MODALITIES OF PROMOTION OF VLEs THROUGH CSCs OR OTHERWISE UNDER DILRMP AND TO ASSESS THE EMPLOYMENT GENERATION POTENTIAL IN KARNATAKA AND GUJARAT

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We thankful Shri B. K. Sinha, IAS (Retd.) for the editing and value-addition to this book. It covers the dimensions of citizen service delivery systems of Karnataka and Gujarat. After the implementation of the land records modernization programme, service delivery systems of land related records through the centres is now one of the relevant topics of study.

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1. Introduction

Computerization and digitization of departmental records cannot alone provide e-governance unless they uses intensive ICTs to deliver the various kinds of services - Government to Citizen (G2C), Business to Citizen (B2C) or Government to Government (G2G) in a faster, transparent and less-costly manner and e-governance in India started under the initiative of National e-Governance Plan (NeGP). The objective was to develop a robust system to strengthen the District administration by providing ICT support to deliver citizen services at their nearest locations. Departmental service- delivery proved non- cost clearing. This provided impetus to architect a single system incorporate all departmental services from a single location. In 1999 that the Government of AP introduced a project called E-Seva Centres to provide citizen service delivery. This was adopted by Central as well as other State Governments over a period of time. Citizen service centres have their benefits and limitations. They create rural employment, provide different services from a single window and break down monopolies of traditional institutions like Patwaris. But it was felt too risky to provide access to all kinds of access to private bodies.

The Department of Land Resources, Ministry of Rural Development, Government of India launched a flagship programme called Digital India Land Records Modernization Programme (DILRMP) which was an upgraded and digitized version of the erstwhile NLRMP in 2008. The principal objective being to strengthen the revenue machinery by computerizing and updating of land records and to replace the manual presumptive land-titling system into digital conclusive land title system. The programme is driven by components based model of land records modernization like computerization; updating all records; computerization of property registration; survey of all land parcels through modern techniques and also to update the textural records as per the new survey measurements. The programme aims at strengthening of the citizen delivery system of land related certificates or records through kiosks at the local level; enhances

transparency and fasten the delivery mechanism. The most important of gains, though in the form of ancillary, is the spread of computer literacy in rural areas. This increases number of delivery service centres at GP level thereby creating self-employment for educated rural people.

E-Governance is now widely recognised as an important means for transformational improvement in quality, efficiency and effectiveness of governance all over the world. There is a noticeable progress in the field of digital delivery of citizen services. There is a hype noticed in this field though the need for continuous development can never sufficiently be underscored. According to the recent United Nations survey ranking based on the e-governance development indices shows that India lags at a low rank of 107 out of 193 countries surveyed with a rank of 0.4637 [1]. Despite the not-so-encouraging place in the survey document the journey towards digital services is continue uninterrupted. Keeping in view the basic objectives of the programme, its role in disseminating computer technology cannot be overemphasized.

1.1 Objectives of the Study

A prime objective of this study is to assess and analyse the current status and mechanism in the States to deliver land related services to citizens so as to assess the scope to promote the delivery system through Common Service Centres (CSCs) and its ability to generate income. The CSCs are already operational. They have been providing a number of online services to the rural and the urban citizens, but only in select locations. In both States under study, a range of digital services are being provided using multiple channels. The Revenue Department provides land related services at gram Panchayat office, tehsil office, block office, district office under the authority of a government. In rural areas there is wide scaled demand for copies of the Records of Rights (RORs). Unlike the days of manual copies the villagers are required to visit only the local revenue office where they obtain their ROR. Copies of RORs are digitally stored in servers from where they can be

generated, signed and provided to the applicants on anytime and anywhere basis. Such servers have been installed at tehsil level for updating the records and issuing RORs to citizens. Services include receiving applications from citizens and issuing certificates are being performed by private vendors or by Data Entry Operators (DEO) hired by the Revenue Department. The survey revealed that there is considerable employment generation at the village level and growth in computer literacy.

The prime objectives of the study are:

a. To analyse various service delivery mechanism used today.
b. Existing CSCs and their role in service delivery.
c. Viability to give access of land related documents/ certificates to private run CSCs.
d. Employment generation potential through service centres under DILRMP.

1.2 Methodology

The following comments are being given for the methodological part:

1. The background should be described.
2. On what basis the districts and the tehsils have been selected?
3. What was the methodology followed in designing the questionnaires?
4. Whether field testing of the questionnaires was done & with what results?
5. Was there some revision of the questionnaires on the basis of field testing?
6. The report mention that the service was purposive then what were the yardsticks for the selection of these particular gram Panchayats, tehsils etc.

The study has followed a multiple mode methodology relying upon primary and secondary sources. A structured questionnaire was framed to capture the field data in respect of the stated

objective. This questionnaire and descriptive methods of research are adopted as it focuses on the role of the State to promoting ICT intervention in the computerization of land records and facilitating e-governance process to digital delivery of land records. Primary sources such as a detailed questionnaire were designed for all the stakeholders: beneficiaries; owners of service centres and government officials.

Study area such as selection of District, District, Gram Panchayat and Service Centres are based on purposive random sampling method. While undertaking this sufficient care was taken to ensure that the study portrays different dimensions of the impact of the programme. Precautions were taken in the identification of Districts and functional service centre based on their performance. It must be good and the transactions should represent a mean of all transactions, the idea being that the samples should not be excessively weigh on one side so as to give a fair and equitably distributed findings. Altogether two Districts each from Karnataka and Gujarat; and from amongst them 8 services centres from different Districts have been selected. It includes both the rural and urban centres to understand the service delivery differences at each location under the changed environment of literacy, consciousness, the accuracy of the records, the time taken in the delivery process and the preparedness of the subjects to defend their rights. Obviously, response patterns would differ. Therefore, it was necessary that these response patterns should be studied and compared. Random interviews with the farmers, land lords, businessman, and students etc. who had availed the services from the centres were conducted. In addition to this, group discussions were held in among the villagers of different ages and of different occupations to understand their point of view about the existing service delivery. The eight centres include private run CSCs and Government Service centres which have been identified by random sampling methodology to reveal the difference of service quality & work culture between the government and private centres.

Table 1: Survey of Centres and Beneficiaries

Sl. No.	State	Districts	No. of Centres Visited	No. of Beneficiaries (each centres Five Beneficiaries)
01	Karnataka	a. Udupi	8	40
		b. Mangalore	8	40
02	Gujarat	c. Junagadh	8	40
		d. Jamnagar	8	40

1.3 Literature Review

Researchers and techno-managerial have expressed their positive view over the uses of e-governance extensively in the world over. These technologies promote efficient and effective government; facilitate easy access to Government Services; provide greater public access to Government Services and enable the government in being accountable to citizens (Yao and Zhao, 2010; Farelo and Morris, 2006; Prybutok et al., 2008) *(P. Nayak, 2015)*. E-governance is a tool to accomplish good governance that focuses in bringing improvements in the service delivery, dissemination of information, transparency, public and partnership, efficiency and accountability. But when it comes to the land related services, then the role of ICTs and service delivery mechanism have their own limitations. Land titling in India is presumptive. And so, manipulative and fraudulent practices continue. Land related services, through private run CSCs already emerge as a viable alternative to the traditional revenue administration. Existent literature suggests that at land related service need to be delivered through private run centres. This is not possible to quantify the extent to which this delivery could be entrusted to the private sector. After having introduced NLRMP, to use ICT as a major tool for delivery of citizen services a major component of which included computerised land records are on real time basis. It can be done only through disregard of diverse and complex nature of land records in India [et. al]. Karnataka is well known case of implementing ICTs to provide digital land related services though Bhoomi, but in a study of this project under the title 'Flaws in

Bhumi: India's model e-government project author has concluded that: "The project fails to address gender inequality. Land ownership has long been a male bastion in India. In Karnataka women own just 12% of the land and this is reflected in Bhoomi. Women in Dharwad district not know of the new system" (*Keya Acharya, 2002*). The author has mentioned that due to lack of IT awareness among women in villages, the online system can be a men's thing. It is true that after implementing digital service delivery or e-governance schemes at grass-root level by the GoI and State Governments, rural employment generation potential and rural entrepreneurship have increased. Literature, in this particular field is limited. Mostly literature talks of customer satisfaction and delivery tangibles. Studies reveal that PPP model of e-governance cannot be an infinite solution of governance as relation with government and citizens have existed over the years abrupt changes therein may hamper governance policies and benefits [et.al]. Web-based delivery of citizen services mainly run on client and business-oriented manner, where citizens are consumers of digital services. In a Report on Open Government Data in India mentions that a research study conducted to understand the e-governance project of "Bhoomi-Karnataka" has assessed that "Before Bhoomi, corruption did exist but was less. Now, with the Bhoomi program centralizing land management and providing open access to land records, corruption is cumulative at various levels and of a much higher amount".

Implementation of e-governance in various government schemes to provide seamless services to the citizens is well accepted by developing and developed countries. In India, where ICT awareness is increasing e-governance is likely to prove an important tool for governance in near future. Literature discusses both negative and positive impacts of e-governance, though it is well accepted that digital governance will help to improve transparency; create opportunities of employment and work as a bridge between government structures with citizens. At the same time some discuss that excessive techno-managerial involvement may hamper the governance process. Government of India have introduced the flagship 'Digital India' programme in 2015, to

provide digital services to the citizens to wherever they lived. It includes structural development as well as improves awareness through digital literacy. The programme also helps to build new e-governance centers in the rural periphery to provide these services to the citizens living in the courtyards too.

2. Land Records Modernization Programme and Service Delivery in Karnataka

Karnataka is one of the pioneer States to have successfully implemented land records modernization. The background of land records modernization in the State was not so smooth. The CLR programme which commenced in 1991 in Gulbarga failed for several reasons. In 1996 all the districts were notified to computerize land records. Due to massive efforts from the administration, the mandate was achieved before the stipulated date. The Revenue administration has started to provide digital information of land records through kiosks in 2001. They amended the Land Revenue Act, recognizing only digital copy of land records for all purposes: Kiosks operation and providing of digital land records though kiosks started from 2002.

2.1 Salient features of Bhoomi:

Bhoomi Monitoring Cell : A Bhoomi Monitoring Cell, headed by Commissioner (SSLR) & Ex-Officio Director (Bhoomi & UPOR) has been setup under Revenue Department's Administrative control. It monitors the day-to-day functioning of the Bhoomi project. It hired technical resources to analyze and resolve technical issues arising at the Bhoomi Centers. A help desk team is in place to monitor the daily activities. A training center has also been setup to train the revenue staff on various changes in the software from time to time.

State data center: A State data center has been setup at Bangalore for disaster recovery. The transactions that take place on day-to-day basis are replicated to the central database at the State data center. This prevents the loss of data in any natural calamities,

server crash etc. Setting up of State Data Center has helped in integrating Bhoomi Project with KAVERI, Banks and other departments.

Integrated mutation: Earlier, Mutation and Phodi were separate activities taken up sequentially. Most Phodi cases were not recorded for the past several years, after the approval of mutation. Under Integrated mutation system both these activities have been integrated to ensure that Phodi is also incorporated at the time of approving the mutation. All such partial transactions with multiple owners are transacted RTC are referred suo motu to integrated mutation phodi. An RTC will get generated against the transferee at the conclusion of the mutation. It has been noted that even after sale and mutation the demand would continue both in the account of the vendee and the vendor who would continue to pay rent and cess on the land. This created duplicity of demand and discrepancies in the RoR, land computation as the same entries were reflected at dual places. These congruencies stand reconciled in the Bhoomi, which facilitates for the correction in the RoR and ensures speedy and transparent service.

Bhoomi – Kaveri Integration: Bhoomi was integrated with KAVERI (Registration Department's software) in order to get electronic copy of indexed information of J-Slip in 2006. Mutation was initiated using this XML file received from Registration Department. In order to achieve online integration and cut down dual data entry time Bhoomi – Kaveri tight integration was implemented in 2011. This is designed to do away with malpractices like impersonation, selling of same extent/ land to multiple buyers, selling Land which belongs to Government or where Government restrictions are in place etc. Once these conditions are satisfied, the registration of agricultural land is permitted. As of now Bhoomi has been tightly integrated with 247 Sub Registrar Offices.

Bhoomi – Bank Integration: Bhoomi – Bank Integration is intended to ease the charge creation process (Pledge & Release) on agricultural land. The request for charge creation was earlier made manually resulting in huge delay in incorporating respective

details in RTC. Further, the banker was not really sure whether the loan is granted to the real owner of a particular land or not. Bhoomi has been integrated with Banks in order to overcome the incongruences and to make loans sanction seamless. This brought down the transaction cost on loans and enhances their efficacy.

Bankers are now able to access RTC information online and ensure that the beneficiary is indeed the real owner of a particular land based against which loan is sanctioned. Further, the banker can also know the beneficiary's actual share of extent on that particular land and liabilities if any. After confirming these details, the banker initiates the charge creation process online. The request is then sent to the Bhoomi centre where the Office Revenue Inspector examines the transaction details and approves it. As soon as the transaction is approved, the charge is created against the owner and is reflected in the updated RTC. The whole process takes about 3-4 working days. The same process is used to release the charge after repayment of loan.

Bhoomi – Land Acquisition: Prior to the Bhoomi Land Acquisition process was carried out manually and offline leading to most being not included in the RTC. As a result in several cases, Land Acquisition used to happen multiple times or buyers were not aware of the LAQ process at the time of buying land. Under Bhoomi - Land Acquisition integration, as soon as 4(1) notification/ 6(1) notification is approved or after the final notification, the details will get incorporated in the RTC.

Strict FIFO: First-In-First-Out strategy has been adopted in disposal of all types of mutations in Bhoomi. This was earliest applied at hobli level and is now modified to Village circle level. This ensures that the Revenue staff should not pick and choose amongst the transactions. They have to dispose the earlier transactions in order to dispose the latter transactions. This is intended to achieve social equality and to not just for the benefit of the rich and powerful people.

Land Records on Web: After computerization of agricultural land records across the State, the Government has hosted the same on the web. Citizens can now view RTCs over internet free of cost. The RTCs available on web are only for viewing purpose and cannot be used as authenticated / legal document for registration, crop loan etc.

Apart from RTC, the following facilities are also available on the web:

- View mutation extract
- View mutation status
- View Tippan
- View mutation order
- District/ Taluk/ Hobli wise - Age Wise mutation pendency reports

SMS alerts: There is an option for registering the mobile number of buyer at the Sub-Registrar Office at the time of Registration. Once registered, an automated SMS is sent to the buyer of the land about 13 various stages of mutation. As a result, buyers do not have to visit Bhoomi centres to ascertain the status of their mutation many times.

Office Revenue Inspector: A First Division Assistant/ Revenue Inspector have been designated as Office Revenue Inspector in each of the 203 Bhoomi Centers. Certain mutation transactions i.e. Land Acquisition, Pledge & Release, Court cases, Will etc. are being referred to Office Revenue Inspector in order to speed up mutation. This serves two purposes: mutation will get disposed off in 3-4 days as Office Revenue Inspector does not deal with other transaction. Disposal time of all mutations is reduced at the regular revenue inspector's end, as bulk of the transactions is dealt by Office Revenue Inspector. This has reduced time involved in the disposal of mutation applications.

2.2 Integration of Revenue and Registration System:

The Department of Registration & Stamps in Karnataka one of the oldest departments, dates back to 1856. It is one of the third highest revenue generating department of Government of Karnataka. It started computerization, but due to the problems of time consuming process, excessive dependence on manual discretion, irregular delivery timing, citizens harassment due to multiple visits, preservation, security and retrieval of records was a challenge. Easy manipulation of records, revenue leakages, and requires huge investment from the Government etc. this Department was unable to deliver services. Therefore, the department initiated the process of e-governance by following Maharashtra Model with the help of CDAC Pune, to automate the process on the PPP model on a BOT basis. The Kaveri model was introduced after this integration.

One significant gain from integrated Bhoomi is the reduction in the rent seeking behavior and the increasing transparency. Earlier in the manually operated land records, the mutation applications were received after the receipt of the sale deeds. The process itself would take some time as it was in form of quasi-judicial proceedings following a general notice. This was time-

Table 2: Department Services, Department of Stamps and Registration

Services	Instruments	Categories
Registration Services	Documents	Documents capturing information about sale of immovable property transaction, General Power of Attorney, Mortgages, Lease Agreement, Gifts, Wills etc.
	Marriages	Hindu Marriages, Special Marriages, Parsi Marriage
	Firms	Partnership Deeds of firms
	Societies	Registration of Societies
Information Services	Certified Copies	Issuing duplicate copies of registered documents
	Encumbrance Certificate	Certificate notifying transaction and charges against properties

consuming, subject to rent seeking behavior on part of the revenue officials and middlemen. Besides there were other malpractices including registration and mutation of land belonging to others, farzi and benami transactions, transaction of Government and public lands etc. The Land Revenue Administration was opaque, deleterious and rent seeking wings of the Government. Litigation arose from incorrect entries in the RTC. All these entries are now a part of the past, no small thanks to the Integrated Bhoomi.

The online integration of BHOOMI and KAVERI software helps the farmers of the State by reducing their hardship and land related litigation. The registration of a sale deed is done by using the BHOOMI database. The sale transactions take place only if the land is identified with specific survey number and name of the seller being available in the database and also the proposed extent of transaction available with the farmer in the database. This prevents fraudulent transactions.

Benefits:

The benefits from the Bhoomi and Kaveri integration:

- Facilitates synchronization between KAVERI and BHOOMI, reduces the time lag between registration and initiation of mutation.
- Eliminates malpractices, rent seeking and inefficient practices leading to a transparent and efficient revenue process.
- Fills the vacuum of non-availability of essential information for registration.
- Confirms that seller is the owner of the property.
- Facilitates transactions based on the balance extents of the owners.
- Conditions of land grant, land reforms etc. are checked prior to registration.
- No sale, pledged mortgage is allowed in respect of Government lands.
- No sale transaction allowed on PTCL lands.

- Government restrictions like land grant conditions, LRF conditions etc. are checked prior to transactions.
- Court stay and court orders existing on land parcel are also checked before allowing transactions.
- Mutation initiated automatically.
- Facilitates for photo and finger print verification
- Facilitates maintenance of electronically retrievable encumbrance certificates because identities used for a land parcel would be same in both.
- Most interesting aspect of this integration is two heterogeneous systems with respect to both administrative setup and technical support provider are integrated to deliver the best to the citizen.

Figure 1: Bhoomi-Kaveri Integration Architecture

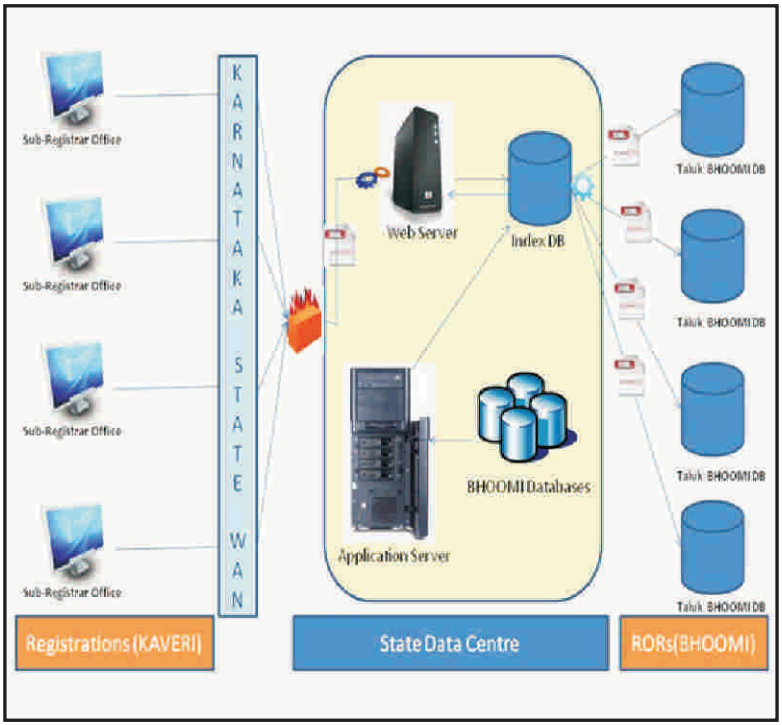


Figure 2: Time difference before and after integration for updating ROR

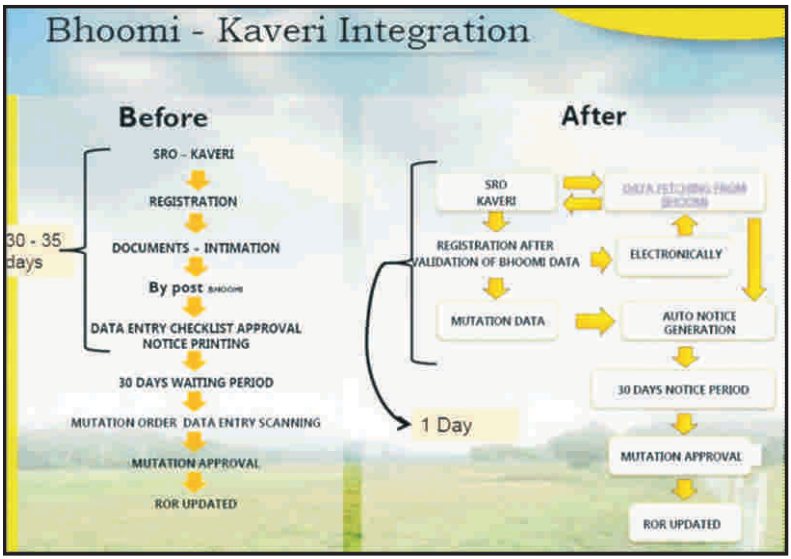
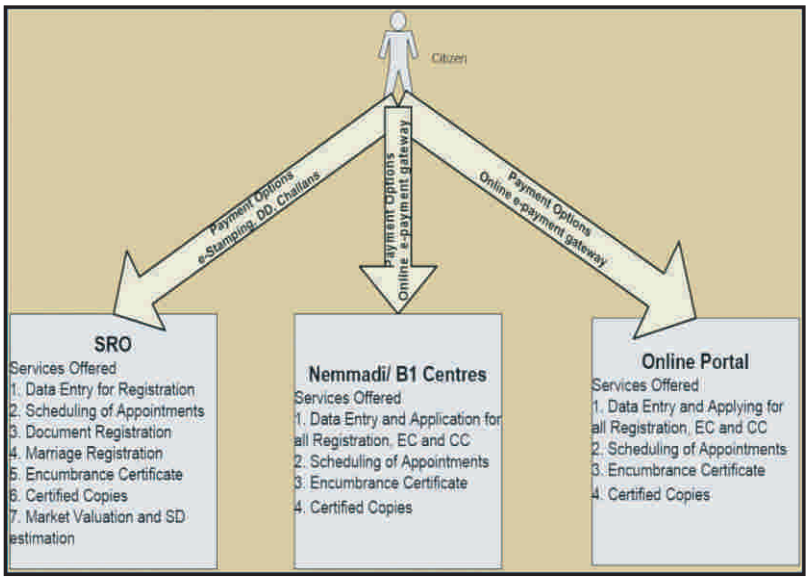


Figure 3: Kaveri II – Service Delivery Channels



2.3 Service Delivery System in Karnataka

Government of Karnataka initiated the process of door-step delivery of Government services in long ago. Since then the entire Government machinery is strengthening the process of e-governance by taking several initiatives to provide faster, transparent and accurate Government Services to citizens. Under the NeGP initiative E-District portal was begun throughout the State to provide instant services. E-District portal named as 'Service One'. Under the With Service One initiative, it is envisions integration of the existing online services with Service One portal on real time basis, keeping in mind the objectives:

- Secured and automated mechanism of service request/ response transfer.
- Avoid duplication of development of service request form.
- The owner of the services shall continue to revised the concern departments.
- Provide greater transparency in the process for citizens.

The E-District portal (Service One) is to create integrated solutions for all kinds of Government Services. The major benefits from the E-Districts are tabulated here:

Table 3: Benefits from E-District Portal

Sl. No.	Benefits	Description
1	Anytime Anywhere	Citizens do need not to visit offices to get certificates/ documents. This portal provides services of all deliverables of Government Services round the clock at any place
2	Quality of services	The enhanced quality of services, as the citizens are provided with numbered computer generated receipts with this they are able to track the progress of their applications.
3	Cost effective	As every center provides services of the Government departments, be neficiaries do not need to visit offices . Travel time, wait time and time of man -hours has been reduced significantly.
4	Bribe taking culture	Rent seeking behavior is reduced as the in interaction with the government offices is scaled down as a result of introduction of the one office delivery systems.
5	Increase entrepreneurship	As the system is driven by PPP model so that rural employment as well as entrepreneurship increases.

This study aims to decipher the service delivery system of land records or revenue related services after implementing DILRMP. It is important to know that apart out of the 346 services offered by the E-District (Service One) centres, only three services are from land related or revenue related services and two land registration certificates are delivered.

Table 4: Service Delivery from Revenue and Registration Department

Department	Services
Revenue	1. Application for Land Conversion (In districts, except undivided South Canara) 2. Application for Land Conversion of Lands granted under Land Reforms Act (In districts except undivided South Canara) 3. Application for Land Conversion in District offices for Patta Lands as per Rule 106 A of Karnataka Land Revenue Rules, 1966
Registration	1. Application and issuance of encumbrance certificate 2. Application and issuance of certified copy of registered documents/deeds

2.4 Revenue Service Delivery Channels:

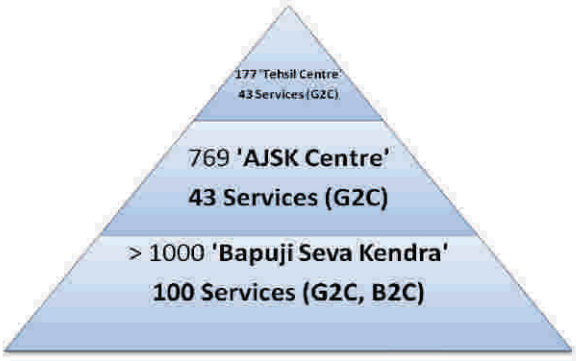
In Karnataka, Revenue Department has its own service delivery channels which have been activated throughout the State at the grass-root level.The different stages have been named differently, such as Tehsil Level Centre, Nadakacheri or Atal Jan Snehi Kendra (AJSK) at Hubli level (Sub-tehsil) and Bapuji Seva Centre at village level. The number of revenue services offered by the centres are different, based on the population size and their requirements. The different revenue service centres which are operated in Karnataka are tabulated as under:

Table 5: Revenue Service Delivery Channels in Karnataka

Name of Centre	Operated in	No. of Services	Details of services	No. of Centres operated
Tehsil Service Centre	Tehsil	a. 39 Revenue Services	Application and Issuance of Caste, Marriage, Domicile, Income, Population, Surviving Family Member/ No Government job certificate, Unemployment certificates etc.	177

		b. Bhoomi Services	Application and Issuance of RTC (RoR)	
		c. e-Mojini (Survey)	Survey-Settlement records, issuance of maps	
		d. e-Janma	Birth and Death registration	
		e. Aadhaar Services	Aadhaar based registration	
Nadakacheri/ Atal JanSnehi Kendra (AJSK)	Sub-Tehsil/ Hubli	Same as Tehsil Service Centre	Same as Tehsil Service Centre	769
BapujiSeva Kendra	Village	a. 39 AJSK services **eMojini is not included**	Same as AJSK Service Centre	At every Gram Panchayat
		b. 43 RDPR services	Housing scheme, MGNERGA, Village sanitation etc.	
		c.Bhoomi Services	Application and Issuance of RTC (RoR)	
		d. 17 other B2C services	Bill payment, Ticket booking, Aadhaar, Voter card etc.	

Figure 4: Hierarchy of Revenue Service Delivery Centres in Karnataka



2.5 Benefits:

The Government of Karnataka has further strengthened the e-governance schemes by introducing many types of service delivery centres a different level of administrative hierarchy. It also helps the e-governance process by de-centralized service centres at Panchayat level. Earlier there was only a District or a

Tehsil level. Since 2016 Government of Karnataka launched new scheme, Bapuji Seva Kendra at every Panchayat level. It provides a fast and transparent digital services to citizens. The benefits are:

- Citizens can directly visit their respective Panchayat offices to get their documents or certificates. Citizens can avail B2C services from the same office.
- These centres provides revenue related documents to citizens i.e. caste certificate, RoR, income certificate etc. as well as provides Rural Development Department services i.e. MGNERGA, Soil Card, Kisan Credit Card etc.
- Decentralized the service delivery channels has helped the farmers, wage labourers, students etc. Earlier they would visit Tehsil office to avail any Government Services. So that waiting time, travel time, cost, etc. have been reduced.
- In addition to the process related benefits these also the new methodology has created rural employment generation, as the centres employed two Data Entry Operator at every centre.

Figure 5: Ratio of Service Demand in Bapuji Seva Kendra

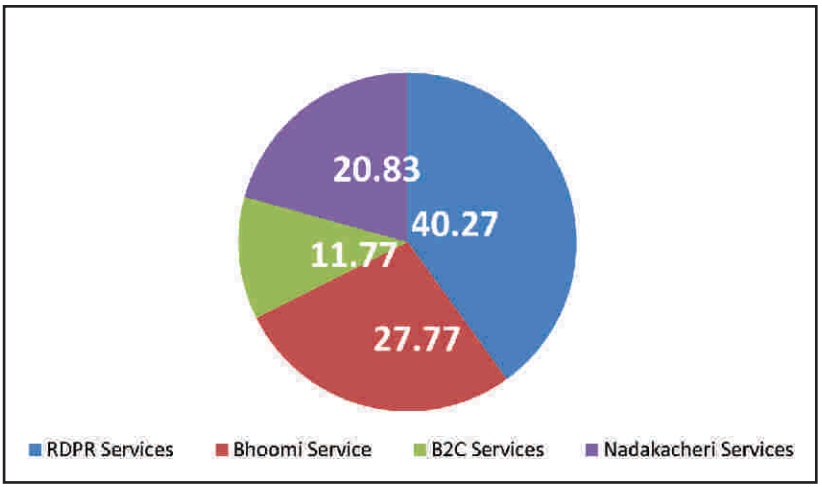
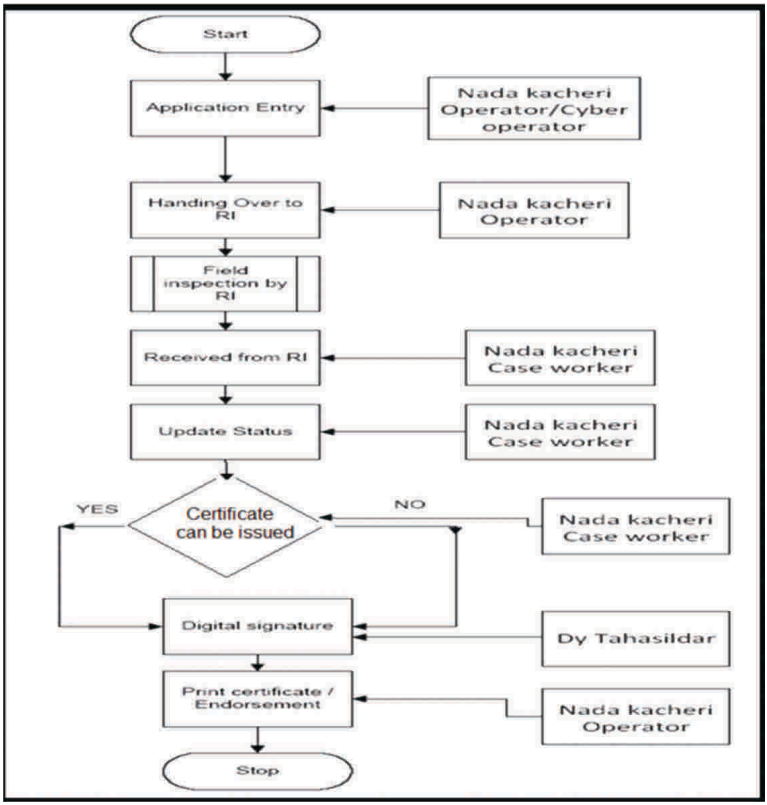


Figure 6: Workflow of delivery system in Nadakacheri/AJSK /Tehsil Office



Source: Nadakcheri User Manual, Revenue Department, Karnataka

2.6 Other Service Delivery Channels:

Apart from the current revenue service delivery channels at every stage, other service centres are also available and running profitably in the State and provide various G2C, B2C services. These are namely; Karnataka One and Common Service Centres (CSC) are activated throughout the State. The mechanism of functioning are slightly different as Karnataka One is State initiative run by EDCS (Directorate of Electronic Delivery of Citizen Services, Government of Karnataka) and Common Service Centres (CSC) initiated by DeITY, GoI.

2.6.1 Karnataka One (K1)/ Bangalore One (B1) Service Centres:

Government of Karnataka in April 2005, to provide integrated services to the citizens used the tools of Information and Communication Technology (ICT) to launch "Bangalore One". This is one of the flag ship projects of Government of Karnataka and one of the best projects in India, in delivering citizen services. Delivery of services with an enhanced speed, convenience, reliability and transparency has won many accolades from public. Responses from citizens have been very encouraging and more than 2 crore transactions have been registered with a turnover of more than Rs. 2000 crores Buoyed by the success of “Bangalore One”, the Government of Karnataka has decided to replicate Bangalore One to other cities across Karnataka.

The Vision of the Karnataka One project is "To provide a single interface for anytime anywhere citizen centric services of the government and private businesses in an integrated, convenient, fair, effective, secure, sustainable and citizen friendly manner using multiple delivery channels through the use of IT tools". The Mission of the Karnataka One project is to be "One Stop Shop for Nonstop Citizen Services". The vision of KARNATAKA ONE is to eventually bring all the G2C and G2B services within the purview of KARNATAKA ONE project as a single interface so as to reduce the need for citizens and business people to visit the Government offices except for specialized and complex services.

Salient Features:

- Initially, to provide G2C services in a convenient and efficient manner through the Integrated Citizen Service Centers being set up in five municipal corporations of the State.
- To scale up the operations to cover eventually all the G2C services in the five municipal corporations.

- To become a single interface for all Government to citizen transactions.
- To enhance the accountability, transparency and responsiveness to citizen's needs.
- To provide cost-effective methods of service provision to the departments and agencies.
- To provide efficient and real-time MIS and EIS to the departments.
- To manage the service provision through partnership with a consortium of Service Providers, to be selected through a competitive bidding process.
- To ensure speed and certainty of providing the services through enforcement of a Service Level Agreement with the selected Partner.
- To enable the government departments and agencies to focus on their core functions and responsibilities by freeing them from the routine operations like collection of revenues and accounting, issuing of certificates etc. This enhances the overall productivity of the administrative machinery.
- Enforce accounting, issuing of certificates etc. and thereby improving the overall productivity of the administrative machinery
- Provide a satisfactory citizen user experience
- Improve service quality and innovation
- Provide a single long running dialogue across all business functions and customer access points for an integrated service delivery at one point.
- Provide a secure, scalable and reliable interface to the users

Figure 7: Coverage of Karnataka One & Bangalore One Service Centres

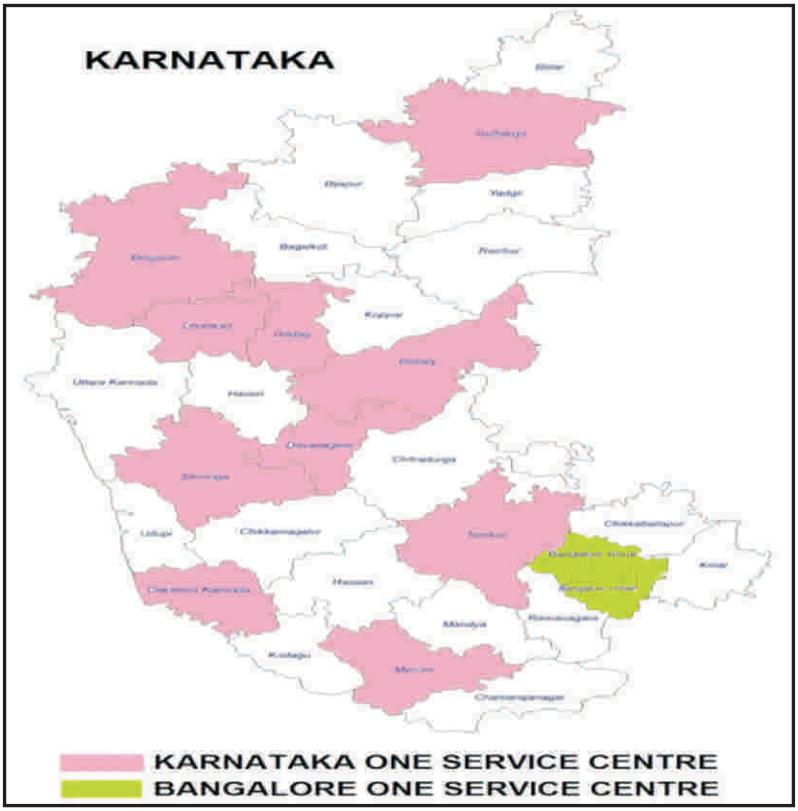


Table 6: Numbers of K1 and B1 Centres in Karnataka

Service Centres	Districts	No. of Centres
Karnataka One	Hubli - Dharwad	10
	Shimoga	3
	Gulbarga	3
	Mysore	6
	Tumkur	4
	Mangalore	5
	Bellary	2
	Belgaum	5
	Devanagarnee	3
	Gadag	1
Bangalore One	Bangalore Urban	105
	Bangalore Rural	
Total		147

2.6.2 Common Service Centres (CSC):

Common Services Centers (CSCs) are a bridge between the gap of access of delivery of various e-governance and business services to citizens in rural and remote parts of the country. CSCs offer assisted access of e-services to citizens with a focus on enhancing governance, delivering essential government and public utility services, social welfare schemes, financial services, education and skill development courses, health and agriculture services and digital literacy. This is apart from a host of B2C services. CSCs are more than service delivery points in rural India; they are positioned as change agents, promoting rural entrepreneurship and building rural capacities and livelihoods.

- **Village Level Entrepreneurs:** A Village Level Entrep-reneur (VLE) or CSC operator is the key stakeholder of CSC scheme. Although content and services are important, it is the VLE's entrepreneurial ability that ensures CSCs sustainability. A good VLE is one who has strong entrepreneurial traits and social commitment, apart from financial stability. They should be credible and command respect of the community. The quality of services at a CSC is correlated to the quality of VLE operating it. Selection, training and building capacity of the VLE, plays a key role in the success of the CS Scheme. Apart from VLEs, State Designated Agencies (SDAs) and the District e-Governance Societies (DeGS) are two other important stakeholders as also the implementing agencies of the Scheme at the State-level.

- **Key Features:**

  I. It aims to establish a self-sustaining network of CSC centres in Gram Panchayats. 'Public Internet Access Programme' and delivering various citizen-centric services.

II. CSC is envisaged as a transaction and service delivery based model, delivering a large bouquet of e-services through a single delivery platform. This would increase the sustainability of the CSCs.

III. The CSC strengthened by ensuring standardization of available service and capacity building of all stakeholders involved.

IV. Manpower resources would be provided both to the SDAs and to District e- Governance Society (DeGS) for enabling them to perform their roles and responsibilities, such as assistance, co-ordination for execution of project till delivery of e-governance services, monitoring and assessment.

V. Help Desk support will also be provided by CSC SPV.

VI. One of the key objectives of the Scheme is to increase the sustainability of VLEs by sharing maximum commission earned through delivery of e-services and encouraging women as VLEs.

- **Services on CSC Portal:**

(i) G2C Services (Government to Citizen Services): PAN Card Services, Aadhaar (UID) card Services, NIELIT Services, NIOS Services, Passport services, Electoral Services 39 annual report 2015-16 CSC e-Governance Services India Limited, PFRDA(pension services), State electricity and water bill collection services, Insurance services, Banking.

(ii) B2C services (Business to citizen services): Mobile Recharge, DTH Recharge, CSC Bazaar, IRCTC & Bus Ticketing, Utility Bill Payments, E-Learning, Tele-medicine, E-Commerce, Income Tax, and Agriculture.

(iii) Free Services: E-Courts, Online Results, Market Prices, Weather Information.

Figure 8: CSC Ecosystem

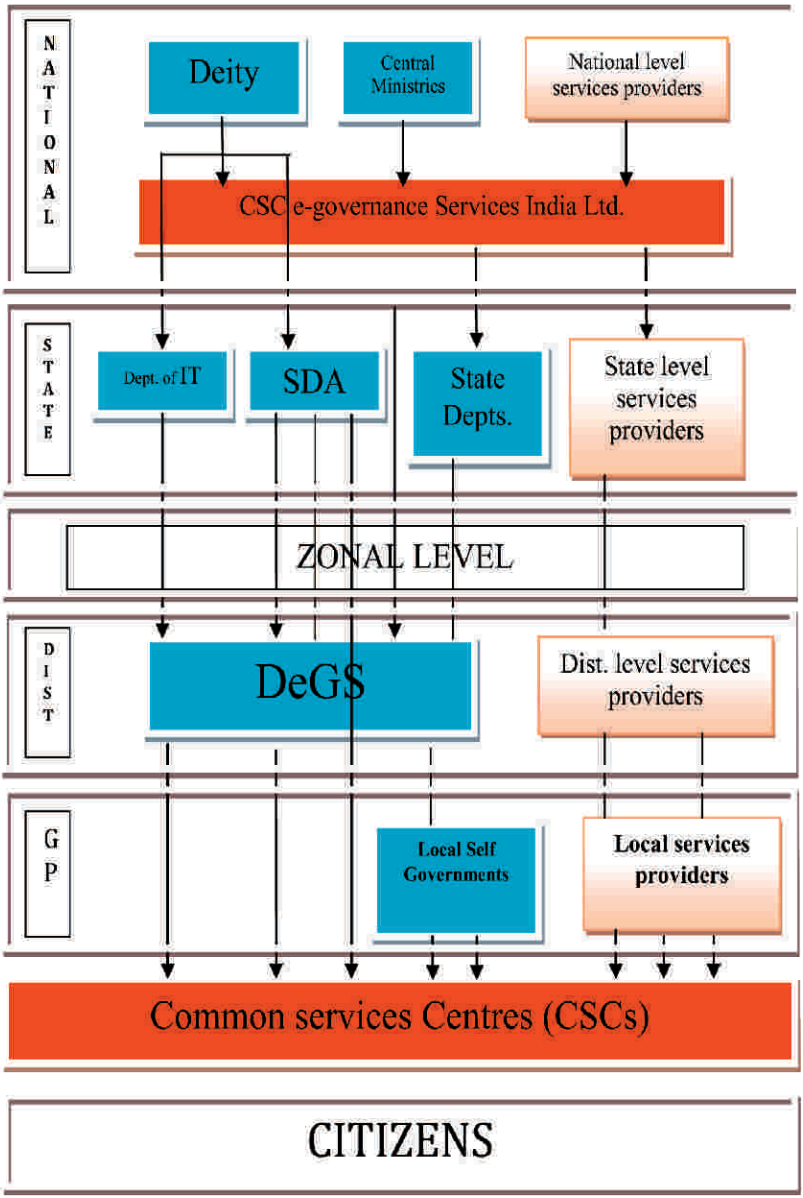
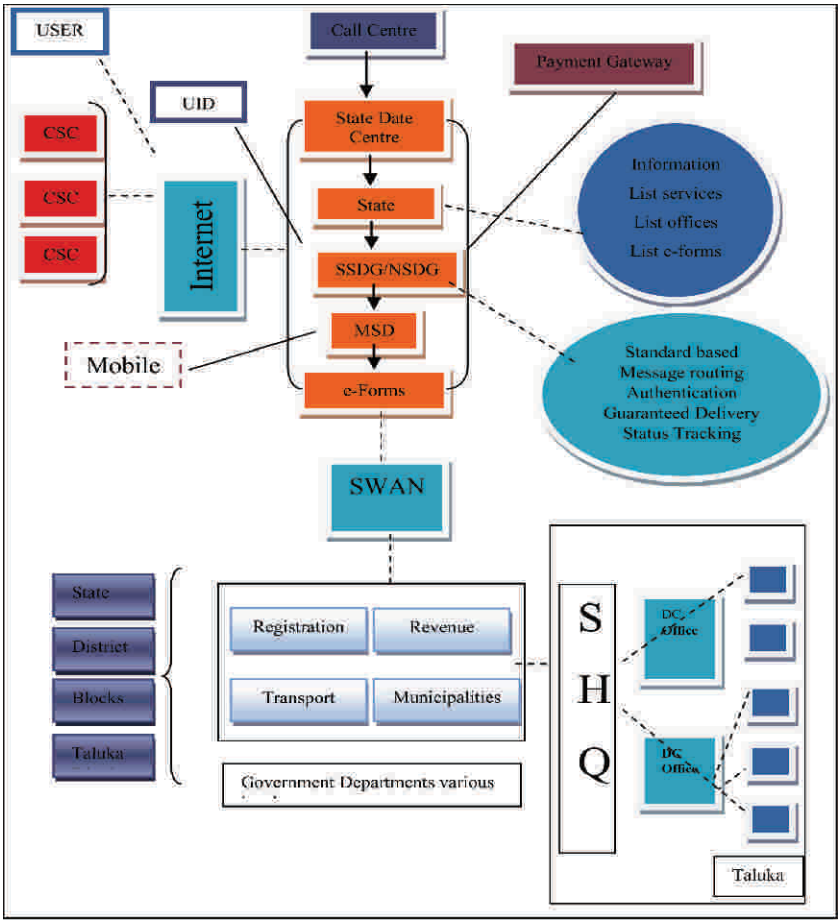


Figure 9: CSC Architecture



3. Land Records Modernization Programme And Service Delivery In Gujarat

3.1 Updation of Land Records: The Process set in motion from Manual System

Gujarat has completed almost all components of the NLRMP by using a system for updation of land records. Over and prepared with making use of ETS (Electronic Total Station) & GPS

(Ground Positioning System), it has dealt with the challenge of modernisation of land records. It has undertaken original land survey during 1880– 1915 through chain and cross staff. This was done without geo-reference. Chain and cross staff survey encountered problems related to overlapping and gaps that emerged where village maps were not to scale. The measurements for each field were given on a paper which is known as the 'tippan' and it was allocated a unique number. In other words this was known as the survey number of this land parcel. The area for the land plot was considered manually by using a ready reckoner and calculations of the area of land parcels have been recorded in a book called 'Gunakar book'. The survey number, area of the plot, name of the occupant of this parcel and various other characteristics of this land parcel were tabulated in a land record known as the 'Aakar Bandh' The areas of all survey numbers in a village shows the total area of the village. The survey numbers given in the 'tippan' were used to draw the map of the land parcel and thus this process was ultimately used to prepare spatial records. All these outlines/ maps of all the survey numbers of the village were consolidated to prepare a village map. (revenuedepartment.gujarat.gov.in, 2011: 11).

3.2 History of Survey and Settlement Operation in Gujarat

The survey or re-survey has been undertaken in different parts of Gujarat at different point of time. History of Land Parcel Survey in Gujarat is as follows with survey years and areas:

1. 1880 to 1900 Original Survey in five Districts of erstwhile Bombay Presidency (i) Ahmedabad (ii) Kheda (and Anand) (iii) Surat (and Navsari) (iv) Bharuch (and Narmada) (v) Panchmahal (and Dahod)
2. 1947 to 1950 Ex – Inam villages of above five districts
3. 1880 to 1950 Villages of former Princely States where Survey was completed during Ex- State regime and were treated as scientifically surveyed
4. 1954 to 1969 Ex- Merged State i.e. un-surveyed villages of these areas

5. 1948 to 1969 Villages of Dang District (Tribal District)
6. 1948 to 1956 Resurvey/ Revision Survey of the Ex-Saurashtra area villages un-surveyed and/or party surveyed
7. 1950 to 1974 Survey of Villages of Kachchh District Source: Re-survey Manual, Revenue Department, Government of Gujarat, p.1–2

3.3 Rationalization for computerisation of land records in Gujarat

In the beginning, the system of land information and management was brought with a number of inadequacies. With passage of time, the survey records were prone to be are outdated and it was observed that about 20 - 25% of the records have also been lost/ destroyed/ mutilated. The available records were not commensurate with the ground truth. Old surveys were carried out using conventional instruments available at that time, (i.e. 5% Tolerance limit was allowed) as the records were inaccurate. Preservation of documents was a problem. They were in bad shape and not available to the citizens in the public domain.
The above inadequacies has mounted discrepancies among the textual and the spatial record and between the record and ground situation. Thus the Government of Gujarat (GoG) started Electronic Total Station (ETS) survey during 1990-1991.

3.4 Adoption of Modern Technology for Re-survey in Gujarat

In Gujarat the major objectives for undertaking resurvey by using modern and updated technology are as follows:

1. Creation of an updated Cadastral and Title database through a re-survey and measurement, and based on Title verification process.
2. Creating an integrated view of textual and graphical information on land records.

[1]http://dolr.nic.in/dolr/downloads/pdfs/NLRMP_Tenders/gujarat_anand_seven_dist_survey.pdf accessed on 8 August 2015.

3. Replace manual records with digital records, update the records and ensure consistency of land related information across the departments.

The instruments and methodologies used for re-survey in Gujarat are given in the following table:

Table 7: Methodology and instruments employed for Re-Survey

Sl. No.	Methodology	Instrument/ Media	Planning Accuracy at parcel
1	100% Pure Ground Truthing	DGPS + ETS	+/- 15 C.M. and better
2	HRSI + Ground Truthing – Resolution achievable +/- 2.5 Meter	IKONOS image	6.5 Meters
	1.0 Meter	CARTOSAT	3.0 Meters
	0.6 Meter	QUICKBIRD	1.5 Meters
3	Aerial Photography + Ground Truthing	Scale 1:10,000	+/- 30 C.M.

Source: NLRMP in Gujarat State; presented by: Principal Secretary & Settlement Commissioner, Gujarat State

3.5 Upshot of the Resurvey

Gujarat State has initiated the process of undertaking a re-survey for all land parcels and the results were found healthy for the Land Records Modernization Programme. These outcomes are:

1. Land Records and maps depict the ground reality. This reduces litigation.
2. Citizens get their accurate map as far their ownership.
3. There has been a significant decline in criminal offences. It has helped reduce crime with the result that the transaction costs have been lowered thereby adding to the State's growth and development.
4. Encroachment of land, be it public land, government land or CPRs is now easily identifiable.

5. The process of land acquisition has become easier. Especially for large projects which can investment and faster commissioning of projects.
6. Land bank generation has also become easier, Government can easily identify the area where Government schemes like housing for the poor or any other project is to be started.
7. Long-term results are poverty reduction, *patta* distribution and the creation of more jobs etc.

3.6 Digital India Land Records Modernisation Programme (DILRMP) in Gujarat: A Way towards Land Titling

The ultimate aim of DILRMP is to move towards conclusive Land Titling System. This reduces the uncertainties of the owners regarding their ownership title as implementation the Torrens system is to be taken up in each State. The Torrens system requires all components of DILRMP to be completed successfully. The State of Gujarat did well as it has already put together the components required for a successful implementation of the programme. This will help the concerned departments as well as the Government of Gujarat to implement Conclusive Title system.

3.6.1 E-Dhara in Gujarat: a complete computerized Land Record Management System

Land records are of critical importance as land constitutes the primary source of sustenance for the people. It is one of the basic factors of industries along with labour and capital. The NIRD studies (2008-09) help to establish that manually maintained records, management has become outdated. In many States the level of inaccuracy was as high as 86%. The Talati maintains the land records data maintained manually in a register which is known as Village Form 6. He is the keeper of this data and carries out all changes when authorized by competent authority i.e. Circle Officer, Dy- Mamlatdar-Land, Talati etc.

Revenue Department of Gujarat has taken a major initiative in the form of digitization of Land Records vide the project of

Computerization of Land Records. Simultaneously it has operationalised the data use by adopting a complete system consisting of:

1 Issuance of computerized RoR.
2 Receiving mutation application and processing it in online mode.

This has installed a complete computerized Land Record Management System in place. It was in this way that the e-Dhara Land Records Management System was conceptualized. E-Dhara managed land records by using Information and Technology (IT) as a tool. District Junagadh in Gujarat was taken for pilot basis to provide prompt issuance of computerized RoR across the counter and online updation of land records. E-Dhara i.e. the new system brought about a big change in the way land records maintained and administered this far. Every district in Gujarat has commenced online mutation operations at least in 2 Districts as pilot work. The State has implemented online mutation operations in all 225 Districts as of 01-04-2005.

Objectives of e-Dhara System

a. Primary objectives:

1. To achieve Complete Computerization of Land Records across the State.
2. Elimination of Manual Records, computer controlled mutation process and self-sustainability.

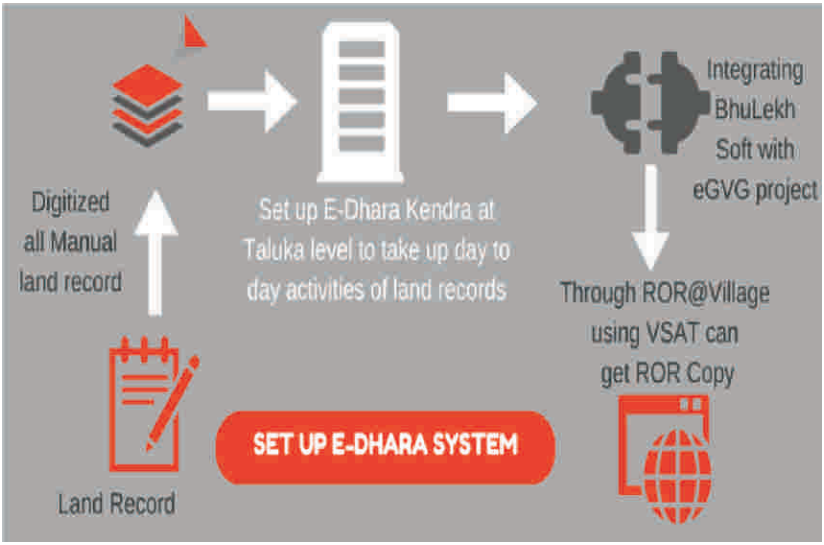
b. Other objectives:

1. Visible improvement in quality of services provided to citizens
   - Allowing farmers / citizens easy access to their records
   - Infuse transparency in providing the services to citizens
2. Ease of administration
   - Facilitating easy maintenance

- Prompt updation of land records
- Making land records tamper proof

3. Reduction in service delivery time i.e. to speed up delivery of ROR without delays, harassment or bribery.
4. Platform for providing more citizen centric services
5. Ensuring self-sustainability of the system
6. Reduction of rent seeking in land revenue administration. It reduces the transaction costs and enhancing the ease of doing business and investments in land.

Figure 10: E-Dhara Gujarat Workflow



3.6.2 Transformation of Processes

E-Dhara Land Records Management System is designed on the basis of transformation brought in the manual process for maintaining & updating land records in the State. The Manual process which was followed in pre implementation stage and computerized process is initiated in post e-Dhara implementation stage are as below in comparative tables no. 2, 3 & 4.

Table 8: Comparison of Manual & E-Dhara System: RoR Issuance

Process	Practice in Manual System	Practice in e-Dhara	Key Features
Application	Application mainly verbal since Talati knows the khatedars.	Application not required. Khatedar has to specify his survey/Khata no. for getting computerized RoR	Banks/SahakariMandalis/Talatican get computerized RoR on behalf of Khatedar. Khatedar can get computerized RoR through his representative or Talati.
Issuance	Available with Talati only within the village.	Available anytime at e-Dhara Kendra. One set of RoR sale copy given to talati for availability from village	Consumption points like Sub Registrar, Banks, District co-op society etc. are tehsil HQ level
Cost	Officially Fifty paise, but was to be retained by Talati.	Available on payment of Rs. 15 per Survey Number or khata.	The basic objective of Self-sustenance of system is met by User charges collected. Cost is no bar. Well accepted. There is a collection of Rs. 1.7 Cr in 5 months.
Travel time	Mostly available within the village. Khatedar may travel to Subregistrar, Banks etc. at District for using RoR.	Significant for villages far from District center. Computerized sale copy RoR is available at village.	e-Dhara center is additional outlet, where availability of RoR is assured.
Authorized signatory	Talati himself since all documents in his possession.	e-Dhara Dy. Mamlatdar & Mamlatdar	

Source:https://revenuedepartmentgujarat.gov.in/computerisation-of-land-records

Table 9: Comparison of Manual & E-Dhara System Mutation Process

Process	Practice in Manual System	Practice in e-Dhara	Key Features
Application for Mutation	Written application	Compulsory Application in standardized format.	Standardize application forms available with Talati and e-Dhara Kendra
Key Supporting Documents	Brought by applicant as specified by Talati.	Brought by Applicant as mentioned in application form.	Standard list of documents according to mutation type
Pending Supporting Documents	Brought by applicant as specified by Talati.	Applicant is suggested to resubmit application. Endorsement given. Application is accepted, Pendency specified in computerized receipt. Mutation not initiated till pendency cleared.	Standardized list of supporting documents

Application Verification	Talati himself verifies.	If submitted at village, Talati verifies. If submitted at e-Dhara, Dy. Mamlatdar verifies.	Application in prescribed format with all necessary supporting documents only is processed through computer
Generating VF6 Entry number	Entry registered with a unique mutation entry number. One entry may contain multiple mutation types.	System generates mutation entry number & doesn't allow back date mutation entry. System does not permits multiple mutation type in one entry.	Applicant can track application status by specifying mutation entry number at e-Dhara Kendra.
Mutation Text	Descriptive Mutation script by the Talati and no uniformity.	Standardized mutation text generated by system.	Uniformity across the State.
Entry Verification	Not Done	Done by e-Dhara Dy. Mamlatdar	Immediate rectification in case of errors.
Notice generation and print	Contains all necessary details but no standard pattern was followed. Not verified by higher officer.	Standardized notice format generated by system. Verified by e-Dhara Dy. Mamlatdar.	
Preparing Mutation File	All relevant papers were tagged together in a bunch, not in file.	At e-Dhara Kendra, mutation file is created, consisting of Mutation Application, Supporting Documents, VF6 print, notices.	Brings uniformity in system & leads to structured decision making while entry certification.
Serving of Notice	Done by Talati	Done by Talati but monitoring by e-Dhara System.	Notices not served which result in increase in court cases. Important documents are being scanned as permanent evidence.
Notice Period	There was no check, except competent authority, for certification of immature entry.	Above competent authority, system does not permit any structure entry before the notice period.	
Objections, if any	Recorded in Takrari Register. Hearing Conducted & case resolved	Recorded in Takrari Register. Hearing Conducted & case resolved. Section of Takrari Register and Order scanned in computer compulsory.	System checks for scanned order for Takrari entries before certification by competent authority. All relevant documents being scanned can be used for future reference.

Mutation Decision	Taken by Certifying Authority	Taken by Certifying Authority. Copy of scanned decision build up repository in system.	VF 6 being scanned can be used for future reference
Structure Entry	There was no such system.	Structure entry provides human logic to the system but under strict specified business rules as source coded for making changes in data as per decision on VF6 entry.	Human intervention for data tempering completely eliminated. A unique feature. Not applied except in Gujarat.
S Form	There was no such system.	It is a preview of likely changes happening in data. It is a check to ensure correct pattern of data Updation visualized in mutation order. Competent authority signs it.	System incharge is assured of correct pattern of data Updation due to mutation order.
Structure Entry locking	There was no such system.	System checks for Scanning of signed S form before authentication of Structure Entry. Assured System incharge now allows changes in data.	Changes in data now updates front end document viz. 7/12 & 8A. Copy of scanned S Form builds up repository in system.
F form	There was no such system.	It is a tool for post facto auditing of identical sense in VF6 decision, Structure Entry & updated RoR.	It is post view of sequential activities regarding particular mutation entry right from application receipt till RoR Updation.
Updated ROR	Components viz . Time, Understanding, logic & quality of Updation of RoR is human oriented.	Components viz . Time, Understanding, logic & quality of Updation of RoR are system oriented.	Updation of RoR is timely, precise, logical & qualitative.

Source: https://revenuedepartment.gujarat.gov.in/computerisation-of-land-records

Table 10: Comparison of Manual & E-Dhara System Crop Updation

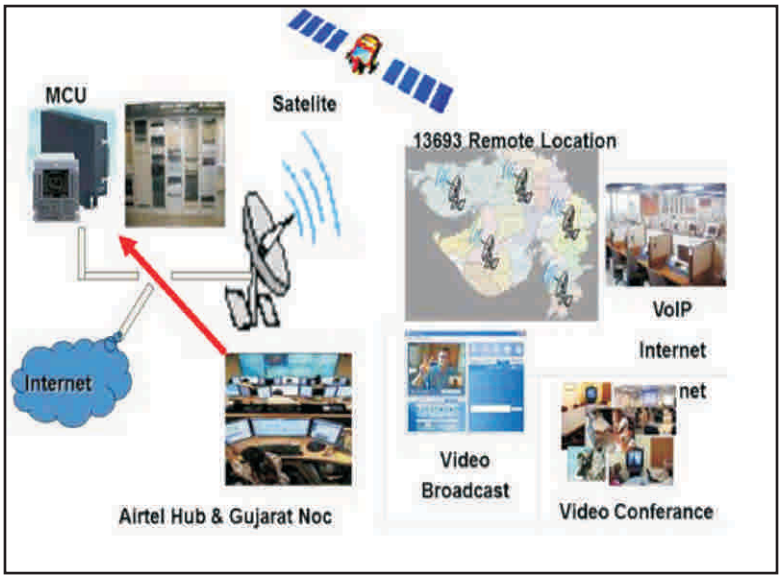
Process	Practice in Manual System	Practice in e-Dhara
Field Survey	Talati surveys agricultural lands & ascertain crop details on field	Talati surveys agricultural land & ascertain crop details on field
Form 12 Updation	Talati manually updates crop details in manual 7/12	Talati manually updates crop schedule generated from system.
		Based on updated crop schedule, crop details are entered into system

Source: https://revenuedepartmentgujarat.gov.in/computerisation-of-land-records

3.7 Service Delivery Mechanism in Gujarat: E- GRAM Vishwagram

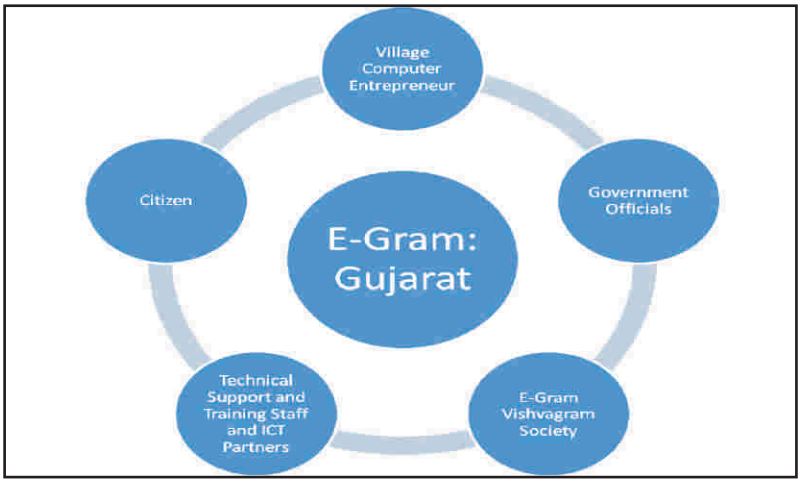
E- GRAM Vishwagram Project was initiated in March 2003, by providing 700 computers with help of Public fund and State Government fund in district Kheda and Anand of Gujarat. The society has provided the capacity to issue some of the certificates commonly required by the members of the public electronically. All Gram Panchayats have the capacity to deliver basic and very essential services to their people in vernacular language with the availability of VSAT connectivity. To leverage IT resources at the village level, E-Grams are being operated through Village Level Entrepreneur or Village Computer Entrepreneur (VLE/VCA) on a revenue sharing basis under Public Private Partnership model. This mechanism is ensuring prompt services to the citizens; providing opportunity of an additional income to the village Panchayats as also generating self-employment opportunities for the rural youth. VLEs are also providing commercial services through computer and internet.

Figure 11: E-Gram Vishwagram Gujarat Workflow



E-GRAM Vishwagram Project enables people of Gujarat to save cost and time in availing various services. Earlier rural citizens had to come to the District and district headquarters to get services of daily uses which takes their money and wasted time. It was also not 100% sure that they will get their required service delivery on their visit day. After implementation of E-Gram at Gram Panchayat level now the service delivery effectively happening at Gram Panchayat level itself and smooth way of functioning started in.

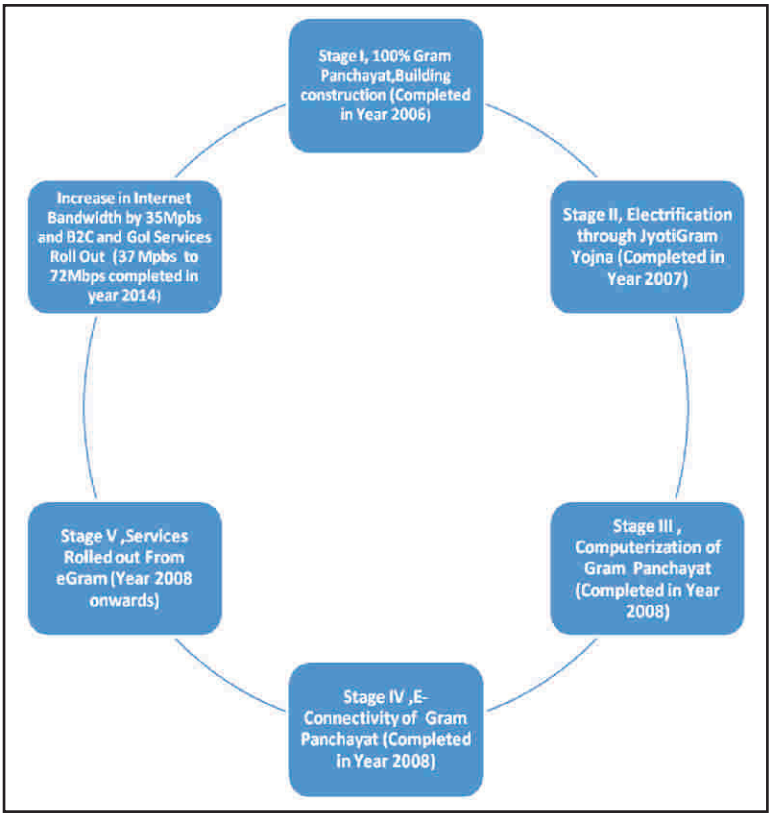
Figure 12: E-Gram Vishwagram Project Stakeholders



The vision of E-Gram is to empower people through popular participation towards prosperity and sustainable development in rural Gujarat, create a sustainable information flowvide employment and give the people an access to their own land related data with the objective of bridging the Digital Divide between rural & urban area. It has infused 5 Es in Governance of Gujarat i.e.

- Ease
- Economy
- Efficiency
- Effectiveness
- Ethics

Figure 13: Stage Wise Roll Out Strategy of E-Gram



3.7.1 Project Infrastructure Setup for Service Delivery Mechanism

A Public Private Partnership (PPP) Model on a revenue sharing basis was adopted to implement the project. Local persons were appointed with minimum Qualification of 10th Pass as Village Computer Entrepreneur or Village Level Entrepreneur (VCE/VLE). Roll out of Basic G2C services & B2C Services provided through E-Gram Centre.

14,004 E-Gram centres are established in Village Panchayats. The E-Gram Centres have been equipped with VSAT Broadband connected PCs (with Scanner, Printer, UPS, Web Cam, VoIP

Phone) and to provide the e-services to rural citizens. Village Computer Entrepreneur (VCE/VLE) are working on PPP Model and delivering services to rural citizen in these E-Gram Centres.

3.7.2 Connectivity

E-Gram Broadband VSAT connectivity Network is also known as PAWAN Network is Asia's Largest Public Domain VSAT Network. Following is key attributes of this network:

Table 11: Broadband VSAT Connectivity, E-Gram Gujarat

Category	Availability	Bandwidth Available	Total (in Mbps)
Data	2500 Concurrent User	16 Kbps burstable up to 256 Kbps/site	72 Mbps
VOIP	50 (25 Duplex)	Per Node 16 Kbps burstable up to 64 Kbps	2 Mbps
Video Conference	18 Duplex Channel (36 Users)	Per Node 512 Kbps	19 Mbps
Video Broadcast Channel	1 Channel	3 Mbps	3 Mbps

3.7.3 Project Technical Support Team

To support the entire system, Technical Support and Training Service Provider Team (TSTSP) deployed at E-Gram Panchayat, Taluka, District and State level (total strength of 575 IT Professionals). Their core job was hardware/ software support, capacity building of Village Computer Entrepreneur for successful implementation in rural area. This team is also taking care of technical support requirement of Department at Panchayat and its related offices in District and Taluka. Connectivity

Network is supported by trained VSAT Engineers team with total strength of 125 engineers.

3.7.4 Services Enablement in Project

VCE are giving e-Services which are broadly divided in two categories:

a. Offered G2C Services

- Birth & Death Certificate
- Caste& Income Certificate
- Tax Collection Receipts
- Land Right Records Services (RoR- 7/12 & 8A)
- Application Forms of various development Schemes through Mahitishakti.net
- ITI Application Form Data Entry work for Government Departments like Health, Sports, Gram Sabha, Vanbandhu etc.
- Electricity Bill Collection Work
- E Ration Card Coupon
- iKisan- Farmer Registration
- GSPC Bill Collection work

b. B2C services: Rolled out by VCE through entrepreneurship model are as follows:

- e-Ticketing of Railways, Airlines , Bus
- Utility Bill payments (Telephone, Mobile, DTH etc.)
- DTP work
- Financial Services

3.7.5 Information and Communication Dissemination

- At present State, District Officials are conducting regular video conference with E-Gram centres on a daily basis.
- Free VoIP Telephony is available for Rural Citizen from E-Gram Centres.
- Through **PAWAN Channel** important programs and informative programs are transmitted for information

Department, WASMO, Health Department, Education Department, Distance Learning session of e-Services (Like RoR, RTO, e-ration card etc.) and computers course like Adobe online training is relayed.

- As Social media grows, E-Gram is also utilizing the same for passing latest information on Facebook. There is page "E-GramVishwagram.gujarat" on Facebook getting increasing hits by the day.

3.7.6 E-Services Roll Out Status Report

E-Gram Vishwagram Society is working as enabler to roll out the services in rural area. In the GSPC Service, E-Gram Vishwagram Society is getting one Rupee per bill and in Khelmahakumbh Data Entry, E-Gram Vishwagram Society received Rs. 30 Lacs as lump- sum amount. No other service amount was received by society till the date of survey.

- **Electricity bills collection:**

E-Gram Centres perform electricity bill collection work. Thus, it is developing a multi-utility versatile programme. Volume of work and financials are as given in the table 1 below:

Table 12: Revenue from Electricity Bill Collection by VCE/VLE: E-Gram Gujarat

Financial Year	Total Bills Collected	Amount Collected (In Lacs)	E-Gram Income (VCE/VLE charge per Bills is Rs 7/-)
2016-17	3730402	34908.86/-	Rs.2,61,12814 /-
2015-16	7266573	62772.59/-	Rs.5,08,66,011 /-
2014-15	6873415	59770.73/-	Rs.4,81,13,905 /-
2013-14	6237217	52243.28/-	Rs.4,36,60,519 /-
2012-13	5740751	39274.50/-	Rs.4,01,85,257 /-
2011-12	5421261	32880.44/-	Rs.3,79,48,827 /-
2010-11	5396664	29146.20/-	Rs.3,77,76,648 /-
Total	**40666283**	**310996.60/-**	**Rs.28,46,63,981/-**

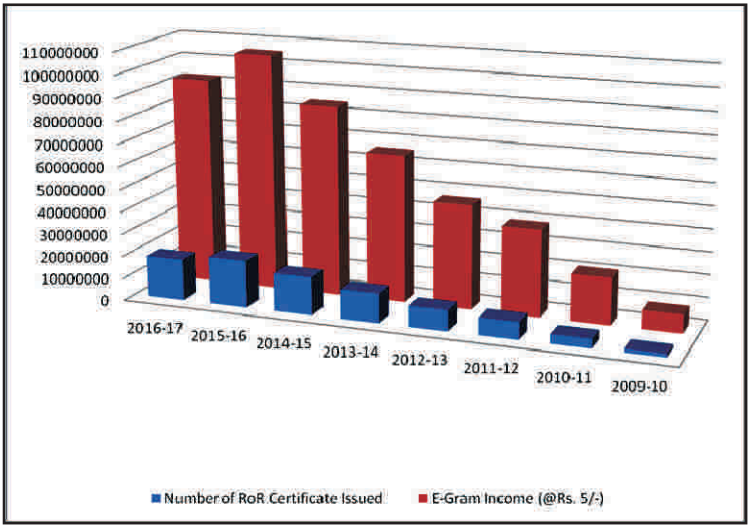
- **Delivery of Land rights of records (RoR):**

E-Gram Centres provide online authentic copies of Land RoR. Volume of work and financial details are as given in Table 10.

Table 13 : RoR Certificate Issued by VCE/VLE in E-Gram Gujarat

Year	Number of RoR Certificate Issued	E-Gram Income (@Rs. 5/-)
2016-17	18435812	9,21,79,060/-
2015-16	21042840	10,52,14,200/-
2014-15	16914365	8,45,71,825
2013-14	13120014	6,56,00,070
2012-13	9295245	4,64,76,225/-
2011-12	7738032	3,86,90,160
2010-11	4179227	2,08,96,135/-
2009-10	1663227	83,16,135/-
Total	**92388762**	**46,19,43,810/-**

Figure 14: RoR Certificate Issued by VCE/ VLE in E-Gram Gujarat



- **E-Ration Card (PDS System):** Started in April 2011 and e coupon issued so far are:

Table 14: Income Generated through E-Coupon by VCE/VLE in E-Gram Gujarat

Year	E-Coupon Issued So far	VCE/VLE Income (In Rs.)
2016-17	6493971	1,29,87,942/-
2015-16	76839690	15,36,79,380/-
2014-15	242160864	48,43,21,728/-
2013-14	124889368	249,778,736/-
2012-13	2166606	4,333,212/-
2011-12	1207282	2,414,564/-
Total	**45,37,57,781**	**90,75,15,562/-**

- **GSPC Gas Bill Collection:** Started in September 2013 and Bill collection so far is:

Table 15 : Income Generated by VCE/VLE through GSPC Gas Bills in E-Gram Gujarat

Financial Year	Total Bills Collected	VCE/VLE Income (@ Rs. 7/ -)
Sept to March 2014	89325	6,25,275/-
2014-15	215284	15,06,988/-
2015-16	210183	14,71,281/-
2016-17	217427	15,21,989/-
Total	**732219**	**51,25,533/-**

Financial Inclusion

- 144 VCE/VLE passed Rural Authorization Person (RAP) exam conducted by IRDA. They are now empowered to start 52 companies' insurance products through a single login.
- A total number of 3691 VCEs/VLEs have been registered under APNA Dhan Scheme.
- PAN Card services were launched from E-Gram centres and so far 1231 applications have been submitted.

- PRAN Card (PFRDA) generation has been started from E-Gram centres and so far 884 applications have been submitted.
- As per Ministry of Finance guidelines, currently 650 E-Gram centres are functional as pilots for Financial Inclusion Services across Gujarat.

- **B2C Services by VCE/ VLE**: Through their entrepreneurship skills.

Table 16: Number of Transactions for Different Services by VCE/VLE in E-Gram Gujarat

Category	Transactions (Year 2013-14)	Transactions (Year 2014-15)	Transactions (Year 2015-16)	Transactions (Year 2016-17)
Mobile Recharge	63,793	1,25,602	90,622	33,375
DTH Recharge	4,408	8,443	6,644	2,173
Election Service/ Epic Card print	4,910	5,645	5,602	-
UID Print	8,560	7,990	8,076	9,446
LIC Premium	1,294	3431	4,150	2,239
Farmer Registration	-----	1933	169	554
Aadhar- eKYC	----	43,518	1,49,373	71,431
Total	82,965	1,96,562	2,64,636	1,19,218

Figure 15: Number of Transaction for Different Services by VCE/VLE in E-Gram Gujarat 2016-17

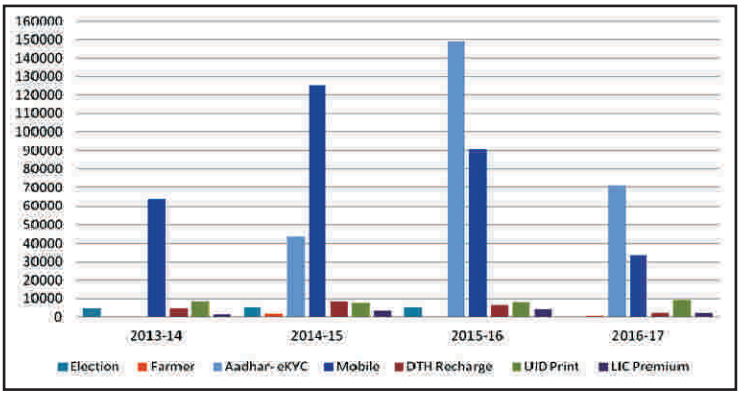
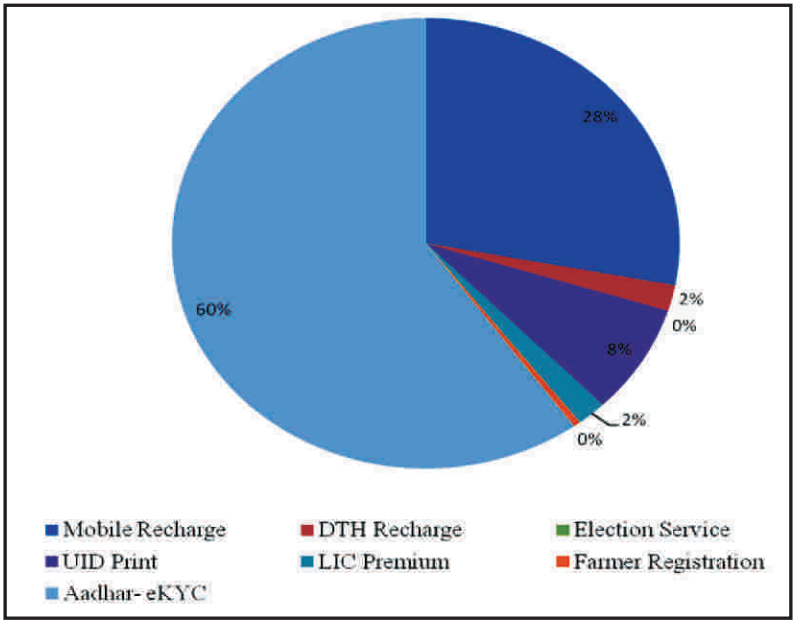


Figure 16: Number of Transaction for Different Services by VCE/VLE in E-Gram Gujarat 2016-17



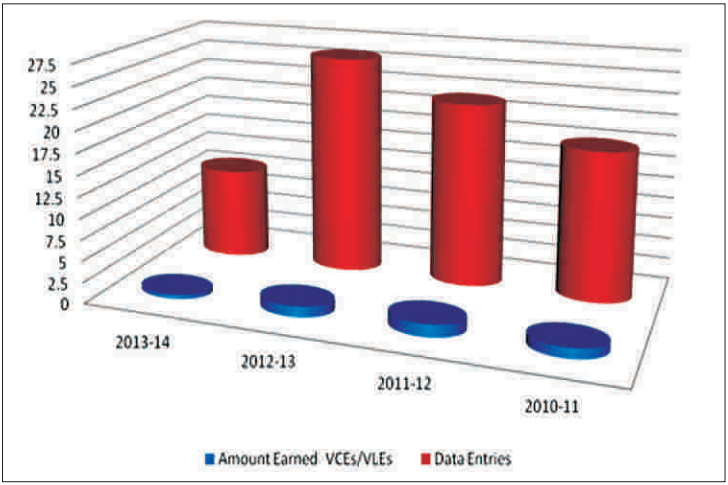
- The raiyats are now registered on i-Khedut application through E-Gram Centre. A total of 17,17,936 raiyats have been registered through E-Gram centres between March-2014 to February-2017.
- Birth and Death data entry service is provided by E-Gram centres across Gujarat through http://badea.guj.nic.in. Since Jan-2013 till November-2014 total 4,67,896 entries have been registered through E-Gram VCE worth Rs.7,01,844
- Support for First Year Technical admission (B.Tech/ Pharmacy/ ITI) is provided from E-Gram Centers for benefit of students. E-Gram Centres also provide online results of 10th and 12th Year examinations.
- Rural citizens can apply for Jobs, in E-Gram itself through OJAS application.
- E-Gram centre also undertake miscellaneous work of data entries:

For example during Khelmahakumbh 2011-Sports person online registration process was started through E-Gram and per registration charges collected by VCE is Rs.7/- .

Table 17: Revenue earned by VCEs/VLEs from Data Entry in E-Gram Gujarat

Year	Data Entries completed (in Lakhs)	Amount Earned by VCEs/VLEs (in Rs.)
2013-14	10.76	0.53 Crore
2012-13	25.91	1.29 Crore
2011-12	21.69	1.51 Crore
2010-11	17.61	1.23 Crore

Figure 17: Revenue earned by VCEs/VLEs from Data Entry (in crore) in E-Gram Gujarat



- VCEs/VLEs perform data entry work for Gram Swagat Program.
- VCEs/VLEs completed data entries related to health of 1.10 Crores rural school children in the year 2009-10.
- VCE/VLE completed data entry of 89,057 records related to Vanbandhu Kalyan Yojana in the year 2012.

3.7.7 Capacity Building Program

In the E-Gram Vishwagram Project, capacity building program is continuous activity:

1. Total 4047 VCEs/VLEs passed CCC Exam so far.
2. Taluka Level Executive of TSTSP team is giving training support to VCEs/VLEs in their regular monthly visit at E-Gram Level.
3. E-Gram Connectivity Infrastructure is having unique facility of training through PAWAN Channel (Bandwidth Provision – 4 Mbps) where continuous program broadcasted through it. Following is list of program which is broadcast on a daily basis along:

    a. Feel Gujarat. Visit Gujarat.
    b. Operation Savdhan.
    c. Online Ration Card Training for VCEs/VLEs.
    d. Khushboo Gujarat Ki – Gir.
    e. Adobe Software Training.
    f. Khushboo Gujarat Ki – Kutch.
    g. RTO Learning Licensee Training for VCEs/VLEs.
    h. Khushboo Gujarat Ki – Somnath.
    i. E-Poster.
    j. BSNL DSA Training Course.
    k. Badea Training.
    l. Trend micro Training.
    m. GSPC Gas bill training.
    n. Financial Inclusion Training.

- Ministry of Information and Telecommunication, Government of India recognized E-Gram as E-Gram CSC Centres from 4th Feb 2010. In compliance of that already E-GVGS installed 12944 OMT SMART Tool.
- Department of Panchayat on behalf of Government of Gujarat signed tri-partite agreement to start National Optical Fiber Network (NOFN) in Gujarat for connectivity to all villages.

- To make E-Service roll out more convenient E-Gram Portal https://egram.gujarat.gov.in launched on 12/January/2017 that will provide different G2C and B2C Services through E-Gram centres.

4. Mechanism and Status of Service Delivery in Karnataka and Gujarat: A Comparative Analysis

Land records modernization in Karnataka and Gujarat - the two frontrunner States – in so far as the implementation of the programme is concerned. Both the States have put immense efforts from grass-root level to computerize all kinds of records, and integrate all records with cadastral maps. Integration of three major pillars of revenue administration i.e. land records, mutation and registration have been achieved by these States. In so far as the digital service delivery of revenue is concerned both the States has their own distinct mechanism of delivery channels which is doing well.

In Karnataka, service delivery channels are decentralized in a manner; where direct Government Service delivery channels provide revenue service. These centres are providing only G2C services specifically revenue related services, whereas in Bapuji Seva Kendra at village level they are providing revenue, agriculture and some B2C services to the citizens. Though, other PPP model service channels like 'Karnataka One' centres are also available to provide B2C and G2C services to the citizens. In Gujarat, however, the scenario is different. Here all 'e-Gram Centres' in village level and 'Civic Centres' in urban areas are successfully run by the Ministry of Panchayati Raj, at the Development Commissioner Office, i.e. e-Gram Vishwagram Society.

As shown in the above two figures, both the States have their own delivery channels, whether Government or PPP or private run. In Karnataka there are three kinds of service delivery models one is completely run by Government which provides basically G2C services to the citizens, and the other model of service delivery is

Figure 18: Service Delivery Channels in Karnataka

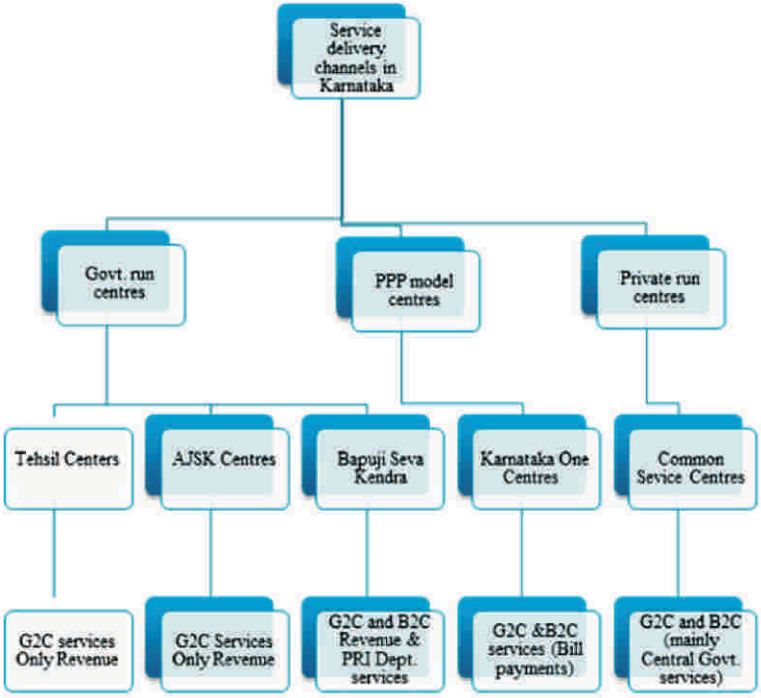
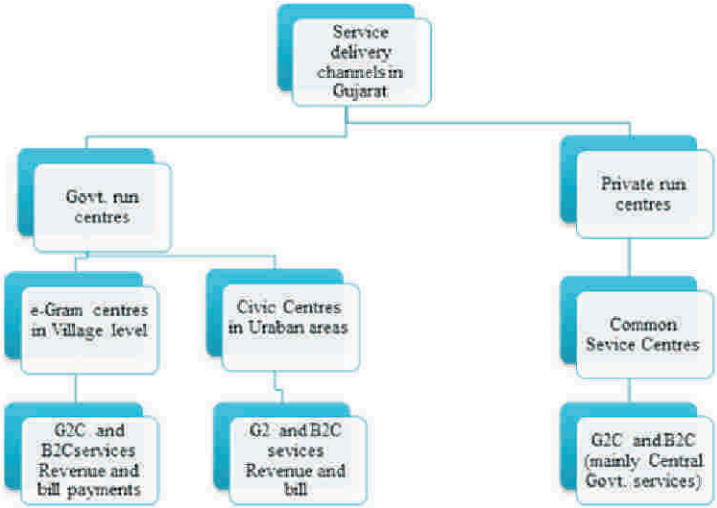


Figure 19: Service Delivery Channels in Gujarat



basically for Bill/utility payments. In Gujarat no such PPP model service centres are available throughout the State. However the service delivery through e-gram centres are satisfactorily caters the needs of citizens.

4.1 Comparative analysis of CSCs:

Private run CSCs are available in both the States, but the coverage in Gujarat is greater than that in Karnataka. It is mainly on account of the current service delivery system through PPP model and Bapuji Seva Kendra are widely available and number of services is higher in the State of Karnataka.

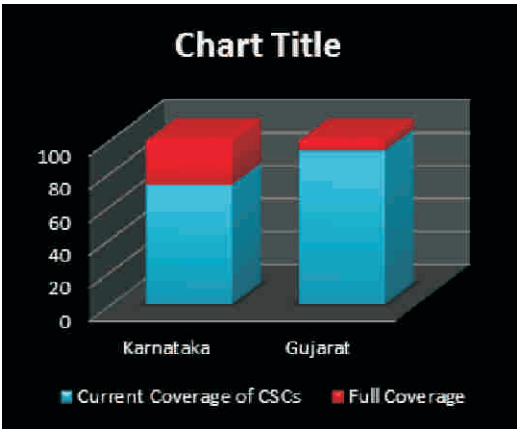
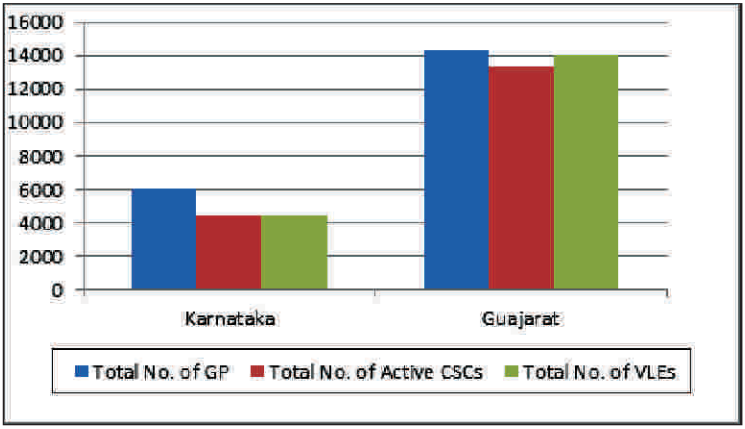


Figure 20: Comparison of CSCs Geographical Coverage

The principal issues that relate to the CSC portal include lack of trained manpower and State department services are less integrated with the CSC and therefore, entrepreneurs are also not very keen to continue CSCs or open newer ones. In Gujarat the scenario is relatively on a better footing. Here, CSC coverage is significantly higher, and however Government Service delivery centres are also active throughout the State. The geographical coverage of CSCs in Gujarat is 92.98%, and 72.34% in Karnataka which is little less comparetively. The difference is higher, because, in Karnataka, some CSCs are inactive due to issues of VLEs and another important point is citizens are reluctant to visit nearest Government run centres as they can get more services from one place. Therefore, VLEs are less interested as their profit rationing with their higher operational cost

Figure 21: Comparison of No. of CSCs and VLEs in respect of GPs



4.2 Issues in CSCs: The issues of CSCs have been assessed after question-answer sessions, focused group discussions with the beneficiaries and the owners. In both the States the findings are more or less same that is mainly untrained manpower, less number of services, demand and timely services not available, very little support from the State offices etc.

- Lack of technical support: The main issue with the CSCs is the technical support is poor. The VLEs are not getting proper training and support from the SDA or any other nodal departments. So that they cannot use the CSC portal widely.
- Less Number of services: The number of services which has been provided by the centre are mainly Central Government Services and some State and B2C services. Thus, beneficiaries are not satisfied with the services. It is been observed that more services and other frequently demand driven services should be incorporated into portfolio of services.
- Non-user friendly portal: The portal of CSC is not very user-friendly, so it needs to upgrade its user interface.
- Profit ratio less: The profit ratio also needs to be increased as the operational cost is higher and profit margin is less. VLEs are, therefore not, very reluctant to operate the CSCs.

- Integrated services: State departmental services are not properly integrated with CSCs. Therefore beneficiaries need to visit some other service delivery offices of State Departments.

4.3 Public perception of digital service delivery:

In the research study a detailed questionnaire has been prepared. This helps to understand the end user perception and the satisfaction level of service delivery from service centres already existing in both the States. The questionnaire is designed in such a manner that all tangibles of satisfaction can be observed. It tries to incorporate all kinds of questions like Trust, Timely services, Cost, Process flow understanding, Transparency, etc. to understand public perception on digital service delivery. The comparative analysis of public perception of the beneficiaries of Gujarat and Karnataka are:

A. People's perception on Trust, Effectiveness and Cost of digital service delivery:

During the field-survey and group discussions, a clear perception of peoples comes out on their trust of e-governance system, cost effectiveness unlike the earlier manual system. Peoples from different occupations have their own and varied perception on the three main issues of satisfaction over digital service delivery system.

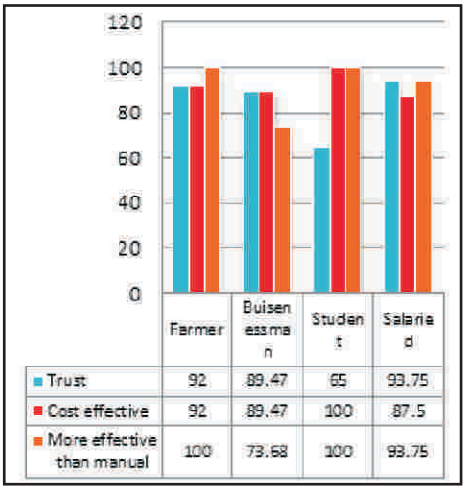
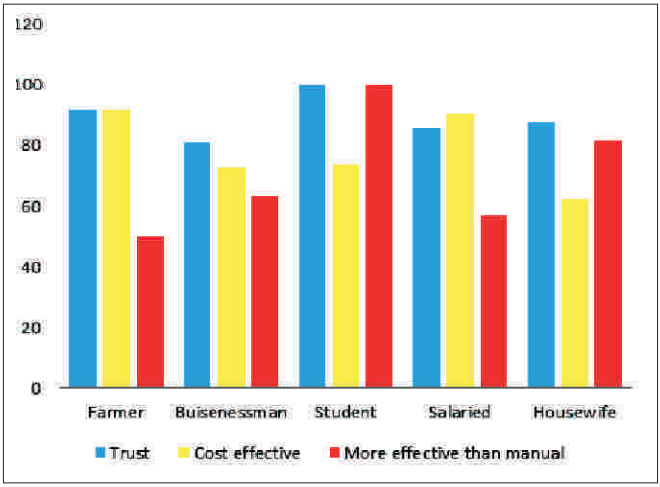


Figure 22: Perception of Beneficiaries of Different Occupation on Trust and Costs of Digital Delivery in Gujarat

In Gujarat, the major beneficiaries coming to

the service centres are raiyats, Kheduts, businessman, student and salaried persons. Thus their views regarding effectiveness of e-governance system are diverse in nature. Here, most people agree that the current e-governance system is more effective than the age-old manual system. Over 90% beneficiaries have faith in the system, though only 65% of students have their trust on the digital delivery system. On the other side, 92% farmer, 89% businessman and 93% salaried persons whereas, maximum beneficiaries believed that the current system of service delivery is more effective than manual system. Cost effectiveness is also high in the system, because earlier in manual system people needed to visit offices to get his work done, now after single-window system has been introduced they can avail all kind of services from one centre. Gujarat has centralized Government system of delivery channels, through e-Gram Centre and Civic centres, though PPP model service delivery channels are not very common here.

Figure 23: Perception of Beneficiaries of Different Occupation on Trust and Costs of Digital Delivery in Karnataka

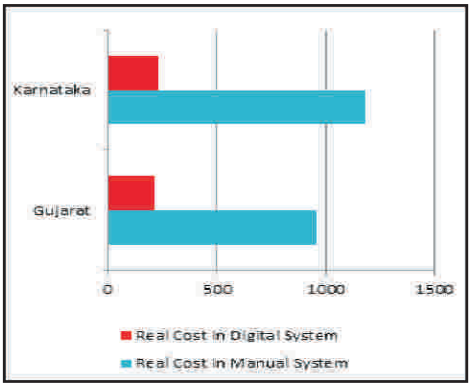


Karnataka has its own affective mechanism of service delivery. It is not only Government Service centres but also number of PPP model service centres. In interview with the beneficiaries, five occupations-category were visited: Farmers, businessman,

Student, salaried persons and housewives. The perception on digital delivery of the beneficiaries vary significantly among the occupational groups, which is different from the Gujarat story. Detailed surveys revealed that 50% farmers and 42.86% of salaried persons still believe that manual system are more effective than the e-governance system.

Cost effectiveness of digital delivery system is the main reason for adopting the system. It saves money and time, as most of the villagers affected due to the lagging and time consuming system of earlier manual system. It affects their daily livelihood. Under the manually operated system, villagers working on daily-wages had to visit the nearest revenue offices 5 times (Average) to get certificates. Therefore, the analysis is being done on a basis of opportunity cost of villagers before and after implementation of digital delivery system. It is interesting that the real cost of getting a certificate has been slashed by 80%. In the figure, it is been analyzed that, a daily wager of Karnataka visited an office five times to get RoR. That means the real cost of getting a RoR is: 236 (wage rate as per MGNERGA)*5+20 (rate of a copy of RoR)=1180Rs.and now they get it within one day; so that the cost is 236+20=256 Rs. The same opportunity cost is being derived for Gujarat. The cost of other like transportation, food cost etc. are not been included. (MGNERGA rate: as per the notification of revised wage list State wise published in The Gazette of India, New-Delhi, 28 February, 2017)

Figure 24: Operational Cost Analysis



B. People's perception on Timely execution of services by digital service delivery centres:

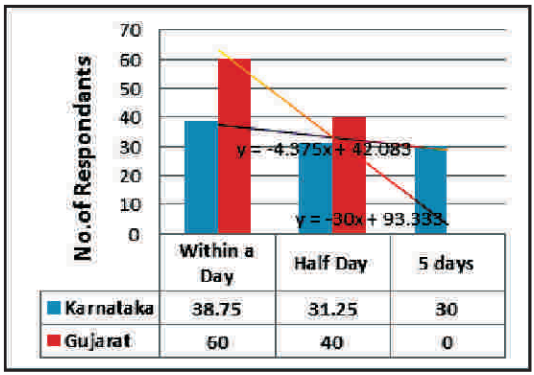
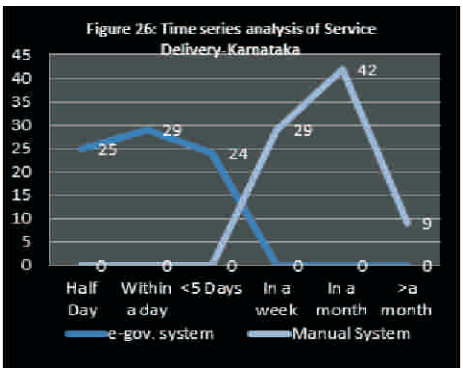
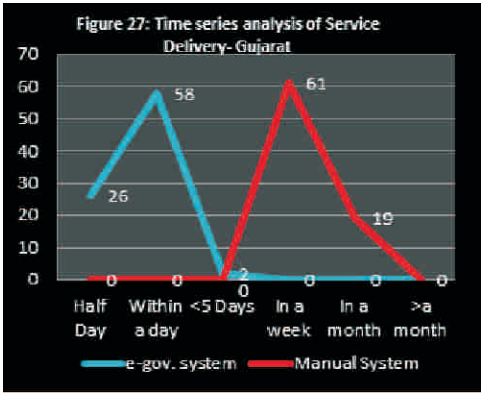


Figure 25: Timely Execution of Services

Digital service delivery or e-governance system provides transparent and faster service than the age old manual system. As far as the timely execution of service delivery is concerned, Gujarat is in a much better position than Karnataka. Here 100% beneficiaries agreed that within a single day, service has been delivered. On the contrary, 30% of beneficiaries in Karnataka revealed that they get their services between one day to five days' time from centres with a large number of people complaining about the speed of downloading, server link failure. Though, it is the combination of all kinds of centres in Karnataka, centres situated in urban periphery are good in respect to the village centres due to the speed of internet. The interesting fact, as seen in the figure, is that, in Gujarat, beneficiaries are getting faster services than in Karnataka.



Earlier manual system for providing services to the citizens is time consuming when compared to the digital service delivery system. In the survey, it is clearly seen that digital service delivery from service centres are taking maximum 5 days' time,



wherein the manual system takes minimum 7 days. In Karnataka most of the beneficiaries, who have taken services from offices before starting the e-governance centres, agreed that after the implementation of digital service delivery system time taken is drastically reduced. Though, 30% beneficiaries stated that 5 days' time for getting any certificates or documents is also been reduced to one to two days. However, the survey of beneficiaries shows that earlier system has taken much more time than the modern service delivery system, 90% beneficiaries said that manual system takes more than a week time to get any kind of service. Apart from that, it takes several visits to the offices, which is reduced after the service delivery centres come up. The difference is same for the Gujarat also, as 100% beneficiaries stated that manual system took minimum one week time to get any kind of services and on the contrary 99% peoples agreed that services from e-Gram centres takes only one day time. Time series analysis of service delivery system through manual and digital, clearly stated the same story for both the States. Beneficiaries are happy with the timely execution of services by e-Centres. It has several benefits for the people and for the governance point of view. It takes less expenditure than that of the earlier system: does not require any multiple visits; bribe taking cultures are also reduced etc. and in the governance point of view also, it speeds up planning and execution time, increase revenue and creates employment through the centres

C. People's perception on Demand-delivery of services and other indicators:

Another important factor which indicates the customer satisfaction is the demand driven delivery by the e-centres. During

the field visit of Gujarat and Karnataka, it was observed that after implementing the e-service centres citizens are satisfied with the services. 75% and 61.25% beneficiaries of Gujarat and Karnataka respectively are satisfied with the services ranking them first. Most of the beneficiaries felt that these centres provide faster services than the manual ones. Only 1.25% and 2.5% beneficiaries placed these centres third and these are negligible.

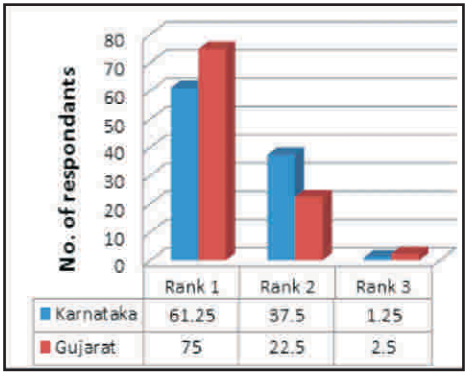


Figure 28: Rank wise Distribution of Delivery of Services

4.4 Perception of CSC owners': In both States Common Service Centres or CSCs are one of the important service delivery modes. The study aims to understand the issues of active CSCs in both the States and to assess the possibility to use it as an option to provide land records services. Thus, it is important to assess the perception of CSC owners. During the interaction with them, they are willing to incorporate other services as their income generation will increase. Other issues raised were of less technical support from State officials, portal of CSC not user friendly, ratio of profit is lesser.

Currently CSCs are providing services mainly to Central Government Services and a few State services. Citizens prefer to visit other centres like: Bapuji Seva Kendra or e-Gram Centres. Considering the fact, owners are reluctant to get training from the State and more service to incorporate with the CSC portal. Mostly from CSC, Aadhaar Card generation, bill payment, Railway ticketing is the major services asked by the beneficiaries.

During the interaction, owners of CSCs are listed five common issues like technical support; less services; less training; less profit

ratio and grievances redressal (Table-18). In both States, the issue of less service is common. It ranked one and less technical support is ranked second. Apart from the Government Service centres which are active in the State, CSCs played a crucial role to provide different services to the citizens and a large number of VLEs are dependent on it. Therefore, issues which have been tabulated must be addressed as soon as possible to strengthen the State level support team.

Five CSC owners form all four Districts of Gujarat and Karnataka were chosen by random selection methodology to assess their crisis and issues to run the CSCs (Detail in Annexure 4). It helps to understand their choice or perceptions in running the centres. During the discussions, most of the owners thought that more services must include in the CSC portal, then citizens will be happy to visits CSCs and profit will increase. All the CSC owners of both States stated the issue of technical support from the State team. This is currently at a low level. They ranked the issue of 'Technical Support' at 2. In Karnataka CSC owners' believed that if the profit margin of service will increase then more VLEs will be interested to open CSCs and therefore they ranked it at '3'. But in Gujarat the issue of Profit Ratio is not prominent with the owners. They ranked it at '5'. Both Karnataka and Gujarat owners of CSCs believe that grievances redressal by the State functionaries is the worst. So they ranked it '4' and '3' respectively. Last issue is 'More training' to the CSC owners is ranked '4' by both States.

Table 18: Problem Ranking of CSCs in Gujarat and Karnataka

Problems	Gujarat	Karnataka
Technical Support	2	2
More training	4	4
More Services	1	1
Increase Profit Ratio	5	3
Grievance Redressal	3	4

4.5 Employment generation through Digital Service Delivery System

During the implementation of digital service delivery system at grass-root level, employment generation is one the prime objective. Each State has its own service delivery. In Karnataka, it is mainly of three types: (1) Revenue Department service centres (2) CSC centres (3) State e-governance centres like K1 or B1 which are mainly B2C service providers. Where is the second type? It does not find mention anywhere). But in Gujarat, two kinds of service centres are available: (1) purely CSC (2) E-gram centres where B2 and G2C services are provided.

The service centers are activate in rural and urban areas in both States. Karnataka Revenue Department has its own service delivery system is Tehsil, Mandal and village wise. In these centres Department has hired HR companies to have Data Entry Operator in these centres. The work of the DEO is only to provide certificates and documents to the beneficiaries from the centres. Two DEO are appointed at each service centres from the HR firm. In the PPP model delivery centres like: K1 or B1, centres run by private organization and for that the private organization have recruited personnel. In the CSC concept, the VLEs can apply for opening a CSC in a locality and he/she has to be qualified in the online examination done by SDA. It is to be mentioned that in PPP service centres and CSCs are only providing mostly B2C and Central Government Services respectively. DILRMP services are only provided through revenue service centres in both States. In Gujarat, for managing e-gram centres the DEO has been appointed the same way.

In both States i.e. Gujarat and Karnataka, e-governance system for service delivery is well established. Though as far as employment generation through DILRMP service delivery is concerned, it is not very prominent. However, if some measures will be taken, it will become a source for employment generation.

Measures need to be taken:

In both States, revenue related services have been provided through Government run centres like AJSK, Bapuji Seva Kendra or Nada Kacheri Offices and e-Gram Centres in Karnataka and Gujarat.

- *Decentralization of service centres:* The available service delivery channels need to be decentralized in a manner that service should also be delivered through CSCs or other PPP model service centres. This will make, more citizens stakeholders and, hence, interested to open CSCs and PPP model service centres.
- *List of services:* In Andhra Pradesh many revenue services are delivered through Mee-Seva service centres. Here a list of revenue service need to be prepared which can be delivered through this centres.
- *Infrastructural improvements:* It is essential to upgrade the infrastructural environments like; internet connectivity, electricity round the clock etc. in order to attract maxims use of the facilities and services.

Admittedly, through the DILRMP scheme; employment generation is not at a high level, at least not to its full potential. It was emerged that State Departments are also willing to decentralize the revenue service though some other service centres, as they rightly pointed out that it will not only increase the revenue of governments but also strengthen the reach of service centres.

5. Findings and Recommendations

The CSCs are pioneering in their approach to tie rural or remotely located people with their services, congregating their requirements. Attempts undertaken at State and local levels in this manner have been found highly encouraging and the political will shown by the administration have been remarkable.

It is a fact that the people, who live in rural areas, are using the CSC services regularly. VLEs are marketing their services in a professional manner. The CSCs continue to give handsome dividends by turning out high quality liaison professionals, who are necessary for inclusive growth of rural societies.

VLEs are working at the forefront and contributing private and B2C, G2C services from both private CSCs and government run E-Gram centers. They are working as ambassadors of service providers, although they have had to face apathy and neglect. They have not been supported enough on regular basis with capacity building scheme to advance their business practices. Taluka level meetings on a regular basis are required to address their grievances and for providing an appropriate support system.

The major beneficiaries of CSCs of Gujarat and Karnataka who are involved directly are the following four types of stakeholders:

1. Policy-makers at the Central, State and Taluka levels.
2. CSC network managers their allied service providers.
3. VLEs.
4. Community itself.

Developing each of these four pillars wins the trust of beneficiaries. They are critical to outputs of the exercise along with policy and investment. It is evident from the survey in Gujarat and Karnataka that faith of the community has played the positive role in promoting the CSCs at the Taluka level and remote areas. However, greater efforts are required in the form of investment in technology upgradation, churning out highly skilled and technology savvy manpower and enhancing the range and quality of the deliverables. The objective is that the CSCs should, in the future, emerge as the major source of delivery of services of all kinds related to Government activities and the allied fields.

In the advancement to establish credibility and long-term sustainability of CSCs the issue of retaining of personal information of the individual in the CSC system has significant

effect. In the survey almost 100% responses were received favoring this.

VLEs should be facilitated to outsource IT experts and professionals on regular basis as his work demand require continuous support from department as also from outside for high speed and dependable internet.

Administrative and political will at the highest level is seen. They run and advance the CSC system though sometimes it is failed because of lack of will and priority at the highest level of the organization, aggravated by frequent transfers of the key officials.

1. Revenue machinery is accepting the idea of decentralization of service delivery through private sectors in a limited manner, as in the case of land records: accuracy and other administrative issues are involved.
2. In Karnataka, if decentralization is introduced without consent of Revenue Department there is always the possibility of land grabbing and fraudulent transfers. Similar view has been seen in Gujarat. Therefore, it is essential to introduce control points and other safeguards in the software and delivery procedures.
3. Government run service centres like: AJSK, Bapuji Centre, Nadakacheri Offices in Karnataka and E-Gram Vishwagram Centres in Gujarat are providing efficient services to the door-step of villagers. It is not surprising, therefore, that the villagers prefer these centres as compared to CSCs or other private run service centres.
4. Access to few other land related service delivery may be provided to the private run CSCs. This will motivate Village Level Entrepreneurs and enhance employment generation in remote areas.
5. It can be safely concluded that the experiments and initiatives in the form of Government run service centres like: AJSK, Bapuji Centre, Nadakacheri Offices in Karnataka and E-Gram Vishwagram Centres in Gujarat are providing deliverables efficiently. They have been able to win the trust

of the people. But the need for upgradation of the private centres cannot be underscored so the provide employment and self-reliance to the people. This will build entrepreneurship in the rural areas and encourage other people to take up self-employment.

6. Perhaps, the greatest gain that has come out of these initiatives of the Governments is that in the States of Gujarat and Karnataka is dissemination of computer literacy in rural areas. This programme has created a hunger for computer literacy and knowledge amongst out rural youth, who feel confident to take on any institution in terms of knowledge and accuracy. In almost in every village in the rural areas one finds computer institutes. However, what needs to be done is to now provide quality computer education. Thus, it is believed, would be the greatest success of the programme.

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Annexure-1

Offered G2C and B2C Services in Gujarat by E-Gram Centres

Offered G2C Services in Gujarat

- Birth & Death Certificate
- Caste& Income Certificate
- Tax Collection Receipts
- Land Right Records Services (RoR- 7/12 & 8A)
- Application Forms of various development Schemes through Mahitishakti.net
- ITI Application Form Data Entry work for Government Departments like Health, Sports, Gram Sabha, Vanbandhu, etc. , .
- Electricity Bill Collection Work
- E Ration Card Coupon
- iKisan- Farmer Registration

Offered B2C Services in Gujarat

- e-Ticketing of Railways, Airlines , Bus
- Utility Bill payments (Telephone, Mobile, DTH etc.)
- DTP work
- Financial Services

Annexure-2

Offered G2C and B2C Services in Karnataka

Payment of Electricity Bills
Payment of Additional Security Deposit of Electricity Connection
Payment of Water Bills
Payment of Fee for new water Connection (Available only in Hubli-Dharwad)
Application for miscellaneous services of Water Board (Available only in Hubli-Dharwad)
Application for change of Khata of water connection (Available only in Hubli-Dharwad)
Payment of Property Tax
Payment of UGD Tax (Available only in Tumkur)
Downloading and printing of SAS Form(Form 2)
Sale of Application forms for Akrama -Sakrama Schem e (only in Tumkur)
Payment of Bills
Payment of Bills
Collection of Police Verification/ Clearance Certificate Fee
Payment of Application fees for Amplifier Sound system permission
Collection of fee for Vehicle stolen report
Sale of Monthly Bus Passes
Collection of Application Fees for Distance Education Courses
Issue of forms for Distance Education
Generate Application reference number for passports
Issue of RC Extract
Issue of DL Extract
Submission of forms for name inclusion, deletion, modif ication and transposition of electoral roll
Generate e-Aadhar
Enrolment for Aadhar
Updation of personal details in Aadhar
Printing of Aadhar on PVC Card (Plastic Card)
Issue of Government department application forms

Filing of Application for New Ra tion Card/Renewal of Ration Card
Linking of Adhar/EPIC Number with Ration Card
Updation of Member Details in Ration Cards
Willingness registration for non-priority
Issue of Kerosene coupon
Issuance of Coupon for Food Grains
Payment of fees for vario us purposes for BUDA (Bellary Urban Development Authority)
Application for Photocopies
Application for re-totaling of marks
Application for re-valuation
Sale of LED Bulbs under Hosa Belaku Scheme
Payment of Traffic violation fines of Mysuru Traffic Po lice
Application for RTE seats
Application for Photocopies
Application for re-totaling of marks
Application for re-valuation

Offered B2C Services in Karnataka

Payment of Bills
Acceptance of Life Insurance Policy Premium Payments
Subscription for Government job alerts.
Payment of postpaid Bills

Annexure-3

Gujarat							
Problems	**CSC owner1**	**CSC owner2**	**CSC owner3**	**CSC owner4**	**CSC owner 5**	**Total Rank**	**Actual Rank**
Technical Support	2	2	1	2	2	9	2
More training	3	3	5	4	4	19	4
More Services	1	1	2	1	3	8	1
Increase Profit Ratio	5	5	4	5	5	24	5
Grievance Redressal	4	4	3	3	1	15	3
Karnataka							
Problems	**CSC owner1**	**CSC owner2**	**CSC owner3**	**CSC owner4**	**CSC owner 5**	**Total Rank**	**Actual Rank**
Technical Support	4	3	3	1	3	14	2
More training	5	4	4	3	2	18	4
More Services	2	2	1	2	1	8	1
Increase Profit Ratio	1	3	2	4	5	15	3
Grievance Redressal	3	1	5	5	4	18	4

Annexure-4

Questionnaire

Part-1: Questionnaire to be filled by the Commissioner Land Records Office

I. BASIC INFORMATION OF LAND RECORDS

1. District and State Name:
2. Total No. of Subdivisions:
3. Total No. of Tehsils:
4. Total Area of the District (Ha):
   a. Rural:
   b. Urban:
   c. Forest:
5. Local name of land measurement unit and its relation with Acre:
6. Local name of
   a. Record of Rights (RoRs):
   b. Mutation Register:
   c. Local name of Revenue maps:

7. Status of land records:

Sl. No.	Name of the Sub-Divisions	No. of Tehsils	Total No. of Revenue Villages	Total No. of Khatiyans/RORs	Total No. of Naksha/ Revenue Maps/ Cadastral Maps
Grand Total					

8. What is the status of old record keeping: *(Record maintained in Modern Records Rooms or Tehsil offices)*
9. What is the revenue information there in RoR/Khatiyan: *(bring a copy of manual and computerized copy of RoR)*
10. Manual process of Registration/Mutation/Issuance of RoR is still running in the State: Yes/No

If "Yes" then fill the details of these Districts and Tehsils and find out the reasons:

II. LAND RECORDS COMPUTERIZATION (CLR)

11. When did computerization of land record started: ---------- year
12. Before NLRMP/DILRMP, under which State/Central programme; land records computerization started:
    a. If the land records computerization process started after NLRMP in the State; then find out the progress during CLR/SRA&ULR:
    b. Find out why they have not started during previous programme e.g. CLR/SRA&ULR:
13. Current Status of Land Records Computerization:
14. If land records computerization is not fully completed, then find out the reasons:
15. How the land records computerization is been performed in the State? *Outsourcing/ departmental*
16. Digitized records stored in Modern Record Room? Yes/No
    If No, then where records are kept:

16a. After digitization done, where the base records are kept?

17. Are villagers getting computerized copy of RoR: Yes/No
    If Yes; then find out the sources: Citizen Service Centres/ Tehsil Office/ Online
    If No, then find out the reasons:
18. Are villagers getting copy of digitized RoR alongwith copy of digitized parcel maps: Yes/No
    If No, how they get their digitized maps: (Citizen Service Centres/ Tehsil Office/ Online)

19. Is the computerized copy of RoR digitally signed: Yes/No
    If No, when are they planning to provide digital signed RoR?
20. RoR and Aadhaar linked: Yes/No
    If No, when are they planning to link with?

III. DIGITIZATION OF CADASTRAL MAPS:

21. Current Status of Digitization of Cadastral Maps:

Tehsil Name	Total Villages (No.)	No. of Revenue Villages						
		Cadastral Maps/FMBs/Tippans			Spatial Data verified	Cadastral Maps linked to ROR	Real time updation of ROR and Maps	Bhu-Naksha used for Cadastral Maps
		Total	In good condition	Digitized				

21a. If maps digitization is not fully completed, then find out the reasons:
22. Are villagers getting computerized copy of revenue maps: Yes/No
    If Yes; then find out the sources: Citizen Service Centres/ Tehsil Office/ Online
    If No, then find out the reasons:
22.a. Are villagers getting computerized copy of RoR with digitized parcel map:
    --If No, then find out the reasons

IV. MUTATION:

23. Who is the competent authority to mutate property?
24. How is Mutation done: Online/Manual

If 'Manual' then find out why there is no computerization of mutation process:

If Online, then find out the integration process of mutation dept. with registration:

25. After Mutation, are land records automatically updated or is there need to apply:
26. Current status of Mutation and updation of land records:

V. REGISTRATION:

27. Who is the competent authority for property registration?
28. How property registration done? Manual system/ computerized:

    If not computerized then find out the reasons:
    If Computerized then find out the model they have opted:

- Standalone model (Registration done through computer, but not integrated with other offices)
- Integrated via State Wide Area Network

29. Current Status of Computerization of Registration:

Sl. No.	No. of SRO	Computerised		Abolish stamp paper	Connectivity with revenue offices	Payment type		Integration with Land records
		Completed	proposed			Online	Manual	

30. Agency undertakes computerisation Of Sub-Registrar Offices:
31. What is the periodicity for updation of Circle-Rate: Rural & Urban?
32. Is there any provision for online Appointment for registration:

VII. INTEGRATION OF LAND RECORDS AND REGISTRATION:

33. Are land records dept. and registration dept. online integrated? Yes/No
34. Are land records and survey dept. integrated?
    If No, then find out the reasons.

35. Computerized records stored in Modern Record Room of Tehsils/Block HQ:
    If yes, check the status of records:
36. Integration done with the help of Vendor/NIC:

VII SURVEY-RE-SURVEY:

37. When was the cadastral survey done in the district?
38. Whether Revisional survey done? Yes/No
    If Yes, when it was published?
39. After DILRMP implementation, Is modern survey taken place in the district? Yes/No
    If Yes, when it was started?
    If No, find out the reasons.

If modern survey taken place, then find out what model they have adopted: a. Pure ground method, b. Hybrid method, c. Aerial photography method

40. Status of Modern Survey:

Sl. No.	No. of Tehsils	Area (Sq. Km)				No of Villages	Area Surveyed (Sq. Km)	No. of Villages where Survey/Resurvey Work		
		Net	Rural	Urban	Forest			Completed	Ongoing	Not Started

41. Are villagers getting new parcel map/ plot map? Yes/No
42. Is Gram Sabha/ Aam Sabha done before finalization of maps? Yes/No

VII. CITIZEN SERVICES:

43. How many citizen services centres are operational in the State:

Sl. No.	Districts	No. of Tehsils	No. of Service Centres			No. of services offered		
			Operational	Stopped	Proposed	RoR only	RoR with map	Digitally signed RoR

44. Operational methodology adopted for citizen service centres: CSC/ Web services/ any other
45 Numbers of services provided in the citizen services centres:
46. List all the land revenue related services provided through citizen service centres:
47. How many records issued through CSCs till date:
48. How much revenue generated after implementing CSCs:

Part-2: Questionnaire for Beneficiaries of CSCs

Citizens Profile	
Name	
Age	
Sex	
Education	Illiterate/ <5/ 5 -10/ 10 -12/ Graduate/ Higher
Occupation	Farmer/ Businessman/ Salaried/ Student
Village Name	
Distance from the CSC	

Sl. No.	Question	Option
1	Do you have trusts on the e-governance services provided in the centre? If No, then find out the reasons.	Yes ☐ No ☐ a. manual system more accurate b. anyone can tamper with your information

		c. Non-Government official issued your certificates d. any other
2	Do you feel that the e-governance system retains your personal information?	Yes ☐ No ☐
3	Do you feel that the e-governance system make your personal information public?	Yes ☐ No ☐
4	Have you availed services from CSC earlier also?	Yes ☐ No ☐
5	How much time does it take to get services?	Half day/ Within a Day/ 5 days/ Within a Month/ More than a month
6	Is the system attractive than the manual systems?	Yes ☐ No ☐
7	Does the centre fulfill all your demand in time bound manner? *"Rank" in ascending manner*	Rank-1/ Rank -2/ Rank-3
8	In manual system, how many days it took to get any copy of a Certificate from nearest Tehsil office?	In a week/ In a month/ More than a month
9	Before starting e-governance system how often did you visit in government offices for getting a general certificate?	2-3 days in a week/ In a Week/ Once in a month/ Once in six months
10	Do you feel that the e-governance services is better/convenient than the earlier manual systems? If Yes, then find out why it is more useful? ('Tick' from the options)	Yes ☐ No ☐ a. service on time b. less costly c. saves time running from one office to another d. no bribe or rent seeking e. any other

11	Do you find the centres provide you quality service? If No; please find what types of services they need to add? If Yes, Tick on the desired Rank	Yes ☐ No ☐ Rank-1/ Rank-2/ Rank-3/ Rank-4/ Rank-5
12	Is the centre fulfilling all your demand in time bound manner?	Yes ☐ No ☐
13	Do you have any suggestions to improve services better? If Yes, please describe.	Yes ☐ No ☐
14	Rank wise distribution of issues in the functioning of CSCs.	Issues / Rank Slow downloading Lack of trained manpower Hardware are poor Costly Time consuming Internet and Electricity issue Any other
15	Do you feel that the time limit mentioned against each services is adequate? If No, then what are the services/ certificates	Yes ☐ No ☐
16	Is it convenient to come the Centre from your place?	Yes ☐ No ☐
17	Which one is more nearest?	Tehsil Centre/ District HQ/ CSC/ Block Office
18	To get a copy of certificates which one is easier?	Tehsil Centre/ District HQ/ CSC/ Block Office
19	How is the interaction with the CSC owners during your visit? If Bad/ Indifferent then find out the reasons?	Good/ Bad/ Very Bad/ Indifferent

20	What is the quality of basic facility that is available is the Centre?	Good/ Bad/ Very Bad/ Indifferent
21	Please Tick from the list of basic facilities which are available in the centre?	Facilities
		Shading
		Queue Management
		Seating facilities
		Ample space for standing
		Drinking Water
		Toilet Facility
		Any other
22	Does the CSC Staff help to fill the application details?	Yes ☐ No ☐
23	Do they charge for it? If Yes, How much?	Yes ☐ No ☐
24	Is the e -governance system cost effective?	Yes ☐ No ☐
25	Do you feel the charges for each services are reasonable/ overcharging?	
26	What services you feel they are overcharging?	
27	Is bribe taken at the CSC?	Yes ☐ No ☐
28	After CSC, bribe taking culture is reduced?	Yes (Percentage) No (Percentage)
29	From where do you get the information of CSC services?	Neighbour/ Website/ Newspaper/ Any other
30	Do you understand the process mechanism of delivery of services, followed in citizen service centres?	Yes ☐ No ☐
31	Does District Administration drive any awareness camp on CSC and its usefulness in your area?	Yes ☐ No ☐
32	Do you recommend your friends/ neighbours to collect a copy of certificates from Tehsil Office/ CSC?	Yes ☐ No ☐

Part-2A: Questionnaire for CSC owner

Owner's/ Operator's Profile	
Name	
Age	
Sex	
Education	Illiterate/ <5/ 5-10/ 10-12/ Graduate/ Higher
Computer Literacy	Yes/ No

Sl. No.	Question	Option
1	When did the CSC started operation?	
2	How many villages or Urban Bodies does it covers?	
3	Do you feel there is a need to update the interface for ease of use? If Yes, then what improvements do you suggest to make CSCs a viable entrepreneurial option?	Yes ☐ No ☐
4	What is the government support to run the CSC?	
5	Do you think there is a need for increasing support to the CSCs owner? If Yes, then what are they?	Yes ☐ No ☐
6	Is there any support for hardware purchase to run the CSC?	
7	How many cases are pending in your CSC?	
8	What types of cases these are and why pending?	
9	What are the numbers of services your centre provide?	
10	How many Departments are linked with you?	

11	Number of Revenue related services offered by the centre.	
12	Which services citizens asked more frequently? What are the common problems the public raise before you when you deliver the services?	1. 2. 3. 4. 5.
13	Number of services given and Total Revenue generated in a year.	
14	Total Revenue generated by providing of Revenue/Land related services in a year.	
15	Total operational cost to run the CSC in a month/ year. What were your sources of finance for such investment? Have you been able to recover the loan/credits	

MODALITIES OF PROMOTION OF VILLAGE LEVEL ENTERPRISES THROUGH CITIZEN SERVICE CENTRES OR OTHERWISE UNDER DIGITAL INDIA LAND RECORD MODERNIZATION PROGRAMME AND TO ASSESS THE EMPLOYMENT GENERATION POTENTIAL: KARNATAKA & GUJARAT

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