National Awards for e-Governance 2018-19

http://punarvas.ap.gov.in/NPP

Project Code: NAeG/18-19/00144

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Andhra Pradesh
Overview

- Introduction
- Legislative changes
- IT Support to new Act
- Hardware & Software support
- Previous and Present system
- Social Impact assessment module
- Land Compensation module
The main objective of the Web based software with GIS integration is to computerise all the important activities under land acquisition and R&R process as per provisions of RFCTLARR act 2013.

It provides the data storage, retrieval, decision support systems.

It also provides the Aadhar based biometric authentication of beneficiaries and GIS data of the assets being acquired.

The compensation paid to each beneficiary is also enumerated and disbursed through digital payments in a transparent manner.

Need to eliminate the discretions, delays and data asymmetry [the 3Ds which generally plague the LARR processes]

Change in legislation, brought Accountability, Transparency and Right to fair compensation
PROJECT PUNARVAS IN NUTSHELL

Salient Features

• Safe and effective use
• Usable offline and on mobile phones
• Time and cost efficient method
• Interactive platform for service delivery
• Adaptability and Scalability
• Replicability

Unique Facturés

• For the first time ever, LA and R&R aspects are computerized right from SIA to LA/RR awards and compensation
• Dynamically updated as per requirement
• Process transaction time is maximum 5 min
• 100% Accuracy is being noticed
• No delays throughout the service delivery

Projects & Population Coverage

• NPP Kovvada Project [2000 odd PDFs]
• BRR Vamsadhara irrigation Project [6500 odd PDFs]
• Mahendratanaya irrigation project [2000 odd PDFs]
• Gandikota irrigation project (YSR Kadapa) [7500 PDFs]

Transactions Done

• Land alienation: 1560 acres of Govt., Land and approximately 1500 transactions
• Land acquisition: 673 acres Pvt., Lands approximately 600 transactions
• House compensation: 1872 transactions
• R&R packages: 1872 transactions
• Trees etc: approximately 1000 transactions

First end-to-end web based application for implementing the LA and R&R provisions of RFCTLARR Act 2013 - with built in technologies for Aadhar based biometric authentication, GIS mapping, drones and satellite imagery.

Department of Land Acquisition and Resettlement & Rehabilitation
Salient Features

- Scalable
- Open Source tools
- Web based application with remote server connection through generic database
- Interoperable J2EE / Java Platform
- Android App for D2D surveys and individual authentication
- NPP Kovvada project - 2000 odd PDFs
- BRR Vamsadharra irrigation Project - 6500 PDFs
- Mahendratanaya irrigation project - 2000 odd PDFs
- Gandikota irrigation project - 7500 PDFs
- Bhavanpadu Port – Work Commenced
**PROJECT PUNARVAS: A RELIABLE ALTERNATIVE**

- An end-to-end web based solution is rolled out for every aspect of the LARR process
- Time & energy efficient and cut short various tedious processes
- Taking all stakeholders (regardless economical or educational backwardness) on Board.
- Pictorial and video graphic representations and user friendly outputs
- Increased transparency
- Procedural justice to increase accountability

**Stakeholders**
- Nuclear Power Corporation of India Ltd (Requisitioning organisation)
- Srikakulam District Administration Govt of AP (Land Acquisition and R&R authority)
- 1883 (project affected) families in 6 villages and 3 Panchayats
- 2000 project displaced families
- Other projects-BRR Vamsadhara Irrigation project
- Other projects-Gandikota Irrigation project

Project Administrator, LA and R&R: The District Joint Collector, Sri KVN Chakradhar Babu IAS
Previous & Present System

**Manual Enumeration System**

- ** Enumerator Team**
  - Inspection of Lands
    - Likelihood of change in classification of Dry to wet land
  - Inspection of Structures
    - Likelihood of altering the nature of the Structure failed to Paccia house and also alteration of the area.
  - Inspection of Trees
    - Likelihood of change in no of trees and type of trees

**Enumerations system with GIS**

- System will recognise the nature of the land.
- Will recognise Nature of the structure
- System will capture the trees. Types of trees can also be recognised in images.
CHALLENGES FACED

Lack of awareness among LA & R&R staff and conventional work culture

Information asymmetry amongst field staff

Policy changes with the promulgation of new LARR act and new Land alienation Policy

Lack of Awareness among population affected

Vested interests and elements that hinder smooth process

Lack of systematically maintained land records

Measures Taken

Workshops and trainings conducted for all officers concerned

Trainings done by the officers to the field level staff under guidance of the central monitoring cell via engineering students

Capacity Building done effectively

Intensive triggering and effective use of the web application

NEFT based transaction & Aadhar authentication minimized malpractices

Debugging and Updating and Aadhar seeding of records using re-survey
Methods Adopted (Baseline Study Done) Implementation Model

- All the previous LA notifications and the enjoyment survey details.
- All the households are numbered on ground and on the GIS based satellite maps and unique ID is generated for every PDF.
- Similarly every feature like house, cattle shed, thatched huts, trees, community facilities etc were captured.
- Aadhar based survey of all the households, their ration cards for identity and bank accounts for transparency in financial transactions.
- Lands were surveyed with all field bunds and features verified.
- Nature and type of encroachments, usage, title, extent etc were frozen alongwith photo and aadhar based details of each individual.

Implementation Model:

- Project implementation unit (PIU) was formed with core officials and professionals.
- Repeated meetings and brainstorming sessions were held before finalizing strategies.
- Stakeholder consultations.
- IEC and Awareness Programmes.
- Aadhar and GIS maps were made baseline data along with the PDFs identity.
- Convergence amongst all units is achieved by single head in the form of project administrator.
LEGISLATIVE CHANGES

- PDF friendly elaborate R&R provisions
- New provisions like SIA/EIA, SIMP, SES & R&R award etc.,
- Fair compensation, multiple levels of stake holder consultations, transparency and responsibility have taken primacy at each stage of the implementation of LARR in public projects.
- In big projects involving billions of investments, thousands of acres of land to be acquired and affecting thousands of families – Any time and cost overruns levy heavy penalties
Payment Deliveries of ICT Initiatives

- Exgratia compensation to Poor people
- Land compensation to the Poor who were issued D-Pattas
- Land compensation to the Private land owners under 11(1) notification
- Structure compensation to all the 1872 structures falling under the project
- Trees compensation to all the forest and horticulture species
- R&R benefits to each of the 2000 odd PDFs and equal number of PAFs
Usage of ICT Technology

- Cartosat-2 and GIS mapped drones from NRSC/APSAC to freeze the spatial and geographic data with date and time stamps.
- Aadhar based biometric authentication through USB 2.0 based finger print devices.
- NEFT based digital CBS banking transactions.
- LARR processes were designed right from SIA to LA/R&R awards and integrated into single application.
- Aadhar based biometric authentication of the beneficiaries and individualist profiling of entitlements and compensation.
- Logic to limit the extents and payment particulars and to enforce the entitlements as per state acts.
- Tab / Mobile version of the software for conducting surveys/door to door evaluation and to capture various details from the field.
- District level initiative immediately adopted to other projects in the state.
IT SUPPORT TO NEW ACT

Cartosat2 and GIS mapped drones from NRSC/ APSAC

JSP / J2EE based web application and used Sturts framework
QGIS based image processing

PostgreSQL based database
UIDAI /SRDH supported beneficiary screening using aadhar

Android based mobile application

Aadhar based biometric authentication through USB 2.0 based Finger print devices

NEFT based digital CBS banking transactions
S.I.A. Module

- Make Effective Presentations
- Using Awesome Backgrounds
- Engage your Audience
- Capture Audience Attention

Tab Application

Capturing the field data

1- Respondent Details
2- Financial status and Source of Income
3- Family income and Expenditure
4- Family Assets
5- Health Status
6- Common Property Resources
7- Project Perception

Freeze and sign
Upload to Server
The Screens shows the Opening page, Login and Menu after login page of the application
The Screens shows the capturing of respondent details.
LAND COMPENSATION MODULE

- Public consultations
- Agreement on the rate per acre of land
- Encroachers & Pattadars

- Evaluation of structures in the project affected places
- Drone survey to identify the number of structures and freeze the no. of structures
- Door to door survey to determine the structures and associated properties

- Survey of trees to pay compensation
- Forest department
- Horticulture department
R&R Module - Individual

- Employment or one time settlement
- Subsistence allowance
- Cattle Shed
- Resettlement Charges
- Transportation of household articles
- Constructed house
- SC/ST Additional Grant
- One time grant for artisans

R and R benefits
R&R Module Community

- R and R benefits
- House Site and constructed house
- Layout with all infrastructure
- Sewerage system, Electricity, Drinking water
- Post Office, Police station, Veterinary hospital
- Community Halls, Schools
- Fishing Jetty, Drying platforms, shopping complexes
- Burial Ground, Parks, Play grounds
- Hospital, Anganwadi
An Effective Information Education & Communication Strategy

Auido Visual Aided camps at villages
Gramsabhas conducted on lines of the project
Technology demonstration and clarification of doubts at field
Third party verification to ensure trust of public
Wide mass media coverage
Door to door motivation
Regular field visits by officers
GRAMA SABHAS
CARTOSAT-2 PAN IMAGE OVER KOVVADA REGION
Cartosat-2 PAN image on 05/May/2017
INDEX MAP IN PROPOSED NPP

Aerial view of Kovvada Village (part) as on 18th May 2017, Srikakulam District (Grid-Index)
<table>
<thead>
<tr>
<th>S.No</th>
<th>Type Structure</th>
<th>No. of Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Thatched Houses</td>
<td>782</td>
</tr>
<tr>
<td>2</td>
<td>RCC Houses</td>
<td>487</td>
</tr>
<tr>
<td>3</td>
<td>A C Sheet Houses</td>
<td>164</td>
</tr>
<tr>
<td>4</td>
<td>Under constructions</td>
<td>68</td>
</tr>
<tr>
<td>5</td>
<td>Panchayat bore wells</td>
<td>31</td>
</tr>
<tr>
<td>6</td>
<td>Open Wells</td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td>Govt., Buildings</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>Temples</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Water Tanks</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Tiled Houses</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>Barber Shops</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>Ratchabanda</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>Poultry Sheds</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>Airtel Compound wall</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Tailor shop</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1576</strong></td>
</tr>
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</table>
Integration of GIS mapped data and field survey data of each structure in the Project
### Land Acquisition Project
**NPP Kovvada**

**Statistics of Beneficiaries as on 04-10-2017**

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Village Name</th>
<th>Habitation</th>
<th>No. of Beneficiaries</th>
<th>No. of beneficiaries pending Authentication</th>
<th>No. of beneficiaries authenticated completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gudem</td>
<td>Gudem</td>
<td>27</td>
<td>5</td>
<td>22</td>
</tr>
<tr>
<td>2</td>
<td>Jeerukovvada</td>
<td>Jeerukovvada</td>
<td>3</td>
<td>1</td>
<td>2</td>
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<tr>
<td>3</td>
<td>Kotapalem</td>
<td>Allivasa</td>
<td>60</td>
<td>60</td>
<td>0</td>
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<tr>
<td>4</td>
<td>Kotapalem</td>
<td>KOTAPALEM</td>
<td>41</td>
<td>30</td>
<td>5</td>
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<tr>
<td>5</td>
<td>Ramachandrapuram</td>
<td>CHINNAKOVVADA</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Ramachandrapuram</td>
<td>KOVADAMATCHALASAM</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Ramachandrapuram</td>
<td>RamaCHANDrapuram</td>
<td>74</td>
<td>11</td>
<td>63</td>
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<tr>
<td>8</td>
<td>Tekkil</td>
<td>TEKKIL</td>
<td>59</td>
<td>3</td>
<td>56</td>
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<tr>
<td><strong>Total</strong></td>
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<td></td>
<td><strong>271</strong></td>
<td><strong>113</strong></td>
<td><strong>106</strong></td>
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</table>

**Download Excel File**

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# Reports Statistics on Land Ownership

## Land Acquisition Project
**NPP Kovvada**

### Statistics as per the type of land ownership

<table>
<thead>
<tr>
<th>Phase</th>
<th>Select</th>
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<tbody>
<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Village Name</th>
<th>Habitation</th>
<th>D patta land</th>
<th>Earlier D patta land but now encroached</th>
<th>Jeevitha</th>
<th>Government land encroached</th>
<th>Government land</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gudem</td>
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<td>68</td>
<td>0</td>
<td>68</td>
<td>2.400</td>
<td>80</td>
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<tr>
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<td>Gudem</td>
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<td>68</td>
<td>0</td>
<td>68</td>
<td>7.933</td>
<td>80</td>
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<tr>
<td>3</td>
<td>Gudem</td>
<td>Gudem</td>
<td>68</td>
<td>0</td>
<td>68</td>
<td>2.250</td>
<td>34</td>
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<td>0</td>
<td>68</td>
<td>0</td>
<td>68</td>
</tr>
<tr>
<td>5</td>
<td>Gudem</td>
<td>Gudem</td>
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<td>0</td>
<td>68</td>
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<td>6</td>
<td>JERUKOVIDA</td>
<td>JERUKOVIDA</td>
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<td>0</td>
<td>23</td>
<td>18.780</td>
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<td>JERUKOVIDA</td>
<td>JERUKOVIDA</td>
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<td>23</td>
<td>3.500</td>
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<tr>
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<td>JERUKOVIDA</td>
<td>JERUKOVIDA</td>
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<td>23</td>
<td>3.600</td>
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<td>KOTAPELAM</td>
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<td>20.400</td>
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<td>ALLIVALASA</td>
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<td>30.700</td>
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</tr>
</tbody>
</table>

**Designed, Developed and Hosted by National Informatics Centre APSC, Hyderabad**
CONCLUSION

- The system is made so generic that it can readily be used for any other project which involves land acquisition and R&R.

- The open source tools and interoperability allows seamless migration in no time.

- Tab/Mobile version allows for field work and comes very handy for various survey [during SIA, SES and others]

- And the web based application is used for the project implementation unit (PIU) and various departments involved in the LA and R&R Processes.

- As it is customised as the provisions of the RFCTLARR Act 2013, its ubiquitous use across the nation is beyond doubt.
THANK YOU