

Case Study

e-Housing Project

September 2011

Governance Knowledge Centre

Promoted by Department of Administrative Reforms
and Public Grievances
Ministry of Personnel, Public Grievances and Pensions,
Government of India
<http://indiagovernance.gov.in/>

Researched and Documented by


oneworld.net
OneWorld Foundation India
www.oneworld.net.in
owsa@oneworld.net

Table of Contents

Executive Summary	2
Methodology	2
Background	3
Objective	4
Programme Design	4
Key Stakeholders.....	4
Process Flow	5
Technology.....	10
Funding	11
Achievements	11
Challenges in Implementation	12
Conclusion	12
References	12
Appendix A – Interview Questionnaire	13

Executive Summary

Although the constitution entitles the Scheduled Caste to certain benefits for their upliftment, they still lack access to proper education, good health employment opportunities and basic housing facilities. Local governments in most states have initiated several pro-poor programmes to provide them a decent standard of living. One such intervention is the e-Housing project in Kerala designed to ensure transparency and efficiency in giving housing allowance to the scheduled castes.

Prior to the project implementation, the scheduled caste community faced several constraints:

- delays in receiving disbursements from the government,
- complexity of several procedures
- no option to track applications.

As a result, beneficiaries had to skip several days of work and physically visit the department to request for funds at different stages of construction. It was a waste of time and effort. In addition, there was no transparency as to how much amount was being released in their account. In order to benefit this target group, government introduced a web based solution to overcome these challenges.

Launched in February 2011, the web based e-housing solution became fully operational in April 2011, for the timely disbursement of housing assistance to all scheduled caste beneficiaries in Kerala. It offers provision for making online application, processing and sanction of housing assistance, also known in Malayalam, *Bhavna Nirmana Dhanasahayam* Scheme. The system was launched by Scheduled Caste Development Department (SCDO) of Kerala in collaboration with the Centre for Development of Imaging Technology (C-DIT) to ensure time-bound, efficient, transparent and error-free housing applications. To date, 1423 houses for the target group have been completed. A total of 2000 beneficiaries have opened postal savings bank and an amount of Rs 5 crores has been disbursed through the system.

This documentation discusses the project's conceptualisation, objectives, and stakeholders' role in the process, the process itself, funding sources, achievements and impact on the beneficiaries.

Methodology

The GKC team studied existing resources to analyse the project impact and verify if it's a good practice. Since its been operational for only six months, most of information were confirmed and elaborated upon through a telephonic interview with the Programmer (C-DIT) and Nodal

Officer (SCDO) in Kerala. The project's implementation details, challenges and ways they were overcome were discussed in the interview. It is also important to note that the team faced a limitation in searching for secondary resource materials both online and in print mode. Most of the information gathered was relied on C-DIT's internal documentation and telephonic interviews.

Background

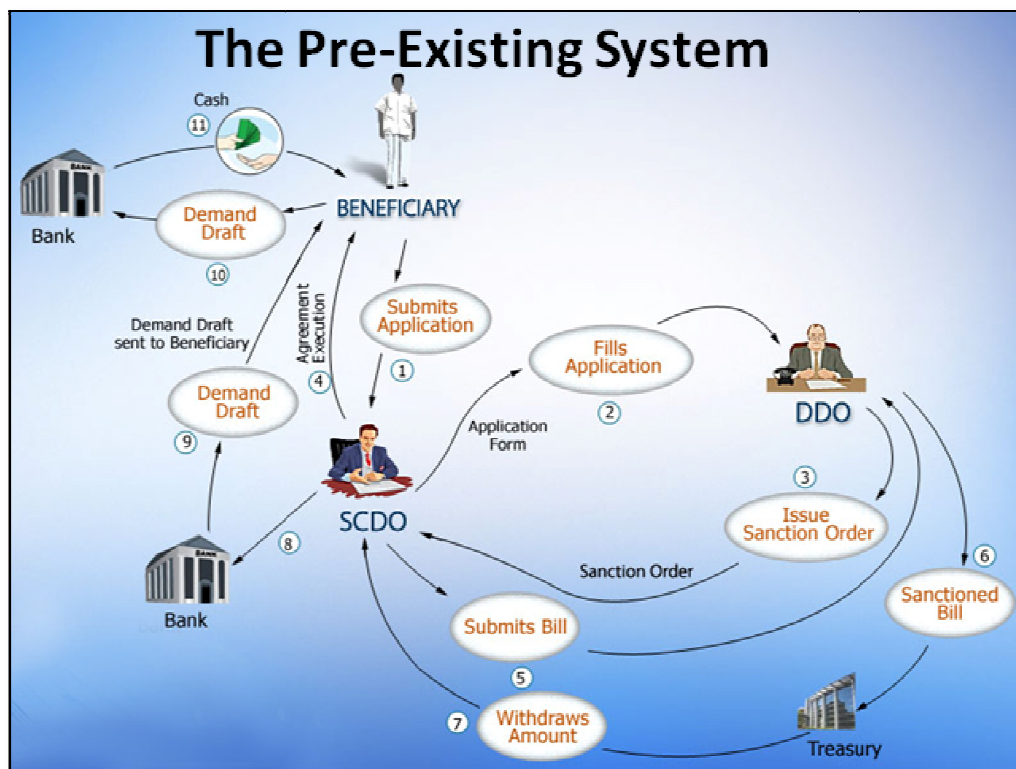
e-Housing project provides electronic transfer of housing assistance to the scheduled caste (SC) community of Kerala, initiated by the Scheduled Caste Development Department (SCDO) and has been operational since April 2011. Under a government scheme, the SC families/beneficiaries are given financial assistance for constructing houses and the amount for construction is released in instalments on particular construction stages.

Prior to e-Housing Project's implementation, a manual system for disbursement of housing assistance existed in which the beneficiaries had to submit the application form to get government's assistance in the prescribed formats along with necessary supporting documents to the District Development officer (DDO) of SC Department directly or to the Scheduled Caste Development Officer (SCDO) in the corresponding Block Panchayats/ Municipal Corporations/ Municipalities. The applications were verified and processed by the SCDO and thereafter at the District Development Office to issue the sanction order. The beneficiary then executed an agreement with the Department before receiving the 1st installment of payment. After completing each stage of the work, SCDO conducted site inspections and certified stage certificates¹ were sent to the DDO for disbursing the next installments of the payment. The amounts were being released to the beneficiaries in installments through the SCDOs in the Block Panchayats /Municipal Corporations/Municipalities.

As a result, the beneficiaries had to make multiple visits at block, then at district offices, each time for transactions and the process was cumbersome. There was delay in disbursements as allotments had to be secured from the DDOs; bills written up in Block Offices and counter-signed in District Offices; amounts drawn from Treasuries, demand drafts taken from the Bank, given to the beneficiaries, who had to then take them to the Bank and draw the cash. This process entailed considerable follow up by the beneficiary, who had to sacrifice several days of work to finally get the funds.

¹ The Stage certificate contains information on the construction completed (basement, plinth level, roof level etc) at particular stages.

Figure 1: Manual Process of Housing Application as shown In C-DIT PPT 2011



In order to reduce delay and human effort, SCDO and C-DIT developed a computerised system for housing assistance known as e-Housing. The details are explained in the Programme design section below.

Objective

The objective is to support SC beneficiaries by automating complete process of financial assistance for their housing construction and ensuring transparency in the system. Through this initiative, the Scheduled Caste Development Department has given utmost importance to provision of housing in a time-bound manner to underprivileged sections. It ensures quality of construction through the beneficiaries themselves.

Programme Design

Key Stakeholders

- The Scheduled Caste Development Department (SCDO): The SCD officer modifies beneficiaries' application forms and incorporates changes if required before sending to the DDO for verification and ensures that sanction orders arrives on time from DDO. The

SCDO also ensures that funds are transferred in the beneficiaries' post office accounts. The responsibility for procuring hardware and arranging broadband connectivity in all SCDO offices lies with him/her.

- District Development Office (DDO): DDO officer is the final authority to verify applications and ensures that beneficiaries' funds are allocated in their post saving accounts on time. He/she also follows up with the SCDO offices to assure timely flow of applications online, claim statements etc. In the verification process, he is assisted by two other officers-District Office Clerk (DOC) and Junior Superintendent.
- Centre for Development of Imaging Technology (C-DIT): It designed the e-Housing software and provided training and handholding for staff in the district offices, SCDO offices and directorate. It also created publicity material to popularise the initiative and provided advice on procurement of hardware and connectivity.
- Treasury: The Treasury provides consolidated information on all beneficiary's installments with corresponding post offices' details in a disbursement list. DDO then notifies all post offices and automatically the amount is credited to each individual post savings' accounts.
- Post offices: All beneficiaries have a post savings account and each instalment is deposited in it followed by a SMS.
- Scheduled caste beneficiary: He/she is to submit an application form with all the requirements and after signing an agreement with SCDO and verification, he/she is entitled to receive funds in postal savings bank account at various construction stages in order to build a house.

Process Flow

Initiated in February 2011, the new e-Housing system facilitates online disbursement of finances to SC beneficiaries for house construction. The Scheduled Caste Development Department allots a total of Rs 1 lakh to each beneficiary at particular construction stages and this amount is disbursed in four instalments: first 15,000 (15%), second 30,000 (30%), third 40,000 (40%) and last, 15,000 (15%). The process is executed by four government functionaries. At the block level, it is the SCDO and at the district level, it is the DOC, JS and DDO. Each of the executives' responsibilities is highlighted in the following steps:

Step 1: Application submission

The beneficiary visits SCDO to file an application and submits four supporting documents that are mandatory along with a passport photograph. These are: a) caste, b) income, c) profession and d) no objection certificates. The criteria for each certificate are:

- Caste certificate states his/her caste category
- Income certificate certifies his/her eligible income which is Rs 300 per month

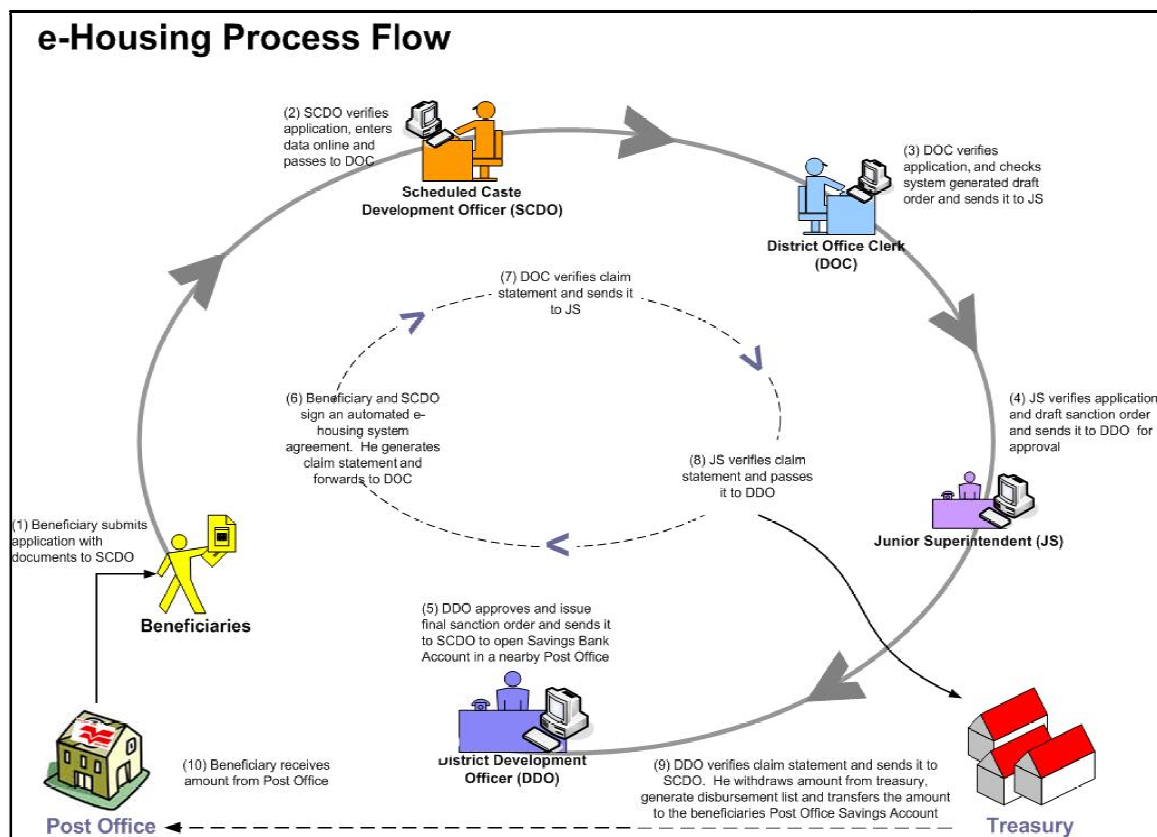


Figure 2: e-Housing Application Process flow

- Profession certificate states his/her source of income

- No objection certificate is the permission given by the Revenue department to the beneficiary construct a house.

Following the submission, the SCDO verifies the application and supporting documents, conduct detailed enquiry on the beneficiary and site inspection. If everything is correct, He enters the details in the e-Housing system, uploads the scanned images of supporting documents and recommends the application with his remarks. The e-Housing system generates an automated unique 9 digit number to the application. For example: G010620112. Here, 01 denotes district (1=Trivandrum), 06 is the gram panchayat, 2011 is the year and 2 is number allotted to the beneficiary. This application is then forwarded to the inbox of DOC at the district office.

Step 2: Issuance of Draft Sanction order

The DOC verifies the application online and if found correct, refers it to the JS for further verification. The DOC also checks for system generated draft sanction order. The draft sanction order is the government's commitment to allocate funds for the beneficiaries' house construction.

Step 3: Verification of Draft Sanction Order

The JS further examines the application, draft sanction order and recommends it to the DDO for final approval of sanction order.

Step 4: Sanction Order approval

The DDO is the final authority to approve the online application and finalises the sanction order.

Step 5: Mutual Agreement

On receipt of sanction order, an automated agreement generated through the e-Housing system is signed mutually both by the beneficiary and SCDO. This agreement signifies the government's commitment in serving the beneficiary and the latter in utilising the funds for the purpose only. The following details are filled out in the agreement execution:

Post office Account number Thaluk(sub-division of a district/block)
Village Name of Guardian (Malayalam)
Relation (Malayalam) Mobile Number

Figure 3 Adapted From Scheduled Caste Development Department's PPT, 2011

Then SCDO generates the first instalment claim statement² through the e-Housing system and forwards it online to the District Development Office along with agreement executed. A claim statement indicates beneficiary's details and instalment progress and it is stored online. Below is a sample of claim statement:

Year (select from drop down option)										
Select	Int_ Disburse -ment Id	Name	File No	Local body	Account No	Instalment	Amount	Year	View sanction	View agreement
Recommendation of SCDO										

Figure 4 Adapted from Scheduled Caste Development Department's PPT, 2011

Step 6: Claim statement approval and Final disbursement of finances

The procedure for confirming the beneficiaries' claim statement is similar to the application procedure. The DOC examines the claim statement and then sends it to JS for verification and remarks. JS again examines it and forwards it to DDO for final approval. DDO issues a disbursement list with all the names of beneficiaries with corresponding post offices from Treasury. Simultaneously he instructs the SCDO to open a bank savings account on behalf of the beneficiary in a nearby post office. He withdraws money from the Treasury, issues a disbursement list with all names of beneficiaries with corresponding post offices and passes it to the post offices. The amount is then credited to the beneficiaries' post office savings account after SCDO inspects site location and approves it. Below is a sample of Head office entry:

² The installment amount sanctioned with beneficiary details automatically generated by the e-Housing system is known as claim statement.

Head PostOffice: Thycaud H.O						
File no	Local body	Branch office	Account no	Name	Installment	Amount
G010620112	-	Aruvikara	193577	Raju	1	15000
Generate						

Figure 5 Adapted from Scheduled Caste Development Department's PPT, 2011

Step 7: On site inspection and Stage certificate entry

Post inspection, the SCDO enters details on the automated stage certificate entry online. It is followed by an SMS that is sent to the beneficiary, notifying the disbursement of first instalment in his account. Similar process follows for the second, third and fourth instalments. Below is a sample of stage certificate:

Stage certificate				
Name	Raju			
Address	Raju Nilayam			
	Rampuram			
	Aruvikara			
Previous stage	Installment	Amount	Date of Disbursement	Completion status
	1	15000	02/09/2011	✓ Stage1
Recommendation of SCDO	First stage completed			
Update			Back	

Figure 6 Adapted from Scheduled Caste Development Department's PPT, 2011

Beneficiaries can check the application status online by inserting its application number from anywhere. He/she is updated on whether the application is pending or in progress. The applications are monitored by the Directorate of Scheduled Caste Development Department at the state level to funds are allocated to the respective beneficiary on time.

Technology

e-Housing is a web-based solution and beneficiaries are able to access the system from anywhere with internet facility. In terms of web based developments, C-DIT has used Sql server 2005 for storing and analysing data; and Dot net framework 3.5 to create the website. All

technical expertise has been provided by C-DIT. In future, code optimisation and temporary tables will be used in the website for better performance.

Funding

This project is not based on a revenue generating mechanism. It is a service extended by Kerala Government to the weaker sections of the society as part of state's affirmative action to attain social security and justice to the scheduled castes.

Achievements

1. Web based solution- It is a simple, error-free, and easy to access web based solution designed to speed up transactions for housing construction for the SC community. The automated process has reduced constraints for department officials and beneficiaries saving both time in application processes and in disbursement of finances.
2. Direct funds disbursement – The instalments are directly transferred to the beneficiary's savings account once the claim statement is examined and verified by the DDO. With every instalment deposit, beneficiaries are also sent an SMS message as a reminder. Since the amount is disbursed directly, inappropriate utilisation of funds is avoided.
3. Improvement in functional efficiency- C-DIT has trained staff in SCDO, district and directorate offices in data entry and in application process. The project has bridged communication gaps between the block and district levels. It has also removed multiple treasury transactions.
4. Monitoring- All beneficiaries' details are recorded online along with the application. The application status (pending/in progress) is tracked by all officials accordingly action is taken. Beneficiaries are also updated by entering username and password and clicking on Search status online <http://www.e-housing.kerala.gov.in/>.
5. Consolidated and customised reports- Aggregated reports can be generated in short time and used for audit purposes and fine tuning policies related to housing scheme.
6. Eliminated beneficiaries' physical (human) and time effort in applying for housing assistance and receiving installments.

Challenges in Implementation

1. Overcoming of negative attitude regarding operational changes amongst officers
2. Training given officers to make system processes transparent and efficient.
3. Electronic infrastructure to provide web-enabled offices at block and district level.
4. Introducing a new system for the target group
5. Monitoring on real time basis

Conclusion

e-Housing project can be termed as a best practice as it has completely changed the disbursement for housing construction's scenario in the department. The beneficiaries feel confident as this service is extended exclusively for their needs. It has sped up application processing and sanctioning of disbursements so that beneficiaries can make payments and build houses on time. The application processing time has reduced drastically to one third of time taken earlier in the manual system. All stakeholders- SCDO, DDO, post office and treasury are integrated in the system. Each stakeholder can track application status online, coordinate with each other and make appropriate actions. The beneficiaries can monitor the status of their applications and fund details by logging in the system from anywhere. All transactions are further monitored by the Directorate of SCDO therefore inappropriate means are reduced. The department has decided to increase the amount from 1 to 2 lakhs from next year. For replication in other departments and states, the requisite factors are a trained team to build an online system and committed officials determined to benefit the weaker sections of society.

Research was carried out by OneWorld Foundation India (OWFI), Governance Knowledge Centre (GKC) team.

*Documentation was created by Research Associate, **Attrika Hazarika***

*For further information, please contact **Naimur Rahman**, Director, OWFI, at owfa@oneworld.net*

References

e-Housing project, power point presentation, Centre for Development for Imaging Technology, 2011

Appendix A – Interview Questionnaire

Background- Stakeholders and roles

1. According to our research, the major stakeholders in the project are Scheduled Caste Department (SCD), C-DIT, Post office and Treasury.
 - i. What are their specific roles in the project?
 - ii. Are there any other stakeholders? If yes, who are they? What are their roles and responsibilities?

Evolution

2. Explain the process of housing scheme to beneficiaries prior to the e-Housing project.
3. e-Housing project is web-based software allowing financial disbursement for housing construction for SC beneficiaries in instalments.
 - i. Why was it conceptualised?
 - ii. When did the actual implementation begin?
 - iii. What are its objectives?
 - iv. What are its advantages?
 - v. Where there any challenges? If yes, then how were they overcome?

Programme design and Verification

4. According to our research, the authorised officials for e-Housing project are: Scheduled Caste Development officer (SCDO), District Officer Clerk (DOC), Junior Superintendent (JS) and District Development Officer (DDO). All have unique log ins to the website. Their functions are as follows:
 - a) The SC applicant submits the application to the SCDO
 - b) The SCDO verifies the application, inspects the site location and applicant
 - c) He/she enters the details on to the e-Housing website and recommends the applications
 - d) The application is given a unique code and forwarded to the DOC for verification
 - e) After verifying, it is sent to the JS and finally to the DDO for final approval of sanction order and issues it.
 - f) After approval, SCDO instructs applicant to open a savings account
 - g) An online generated agreement is printed and signed by the SCD officer and applicant
 - h) Similar process takes place regarding the disbursement of finances.
 - i. Can you further explain these steps in detail? What process is followed in each step?
 - ii. How is the project monitored?

- iii. What is the typical duration of the application and verification process?

Technology and Training

5. What kind of system is being used for e-housing website and what are the reasons?
 - i. Database
 - ii. Application framework
6. Is it outsourced or in house development?
7. Is there an offline system?
8. Is internet a constraint?
9. What are the challenges faced in website development?
10. How were they overcome?
11. How was training imparted to the SCDO, DOC, JS and DDO? How did they adapt to the computerised e-housing operation?
12. How does the team deal with any unforeseen circumstances faced in implementation?
13. Will there be any scaling up in the website? If yes then what are they?

Impact and Sustainability

14. To what extent has e-Housing project impacted the beneficiaries?
15. How many buildings are constructed under e-Housing till date? Has there been an increase in the number since the initiative started? If no, then why not?
16. In terms of the actual construction, who is responsible for:
 - i. Site selection
 - ii. Building layout design
 - iii. construction labourers' payment
 - iv. Other procedures required in construction
17. How does the project convince individuals to apply for e-Housing project?
18. How has the initiative sustained itself financially?
 - i. Is there a revenue generating mechanism? If not, then who is funding the project?

Measuring success

19. E-housing has benefited applicants and government in several ways such as:
 - a) Application process on time
 - b) Tracking of application status and monitoring of entire process online
 - c) Disbursement of housing assistance on time
 - d) Ensures transparency
 - e) Reduced human effort

- f) Reduced inappropriate utilization of funds
 - g) Improved functional efficiency of SC department
- i. To what extent has the above mentioned benefits been achieved? Can you provide us quantitative data to reflect the progress of the initiative thus far?
- ii. What is innovative about the project?
- 20. Are there any enhancements to this practice? If yes, what are they?
- 21. What is innovative about the project?
- 22. Are there any enhancements to this practice? If yes, what are they?
- 23. What details need to be entered in:
 - i. Application entry
 - ii. Claim statement
 - iii. Stage certificate