functioning and its relationship to society. E-governance is used to understand " …the process of enabling transactions between concerned groups and the government through multiple channels by linking all transaction points, decision points, enforcing/implementation points and repositories of data using information and communication technologies, to improve the efficiency, transparency, accountability and effectiveness of a government."[2]

[1] In 2000, illiteracy among those older than 15 years was 42.8% (www.uis.unesco.org/en/stats/stats0.htm), while India' s gross national income, based on purchasing power parity, ranked 153 out of 207 countries (www.worldbank.org/data/ databytopic/GNPPC.pdf). In 1997, 44.2% of India' s population lived on less than $1 a day, and 86.2% on less than $2 a day (www.worldbank.org/data/wdi2001/pdfs/tab2_6.pdf).

[2] Subash Bhatnagar, *e-government: From vision to implementation, a practical guide with case studies* (Sage, 2004), p.21.

1.3 Following the announcement on Independence Day 2002, by Prime Minister Atal Behari Vajpayee, that the Ministry of Information Technology "…will implement a comprehensive programme to accelerate E-Governance at all levels of the government to improve efficiency, transparency and accountability at the Government-citizen interface. …. ", the Cabinet approved the establishment of the National Institute of Smart Governance in September 2003.[3] Shri Dayanidhi Maran, who took office as the Minister of Communication and Information Technology in May 2004, has made the implementation of a national e-governance plan to increase administrative transparency one of his ten priorities.[4] To that end, the Government of India (GoI) has drawn up a national e-governance plan (NEGP) to improve service delivery to citizens and businesses, to be implemented over the next three to four years, by expanding, for instance, the number of IT kiosks in the country from the current 8000 to 100,000.[5] In addition to the Rs.600 crores allocated by the government for the NEGP, the World Bank has also agreed, in principle, to provide US$500 million.[6]

1.4 The ICT industry is also taking the initiative to support e-governance projects. For instance, Shri Nandan Nilekani, the Chief Executive Officer of Infosys, funds the Bangalore-based eGovernments Foundation, whose goal is to create egovernance systems that will help improve the delivery of services to citizens by urban local bodies.[7] Similarly, Shri Azim Premji, the Chairman of Wipro, established the Azim Premji Foundation with his personal funds to

[3] http://www.mit.gov.in/actionplan/backdrop.asp

[4] http://www.mit.gov.in/tenpointagenda.asp

[5] *The Hindu,* "National e-governance plan drawn up*,"* 4 February 2005.

[6] *The Hindu,* "World Bank offers $500 million for national e-governance project," 14 March 2005.

[7] For details, see www.egovernments.org

develop management information systems for government education departments, educational software content and computer aided learning centers in rural schools with the ultimate goal of facilitating universal elementary education in India.[8]

1.5 Despite the good intentions and financial support, the effectiveness of such efforts is uncertain, as our analytical understanding of the relationship between the enhanced deployment of ICTs and development outcomes is murky.[9] The murkiness is due in part to the relative novelty of these projects and the lack of studies that offer an analytical understanding of how ICTs can be deployed to help tackle the problems of development. For instance, a recent study of e-governance projects in several nations rated the projects as either ' successful' , ' partial failures' , or ' failures'[10]. Although the study acknowledges that differences in the appraisal of the projects made formal comparisons of difficult, if not meaningless, it is also unclear how projects dealing with governance, a practice whose outcome is determined by many variables, can simply be situated on a ' success-failure' continuum. To avoid the risk of such simplification, it is not only essential to adopt a common methodology to study different projects, but it is also crucial to identify and understand the issues that determine outcomes in e-governance projects before meaningful analytical comparisons (or judgments) can be made about the effectiveness of such projects.

[8] For details, see www.azimpremjifoundation.org

[9] Kerry S. McNamara, *Information and communications technologies, poverty and development: Learning from experience* (World Bank, 2003), available at http://wbln0018.worldbank.org/ict/resources.nsf/d045b0dd4551da0885256b29005fce67/1e51786cd26a825585256e750063a3e7/$FILE/Learning%20From%20Experience.PDF

[10] http://www.e-devexchange.org/eGov/sfoverview.htm

1.6 Thus, this research was launched to generate hypotheses about e-governance projects, and more specifically, to undertake a comparative analysis of the costs, revenues and the benefits of such projects in culturally and linguistically diverse contexts in India. The study chose the following projects as case studies: Akshaya in Malappuram district, Kerala (Chapter III); Drishtee in Sirsa district, Haryana (Chapter IV); M S Swaminathan Research Foundation (MSSRF' s) Information Village Research project in Pondicherry (Chapter V); Rural E-seva in West Godavari district, Andhra Pradesh (Chapter VI); and the Sustainable Access in Rural India (SARI) project in Madurai district, Tamil Nadu (Chapter VII). The rationale for choosing the projects is as follows[11]:

1.7 **E-governance component:** None of the projects are exclusively e-governance projects. However, e-governance was a critical part of the services that they offered, with the goal of making government services more transparent, efficient and easily accessible, especially in rural areas. For example, the Akshaya project hopes that its kiosks will form decentralized delivery points for government services and act as data capture points for the government' s management information systems; Drishtee is convinced that computers and connectivity can provide government services in far flung villages; the Information Village Research project started with the goal of adding value to existing networks of information flows in villages; the SARI project aimed to fulfil the information needs of the rural poor; and the Rural E-seva project wishes to replace the traditional form of governance, and its accompanying inefficiencies, with a modern, more transparent and responsive service delivery system.

[11] In addition to the rationale given below, the cooperation of the project authorities was an essential criterion.

1.8 Further, the projects were selected to represent different types of initiatives. In the case of Akshaya and Rural E Seva, the initiative came from the state, whereas the other projects are the initiatives of private agencies. Drishee grew out of software developed for the Gyandoot project, in Dhar, Madhya Pradesh, which was exclusively focused on providing government services. In both the SARI and the Drishtee projects, the provision of ready access to government documents, licenses, and services was an important part of the project.

1.9 **Longevity**: Projects had to have been in existence for some time (at least 2 years) so that their design, foundation, evolution and subsequent history could offer both a specific understanding of the project' s core functioning, as well as broader insights into how projects perform at different points in their life cycle. Older projects are also more likely to have been commented upon and cited, which gave this research the opportunity to study how they were previously understood. The oldest project, MSSRF' s Information Village Project, for example, goes back to 1997; and the SARI project goes back at least three years to build on earlier research efforts initiated by the TeNet group at the Indian Institute of Technology (IIT) Madras, Chennai. The planning, consultation, design and training for the Akshaya project dates back to 2002. Problems with connectivity, however, meant that e-governance services were still not offered as of the end of the summer of 2004. In the case of Drishtee, all e-governance services ceased by 2003 (after being offered for two years) because of various bureaucratic and political changes. Thus, Drishtee in Sirsa provided a good opportunity to understand the rise and fall of an e-governance initiative.

1.10 **A reasonable size:** Projects were chosen so that there was variation in how their sites adapted project features to various local requirements. This also helped the research focus on a small number of sites to better understand the sources of success and the challenges for these projects. The largest project studied was the Akshaya project with more than 600 sites; while Drishtee kiosks in Sirsa district and n-Logue kiosks in Madurai district form just a fraction of the companies' deployments across the country.

1.11 **Sustainability:** Studying projects with a number of sites helped the research examine both the most and least successful sites, specifically in terms of what that meant for the financial sustainability of the site and the project. This was because expectations of long-term financial sustainability are incorporated in all the projects. For example, Drishtee' s*oochana kendras* (information kiosks) are built upon a long-term business plan. Similarly, n-logue' s kiosks in the SARI project are built upon a carefully developed revenue model. The only exception is the Pondicherry project where consistent external support has provided a unique opportunity to experiment with social sustainability that focuses on serving the poor, the weaker sections of the society, and women. Thus, while financial sustainability was never among the goals of this project, it was chosen to understand the role and feasibility of social sustainability.

1.12 Given the diversity of the projects chosen in order to focus on the issues the research wished to address, it was important to understand each project on its own terms before undertaking any comparative analysis. In order to do that, the research used the ethnographic approach to understand the projects. Chapter II explains in greater detail the rationale for choosing this approach.

II. Research methodology

The Ethnographic Case Study approach and its application to this research

2.1 This chapter describes the ethnographic case study approach and explains the choice of this approach for this research. It also describes the techniques used by the researchers for data collection.

What are ethnographic case studies?

Case study research

2.2 Case studies have long been used for public policy research. In addition, and in the context of the current research, it is important to note that case studies of specific programs, projects, initiatives, or sites have become an integral part of evaluation research in the latter half of the 20th century, with evaluations analyzing the implementation processes and the outcomes of such initiatives.[12]

2.3 Case study research is an essential form of social science enquiry as it satisfies the three tenets of the qualitative method- describing, understanding, and explaining. It is used in circumstances when the research topic has to be defined broadly; the research needs to cover several variables and not just isolated ones; or the research has to rely on multiple sources of evidence.[13]

[12] Robert K. Yin, *Applications of case study research,* 2nd ed. (Applied Social Research Methods Series, Sage Publications, 2003)

[13] *Ibid.*

2.4 The context forms an important part of a case study so that the cases are not disembodied.[14] Case studies are categorised as explanatory, exploratory or descriptive. Explanatory case studies present data bearing on cause-effect relationships. When key variables and the relationships between them are unclear, exploratory case studies, that define analytical questions and establish hypotheses, or descriptive case studies, that present complete descriptions of phenomena within their context, are used. Further, any of these categories may involve single or multiple case studies.[15]

2.5 Given the relative novelty of e-governance in India, this research is exploratory and descriptive and involves multiple case studies to generate general hypotheses. Researching multiple cases, drawn from different regions in India, and following different models of operation, in a single study, makes rich comparisons possible, without disembodying or decontextualising the cases. This is valuable considering that studies of ICT4D projects have so far asked different questions of different projects, making comparisons difficult. In addition, researching these cases is important since all of them have been in existence for at least a year, been much talked about in the press, and plan to replicate their model across the country. It is crucial, therefore, that the key variables and relationships that determine the functioning of these projects be researched.

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[14] *Ibid.*

[15] What constitutes a ' case' is much debated. Virtually every social situation is a case study or can be conceived as a case study through a variety of viewpoints. See Charles C. Ragin and Howard S. Becker (eds.), *What is a case?* (Cambridge University Press, 1992). At a minimum, every study is a case study because it is an analysis of social phenomena specific to time and to place. For this research, a ' case' is defined by geographical and project boundaries.

The ethnographic approach to case studies

2.6 Cases can be studied using different methodological approaches. Several approaches can also be used to complement one another. The choice of an approach depends on the objectives of the research as well as the cases in question. Rather than ' right' or ' wrong' approaches, there are ' suitable' or ' unsuitable' approaches to case studies in different contexts. For explanatory case studies, data collection aimed at establishing the validity of a relationship, for example, in statistical terms, is essential. However, for descriptive and exploratory case studies, that seek to identify which variables to measure, what relationships to examine, what questions to ask, or what community groups to survey, an approach such as ethnography is appropriate.

2.7 The focus of ethnography is to understand a specific place, in detail and in its own terms.[16] Ethnography literally means to ' write (or represent) a culture' and is traditionally based on long-term engagement in the field of study. An ethnographer identifies the forces, factors, histories and people that play an important role in determining social outcomes, and looks for patterns in local relationships, understandings and meanings. Ethnography takes a ' holistic' approach to the subject of the study- that is, the ethnographer tries to make sense of every feature of a place and a project in relation to the whole social setting and all social relationships. S/he also seeks to contextualise these in wider contexts (e.g., the wider economy, government policies, politics, etc.). Ethnography as an approach to research is widely used in

[16] Jo Tacchi; Don Slater and Greg Hearn, *Ethnographic research. A user's handbook developed to research and innovate ICT applications for poverty eradication (*UNESCO, 2003).

the social sciences. In India, the late Prof. M.N. Srinivas, the legendary anthropologist, was a strong proponent of the approach and brought into existence an entire generation of Indian social scientists trained in ethnography (among them, André Béteille and Veena Das).

2.8 Ethnographic case studies differ slightly from ethnography as described above in that they are conducted over shorter spans of time than full-fledged ethnographies. In addition, these ethnographic case studies explore narrower fields of interest than complete ethnographies of places/ activities. But the most important feature of ethnography viz. seeking to contextualise the problem in wider contexts, extends to ethnographic case studies.

Data collection techniques in ethnographic case study research

2.9 Ethnography is a research methodology and not a specific technique to collect data (unlike participant observation, or interviews). In fact, it is a multiple technique approach: an ethnographer uses a mixture of techniques appropriate to her/ his situation; and adapts each technique to her/ his situation. Ethnography tries to integrate the different methods into one holistic study.

2.10 Ethnographers frequently use participant observation to gather data. As a participant observer, an ethnographer participates in the society or culture being studied by living amongst those people. Yet, through reflection and analysis, the ethnographer retains an analytical or observational position so that s/he can describe and interpret the subject of the study.[17] Through immersion in the field (the project and the context in which the project is working), the

[17] *Ibid.*

ethnographer accumulates local knowledge.[18] Research takes the form of diverse relationships and ' conversations.' Even when it includes apparently impersonal methods like surveys they are treated as part of an ongoing conversation or relationship with a place and with people.[19] Every experience, conversation and encounter can be treated as ' data' alongside more formal research activities such as interviews.

2.11 A research approach such as this does not require interviews and conversations to be completely structured. While the researcher is broadly aware of the issues to be addressed, the precise questions, and their sequence, emerge only as conversations/ interviews progress. Thus, data is collected through ' chains of conversations' . Similarly, the researcher begis by identifying key informants. The reliability and veracity of those chosen as key informants is crucial for the ethnographer. To ensure reliable information, ethnographic researchers triangulate anything learnt from key informants with others. Talking to the key informants points the researcher to people who may provide further information. Thus, the collection of data progresses through chains of conversations and informants, and the emphasis on sampling is not adequacy in a statistical or numerical sense but in identifying events/ people that contribute to the narrative. Nevertheless, this narrative is scientific i.e. its acceptance/ rejection is subject to testing.

2.12 To reduce the influence of personal bias or ideology, ethnographers are trained to be constantly self critical and reflexive, especially on the field. Being aware of the possibility of biases, this research adopted measures to ensure that biases did not distort findings. Having the

[18] Local language skills are an important component of immersion in the field and of understanding the context.

[19] Tacchi et al, 2003. *op. cit.*

researchers discuss their cases, specific problems and the research methodology a week prior to starting field work and also for a week midway through field work, helped them constantly think about the questions they asked, whom they asked and their own interpretations of events. Mutual criticism helped the researchers remain self-critical and reflective. The meetings allowed the researchers to mutually supervise the way the different cases were being studied and also made mid course corrections/innovations possible. Requesting for the opinion of key stakeholders, in this case Project Directors, also helped ensure that the project participants approved the final reports. In cases where differences of interpretation existed, the Project Director' s objections were appended to the report.

Using ethnographic case study research on the field for the e-governance study

2.13 The researchers involved in the research spent five weeks at their project sites. They spent a week understanding the background, history and objectives of the project. They talked to the project staff and the project ' champion' where applicable. They obtained details of the services offered by the projects and the number of sites at which the project operated at the time of the study. The researchers also identified kiosks that were seen as more and less ' successful' in terms of the project goals. (Typically, most of this information was obtained from the project staff). They then spent the remaining weeks understanding the functioning and performance of one ' successful' kiosk and one kiosk that was not seen as a ' success.'

2.14 Studying a kiosk involved two components- understanding the kiosk itself and understanding the context in which it operated.[20] This understanding evolved through conversations with the kiosk operator, with people belonging to different community groups in

[20]All the researchers were fluent with the local language of the region in which they did field work.

the village who had used the kiosk, as well as those who had never used the kiosk services, and with prominent people in the village such as the Village Administrative Officer (VAO) and the Panchayat members. Researchers spent several days at the kiosk to observe who visited the kiosk, what they used it for and how. Wherever possible, the researchers traveled with the kiosk operators while they marketed the services offered by their kiosks to villagers. The researchers also attended meetings/ training sessions for kiosk operators where applicable. In addition, information was collected from the user/income registers maintained by a few of the kiosks.

2.15 Since the focus of the study was on e-governance services, an understanding of the services also emerged from tracking e-governance applications (e.g., a request for a birth certificate) from the kiosk to the government office and back. Information was collected from the local government offices about the applications/requests received. Wherever they were made available, official records on the processing of requests were used to gather data. People at the offices (people working there as well as customers) were asked about paying ' speed money' and the time involved in getting what they had requested for. Officials who processed the e-governance requests in the local government offices were also interviewed.

2.16 Thus, information was collected through participant observation; informal and formal, structured and unstructured interviews; through conversations; and from user logs available with the projects, at the kiosks, and at government offices.

VI. Rural E-seva project
West Godavari, Andhra Pradesh

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Summary

Rural E-seva, an administrative initiative in West Godavari district, is an example of how to operationalize an ICT project using available funds, by involving multiple stakeholders, including development of localized software with the help of students to minimize budgetary constraints. Currently, the project appears to be financially sustainable thanks to payments and non e-governance services. But the sustainability of e-governance in the long run is uncertain and dependent on the enthusiasm of the District Collector. The study indicates that the enthusiasm and support of government officials is vital for the success of e-governance and some degree of reorganization, along with the digitization of the system, is helpful in sustaining e-governance. The study also suggests that the development and financial sustainability of the kiosk reflects the socio-economic conditions of the beneficiaries and the services being offered in the kiosk. Offering more services demanded by citizens (mostly payments), along with other e-governance services, can bring the citizens to the kiosk on a regular basis.

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Introduction

6.1 The Rural E-seva project was started in West Godavari district by the district administration to empower citizens through Information Technology. The goal of the project is to replace the traditional form of governance, and its accompanying inefficiencies, with a modern, more transparent and responsive service delivery system. This system works with web enabled rural kiosks, run by the Self Help Groups (SHGs), whose members are drawn from the poorest segments of the society. This project also aims to help these groups achieve economic independence.

6.2 The project was operationalized with 47 kiosks in all 46 *mandals* of the district, with 2 kiosks in Eluru, the district headquarters. In addition to the kiosks, 103 Rural Service Delivery Points (RSDPs)[69] are also part of the project. The Rural E-seva kiosks started their activities with eighteen services, including G2C (Government-to-Citizen), C2C (Citizen-to-Citizen) and B2C (Business-to-Citizen) services in January 2003, with technology from the National Informatics Centre (NIC).

A profile of the research site

6.3 Covering an area of 7,742 square kilometers, West Godavari district is part of the Godavari delta in Andhra Pradesh. Geographically, it lies between $16^0$15' N and $17^0$30' N latitudes and between $80^0$55' E and $81^0$55' E longitudes, surroundedby Khammam district in the

[69] RSDPs were born out of an idea to convert rural STD booths into Service Delivery Points for government services. The centres/operators are identified on the basis of the following criteria: the operator should have passed 10^{th} standard, should be a local and own a STD booth in a permanent building. However, the centers do not provide any government service now. However, e-education, auctions and bidding, matrimonials, *mandi* prices and beneficiary-interested services are being offered to citizens and forty-two of the 103 centers also collect electricity bills.

north, the Bay of Bengal in the south, the Godavari river in the east and Krishna district in the southwest. According to the 2001 Census, the population and literacy rate of the district is 35.18 lakhs and 53.38% respectively.

6.4 About 79% of the population lives in rural areas. Over 70% of the workers are engaged in agriculture and allied activities thanks to the fertile land, which yields three crops a year. Canals, tube wells, tanks and groundwater irrigate 68% of the area. The average annual rainfall of the district is 1076.2 mm, most of which is received during the southwest monsoon. Paddy covers 82.80% the cultivated area while the rest is covered by tobacco (4.86%), sugarcane (4.73%) and chillies (1.29%). In fact, the district is often referred to as the "rice-bowl of Andhra Pradesh."

6.5 The surplus paddy/rice is exported to many states in the country and to other countries. Jute industries and rice mills, and industrial groups such as Ambica and Gupta, thrive in the district. Dwaraka Tirumala, a major pilgrim spot (popularly known as Chinna Tirupati), and Kolleru lake, the largest freshwater lake in the country, are major tourist attractions.

Methodology

6.6 This study of Rural E-seva is based on data collected during five weeks of fieldwork in June and July 2004. The fieldwork was conducted in two phases. The focus of the first phase was to understand the geographic, political, social, cultural, and ecological context of the area, the history of the project, and the locations, technology, services, investments and revenues of the kiosks. Ten Rural E-seva centers and four RSDPs were visited. Many people, including the

District Collector (DC), the District Information Officer (DIO), NIC staff, other government officials, directly or indirectly involved in the project, Kiosk Operators (KOs), and all categories of users and non-users (men, women, poor, middleclass, rich, literate, illiterate, children, youth, middle aged and old) were interviewed. Users and non-users (a minimum of10 users in every kiosk and 10 non-users in every village with the kiosk) were interviewed in groups of 10-50. Besides, participating in the different activities of NIC, Eluru, such as the monthly meetings of KOs and the software training activities, helped in understanding the various aspects of the project. In the second phase, an in-depth study of two centers, Bheemadol (a high income kiosk) and Veeravasaram (a low income kiosk) was carried out. More than 1000 citizens (users and non users were interviewed). The focus of this phase was to understand (1) the local situation before and after the kiosks came into existence, and (2) the attitude of citizens, KOs and government officials towards the project.

6.7 In parallel, a study of the "*Saukaryam*" project in Vishakapatanam,[70] was undertaken because the "champion" of both projects is Shri Sanjay Jaju. An IAS officer trained as an engineer and a cost accountant, he was the municipal commissioner of Visakhapatnam for a two-year period during which time he initiated Saukaryam. A study of the e-Seva[71] project in Hyderabad was also undertaken to understand the difference between the two projects.

[70] Saukaryam provides e-governance services to citizens, with civic centres connected by a broadband network. The portal offers services such as online payment of electricity dues, house taxes, water taxes, issue of birth and death certificates, and filing of complaints and grievances (details available at www.saukaryam.org). This project was replicated in many municipalities in different countries. The project won the UNDP' s cyber city award and was also nominated for the Stockholm challenge award.

[71] e-Seva is an Andhra Pradesh state government initiative. It is one-stop-shop for over 66 services (both G2C and B2C), with 46 eSeva centers and 400 service counters spread across Hyderabad and Ranga Reddy Districts. These are facilitated with an electronic queuing system and operate from 8.00 am to 8.00 pm on all working days and from 9.00 am to 3.00 pm on holidays (second Saturdays & Sundays). Details are available at www.esevaonline.com.

Details of the study

History of the project

6.8 After Jaju took charge as the DC of West Godavari district in October 2002, he asked a few government departments to computerize their manual records and initiated the Rural E-seva project the following month with the DIO, Mr. Sai Baba. Driving the project was a six-member team (the DC, the DIO and four NIC employees), and six B Tech final year students, who developed the software.

6.9 No pre-launch studies were conducted and nor were funds specifically requested for the project. The local SHG activities and the government schemes meant for the groups were identified. With the experience of the *Saukaryam* project, Jaju came up with a new strategy of making available government services online by involving SHGs from various MACTS (Mutually Aided Co-operative Thrift Societies), under public programs such as the DWCRA (Development of Women and Child in Rural Areas) and CMEY (Chief Ministers Empowerment of Youth), or under the SC Corporation (Schedule Caste Corporation). This strategy used the infrastructure available with the NIC to give shape to the project. The project was officially launched as "*Praja Seva kendram* (Citizens' service centre)" to empower citizens through Information Technology. Later, the name was changed to Rural E-seva at the request of the then Chief Minister.

Technology

6.10 All the E-seva kiosks are connected by a district wide area network, through the dial up circuits. These kiosks interact with the district server located at NIC, which acts as a remote access server. To reduce internet charges, the project team developed a tool, which allows the databases to be periodically synchronized. In addition, nine offline software systems were developed for services such as certification, complaints, land records, auction, KO, *mandi*[72] rates, matrimonial listings and classified advertisements. At the cost of a phone call or two, KOs upload their daily activities in the district server, usually in the evenings, with the help of offline synchronization tool. Only a few centers have the corDECT[73] technology, provided by n-Logue. The portal (www.westgodavari.org) was developed using Visual Basic for the front end with Oracle 8i providing the back end on the Windows 98 operating system. Tables 6.1 and 6.2 illustrate the investments on each kiosk and the project budget.

KOs' selection and training

6.11 The district authorities selected the KOs from various SHGs. No special selection procedure was adopted. Even though academic qualifications were not a criterion for selection, most KOs are graduates. As part of the SHG activities, the DRDA (District Rural Development Agency) organized a special training program for the KOs at the District Computer Training Centre - Eluru, APTECH - Eluru, and the Training and Technology Development Centre - Vatluru in two phases in October 2002. The first phase of the computer training pro*gram* covered the following topics: Introduction to IT, Disk Operating System, Internet Concepts,

[72] *Mandi* is a wholesale market for food and agro commodities.

[73] corDECT is an Indian Wireless in Local Loop technology that provides voice communication using 32 Kbps ADPCM (Adaptive Differential Pulse-Code Modulation), and internet connectivity at 35/70 Kbps.

Internet Browsing & E-mails, Windows & MS Office. The second phase covered Training on the District Portal, Digital Camera Demonstration and Practicals, Group Discussions, Lamination Demonstration and Practicals, Printing Practicals, Scanning and Photography, Maintenance of Accounts, Behavioural Techniques.

Status of services offered through this project

6.12 Currently the project is running on commercially viable lines. Even though the project was started with eighteen mandatory services, not all of them are offered in the kiosks. On the other hand, the KOs have added new services based on local needs. Moreover, the government has facilitated the ties with businesses to provide additional services and revenue.

6.13 During the study period, services like issuance of land records, online civil supplies allotment, telemedicine, tele-agriculture and consumables management services were not being offered. Services like downloading forms, access to information, *mandi* rates, online auctioning and bidding, and matrimonial services were not used much either. The following paragraphs describe the services most used by citizens.

E-governance services

Filing of complaints and grievances

6.14 This service helps citizens file a complaint (online/offline) to solve their problems with various government departments. At the kiosk, the complaint is entered into the offline complaint software system and transmitted to the department/officer concerned once the offline synchronization is done. The citizen receives a unique number (year–*mandal* code–serial

number format; for example, 2004-1204-0008:) for verification and to tracking the status of disposal. The KO checks the status of the complaint online. The concerned authorities monitor the grievances by logging in with their user ids and passwords. Since the grievances can be monitored at the highest level, the DC ensures prompt and effective redressal. Citizens pay Rs. 5/- for the service, although tracking is free.

6.15 Citizens are satisfied with the service, because they get timely responses to their grievances. The following instances emphasize this point. Mr. Venkatrao, a resident of Koyyalagudem, said, "I got a white card within 15 days of filing the grievance". Ms. Rajani Kumari, a resident of Gopalapuram and a physically challenged graduate, said, "I filed a complaint for financial assistance for a job and I got all the E-seva equipment on a subsidy basis within a week. Now I am running an E-seva center". As on 17 September 2004, 11,998 complaints were solved and 17 pending in the DC' s inbox at 3 p.m..

Issuance of certificates

6.16 This service facilitates citizen application for caste, income and nativity certificates at the kiosks, once the local *Panchayat* Secretary signs it. After inserting the SSID (Social Security Identification) number on the copy submitted by the citizen at the center, the request is transmitted during offline synchronization for approval by the *Mandal* Revenue Officer (MRO).[74] The KO submits the physical copy at the *Mandal* Revenue Office and keeps track of the MRO' s approval online. Once approved, the KO collects the documents from the office and

[74] A phone conversation with the Bheemadol KO on 28 July 2004 revealed that, following an order received on 23 June 2004, the caste and income certificates are issued directly by the MRO. In this process, when a citizen applies for the certificate, the KO transmits it to the MRO during offline synchronization and the MRO has to respond within three days. There is no need for the signature of either the *Panchayat*i Secretary or the Revenue Inspector. Apparently, the DC is trying to bring about reforms that help sustain the e-governance services in the long run.

the citizen receives the documents at the kiosk. The citizen pays Rs.5 for a certificate. Citizens are happy, because they get the certificates in time at the kiosk. They do not have to go to the office to get the documents signed by the Revenue Inspector and the MRO, nor do they have to pay any bribes to get the work done.

6.17 During the study, it was found that the service was not completely automated and institutionalized. The KOs faced problems with the citizens and with the staff in the office. One KO said, " Initially I faced a lot of problems with this service. The MRO did not support me and he was not happy with the system. The office staff was not happy because their salaries are very low and they make money by collecting bribes for certificates. When we went to the MRO for his signature, he said, ' you people get the benefit with this Rural E-seva, but we do not' and the citizens demand certificates from us on the specified date. Now, we are tuned to this system. We developed a good relationship with the MRO and the staff. We give Rs.100/- per week or per month to the staff, not as a commission on the certificates, but to keep them happy." At most centers, because of the demand for the certificates, the entries were not made into the offline system. (This study was done when admissions procedures for the upcoming academic year in various schools was in progress). The DC was monitoring the system and it was transparent. Every government official can monitor the status of (1) the official' s complaint inbox, (2) certificate summary, (3) complaints addressed every day, and (4) certificates issued by the MRO in a day. This transparency pressurizes officials to do their job. Consequently, the MROs respond in time. As on 17 September 2004, 280,212 certificates were issued.

Payments of electricity dues

6.18 The service allows citizens to pay their electricity dues. Each kiosk is equipped with a spot billing machine (Figure 1), the hardware for which was developed by Analogic, a private firm, while NIC, Eluru, wrote the software. The kiosk operator uploads the information, which is collected in the centralized database through an offline Electricity Info System, and physically goes to the nearest Electricity Revenue Office on the same day to deposit the amount. The citizens do not pay for this service. TRANSCO[75] pays Rs.1.50 for each bill collected.

Figure 1: Spot Billing Machine

6.19 The Bheemadol kiosk, for instance, is assured of a monthly income of Rs.19,957.50 if it can collect all the 13,305 electricity bills in the *mandal*. But, the kiosks are unable to collect all the bills because of the bill collectors.[76] Nevertheless, this is the service that assures the financial sustainability of the kiosks, as there is widespread awareness that electricity bills can be paid at Rural E-seva kiosks. Saavitri, a 35 year old housewife in Dendluru, who has studied until class 5, said, "I do not know anything about Rural E-seva centers, but I pay my electricity bills in the *seva kendram*." Narsamma , a 65 year old illiterate widow in Dwaraka Thirumala said, "I don' t know about the Rural E-seva kiosk, but my son pays the electricity bills at the *seva kendram*." As on 17 September 2004, Rs.27,90,13,959 was collected.

[75] TRANSCO is an electricity distribution agency.

[76] Bill collectors are either permanent or contract employees of TRANSCO. Since the establishment of Rural E-seva centers, TRANSO is gradually shedding the bill collectors. A discussion with the Bheemadol KO revealed, for instance, that while there were 15 bill collectors in the *mandal* before Rural E-seva, there are only seven now. TRANSCO is redeploying its permanent bill collectors in West Godavari district as office clerks.

Applying for government schemes and KO loans

6.20 The kiosk helps citizens (1) apply for a loan under self-employment schemes; (2) apply for old age pension by producing the age-proof certificate (attested by a gazetted officer) and getting the document endorsed by the *Panchayat* Secretary; and (3) ask for subsidies. After giving the SSID number to the submitted copy, the request is transmitted for approval to the *Mandal* Development Officer (MDO) during offline synchronization for approval. The KO also goes to the *Mandal* Development Office to submit the document. The MDO approves/ disapproves the application in a monthly meeting held in the office. The KO tracks the approval status online. Citizens pay Rs.5 for the service but are not charged for enquiring about the approval.

6.21 During the study period, it was observed how politics plays a role in certain situations. For instance, after a person from Pulla village was elected as an MLA, many (more than 30) old people from this village rushed to the nearest kiosk to apply for their old age pension. Saavitramma, a 63 year-old resident said, "I didn' t know about the Rural Eseva kiosk. My relative helped me get my document signed from *Panchayath*i Secretary and asked me to go to the *seva kendram* to submit the copy by making a payment of Rs.5."

Bulletin Board

6.22 The District Authority uses the Bulletin Board to announce (1) monthly meetings for the KOs of the Rural E-seva kiosks; (2) government meetings, and (3) other important information.

Other services

e-Education

6.23 Using educational CDs provided by the Azim Premji Foundation, all centers provide computer-enabled education to school-going children in the afternoons. The children come to the center in batches. In the first phase of the study, it was observed that the school children were happy with the service and were eagerly waiting for the schools to re-open. During the second phase, by which time schools had reopened, it was observed that the children were using interactive learning modules. All the lessons are presented in the form of games and short cartoon stories, which engages children. Apparently, parents are happy that children get an opportunity to get a feel for computers. The state government pays Rs.2 for each child.

Common Accounts Keeper for SHGs

6.24 The kiosks provide a virtual meeting place for the members of the SHG and the computer is useful for maintaining the internal lending records. The KO helps the SHGs with money transactions with commercial banks. Each group is charged Rs.10 for this service.

6.25 Other services, such as photocopying (Re.1 per page), scanning (Rs.10), DTP (Desk Top Publishing) work (Rs.15 per page), online examination result printouts (Rs.15), basic computer education (Rs.200 person), copies of passport photos (Rs.20 for 4 copies) and lamination (price depends on the size), are also available. Some kiosks also offer services such as CD writing, color printing, and photo enlargement. All centers are equipped with a small shop selling items such as soaps, pickles, notebooks, key chains and lace garments. The products are sold at a price lower than the market price (a difference of 50 paise to Re.1 was noted). Arrangements with

Hindustan Lever and WIPRO enable KOs to earn an additional 3% commission (denied to the distributors) subject to the following condition: the KOs should sell all the goods at a retail price in the locality and the wholesale supply is restricted to rural areas only.

6.26 Services are added on a regular basis depending on (1) the interest of KOs, (2) demand from local citizens, (3) efforts of the district authority, and (4) ties with business organizations. KOs can add new services by obtaining prior permission from the district authorities. The kiosks generate Rs.5,000–Rs.15,000 every month. The figure can be as high as Rs.25,000, especially during the announcement of examination results and during the academic admissions.

Other significant findings

6.27 Citizens get a prompt response to their complaints and grievances from government officials. Caste, income and nativity certificates can be obtained in 3 days and grievances regarding old age pensions are settled in a month.

6.28 Some government officials are happy. Others are not satisfied with the system because they have little knowledge of computers and the transparency in the system pressurizes them to take prompt action. Besides, bribes are difficult to come by in this system. In some offices, the assistants to officers do the job of their superiors, despite the technical training imparted to the officers by the NIC. Along with the technical training, a training program seems necessary to change their attitudes towards the system.

6.29 Apparently, there is no legal framework for the project and the KOs have not entered into any formal agreement with the government. This may create legal hurdles in the future. The KOs of the RSDPs are not happy as they are running losses. They are demanding the Electricity Info System to offer electricity bill payment as a service and hoping that the delivery points will be converted into Rural E-seva kiosks.

6.30 Considering that a high-income kiosk and a low-income kiosk belong to the SC Corporation, caste does not seem to play a role in the success of a kiosk. In the case of the low-income kiosk, although the KO is well educated and earns a good monthly income, there is not enough money to spend on the development of the kiosk. For instance, there is no bill-collecting machine in the kiosk. Having to bear the responsibility of educating his children, and with no alternative sources of income, the KO is forced to spend the earnings on his family. Thus, the socio-economic condition and the role of the KO are important for the sustainability and development of the kiosk.

6.31 The e-governance services being offered through this project are highly dependent on the District Collector i.e. they are not institutionalized. Moreover, apart from the education related services, the payment of electricity dues is the major income provider and, hence, the major source for long-term financial sustainability of the kiosks. Citizens go to the kiosk regularly to make their payments. This was also noticed in the case of e-Seva centers. The other non-governance services also add to the overall income of the kiosks.

Sustainability

6.32 All the kiosks are commercially viable thanks to promising incomes from electricity bill payments, examination results, photocopying, DTP work, e-education, lamination and the shops. In other words, the financial sustainability of the kiosks does not depend on e-governance services. The kiosks will be sustainable in the future too, if the KOs can add new services with the consent of the district authority. The long-term sustainability of e-governance is uncertain once Jaju moves out from the project.

Replicability

6.33 Replicating e-governance projects from one part of the country to another requires effort and localization. For example, Rural E-seva is financially sustainable because of electricity bill payments and other non e-governance service payments. The possibility of making electricity bill payments through the local kiosks depends on a special relationship between TRANSCO and the e-governance work of the DC. Undoubtedly, Jaju has put in effort to build this relationship.

6.34 Making the required changes to adapt to local situations can help replicate e-governance. The variation in the services at the Rural E-seva kiosks is a good example. Besides the mandatory e-governance services, KOs add non e-governance services based on local demand. For instance, the Dwaraka Tirumala kiosk offers a *prasadam* (temple offerings) distribution service. Bheemadol offers CD writing and DTP services. Bringing more services demanded by citizens (mostly payments), along with other e-governance services, under one roof, can bring the citizens to the kiosk regularly. This is useful to financially sustain the kiosks in the long run.

Lessons learnt

6.35 There are many lessons to be learnt from this project. Despite the minimal funds and budgetary constraints, the project succeeded by involving multiple stakeholders and purposefully utilizing government schemes. The project demonstrates how costs can be reduced by implementing innovative ideas such as developing an offline synchronization tool to reduce internet charges, making use of software developed by engineering students as part of their project work, and by utilizing the available resources with NIC.

6.36 The success of the project depends on the commitment of district officials and their confidence building measures in providing e-governance services. It was Jaju' s commitment that led to the initiation of the Rural E-seva project and it' s becoming operational in two months, with the available technology and funds. Since this the second project that he has created, it is testimony to his effectiveness as an administrator.

6.37 Finally, the use of ICT alone, or the "e" part in the egovernance neither helps to change the traditional government system nor can it empower citizens in all cases. It demands reforms in the system, institutionalization and change in the attitude of the government officials. Here, there is one worrying aspect of the project: in the absence of any formal agreement between the KOs and the government, it is unclear what safeguards exist to prevent misuse of details of electricity payments and data on citizen' s SSID numbers that are available to the KOs.

Conclusion

6.38 This is one of the few e-governance projects that appears to be financially sustainable at present. This was partly because it was developed at a very low cost, with some support from NIC, when compared to other heavily subsidized projects. Using engineering students to develop software for minimized the investment on the project. This concept also helps to solve the problem of creating " localized" software.

6.39 The project indicates that the enthusiasm and support of government officials is vital to the success of e-governance, and that the personality and enthusiasm of people like the DC can either make or break an e-governance project. However, unlike the Saukaryam project, where some degree of administrative reorganization was attempted in parallel with the digitization of the system, Rural E-seva has placed greater emphasis on technology-enabled service delivery rather than institutional reform or creating backend databases. This makes the sustainability of the e-governance services offered through this project critically dependent on the enthusiasm of the DCs who succeed Jaju. While electricity payments and a few non-governance services could well ensure the continued financial sustainability of the kiosks, the success of the e-governance activities require reforming government systems.

Table 6.1: Investments, Maintenance and Revenue per Kiosk (all figures are in Rupees)

Rural E-seva kiosks	Members/ Group	Initial Investment		IInd phase Investments		Total Unit Cost	Maintenance	Revenue
		Subsidy	Loan	Subsidy	Loan			
DWCRA	Group	50,000	50,000	-	1,75,000	2,25,000	6,000-8,000	5,000-
SCC	3	30,000	70,000	-	1,75,000	2,45,000	(Loan	15,000
CMEY	Group	-	1,00,000	-	1,75,000	2,75,000	repayment amount of Rs. 4000 included)	(some times reaches up to 25,000)
RSDP	1	7,500 + 7,500 (Benefi-ciary contrib. -ution)	35,000	-	-	50,000	2100-2600 (Loan repayment amount of Rs. 1100 included)	1000 (STD) + 400-500 (RSDP)

Table 6.2: Total Project Cost

Investment made on	Details Shared (Details) / money invested	Cost in Rupees
1 IBM server (Multiple processor, 1 GB memory)	(Velugu project server, used for Rural E-seva also)	2.8 lakhs
4 Xeon servers (Single processor, 512 MB)	(Purchased for Godavari *pushkaralu* from *pushkaralu* funds; the servers are now used for Rural E-seva)	3.6 lakhs
2 from NIC (1 Pentium 3; 1 Xeon; Multiple processor; 5 Hard Disks)	(For NIC activities; used for Rural E-seva)	3.0 lakhs
Remote Access Server (2 stream, 16 modem)	(District training centre funds for both purposes)	0.48 lakhs
Router (2 WAN & 2 LAN ports); Cignus leased line modems (one is in the telephone exchange, one is in NIC)	(District training centre funds for both purposes)	1.35 lakhs
Hardware	Money invested (From District developmental funds)	5.0 lakhs
Total		**16.23 lakhs**
For 47 Rural E-seva kiosks	47 x 2.75	130.25 lakhs
For 103 RSDP centers	103 x 50	51.50 lakhs
Total		**197.98 lakhs**

The actual investment in the project was only Rs.5 lakhs from the district developmental funds. The rest was shared by different government agencies and across a wider section of society. Thus, there is little or no burden on the government. There is no burden on the beneficiaries either, because loans were from the banks, and repayment is made from their monthly incomes. The project became operational with a minimal budget by developing strategies to use government schemes and other available resources effectively.

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Rural E-seva:

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SARI:

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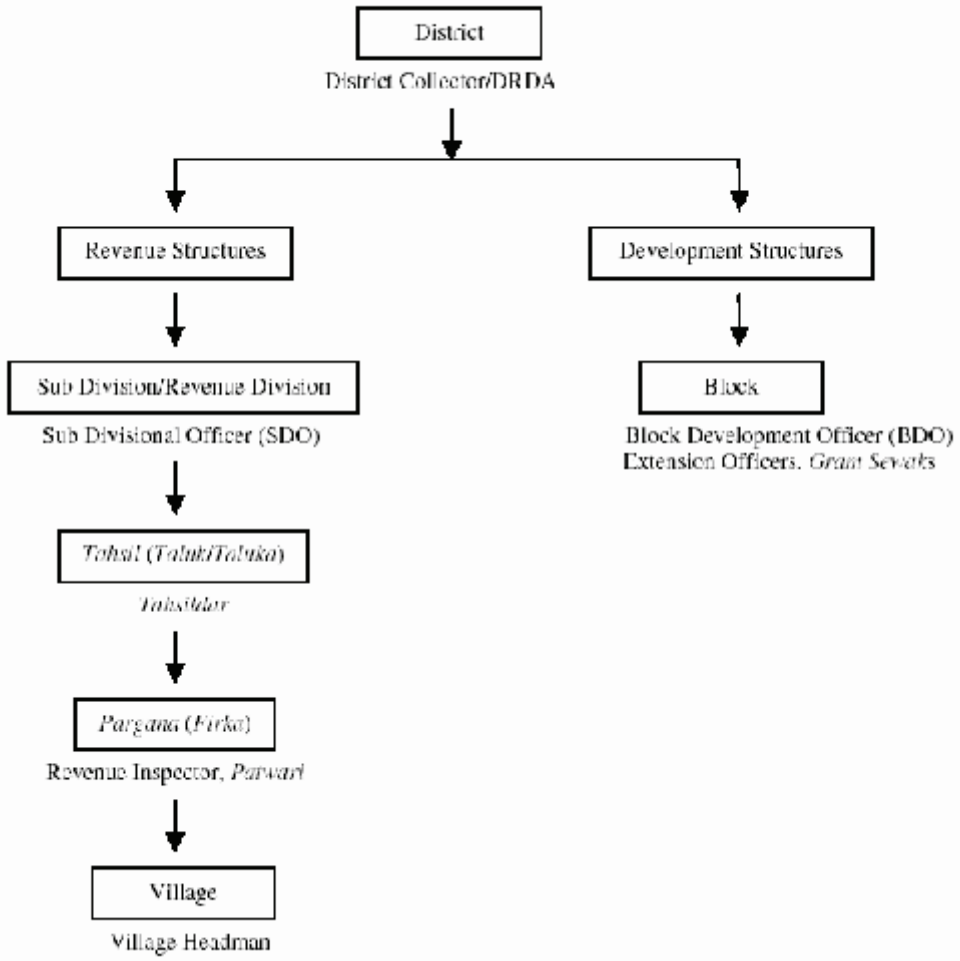
XII. Appendix 1: Administrative structures

Section 1[152]

For administrative purposes, each State or Union Territory in India is divided into distinct units called Districts. Most state departments are represented at the District level by their own officers. Districts are further divided into revenue units and development administration units.

Figure 1 District administrative structures



[152] Most of the content in this section is from Radhika Nayak, N.C.Saxena and John Farrington, "Reaching the Poor: The Influence of Policy and Administrative Processes on the Implementation of Government Poverty Schemes in India" (Overseas Development Institute, 2002), p.viii-ix, available at http://www.livelihoodoptions.info/papers/wp175.pdf.

Revenue structures

District

The controlling authority of the revenue department at the district level is the District Commissioner or Collector (DC). This person can also act as the judicial magistrate of the revenue appellate court, the lowest court for filing revenue disputes. These officers are from the national level Indian Administrative Service (IAS) cadre.

Sub-Division/Revenue Division

The district is geographically divided into one or more units known as Sub-Divisions. The officer in charge of this unit is called the Sub-Divisional Officer (SDO) or Sub-Divisional Magistrate (SDM) in Uttar Pradesh (UP), Revenue Divisional Officer or Sub-Collector in Tamil Nadu and Kerala[153], Assistant Commissioner in Karnataka, *Prant* Officer (Deputy Collector or Assistant Collector) in Maharashtra and Joint Collector in Andhra Pradesh. The SDO is either a newly recruited member of the IAS or a member of the state civil service and has most powers of the DC but with limited powers linked to the number of acres s/he has authority to decide on. It is not necessary that all state government departments are represented at this level, since the distribution of staff below the District level follows departmental needs.

Tahsil

The sub-division comprises one or more *Tahsils* (called *Taluk* in Tamil Nadu and Karnataka, *Taluka* in Maharashtra and Circle in Assam), the basic unit for purposes of general

[153] In the case of Kerala these sub-collectors are very junior IAS officers. Kerala does not have a state administrative service like the ones available in many other states.

administration, treasury, land revenue, land records and other items of work. It has the closest and widest contact with the rural population. The officer in charge of the *Tahsil* is the *Tahsildar*, or Circle Officer, who belongs to the state civil service. The distinguishing function of this official all over the country is the maintenance of land records. In most parts of the country he is also the principal district administration official responsible for actual revenue collection. Administration at the *Tahsil* level is the most local point of government where revenue and land questions are dealt with.

Pargana

The next unit in revenue administration, which is however not a mandatory division all over the country, is known as *Pargana* in UP, Circle in Maharashtra and *Firka* in Tamil Nadu. The head of this unit (the Circle or Revenue Inspector) is in charge of the revenue administration and land records of every village within his area.

The revenue functions of a smaller group of villages are usually performed in most parts of the country by the *Patwari*. The *patwari* is the village-level land records keeper and land revenue collector, also known as *karanam*. The traditional name changed to Village Administrative Officer (VAO) in the 1980s and to Village Secretary in 2001 following village-level administrative reforms. This person is also responsible for all work connected with land problems. S/he performs a multitude of functions, including the collection of village statistics.

Development structures

The 73rd Constitutional Amendment of 1993 required States to introduce a strengthened system of local government. The ratification of this by the States and the actual transfer of powers has been uneven, and the names attached to the different levels of local government vary. But broadly, the overall structure is of an elected local government in three tiers, as follows:

a. District level: *Zilla Parishad*[154]

b. Block level: *Panchayat Samiti*[155]

c. Local level: *Gram Panchayat*[156] (generally comprising several villages)

In addition, each village has a *Gram Sabha*, or village assembly, comprising all the adults of a village, to which certain development and other functions are allocated.

Originally, the Development Block (or simply Block) was envisaged for a population of around 0.1 million, which would be provided with developmental services, with all development functionaries attached to this office. Over the years, however, functionaries have tended to become absorbed back into the line departments and the Block office now deals only with Rural Development pro*gram*mes and *Panchayat*i Raj. The area of a Block is not necessarily a sub-set

[154] Every District has a District Planning Committee headed by the Chairman of the District *Panchayat*. The District Collector is the Vice-Chairman of the Committee. The Member of Parliament (MP), Members of the Legislative Assembly(MLAs), the Mayor of the City Municipal Corporation, all Municipal Chairpersons and a certain proportion of the total number of Chairpersons of Town *Panchayat*s and Chairpersons of the *Panchayat* Union Councils in the district are members of the District Planning Committee. (http://www.tn.gov.in/citizen/drda-new-e.htm).

[155] The Chairman of the *Panchayat* Union Council is indirectly elected by the members of the council. The Block Development Officer (Block *Panchayat*) is the executive officer of the *Panchayat* Union Council. (http://www.tn.gov.in/citizen/drda-new-e.htm).

[156] Karnataka saw extensive political and administrative decentralization from the *Taluk* to a federated village level (Mandal *Panchayat*s) during the Chief ministership of Ramakrishna Hegde (1985 to 1989) and the time of Abdul Nazir Saab (the then *Panchayat* Raj minister). In this time, Mandal *Panchayat*s represented by a president, had extensive funds and development powers. In 1993, with the 73rd Amendment, the Mandal *Panchayat* system was removed and replaced with the *Gram Panchayat* (GPs). Although the GPs were even further lower in the hierarchy, they do not enjoy as much autonomy and resources to decide on development pro*gram*s.

of the area of a *Tahsil* or even of a Sub-Division, though efforts are being made all over the country to restructure Blocks to fall within the boundaries of Sub-Divisions. Block boundaries, however, generally fall within those of a District. The Block has one or more BDO, along with Extension Officers and *Gram Sewaks* or VLEW (Village Level Extension Workers).

Section 2

Table 12.1 Revenue structures in districts of AP, Haryana , Kerala, Pondicherry, Tamil Nadu

	AP	**Haryana**	**Kerala**	**Pondicherry**	**Tamil Nadu**
District/ DC	District/ DC	District/ DC	District/ DC	District/ DC	District/ DC
Sub division/ SDO	Sub Division/ Revenue Divisional Officer (RDO)	Sub divisions/ SDO	Sub Division		Revenue division/ Sub Collector
Tahsil/ Tahsildar	*Mandal*/ *Mandal* Revenue officer (MRO)	*Tehsil/ tehsildar*	*Taluk/ Tahsildar*	*Taluk/ Tahsildar*	*Taluk/ Tahsildar*
***Pargana*/ Revenue inspector(RI)**	RI	*Kanoongo* and *Patwar* circle		Circle/ *Karnam*	*Firka*/ Revenue Inspector
Village/ *Patwari*	Village/ Village Secretary	Village/ *Patwari*	Village/ Village officer		Village/ Village Administrative officer

Table 12.2 Development structures in districts of AP, Haryana, Kerala, Pondicherry,[157] Tamil Nadu

	AP	Haryana	Kerala	Pondicherry	Tamil Nadu
Zilla Panchayat/ Chairman	*Zilla Panchayat*	*Zila Panchayat*/ *Zila Panchayat Adhyaksh*	District *panchayath*	-	District level *panchayat*
Panchayat Samiti/ Chairman/BDO	*Mandal*/ *Mandal* President/ *Mandal* Development Officer (MDO)	Block/ *Panchayat Samiti Adhyaksh*	Block *panchayath*	Block/ *Gram sewak* and BDO	*Panchayat* Union/ Chairman /BDO
Gram Panchayat (GP)/Village *Panchayat* president (VPP)	GP/VPP	GP/VPP	GP/VPP	Commune and Village *panchayat*	GP/VPP

Section 3: Statewise statistics

	AP	Haryana	Kerala	Pondicherry	Tamil Nadu
Districts	23	19	14	1	29

	West Godavari	Sirsa	Mallapuram	Pondicherry	Madurai
Taluks/Tehsils	-	4	6	2	7
Revenue villages	901	296		129	669
Blocks/*Mandals*	46	7	14	6	13
Gram panchayat	888	327	100	6 (commune)	431

[157] Pondicherry follows a two-tier *Panchayat* system.

XIII. Appendix 2: Comments on reports from project contacts

Request for Comments from Ms.Aruna Sundararajan on report titled "Akshaya in Malappuram, Kerala"

From: balaji Sent: Thursday, November 18, 2004 12:32 PM

To: secy@it.kerala.gov.in

Cc:

Subject: Reminder: Your comments on the draft

Attachments: Akshaya Project- Balaji edit.doc(141KB)

View As Web Page

Dear Ms.Sundararajan

You probably received by 31 August, a preliminary draft of the site report prepared by our researcher G.R.Kiran on the Akshaya project in Malappuram. As we had promised when we sought your cooperation on the project, the report was submitted seeking three kinds of reactions from you:

1. Corrections of any factual errors or mistakes.
2. Your general reactions and suggestions about how the report should be changed, improved, modified, etc.
3. Any objections you may have which are sufficiently strong that you wish us to include them, verbatim, as an appendix to the report, no matter how it is modified in accordance with your suggestions in item 2, above (as we promised, we will include whatever comments, notes, or objections you consider sufficiently important a part of the site report itself).

We had requested you to respond by mid-September. Not having heard from you, we want to remind you to provide your inputs, for which we will be grateful. We are again attaching a revised copy of the draft for your review.

We have to deliver to the Ministry of Communication and Information Technologies of the Government of India, a comprehensive report, which includes all the site reports, by 10 December. Due to the extreme pressures of time on us, we request a reply from you and/or your associates by 1 December so that we can incorporate your feedback. Lacking that, we will submit the report more or less as it stands. But we urge you to respond, or to ask your associates to do so, so that we may have the benefit of your rich experience with the project. We once again thank you for your help and cooperation in this project.

Balaji Parthasarathy
Chief Investigator

Comments from Ms. Aruna Sundararajan on report titled "Akshaya in Malappuram, Kerala"

From: Aruna Sent: Thursday, November 25, 2004 4:12 PM

To: pbalaji@iiitb.ac.in

Cc:

Subject: Report on the Akshaya project

Attachments:

View As Web Page

No. 281/SECY/04/IT. 25.11.2004

Dear Mr. Balaji,

At the outset, let me apologise for this delay in responding to your letter.

Overall, the report appears to be alright. However, I would like to propose an amendment in the para relating to connectivity on page-13, where it has been mentioned that "connectivity at the agreed rates is available in only 200 centres." Subsequent to Kiran's study, we have gone in for a major upgradation of the network, and presently a reasonable level of connectivity is available at over 350 centres. We expect further improvement by November 30th when the upgradation work would be completed. If it is acceptable, perhaps the revised figures could be reflected.

We have also made some progress on offering E-governance services. The E-pay service that has been launched, whereby electricity / telephone bill payments, etc are being paid through the Akshaya centres has been drawing good response and currently 93 centres have begun to offer these services; i.e. about 8000 transactions have been done so far. It is expected that this would pick up further in the months to come. Similarly, the online grievance redressal facility with the district administration, called E-parati is also proving to be fairly popular, with the number of users going up daily.

As you are aware, the Department of IT, along with UNDP and the National Institute of Smart Governance (NISG) are currently formulating an agricultural interventions strategy, which envisages utilizing the Akshaya centres to both collect and disseminate agricultural information. NISG has recently approved the proposal and we plan to shortly commence the implementation.

An other significant intervention is a community learning project that Intel is pioneering in the district. This is a project that aims to introduce both IT as well as IT enabled learning to children between the ages of 8-16 in underserved areas, and to train them in using IT tools to understand and resolve local community problems. So far 1700 children have been trained under the project. We see this as a significant intervention, which will have a long-term

impact in terms of not merely creating a culture of IT usage amongst the young, but also in terms of making IT relevant to rural and poor communities.

Yours sincerely,
Sd/-
(ARUNA SUNDARARAJAN)

Shri. P. Balaji
Chief Investigator
IIITB

Comments from Shri Satyan Mishra on report titled
"Drishtee's *soochana kendras* in Sirsa, Haryana"

From: satyan@drishtee.com Sent: Tuesday, August 10, 2004 3:53 PM

To: pbalaji@iiitb.ac.in

Cc: richak@mit.edu

Subject: RE: Draft Report on Drishtee - for your comments

Attachments:

View As Web Page

It is a wonderfully compiled report on Drishtee's experiences with e-Governance at Sirsa. We have been able to learn our lessons and move on to implement better systems. But some of the constraints cited remain true till today. Any private network would always view the e-Government services as an opportunity and a challenge together. Drishtee is committed to providing this service through every kiosk on the network. We have taken up the challenge and remain an aspiring student of e-Government service delivery in the country.

With regards,

Satyan Mishra
CEO
Drishtee

-----Original Message-----
From: pbalaji [mailto:pbalaji@iiitb.ac.in]
Sent: Tuesday, August 10, 2004 2:33 PM
To: satyan@drishtee.com
Subject: Draft Report on Drishtee - for your comments

Dear Shri Mishra,

With this email, we are attaching, as a Word document, a preliminary draft of the site report prepared by our researcher, Richa Kumar on the Drishtee project in Sirsa.

As we promised when we requested your cooperation in our study, we are seeking three kinds of reactions from you at this point:

1. Corrections of any factual errors or mistakes.
2. Your general reactions and suggestions about how the report should be changed, improved, modified, etc.
3. Any objections you may have which are sufficiently strong that you wish us to include them, verbatim, as an appendix to the report, no matter how it is modified in accordance with

your suggestions in item 2, above (as we promised, we will include whatever comments, notes, or objections you consider sufficiently important a part of the site report itself). We cannot thank you enough for making this study possible, and we apologize for sending to you the site report in what is obviously a rough-draft form. As you know, however, we are under a great deal of pressure from the Ministry of Communication and Information Technologies of the Government of India to deliver, to them, a comprehensive report, which includes all of the site reports. We are therefore sending you a rough-draft, which we will ourselves correct and improve, incorporating all of your corrections and as many of your suggestions as we can possibly incorporate.

Due to the extreme pressures of time on us, we request a reply from you and/or your associates by 20 August. Lacking that, we will make our own correction, editorial improvements, and changes, and submit the report more or less as it stands. But we urge you to respond, or to ask your associates to do so, so that we may have the benefit of your deep experience with the project.

A study like this would have been entirely impossible without your cooperation. Our researcher found great encouragement and support from you and your associates. We are extremely grateful for your help.

Once the report is completed and delivered to the Ministry of Communication and Information Technologies of the Government of India, it will become a public domain document, and we will ensure you receive a copy.

Again, our sincere thanks.

Balaji Parthasarathy

Chief Investigator

Additional comments by Shri Satyan Mishra (received on 16 December 2004)

Gyandoot, where Drishtee worked as a software vendor, was a great hit. The first district where Drishtee implemented its model independently was Sirsa. As discussed above, e-government in Sirsa was first enjoyed and used, but when the DC changed and the district administration couldn' t handle it, it was buried and the people dependent on it were left out. Drishtee has come a long way from Sirsa to the present time, when it is visible in eleven districts. The present model not only stresses viability and sustainability, but also the profitability of the kiosks. It has learnt its lessons from the experience in Sirsa and added key components, such as the entrepreneur, to its model.

The e-government model is not one-sided. It needs equal amount effort from the district administration. In the case of Sirsa, the district administration could not handle the influx of applications after the introduction of e-government. The Sirsa kiosk model was fully dependent on e-government. Another problem was that the government officials were not fully trained to handle e-government smoothly and efficiently. Capacity building among government officials is necessary for e-government to happen.

Drishtee, since its Sirsa experience, has increased its basket of services ranging from commercial services, like computer education, digital photography and insurance, to agri services, like agri query and agri newspaper. Sirsa was a stepping-stone for Drishtee, from which it learnt a better way to serve the citizens. The commercial services offered through the kiosk make the kiosk independent and profit oriented. It instills among them a sense of entrepreneurship through which they transform the way the community works, thinks and functions.

Drishtee in Assam is operational in Tezpur district since January 2003. Although Drishtee had an agreement with the district administration for providing e-government services, it preferred launching the kiosks in Tezpur on a commercial model. Computer education has been a huge success in these areas and people' s awareness of computers has increased. The Digital Photo Studio at the kiosk is another application that got a great response from villagers and the kiosk operators. The kiosk operator carries the digital camera to a customer location in case of functions like marriages etc. and is able to deliver the photographs the very next day. So the kiosk operator delivers photographs faster and cheaper than the studio located at the block or district headquarter. Subsidies are being given to women kiosk operators to encourage them to come forward.

The first nine months in the districts of Assam saw no sign of e-government services. But the operating kiosks responded positively to the commercial model. There are kiosk operators who earn monthly incomes ranging from Rs.3500 to Rs.5000 from services like digital photography, computer education, insurance, career counseling, and job/resume posting. There have been cases where the kiosk operator has had an income of more than Rs.10,000. Before launching the e-government service, Drishtee undertook the exercise of building capacity among government officials by conducting computer and process improvement training.

The positive response of 178[158] entrepreneurs enrolled with Drishtee in the districts of Assam, including Tezpur, depicts the success of Drishtee' s new business model and the readiness of the model to be replicated across rural India.

[158] The number includes the present set of entrepreneurs enrolled under the Drishtee plan in November 2004 from the districts of Tezpur, Golaghat, Nalbari, and Lakhinpur.

Comments from Shri Sanjay Jaju on report titled
" Rural E-seva in West Godavari, AP"

From: sanjay jaju Sent: Thursday, November 25, 2004 4:12 PM

To: pbalaji@iiitb.ac.in

Cc: dio@wgo.ap.nic.in

Subject: Re: Reminder: Your comments on the draft report on Rural E Seva

Attachments:

View As Web Page

Dear Mr Balaji,

Gone thru the report, looks fine with me.

1 you can think of giving the details of no of transactions completed so far.

2 page 11 bill collecting machines are developed by N logic.

3. more inputs on e education(available on Azim Premji Site and in our document as well.)

I'm cc ing my information officer as well so you can collect this info from him, if reqd.

Sanjay

On Mon, 06 Sep 2004 pbalaji wrote :
>Dear Shri Jaju,
>
>You probably received by 10 August, a preliminary draft of the site report prepared by our >researcher Dileep Kumar on the Rural e-Seva project in Eluru. As we had promised when >we sought your cooperation on the project, the report was submitted to you seeking >three >kinds of reactions from you:
>
> 1. Corrections of any factual errors or mistakes.
> 2. Your general reactions and suggestions about how the report should be changed, >improved, modified, etc.
> 3. Any objections you may have which are sufficiently strong that you wish us to >include them, verbatim, as an appendix to the report, no matter how it is modified in >accordance with your suggestions in item 2, above (as we promised, we will include >whatever comments, notes, or objections you consider sufficiently important a part of the >site report itself).
>

>We had requested you to respond by 20 August. Not having heard from you, we wanted to remind you to provide your inputs, for which we will be very grateful.
>
>As you know, we are under a great deal of pressure from the Ministry of Communication >and Information Technologies of the Government of India to deliver, to them, a >comprehensive report, which includes all of the site reports. Due to the extreme pressures >of time on us, we request a reply from you and/or your associates by 10 September so that >we can incorporate your feedback.

>Lacking that, we will make our own correction, editorial improvements, and changes, and >submit the report more or less as it stands. But we urge you to respond, or to ask your >associates to do so, so that we may have the benefit of your rich experience with the project.
>
>We once again thank you for your help and cooperation in this project.
>
>Balaji Parthasarathy
>Chief Investigator