

# Atalji Jana Snehi Kendra

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## Award Specific Form For Atalji Jana Snehi Kendra

### **CATEGORY - 'OUTSTANDING PERFORMANCE IN CITIZEN CENTRIC SERVICE DELIVERY'**

#### **Introduction**

The last decade saw a sea change in the way the citizens interacted with the Government and e-Governance was the buzz-word. The paradigm was to take services to the door step of the citizen, instead of the citizen going to different offices. A large number of G2C services are offered by the Revenue Department. The Tahsildar / Dy. Tahsildars have the powers to provide about 35 services to the citizens

Lakhs of people in the State are in need of certificates like the Caste , income, residence to avail facilities such as reservations in school / colleges. As a social obligation to the society, the Government also provides social security pension to under-privileged / destitute. Certificates beneficial to agriculturists help them to obtain loan etc.

The Atalji Jana Snehi Kendra project implemented through the Nadakacheris (block level offices) is an illustration of the grit of the Government of Karnataka to provide quality G2C services to the citizens of the State who otherwise had to run from pillar to post to avail services to facilitate them to get benefit out of the different schemes floated by the Government.

The Atalji Jana Snehi Kendra project was initiated to provide a single window system at the Hobli level for the citizen's interaction with the Government, specifically the Revenue Department. It is the services

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of the Revenue Department that account for a major chunk of the G2C services provided by the Government.

Success factors being identified as continuous power supply, reliable bandwidth, scalable software and skilled manpower, the Government left no stone unturned to ensure these are made available to all Atalji Jana Snehi Kendras, the Tehsil and Hobli offices.

Within a short time span of 5 months, all resources were mobilised and the project was rolled out throughout the state. The software Developed by National Informatics Centre, Bangalore provided a scalable, reliable and available platform for providing G2C services. Use of ICT, enabled the monitoring of the progress of the project to its successful implementation. The success of the project can be seen from the large number of transactions that are processed.

### **1. Coverage – Geographical and Demographic**

The project covers the entire state cutting across all demographics – students, farmer community, aged, destitute, youth etc. The programme is implemented throughout the State covering all the districts, tehsils (taluks) and blocks and caters to both urban and rural populations.

The G2C services offered by the Tahsildar (Head of the Tehsil) and Dy. Tahsildar (Head of the block revenue office ) are provided through these centres.

The Dy. Tahsildar is assisted by the case worker, Revenue Inspector and Village accountant. The task of the Revenue Inspector and Village accountant is executive in nature. They perform the field verification and give their inputs to the case worker for each request for service from the citizen. The Tahsildar is supported by the case workers and Shirastedars.

The offices of the Dy. Tahsildars and Tahsildars process the applications received from citizens for the services at the front offices.

### **1.1 Comprehensiveness of reach of delivery centres**

The service delivery centres are located in all the Hobli HQ. Additional centres are established in areas where the demand for services was more and could not be handled by hobli centres or to reduce the distance travelled by the citizens.

These centres are located predominantly in the ground floor in close proximity to the public transport access points. This ensures that citizens do not have to travel long distances to reach the hobli and are not put through any hardship in reaching the centres. In addition citizens can also apply on-line.

### **1.2 Number of delivery centres**

To avoid the direct interactions of the citizens with the revenue officials in the offices, separate front offices / counters are created in all the Hobli centres and Taluk centres. There are 601 Hobli centres and 176 centres in the Tehsils. In addition, front offices are established in 118 locations in different parts of the State.

In all, there are 895 physical delivery points with 777 Hobli back offices and 203 Tehsil offices to process the applications received at the front offices.

Since the citizens can apply on-line & opt to receive the certificate by registered post, virtually , the number of delivery points is very large.

### **1.3 Geographical**

The project is implemented in all the 30 districts of the State. There are 777 blocks that are covered under this project. The offices of

the Dy. Tahsildar and Tahsildar are the core centers – the back office. The approvals are done through a workflow process in these back offices.

### **1.4 Demographic spread (percentage of population covered)**

All the citizens of the State of Karnataka avail the services offered through the Nadakacheri project. 100% of the State's population is covered. Any citizen of the State, irrespective of the economic or social background can avail the service directly at these centres.

## **2. Situation before the Initiative**

Delivery of G2C services in Karnataka has seen 3 phases. The first phase was a period when the services were rendered manually. The 2<sup>nd</sup> phase was ICT enabled phase when the project "Nemmadi" , was implemented in 2006 under the PPP model. The third phase commenced in 2012 when the Government established citizen delivery centres.

### Pre Nemmadi Phase:

Traditionally, the citizen services of the Revenue Department of the Government of Karnataka like the caste, income certificates and social security pension schemes were earlier delivered to the Citizens at the Taluka Level. The Citizen had to give written applications along with supporting documents for the services required at the Taluk Office, which would then be manually processed and sent to the field officials for verification, the request was processed and the final manual certificate was issued by the Tahsildar at the taluk office. This process was cumbersome and expensive (citizen had to travel to the taluk office twice and may be in between also to know the status) and was time consuming.

### Nemmadi Phase:

This process of issuing manual certificates, continued till 2006 when the e-Governance Department decided to provide electronic delivery of

G2C services through RDS (Rural Digital Services). RDS was envisaged as the first computerised citizen service delivery in the country that provided the citizen an IT interface, to avail the services offered by Government at the State, District and the Taluka Head Quarters at the Hobli level. The RDS aimed to bring the administration closer to the common man and also to provide affordable, speedier and efficient interface between the Government and the Public. Two pilot projects was implemented in two taluks using different deployment models to access the demand, the bandwidth requirement etc and to finalise the architecture for deployment.

The Nemmadi Project was then envisaged to be executed on a PPP model. The identified vendor had to establish the tele-centres at the Hobli by providing hardware, network, UPS. He also had to establish the back office by providing computers, UPS. The SWAN could be used as a channel for operations from the taluk office.

The service charge to the citizen was fixed at Rs. 15/-. The RFP allowed the prospective vendors to quote their share under different slabs of transaction numbers. This was done keeping in mind the un-even spread of the demand for services and make it economically viable for the vendor and in-turn successfully execute the project for 5 years.

The project was coordinated by the e-Governance department and largely controlled centrally considering that not all districts had considerable experience in dealing with such large e- Governance projects.

The Rural Digital Services software was developed by National Informatics Centre and had the client – server architecture with distributed deployment and integrated with custom built routing mechanism developed by Microsoft. The architecture was designed piggybacking on the availability of Bhoomi (land records ) servers in the Tehsils and constraints of low band-width VSAT connectivity at the last

mile that was the best available at that time & subsequently replaced by broadband.

The major concerns that triggered the conceptualisation of the new project were

- a. The Tahsildar was overburdened with the large number of applications for certificates that the citizens demanded. With more and more schemes introduced by the Government, the need for certificates from the Tahsildar increased as these were the basis for claiming the benefit. For eg. To avail pension scheme, income certificate was mandatory.
- b. There was lack of ownership from the Revenue Hierarchy. The PPP vendor was monitored by the e-Governance department and poor communication between the field Revenue officials , the e-Governance and PPP vendor resulted in distrust in the system and no-one wanted to take ownership because they did not have any freedom to take decisions based on the local circumstances.
- c. Frequent power shutdowns caused great inconvenience to the citizens
- d. Logistics involved in the supply of stationery, controlled stationery to print certificates and holograms , printer catridges etc was not streamlined resulting in in-adequate supply .
- e. Due to distributed deployment architecture, patch management could not be effectively carried out in-time.
- f. Need for upgradation of the computers and network connectivity was also felt to leverage the advancements in technology

The above bottlenecks were main reason behind shelving the present system and paving the way for a new system – a new project. Establishment of Atalji Jana Snehi Kendras at the Hobli to ensure timely delivery of services to citizens necessitated the re-design of the s/w.

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Availability of reasonably good network and non-feasibility of establishing servers at Hobli, led to the decision of developing and deploying web based software.

### 3. Scope of Service/ Activities Covered

#### 3.1 Extent of e-enablement in terms of number of services

All the G2C services of the Revenue Department authorised to be delivered by Dy. Tahsildar and Tahsildar are covered. 34 services are provided through the Atalji Janasnehi Kendras. These include

List of services delivered through Atalji Jana Snehi Kendra	
Sl. No	Service Name
1	Caste and Income Certificate
2	Caste Certificate (Cat-A)
3	Caste Certificate (SC/ST)
4	Widow Certificate
5	Not re-married Certificate
6	Residence Certificate
7	Domicile Certificate
8	No Tenancy Certificate
9	Agricultural Family member Certificate
10	Land less Certificate
11	Small / Marginal farmer Certificate
12	Agricultural Labour Certificate
13	Land holding Certificate
14	Bonafide Certificate
15	Solvency Certificate
16	Agriculturist Certificate
17	Population Certificate
18	Income Certificate
19	Non creamy layer Certificate
20	Income Certificate for compassionate appointment
21	OBC Certificate (Central Govt)
22	Surviving Family Members Certificate
23	No Govt. Job Certificate

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24	Living Certificate
25	Unemployment Certificate
26	Old Age Pension
27	Sandhya Suraksha pension
28	Widow Pension
29	Physically Handicapped Pension
30	National Family Benefit Scheme
31	Mythri (Pension scheme for transgender)
32	Manaswini (Pension scheme for unmarried/single women)
33	RTC Copy (land record)
34	Mutation Copy (land record)

Of these, the RTC and mutation extract are issued over The Counter and the rest of them are issued after field verification and an electronic workflow process

### 3.2 Extent to which steps in each service have been ICT-enabled

The following are the steps involved in providing the above mentioned services

- a. Citizen gives an oral request to the Atalji Janasnehi Kendra front office operator. The details are captured in an electronic form displayed by the web based s/w. Photo of the citizen is captured for those services for which it is printed in the certificate. The filled-in application form is printed & the citizen signs or puts the finger print. A receipt is printed and issued to the citizen on payment of the prescribed fees in cash. The receipt indicates the time frame within which the request will be processed and also an acknowledgement number.
- b. The citizen can also apply on-line from the comforts of his / home or any cyber cafe. The supporting documents can be



scanned and uploaded. The prescribed fees is paid on-line using credit /debit cards or net banking . The receipt can be printed by the citizen. The acknowledgement number printed on the receipt.

- c. The applications received on-line are printed at the respective nada kacheri.
- d. All the application forms for the requests from the citizen received that day are handed over to the Revenue Inspector (RI) and the fact is updated in the computer
- e. The RI hands over the applications to the concerned Village Account(VA) who does the field verification and records the details in the check list.
- f. The RI collects the applications after field verification from the VAs and hands them over to the case worker in the Hobli.
- g. The case worker updates the details as given by the RI and VA and gives his / her opinion also in the electronic form.
- h. The applications that need to be examined by the Tahsildar are acknowledged by the case worker at the tehsil and details updated
- i. The Dy. Tahsildar / Tahsildar have an option to correct details and approve / reject the application using Digital Signature.
- j. The certificate / sanction order is printed by the front office operator and handed over to the citizen.

All the activities except step (e) are e-enabled.

Apart from these activities, other activities that are e-enabled are

- a. At any point in time, the citizen can check the status of the application using the portal or through SMS

- b. All prescribed registers need not be hand written. They can be printed.
- c. The challan used to credit the daily collections to the Post Offices are also auto filled.
- d. Provision to verify the digital signature and compare the contents of the certificate with that in the database, is provided in the software.

## **4. Stakeholder Consultation**

### **4.1 Type of stakeholders consulted**

With the Government's decision, in June 2012 ,to revamp the process of providing G2C services and to transparently implement the project, project technical committee and project logistics committees were formed. Pr. Secretary, Revenue was the chairman of the committees. The Government also decided to transfer the project from e-Governance to the Revenue Department with a mandate to roll-out the project in October 2012 in the State.

The project technical committee was responsible for preparation of detailed project report, identify an agency to develop the software, identification of vendor for procurement of hardware, LAN items and solar equipment. Identification and selection of an agency to provide secured connectivity from the Nadakacheris to the State Data Centre was another task of the committee.

The project logistics committee was entrusted the task of taking stock of the existing offices at Hobli, identification of location for new nadakacheris, recruit / transfer staff to the nada kacheris, identification of suitable buildings , provisioning of furniture , uniform name boards, banners giving the list of services and time frame etc.

National Informatics Centre, the Revenue Department, e-Governance department and consultants from the academia deliberated on the action items. An agency was identified for the supply of the hardware ( computers, bio-metric device etc ) and system software. Karnataka Renewable Energy Development limited (KREDL ) was chosen to supply solar power equipment.

The need to take all stakeholders on board was very critical to the success of the project. Consultations with stakeholders were held to work out the project schedule and monitor the same. The Deputy Commissioners of all the districts, NIC, the Tahsildars, KREDL, BSNL were invited for meetings to work out the project schedule. Pr. Secretary chaired these meetings and date-wise schedule for installation of UPS, delivery of systems, installation and checking were worked out and diligently monitored.

The Revenue Department had envisaged to do a comprehensive BPR and then develop the software. Considering National Informatics Centre 's (NIC) experience in developing and implementing large e-Governance projects and the vast domain knowledge, the Government of Karnataka decided to engage NIC to re-architect the software. The Revenue Department and NIC drew up the functional requirements through consultations with DCs and Tahsildars. Taking up the commitment very seriously, NIC put in best efforts and resources to ensure that the s/w was ready by 1<sup>st</sup> week of September.

### **4.2 Number of stakeholders consulted**

The Stake holders input are being sought on a regular basis. Initially the response to the procedures involved was sought & later regular meetings have been held to consider the inputs. In all about 300 stakeholders comprising of Deputy Commissioners, Tahsildars,

caseworkers, Revenue Inspectors have been consulted at different points in time.

### **4.3 Stages at which stakeholder input was sought**

During the initial stages of the conceptualisation of the project, the Revenue Department had series of consultations with the Experts from Academia, the Deputy Commissioners on method for procurement and commissioning of the UPS, the computer systems etc. The procedure for depositing the service charges collected, the procedure to utilise the same etc was discussed and finalised.

Discussions with Tahsildars on the processes in the delivery of services, the feasibility of providing services at Nadakacheri and Tahsildar levels were discussed. The list of services that could be approved by the Tahsildar and Dy. Tahsildar was finalised. The information that need to be collected from the citizens & supporting documents for issue of certificates were discussed thread-bare and software requirements were finalised.

Deliberations with Revenue department, NIC & DPAR for integration with Sakala (Guarantee of services to citizen) system was held to work out the schedule for updating the status of the applications in the Sakala system. Technology for updation was also discussed as the volume of transactions in the Nada Kacheri system was expected to be very high. The Stake holder's inputs are being sought on a regular basis. Initially the response to the procedures involved was sought & later regular meetings have been held to consider their inputs.

### **4.4 Details of user satisfaction study done**

Survey of the citizen satisfaction has been conducted by Private agency & the report is awaited.

### **5. Strategy Adopted**

#### **5.1 The details of base line study done**

The procedure to issue certificates in the Nemmadi system was a mix of manual and electronic process. The citizen approached the tele-centre at the Hobli and gave an oral request to the operator. Upon entry of the details, the application form would be generated electronically. The supporting documents were collected and the along with the application sent to the Tehsil office at the end of the day. The applications would be given to Revenue Inspector (RI) with an electronic acknowledgment. After the field verification by Village Accountant (VA) and RI , the application forms with the remarks of the VA and RI would be returned to the taluk office. The Case worker would record the remarks of the VA and RI and generate an office note and put it up to Tahsildar for approval on paper and subsequently, it would be digitally signed by the Tahsildar. The certificate would then be printed in the Nada Kacheri. Paper documents could not be done away with due to the statutory requirements of maintenance of records. Although completely paperless system was envisaged and s/w designed and developed on those lines, it was not feasible to implement the same due to lack of good bandwidth, infrastructure requirements and trained people in the offices. The feedback from the field offices were consolidated and put forth for brainstorming before to formulate the new project.

#### **5.2 Problems identified**

The following were the concerns of the Government in the earlier project

1. Need for decentralization of co-ordination: The District Administration had to be given the necessary powers to manage the project. Autonomy to hire operators, provide additional infrastructure during peak load season, replenish the consumables etc had to be given to the Deputy Commissioner to enable him to

take ownership of the project and smooth functioning of the system.

2. Ensuring continuous electrical power supply: The rural areas generally reel under power cuts for long hours and it was found that the availability was not enough to be able to charge the batteries of the UPS. DG sets would not be economically viable. Alternative sources of power, such as solar, had to be provisioned in these centres.
3. Heavy workload of the Tahsildar to be reduced: During the school / college admission season , i.e from April to August, the demand for caste and income related certificates would reach a peak load. On an average 1 lakh applications would be received throughout the State per day. Students would put enormous pressure on the Tahsildar to get the certificates in time for admission. Tahsildar had to approve 500 – 600 applications on a day.
4. Business process re-engineering : With the introduction of the Guarantee of Service delivery to citizens act, the Tahsildars had to complete the activities in the stipulated time. The present system of mixed mode of operation and movement of paper from telecentres to taluks, maintenance of office order , tahsildar's remarks on paper etc would add to the delay. The Government decided to delegate some of the powers of the Tahsildar to Dy. Tahsildar.

### **5.3 Roll out/implementation model,**

In order to overcome the above mentioned issues, the Government decided to hand over the project to the Revenue Department in 2012. Making the Revenue services accessible to the citizens at the hobli level through transparent, reliable & affordable means was the main purpose of the project. With this aim, the Atalji Janasnehi Kendra project was

launched in December-2012, to provide the 34 Revenue services at the hobli level.

The experiences of the first e-Governance project implemented through PPP model were not very favourable as it was not a win-win situation for both the PPP vendor and the Government. With great pressure from the citizen's representative to deliver quality service in stipulated time, there was a need to revamp the system quickly. The CSC project also did not have any takers as the Nemmadi system showed that it would not be economically viable for the PPP vendor to establish centres at the GP level. It was decided that the State Government takes up the responsibility of implementation wholly, which would also make the complete Government machinery take ownership and ensure speedy delivery.

### **5.4 Communication and dissemination strategy and approach used:**

Since the project was a new face to the previous one, there was no major challenge of creating awareness amongst people. Publicising the new project was done by during the inauguration in all the districts by a minister. The district administration provided the necessary publicity through news papers, banners and local cable TV advertisements.

As far as the dissemination of information about the new system, to the officers and officials of the department, the Administrative Training Institute (ATI), Mysore, provided Re-orientation training to all the Tahsildars, DTs & RIs in Mysore and for the VAs, Caseworkers and Operators at the DTIs. In order to ensure that the officials understand and appreciate the problems in Nemmadi, the steps taken to overcome them in the Nadakacheri project and the various nuances of the new system, which in turn would result in efficient functioning of the system,

the officials were briefed about the problems faced in the old system that had necessitated the switching over to the new system, difference between the two systems, the administrative, procedural & technical aspects of the new system. They are also given a demonstration of the NK software and the details of the Hardware and Solar Helpdesk applications, through which they can register project related complaints online.

### **6. Technology Platform used**

#### **6.1 Description**

The software is developed on Microsoft technologies. It leveraged on the infrastructure and the supporting software such as the operating system, database management system already available at the State Data Centre. Specifically, the software is developed as a web based system using .NET. Microsoft SQL server is used as the database management system. The presentation layer uses ASP.NET technology to provide an interface to the user to input data and view details. AJAX technology is used to ensure better user experience.

Bio-metric technology is used for authentication and authorization. The Dy. Tahsildar / Tahsildar are authenticated using bio-metric to approve the requests for certificates. This ensures that the Tahsildar is responsible for his / her actions.

#### **6.2 Interoperability**

XML Web services technologies & windows services has been used to integrate the Nadakacheri system with other systems such as the sakala (Guarantee of Services to Citizens ) and the Beneficiary Management System which is a portal for maintaining the data of the social security pensioners and enabling financial inclusion.



At scheduled intervals, the Sakala system executes windows service to pull data related to new requests for Nadakacheri service and present status of the requests. The windows services consumes web service hosted at the SDC . The web service retrieves all new applications received between the previous invocation of the web service and now and sends it to the windows service executed at the Sakala end. This replication of the data pertaining to the applications is used to monitor the service delivery. Alerts are sent to all concerned about the pendency in each department and also penalize the official for not delivering service in-time.

Beneficiary Management System is a portal for the Revenue Department to maintain the repository of the social security pensioners. This integrates with another portal for the Bankers – the Electronic Benefit Transfer. The two portals were developed to enable pensioners to obtain the pension at the village through the business correspondents of the banks. As part of this, the beneficiary's bio-metric are captured and a smart card is issued to the pensioner. The two portals exchange data to enable the new pensioners to be enrolled and a card issued. On a monthly basis, the tahsildars prepare a treasury bill, obtain a cheque in the name of the lead bank, prepare a scroll of beneficiaries and the amount to be paid and upload this to the EBT portal for banks to download and credit pension to the beneficiaries. The Nada Kacheri system is used to issue pension sanction orders. A windows service in the Nada kacheri server invokes a web service in the BMS system to upload the data of newly sanctioned pension beneficiaries.

### **6.3 Security concerns**

VPNoBB has been used to ensure that the access to the software is restricted only to the intended users. Role based access to the software

ensures that authenticated users are allowed to perform only the authorized activities. The creation / management of users and the assigning roles to them are decentralized considering the large number of users. Every individual is given a userid. While two user-ids are created for each role of the official in the workflow, only one of them will be active and the other is used in the case the first person is on leave etc. Their reporting officer is authorized to change the status. This ensures that the every individual is responsible for their actions performed and cannot repudiate late

Public Key Infrastructure technology is for digitally signing the certificates or sanction orders. The certificates are digitally signed by the Tahsildar / Dy. Tahsildar. Since all certificates have a validity period, the certificates can be re-issued within the validity period . The digital signature is printed as a QR code in the certificate / sanction order. The accepting authority has to verify the veracity of the certificate / sanction order. A web application is provided for this purpose. The accepting authority needs to scan the QR code and request for verification by clicking a button. The web application uses a web service to verify the certificate details using the public key of the signer and displays the certificate contents and the details of the signer if the verification was successful.

### **6.4 Any issue with the technology used**

Since the deployment of the software, enhancements have been continuously made to resolve any technological issues with 3<sup>rd</sup> party tools. There are no issues with the software. The performance has been quite good and the huge number of applications being processed speaks for itself.

### **6.5 Service level Agreements(SLAs)**

With different agencies being involved in supply of different items / services, comprehensive SLAs have been put in place. SLAs with the different agencies have been drawn separately and enforced from time to time.

#### SLA with Solar equipment supplier:

Stringent Service Level Agreements have been put in place to ensure that the promised continuous power back up is provided by the agencies in each of the Nadakacheris. This includes the conditions that, the complaint about non functioning of the unit has to be necessarily attended within 48 hours and if the contractor fails to attend to any complaints within 48 hours a penalty at the rate of Rs 2,000/ per day shall be imposed, if the power plant is not made functional within 2 days KREDL may rectify the same at the cost of Contractor and that the Contractor has to assure a yearly minimum guaranteed generation of 1800 units irrespective of weather conditions and in case of failure a penalty at the rate of Rs 20/ per unit is to be charged.

In case of any fault in the functioning of the solar system, complaints can be registered in the helpdesk established by KREDL, which records & monitors the complaints raised and the energy generated with respect to solar systems supplied to AJSKs. Penalties are imposed if the complaints are not redressed within the specified time. Separate login Id & password has been provided to each of the DTs to register the complaint & also check the status of the registered complaint.

#### SLA with network connectivity provider:

Since connectivity is very crucial to the success of the project, a very high level of availability is expected from the service provider. 97% of uptime was the commitment expected

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Sl. No	Performance Parameter	Penalty
1	SLA less than 97%	Two times the rental value for the downtime
2	Additional Penalty	If the link is continuously down for more than 7 days, then 30 days rental charge will be levied as penalty

The maximum penalty for downtime is limited to 5% of the monthly link charges of the particular link.

### SLA with supplier of hardware and LAN items

All the activities related to processing of the applications received from the citizens are performed on the computer with the exception of field verification. Non functioning of even one of the computers , LAN components or bio-metric device would cause great delay. The vendor was expected to resolve all complaints in the shortest possible time. Details of the SLA include :

- a. Service support to be provided on all days except Sundays and General holidays.
- b. Within 12 working hours the complaint other than hardware is to be attended.
- c. Complaint relating to hardware to be resolved within 24 working hours or a standby will be provided.
- d. For delays beyond 12/24 working hours ,a penalty @ the rate of Rs 250 per day is imposed.
- e. If delayed beyond 7 days, Deputy Commissioner to replace the hardware at the cost of Service provider.

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The table below gives the penalty recovered from the Hardware vendor for different quarters:

	Duration	# calls registered	# calls attended with delay	Total Penalty recovered (Rs)
1	Nov 2012 to Feb 2013	472	42	25,750
2	March 2013 to May 2013	554	20	15,750
3	June 2013 to Aug 2013	741	28	12,000
4	Sep 2013 to Nov 2013	884	72	35,750
	<b>TOTAL</b>	<b>2,561</b>	<b>162</b>	<b>89,250</b>

### 7. Citizen centricity and relevance

#### 7.1 Details about impact on effort and time invested by user

The effort and time invested by the user has drastically reduced in the new system due to the introduction of major reforms in the administrative procedure. These include doing away with preparation of office note, the approval of the issuing authority on the file and then on the computer. In addition, the advances in technology has addressed certain concerns which could not be achieved earlier. The following table gives the comparative statement of the facilities that have been provided in the new system v/s old system to provide a better experience to the citizen.

	Nemmadi	Nadakacheri
<b>Govt. Service locations</b>	Tele-centre within the Hobli	Any Nadakacheri in the State
<b>Restriction on the time for applying</b>	During the day	Anytime
<b>Other service locations</b>	NIL	Cyber cafes or home
<b>Check status</b>	At the tele-centre /	Nada kacheri / cyber

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	taluk office	cafes / home / SMS
<b>Pro-actively providing information</b>	Nil	Through SMS
<b>Certificate delivery option</b>	In person	In person / registered post
<b>Continuous service availability</b>	Not possible when there was power shutdown	Enabled by installing solar power equipment
<b>Service Delivery time</b>	Indicated in the citizen character	Printed on the receipt

As can be seen from the table, the citizen has the luxury of applying in any nadakacheri or cyber cafe or from the luxury of his home . This has significantly reduced the distance to be travelled by the citizen to apply for a service. The need to visit tele-centres to check the status is no longer required as the citizen will get an SMS when the application is processed. He / She can then visit the Nada kacheri to collect the certificate. Facility to get the certificate by registered post is also provided. Since the latest date of delivery of the certificate is also known, the citizen can rest assured that his request will be attended to and in case there is a delay beyond the specified date, he can claim compensation.

Technological advances put to use and the advantages

	<b>Nemmadi</b>	<b>AJSK System</b>
Solar power	Citizen had to be turned away when ESCOM power supply was not there	Citizen is assured that his / her request will be accepted when he visits the nadakacheri
Centralised	Deployment challenges	Changes in the Govt.

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deployment architecture	would delay new polices to be incorporated in the s/w	Policies can benefit the citizens immediately.
SMS	Citizen had to visit NK to check status	Both Push and Pull services give information whenever desired

### 7.2 Feedback Mechanism

The Citizen can give their feedback about the project through the Nadakacheri website ([www.nadakacheri.karnataka.gov.in](http://www.nadakacheri.karnataka.gov.in)).

During the periodical review meetings, the feedback and suggestions from all the field level officers and staff are sought . Analysis is done and good and feasible suggestions are incorporated. These could be administrative in nature and also improvements in the software features.

### 7.3 Interactive Platform for service delivery

The service delivery platform developed by NIC is highly interactive. The application form has to be filled in on-line. Each service has a different form to be filled in. However, the consistency of the User Interface is maintained across all forms.

Both local language and English interfaces are provided to make operator and citizen more comfortable in using the form. Hints and messages are provided to help him / her fill the form with syntactically correct data. The details that need to be filled in are mostly captured through drop down list so as to reduce the data entry efforts.

## 8 User convenience

### 8.1 Service delivery channels (Web, email, SMS etc.)

The citizen can apply for a service either from the Atalji Jana Snehi Kendras and collect the certificate from any NK in the state. Those applying online through the web site can opt for delivery at any NK or by registered post.

### **8.2 Completeness of information provided to the users**

The web site of the Directorate provides complete details of the project. The procedure to apply for a service , supporting documents required, the service charges, the contact details of the centres etc are given in the web site.

### **8.3 Accessibility**

The services are available to the citizens at the Atalji Janasnehi Kendra's at the hobli level which are open from 10 AM to 6 PM.

The citizen can also access the application from any place with an Internet connection which provides him / her to facility to apply round the clock

### **8.4 Distance required to travel to Access Points**

The distance required to travel to access points by the citizen is very much reduced, as the Atalji Janasnehi Kendras are located at all the hobli head quarters. Additional front offices at strategic locations have been established based on the geography and service demand patterns

### **8.5 Facility for online/offline download and online submission of forms**

Facility has been provided for online submission of forms for 25 Revenue services. The citizens can apply for G2C service on-line. The supporting documents can be uploaded and payment of the statutory fees can be done on-line



At the nadakacheris, the citizen just needs to give an oral request and there is no need for filling a paper application form which would necessitate facility to download a blank form.

### **8.6 status tracking**

SMS is sent to the citizens on receipt of applications & also once the certificate is approved and ready for printing.

The citizens can also get the status of their application by sending SMS to the designated number. The citizen can get the status of applications by entering the acknowledgement number in the website.

## **9. Efficiency Enhancement**

### **9.1 Volume of transactions processed**

The total number of applications received in the last 6 months for the services is 44,80,491. On an average 1.1Cr transactions are received in a year. During the peak season, about 1 lakh applications are received / day.

<b>Year</b>	<b># transactions</b>
2013	1.1 Cr
2014	60 lakhs

### **9.2 Coping with transaction volume growth**

The demand for certificates is not uniformly distributed throughout the year. Opening additional counters and engaging more operators at the front office is done to handle the huge demand from the public. With the revenue officials at their convenience, the processing of the applications in the back-office is done to ensure timely delivery of service.

From the technology point of view, the transactions are not very long running; i.e every application has fixed flow and it culminates in the approval / denial of the service. After this, the transaction details are not required to be stored in the active database and are required for audit

purpose. Hence the working set is near constant although this number could be different at different times in the year. Automated house-keeping activities, efficient mechanism for faster retrieval of data , fine-tuning the database , operating system are techniques adopted to maintain acceptable response times.

### **9.3 Time taken to process transactions,**

The services offered at the Nadakacheris are bound by the timelines given as per the Guarantee to services act. In case the service is not delivered within the time, the officials are penalized.

### **9.4 Accuracy of output**

The applications received at the nadakacheris are given to the Village Accountant and Revenue Inspector for field verification of the claims made by the applicant. During field verification, the VA does an enquiry with people of the locality, verifies documents and then gives his opinion. The accuracy of the output is thus based on this verification process.

### **9.5 Number of delays in service delivery**

Bound by the Guarantee of services to Citizen Act , with a system to penalize the Government officials , and simplified processes, the Tahsildars and Dy. Thasildars are able to deliver services in-time for majority of the applications received. Less than 10% of the applications only are processed after the due date. The average time taken for delivery of the G2C services is listed in the table below. The time taken is well within the stipulated time and is an indication of efficiency of the system.

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Sl.No	Service Name	Applications received	App. Disposed within time	Stipulated Timeline (in days)	Avg. time taken
1	Caste and Income Certificate	48,27,769	45,63,847	21	12
2	Caste Certificate (Cat-A)	6,32,553	5,88,983	21	13
3	Caste Certificate (SC/ST)	26,25,806	24,08,243	21	14
4	Solvency Certificate	2,243	1,700	21	15
5	Income Certificate	43,43,192	41,43,899	21	12
6	OBC Certificate (Central)	1,50,291	1,38,533	21	12
7	Re-Marriage Certificate	5,019	3,263	7	8
8	Residence Certificate	15,40,567	12,75,665	7	6
9	Domicile Certificate	1,56,590	1,29,402	7	6
10	Non Tenancy Certificate	79,511	53,518	7	8
11	Agricultural Family member Certificate	63,014	47,055	7	7
12	Land less Certificate	20,832	11,350	7	

## Atalji Jana Snehi Kendra

13	Small / Marginal farmer Certificate	1,71,988	1,12,497	7	8
14	Agricultural Labour Certificate	15,340	8,569	7	10
15	Agriculturist Certificate	30,850	22,961	7	6
16	Population Certificate	394	223	7	9
17	Non creamy layer Certificate	6,182	4,600	7	6
18	Income Certificate for compass	7,194	6,074	7	15
19	Surviving Family Members Certificate	1,52,285	1,07,828	7	7
20	No Govt. Job Certificate	7,298	4,734	7	8
21	Living Certificate	1,653	1,070	7	9
22	Unemployment Certificate	14,126	10,353	7	7
23	Mutation Copy	1,10,558	1,10,558	Over the counter	OTC
24	RTC Copy	1,38,69,356	1,38,69,356	Over the counter	OTC
25	Old Age Pension	1,43,508	67,104	70	61
26	Sandhya Suraksha	9,20,315	6,69,901	70	61
27	Widow Pension	4,27,599	3,11,306	70	61
28	Physically Handicapped Pension	1,99,829	1,42,538	70	61

The table below gives the number of applications received for popular services since January 2013 and the % disposal within the time-lines specified in the SLA

Service Name	Applications received	Disposed within time	% disposal within time
RTC Copy	1,38,69,356	1,38,69,356	100%
Caste and Income Certificate	48,27,769	45,63,484	95%
Income Certificate	43,43,192	41,43,899	95%
Caste Certificate	32,58,359	29,97,226	92%
Residence Certificate	15,40,567	12,75,665	83%

### 10. Cost to User

- The cost per application for each of the 25 certificates provided in the AJSK is Rs. 15/- , RTC copies are issued at Rs. 10/- & the second copy of the certificate issued over the counter is charged Rs. 15/-.
- The application for social security schemes is free of cost.
- The applicant is charged an additional Rs. 25/- if the applicant opts for the certificate to be sent by registered post.

Additional cost to the user would be the transportation charge to the nearest hobli centre. He would have to visit the Nadakacheri only twice – once to give the application and then to receive the certificate after he receives the SMS informing him that the application is processed.

The comparative study between the Nemmadi and the AJSK systems enumerated below shows the implicit cost per certificate in the Nemmadi project as compared to AJSK system.

	Nemmadi	AJSK System
No. of visits by Citizen to Office	6 times	2 times
Wages lost by Citizen (@	Rs. 900	Rs. 300

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Rs.150/Day)		
Citizen cost (TA/DA)	Rs. 300	Rs. 55
Cost for Affidavit	Rs. 150	Rs. 0

### 11. Citizen Charter

For each of the services offered through Atalji Janasnehi Kendras, the maximum delivery time is prescribed by the Guarantee of Services to citizen Act. The list of services and the time lines is mentioned in the table below. This is also displayed in all the Nadakacheris.

<b>List of services delivered through Atalji Janasnehi Kendra</b>		
<b>Sl. No</b>	<b>Service Name</b>	<b>Time line</b>
1	Caste and Income Certificate	21
2	Caste Certificate (Cat-A)	21
3	Caste Certificate (SC/ST)	21
4	Widow Certificated	7
5	Re-Marriage Certificate	7
6	Residence Certificate	7
7	Domicile Certificate	7
8	Non Tenancy Certificate	7
9	Agricultural Family member Certificate	7
10	Land less Certificate	7
11	Small / Marginal farmer Certificate	7
12	Agricultural Labour Certificate	7
13	Land holding Certificate	7
14	Bonafide Certificate	7
15	Solvency Certificate	7
16	Agriculturist Certificate	21
17	Population Certificate	7
18	Income Certificate	21
19	Non creamy layer Certificate	7
20	Income Certificate for compass	7

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21	OBC Certificate (Central)	21
22	Surviving Family Members Certificate	7
23	No Govt. Job Certificate	7
24	Living Certificate	7
25	Unemployment Certificate	7
26	Old Age Pension	70
27	Sandhya Suraksha	70
28	Widow Pension	70
29	Physically Handicapped Pension	70
30	National Family Benefit Scheme	70
31	Mythri (Pension scheme for transgenders)	70
32	Manaswini (Pension scheme for unmarried/single women)	70
33	RTC Copy	Over The Counter
34	Mutation Copy	Over The Counter

### 12. Problem Resolution and Query Handling

Any complaint related to the functioning of the solar system can be logged in the helpdesk established by KREDL which records and monitors the complaints raised .

Helpline has been established at the State level to offer assistance with regard to hardware related issues by private agency that has supplied hardware to the Atalji Janasnehi Kendras and have been awarded the maintenance contract for 5 years

Help desk also addresses the first level of queries from the field. The support to the implementation of the software is also handled. Bugs, if any, in the software is escalated to NIC.

### **13.Privacy & Security Policy**

The software developed by NIC adheres to the industry standard security guidelines. Authentication and authorization of the user is built using password security. Encryption of the password is done to ensure that the password is not sent in plain text over the wire.

At the final approval stage in the workflow , the issuing authority is authorised to digitally sign the certificate using bio-metrics. The signing process itself would require the authority to key in the pin. The bio-metric authorisation makes it doubly sure that he/she is physically present.

The digitally signed certificates / sanction orders are printed on controlled stationery (numbered and water-marked) with holograms affixed. The digital signature is transcribed on paper using QR code. The veracity of the certificate can be verified using by the accepting authority using utility provided in the web site. Verification can be done by providing the acknowledgement number. The second method that requires the number to be entered & scanning the QR code, also verifies the digital signature.

All login events are recorded and modification / augmentation to the details of the processing of the applications are logged. The audit trail is maintained even after the application is processed.

### **14. Innovation**

The BPR study helped in identification of bottlenecks described earlier. The removal of redundant steps, the streamlining all the processes related to purchases and maintenance, monitoring mechanism and centralised software with bio-metric authentication has resulted in all stakeholders owning the project.



The daily cash collections at the Atalji Janasnehi kendras are being deposited to the bank account of the Directorate through the post office. The postmen visit the AJS kendras and collect the cash and the filled-in challan generated by the computer in duplicate. The money is deposited in the post office. Every day, the transfer from the post office to the bank takes place. This system has resulted in easy re-conciliation of accounts.

### 15. e-Inclusion

Since most of the rural citizens have limited or no computer awareness, let alone operating one, the AJSK front offices are manned by computer operators.

Software is developed using standard practices for bi-lingual interface. The default language is the vernacular. This enables the operators at the nadakacheri and the applicant to be within the comfort zone when the applicant gives an oral request and the operator transcribes that to a digital request. The filled in application form is printed in the local language for the applicant to verify the correctness of data entry. In addition, the citizens can also opt for the certificate in English to enable him / her to produce it to any agency outside the State. The web site of the Directorate is also bi-lingual. The procedure, the contact details of the officers, addresses of the centre, notifications are all available in both English and Kannada.

The mobile and the internet have greatly facilitated the citizens to be self sufficient to obtain any information that they seek from the Government. The citizen gets an SMS when application is received and the acknowledgment number is communicated. The SMS intimating the readiness of the certificate / sanction order avoids them making many trips to the Government offices to just check the status. They can also check the status of their application either by sending an SMS or checking on the web site. These ICT initiatives have reduced the number of trips a citizen makes to the Government office to only twice.

The pension schemes are generally sought by those sections of the society who would find it more comfortable to be helped by the operator to digitize their request and hence these services are not made on-line.

### **16. Sustainability**

#### Technological backing to sustainability

The issue of a Government Order making the digitally signed certificate as valid document and stopping the issue manual certificates was the first step taken towards sustainability of use of technology. The necessity for timely delivery of services further strengthens the sustainability of the ICT enabled system as it would otherwise be extremely cumbersome to keep track of the status of the pending applications and monitoring by the authorities. The secured digital repository of all certificates issued is maintained at the State Data Centre. The s/w verifies the digitally signed certificate before it is printed either the first time or every time it is re-issued to the citizen over the counter.

Greater transparency resulting from advances in technology not only facilitates citizens by providing them necessary information quickly but also reduces the mundane tasks of the Government officials such as maintaining registers, tracking of the applications and providing quick information to few citizens seeking it from them. The importance & benefits of the complete system in the long run has get etched in the minds of the Government officials that there is no resistance to the use of the ICT enabled system.

#### Operational sustainability

The Training of the staff has been designed in two phases; one time training and continuous training.

One time training: All the Atalji Janasnehi Kendra staff have received Basic computer training & software training before the start of the Project. The Basic computer training was provided for twenty five days, to all the AJSK staff at the District level through Keonics. The software training was given by NIC officers at NIC District Centres & the District Consultants of AJS directorate.

Continuous training: However, it is not enough to train the staff once. In order to make the training a continuous activity the following arrangement is made. The continuous training arrangements has been envisaged in such a way that this activity can be taken up in respective districts by the resourceful staff identified in the districts, i.e District consultants and also by taking the help of District Training Institute (DTI). The District consultants also conduct continuous training once a month at the District level for 1/3<sup>rd</sup> of all the AJSK staff in the District.

Evaluation of the effectiveness of the training is compulsory for any training which is conducted. Refresher training for those who do not meet the requisite expertise are being conducted.

### Financial sustainability

The user charges collected enables the district administration to provide for the operational expenses. About Rs. 38 crores is collected since January 2013 by servicing the 3 crores transactions .

## **17. Number of users and services**

The users of the core system include the Director, Deputy commissioners, the Tahsildars, Dy. Tahsildars, Caseworkers, operators. These amount to about 3000 users. On an average at least 5 hrs are spent by operators & caseworkers , 1 hr by Dy. Tahsildars / Tahsildars. In addition, the citizens use the portal to query the status and the system itself proactively sends out messages to the citizens at important stages in the workflow process.

44,80,491 applications have been received across the State in the last 6 months at the Nadakacheris. About 6000 applications were received on-line since its launch in March 2014.

### **18. Result Achieved/ Value Delivered to the beneficiary of the project**

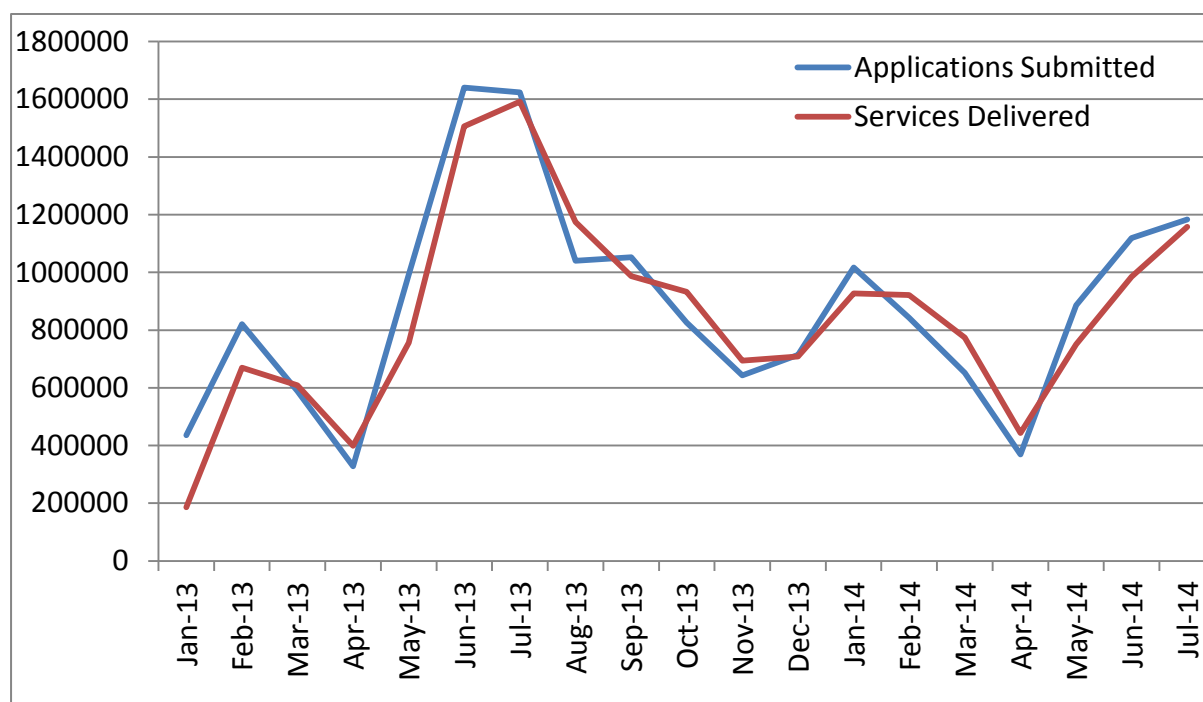
#### **18.1 To organization**

The new system has helped the Revenue Department in enabling better management of the delivery of G2C services. Delegation of powers has helped the revenue officials to handle the peak load better. They are able to provide better service to the citizen

#### **18.2 To citizen**

The satisfaction of the citizen can be seen from the service delivered. The following graph shows the number of applications received and service delivered during Jan 2013 – July 2014. Assurance that the citizen gets when the applications are processed itself gives them faith in the system unlike the earlier system when there was no guarantee that his / her application would be processed.

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Citizen satisfaction being the primary objective of the project, the time for service delivery is one of the parameters for evaluating the effectiveness.

An independent study of the system is conducted and the report is expected shortly. However, the satisfaction of the citizen was also assessed by the Guarantee of Services Act project and the result is highly encouraging.

### 19. Extent to which the Objective of the Project is fulfilled

Provisioning of more than 800 service delivery centres where the citizens approach for any G2C service of the Revenue Department has resulted in the taking the services closer to the citizen. Availability of electrical power has ensured that the citizen is never turned back. Establishment of these centres has also included rural population into the digital world enabling the reduction in the digital divide between the urban and the rural population of the State. Pro-actively providing information to the citizen on the status of the request for service through

SMS has reduced the number of visits of the citizens to the Government offices.

Although Citizen's charters prescribed the time frame for service delivery, making available the details of the time for actual delivery of service on-line has brought in greater transparency. This has also resulted in revenue officials becoming more alert and responsive to the need for in-time delivery.

## **20. Adaptability Analysis**

### **20.1 Measures to ensure adaptability and scalability**

The software has been designed to enable easy inclusion of other G2C services with similar workflow. It is well known that business logic or criteria for giving benefits to citizens is quite dynamic. Modular design principles have been adopted to ensure easy & localised changes in business logic without affecting the other modules. This ensures quick changes to the s/w based on the field reactions / inputs.

The architecture allows easy horizontal & vertical scalability. Depending on the load on the server, it would be possible to augment the resources to be able to handle the increase in the load.

### **20.2 Measures to ensure replicability**

Built using standard techniques for localization and use of unicode for data storage, the s/w can be easily customized for replication in states that follow similar procedure for issue of certificates.

### **20.3 Restrictions, if any, in replication and or scalability**

Since the G2C services offered under the Atalji Janasnehi Kendra project are offered in other parts of the country, it would be reasonably easy to replicate the same. There is no restriction on use of this model of project implementation. Upfront investment for the infrastructure could be the only cause for concern. However, if the front office activities are

outsourced, it is highly scalable as the vendor would have to establish the G2C centres at locations that are economically viable by just having a computer and internet connectivity.

### **20.4 Risk Analysis**

In web based centralised systems, the greatest risk is the single point of failure. This could be network failure, the server failure or software failure. Provisioning of backup network infrastructure, spare servers etc is done. Software is also designed to be able to enable horizontal scaling.

Other risks involve use of third party libraries as they could cause performance issues. Sufficient testing for desired load had to be done and fine tuned.

There is very minimal risk of going back to the manual system as there is no cause of concern with technology not meeting the demand to enable smooth functioning of administrative activities. Change management has been successfully brought in to mitigate the risk.

### **21. Comparative Analysis of earlier Vs new system with respect to the BPR, Change Management, Outcome/benefit, change in legal system, rules and regulations**

The business process of the earlier system was studied critically. The activities w.r.t each of the stages in the workflow was analysed and redundant steps removed. This was backed up by changes in the office procedure. Some of the steps such as printing of the note sheet by the case worker and putting up for remarks of the Shirastedar, manual approval by the Tahsildar were deleted. This resulted in a less-paper office.

Printing the validity period of each certificate and intimating all the concerned accepting authorities such as schools, colleges not to insist on

original document, reduced the pressure on the village level functionaries and hence provide quality output.

From the citizen's perspective, the new system has eased their life by reducing the time taken to process the application and number of visits to the offices

	Nemmadi	AJSK System
No. of Offices Visited	4 Offices	1 Office
No. of Stages to get Certificate	13 stages	9 Stages
No. of days to generate Certificate	20 days	Within the Sakala Timeframe
No. of visits by Citizen to Office	6	2

To the organisation, BPR has resulted in better distribution of the work thus enabling quality work.

## **22. Other distinctive features/ accomplishments of the project:**

### **a. Certificates for Students in the school itself:**

The avoid students and parents visiting the Nadakacheris to apply for caste and income certificates, it was decided to accept applications in the school itself. The data entry was done in off-line mode and then uploaded to the server. Details of all the children in the different schools throughout the State was uploaded and processed. Provision to print certificates school-wise was made in the software to be able to segregate



and deliver them in the schools itself. Applications for caste & income certificates have been received & 1.01 Cr certificates have been issued to students through schools across the state this year.

### **b. Paperless Certificates:**

In majority of the cases, it is seen that the certificates issued by the Revenue Department are utilized by some other Government Departments like Education, Social Welfare, and Agriculture etc. Hence, the Directorate is contemplating the issue of paperless certificates. By this, the digitally approved certificates will not be printed, but the Departments will be given online verification access through which they can verify the authenticity of the certificates. This not only saves the printing and stationery cost, does away with the cumbersome process of printing the certificates on secured stationery & Holograms, but will also ensure that the accepting department verifies the correctness of the claim from authentic source. The paperless certificates can eliminate the need for citizen to visit Nadakacheri even once, reduce chances of corruption and completely eliminate the fake certificates problem.