National Land Records Modernization Programme

(e-Dharti)

Shri. S. P. KaduPatil IAS

Settlement Commissioner and Director of Land Records, Maharashtra State, Pune
Geographical Area – 3.08 lacs sq.km.
- Divisions – 6
- Districts – 36
- Talukas – 358
- Villages - 44321

- Tehsil Offices – 358
- Dy.SLR Offices – 353
- CTSO - 30

- Circle Officers – 2,011
- Talathis – 11,991
Department Overview

- Online provision of more than 55 lacs computerized property cards (Urban RoR)
- Over 10 lac RoR issued per month issued through various citizen service Centres like CSCs, setu kendras, etc.
- Maharashtra is the only State having urban property cards and have a Property Card Information System (PCIS)
- Registration Department in Maharashtra has taken lot of initiatives like
  - iSARITA
  - eRegistration
  - eSBTR etc.
NLRMP (e-Dharti) – eMahabhumi Mapping

NLRMP (e-Dharti) Components

- Computerization of Land Records
- Data entry/re-entry/data conversion of all textual records including mutation records and other land
- Tehsil, sub-division/district Computer centers
- Inter-connectivity among revenue offices
- Digitization of cadastral maps
- Integration of textual and spatial data
- State-level data centres

eMahabhumi Projects

- eMutation and eChawadi*
- eMaps
- eBhulekh
- Maharashtra SDC

* Completely state initiated programme
## NLRMP – eMahabhumi Mapping

### NLRMP (e-Dharti) Components
- Resurvey
- Computerization of Registration
- Modern Record Room
- Training and Capacity Building
- Core GIS
- Programme Management Unit
- Legal Changes

### eMahabhumi Projects
- eResurvey
- eRegistration
- eRecords
- Land Records Training Institute
- eBhulekh (partial)
- eMahabhumi Society
- Amendments to MLRC 1966 and Consolidation Holdings Act
As per directions of GoI, Mahabhum Society in the form of PMU is formed and registered vide GR dt 20 March 2012.

Grants from GoI and GoM are managed through Mahabhum Society account – Total Rs 37.30 Crore credited to PMU in March 2014

Core Committee formation completed and regular meetings held every quarter
- Governing Body
- Executive Body

The eMahabhum funds are managed by Society as per Governing Committee decisions
eMahabhumi Projects

- eRegistration
- eMojni
- eChawadi
- eMutation
- eRecords
- eBhulekh
- eMaps
- eResurvey

Computerization of registration process
Computerization of Village officers record
Computerization of Process of current measurement cases
Scanning of Records (Modern Record Room)
Re-Survey using latest technologies
Digitization of Cadastral Maps

Core GIS

Implemented
In Process
Pilot Done. State Rollout readiness
NLRMP – Implementation Strategy

- Systematic & Scientific approach to every component
- Constitution of Domain Group of experts for each component
- Consultation with Domain Group and Business Process Re-engineering (BPR)
- Software development by NIC, Pune
- All projects piloted in 1 taluka (Mulshi) before state-wide rollout
- Appropriate Approvals by PIC, HPC
- Creation of Mahabhum Society (PMU)
- Guidance from Principal Secretary (IT) GoM
- Project Advisor
  - Technical - MRSAC Nagpur, SoI, CDAC, PwC, SIO (NIC)
  - Management – MRSAC, PwC
## Implementation Vendors

<table>
<thead>
<tr>
<th>Category</th>
<th>Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT infrastructure</td>
<td>M/s. CMS Ltd.</td>
</tr>
<tr>
<td>Connectivity</td>
<td></td>
</tr>
<tr>
<td>Wired (Taluka Offices)</td>
<td>BSNL and MTNL</td>
</tr>
<tr>
<td>Wireless (Data Card)</td>
<td>Vodafone, Idea, Airtel, Tata, Reliance, BSNL and MTNL</td>
</tr>
<tr>
<td>Technology</td>
<td>Microsoft, EnterpriseDB, Wipro</td>
</tr>
<tr>
<td>Scanning</td>
<td>Karvy, CMC, RICOH, VidyaOnline</td>
</tr>
<tr>
<td>Digitization</td>
<td>RAMTeCH Solutions Ltd.</td>
</tr>
<tr>
<td>Security audit</td>
<td>CyberQ Software Solutions Ltd., AKS IT Services</td>
</tr>
<tr>
<td>Website Development</td>
<td>Mahaonline</td>
</tr>
<tr>
<td>Language support</td>
<td>CDAC</td>
</tr>
<tr>
<td>Manuals</td>
<td>AIILSG (All India Institute of Local Self Government)</td>
</tr>
</tbody>
</table>

Almost 20 vendors being interacted and handled by the department under eMahabhumi
eMutation
(COMPUTERIZATION OF LAND RECORDS)
## eMutation

- Mutation is the process of incorporating changes in the Record of Rights.
- eMutation has two scenarios: Automatic Initiation of Mutation on Registration as well on application to Talathi.
- 100% online mutation process with major business process re-engineering.

### Types of Mutation

#### Registered
- Sale Deed
- Gift Deed
- Mortgage Deed
- Release Deed
- Exchange Deed
- Etc. (7)

#### Non-Registered
- Inheritance
- Loan Encumbrances
- Court Order
- Land Distribution (Watap)
- Reimbursement of Loan
- LA and NA Order
- Area Correction
- Etc. (28)
eMutation – Infrastructure and Connectivity Preparedness

- Implementation in Process in all 358 talukas and 521 SRO offices
- Provision of Laptop, Printer and Datacard to all **11,991 talathi and 2,011 Circle officers**
- Enabling staff with Digital Signatures (DSC) for over **14,774 staff till date**
- Provision of IT Infrastructure to all **358 Tahsils and LR offices**
- Provision of Network connectivity
  - **Wired** – BSNL and MTNL
  - **Wireless** – Vodafone, Idea, Airtel, Tata and Reliance
  - **VPN** – Fortinet (provided by DIT)
- eMutation cells setup across state in each taluka
- Training to 1062 Master Trainers and over **15,275 staff**
- Integrated Help Desk created for all divisions

More than 4 crore RoR has been updated in the current data improvement exercise
Monitoring of Trial Run through MIS

**Data Conversion**

- Data Cleaning (Golu Removal)
- Data Correction (DBA Tool)
- Data Updation – Mutation and Crop
- Trial Run CD with Prapatrak 1 from Tahsildar
- Monitoring of Trial Run through MIS
- Submission of Final CD with Paripatrak 2 from Collector
- Final Orders from Settlement Commissioner for going Online and Stopping Manual Mutation Process
eMutation Network Architecture
All 358 taluka Data CDs are being uploaded to State Data Centre for Final Online eMutation.

Current Status is as below:
- **Trial Run Status** - Started in 358 talukas
- **Final Online Mutation** – Online Mutation Started – 203 Talukas
  *(Manual Mutation Completely Stopped)*

Proposed completion date: All 358 talukas to go online by March 2016.
eChawadi
(COMPUTERIZATION OF LAND RECORDS)
**eChawadi**

- Talathi – Village level revenue official & Chawadi – Office of Talathi
- Over 37 types of village Online Village Registers maintained through Software at State Data Centre (SDC) and access through usage of laptop, datacard and Digital Signature by Talathi
- Talathi (Village Accountant) handles Primary 21 register (7*12 being 2 of them)
  - Revenue Related – Register I to 5
  - Ownership Related - Registers 6 to 8
  - Revenue Collection Related – Registers 8 to 10
  - General Administration Related – Registers 11 to 15
  - Misc – Registers 17-21
- Other 16 types of Ancillary registers are also maintained online

- Extensive training sessions at Aurangabad Academy for over 679 Master Trainers Trained in Batches and over 8200 staff
- Rollout in selected talukas – October 2015

More than 35 villages tested the concept and ready for rollout post eMutation rollout
eRecords
(Modernization of Record Rooms)
Scanning Old Records for preservation, Document Management System (DMS) Software and Improving the physical infrastructure for record storage

- More than 40 lac documents scanned in pilot project
- Application developed by NIC with IPR with department
- Selection of vendors completed - division-wise
- Hands-on training conducted at Aurangabad LRTA for vendor teams and Land Records Staff (176 DDE, DIO, Tahsildars, etc)
- Over 26 crore documents and 741 record rooms to be scanned
- Actual work started in 340 offices of 159 talukas in Phase I
- All record rooms to be provided with IT infrastructure for citizen service delivery
- Scanned data to be hosted at State Data Center.
- Scanning of over 13 crores documents completed.
## eRecords – timelines

<table>
<thead>
<tr>
<th>Scanning Phase</th>
<th>No of Talukas</th>
<th>Proposed Completion date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase I</td>
<td>159</td>
<td>Dec 2015</td>
</tr>
<tr>
<td>Phase II</td>
<td>123</td>
<td>March 2016</td>
</tr>
<tr>
<td>Phase III</td>
<td>74</td>
<td>December 2016</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>356</strong></td>
<td></td>
</tr>
</tbody>
</table>
Document Management System (DMS) Software is Developed in Consultation with National Informatics Centre.
The software comprises complete end-to-end modules starting from the scanning of document till the citizen service delivery.

Following are the stages of the end-to-end Scanning Process:

- Document Preparation for Scanning
- Document acceptance from Record Room
- Scanning of Records at Taluka offices
- Image QC of scanned Documents
- Metadata Entry at the District Metadata Data Centre (DMC)
  - Double Blind Metadata Entry
  - Vendor Quality Check (Manual QC and Auto-QC)
  - Department QC
- Document Search and Retrieval
- Accounting Module of DMS for Citizen Service Delivery
- Citizen Service Delivery of the Scanned Documents
<table>
<thead>
<tr>
<th>Tehsildar Office</th>
<th>Dy.SLR Office</th>
<th>CTSO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old 7/12</td>
<td>Tippan</td>
<td>Enquiry Register</td>
</tr>
<tr>
<td>Old mutation register</td>
<td>Gunakar book</td>
<td>Property Card</td>
</tr>
<tr>
<td>Current khate register</td>
<td>Akarphod</td>
<td>Property Register</td>
</tr>
<tr>
<td>K.d.e. Patrak</td>
<td>K.J.P.</td>
<td>Field Book</td>
</tr>
<tr>
<td>Inam patrak</td>
<td>Akarband</td>
<td>Vaslevar Book</td>
</tr>
<tr>
<td>Birth-death register</td>
<td>Consolidation Scheme register/shudhipatrak</td>
<td>City Survey Gaon Dharika</td>
</tr>
<tr>
<td></td>
<td>Consolidation jabab file</td>
<td>Town Planning Scheme</td>
</tr>
<tr>
<td>Shet pustak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vasalewar book</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consolidation gaon p.c.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kshetra book/field book</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tabe pawati</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9(1)9(2) maps of consolidation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**ACTIVITIES AT RECORD ROOM**

- **Document Preparation**
  - Inward Outward Register

- **Users Registration**
  - for Vendor & Department

- **Jacket Creation & Book details entry.**

- **Work Assignment for Image Entry**

**Activities @ Record Room Tehsil Office**

- Export Data for Meta Data Entry @ District Level
- Image Processing and Entry of Book & Page number
- Image Quality Check by Department
- Image Quality Check by Vendor
- Rejections
ACTIVITIES AT RECORD ROOM

Import Data received from Tehsil Office for Meta Data Entry

Users Registration for Vendor & Department

Work Assignment for Operator 1 & Operator 2

Double Blind Data Entry

Operator 1 does Data entry of Book 1

Operator 2 does Data entry of Book 1

Rejections

Metadata Entry Quality Check by Department

Metadata Entry Quality Check by Vendor

Activities @ District Meta Data Entry Center

Tehsil level record room
eMaps

(DIGITIZATION OF CADASTRAL MAPS)
MAPS IN MAHARASHTRA

- Tippan
- Village Map
- Kate Phalni
- Phalni

- Individual land parcel sketch
- Mosaiced tippans
- Division of Survey number (tippan format)
- Division of Survey Number
MAPS IN MAHARASHTRA

Pot Phalni

Sub Division

Joint Meas. Sheet

Layout

Sub division in phalni

Sub division in phalni

Land Acquisition Maps

Agri. To Non-Agri.
MAP STRUCTURE – A COMPARISON

1. Tippan
2. Kate Phalani / Phodi Tippan
3. Phalani maps / Pot Hissa maps / Gut Plot Maps
4. Fair Sketch
5. Gut book maps
6. Triangulation Sheets
7. Cloth mounted maps of Survey No.
8. Savistar Bhumapan Mojni Maps
9. Others (Resurvey maps)
10. City Survey maps
11. Court Watap maps
12. Land acquisition maps
13. Non Agricultural maps
# Map Maintained Analysis

<table>
<thead>
<tr>
<th>States</th>
<th>Mah'stra</th>
<th>Kar’tka</th>
<th>Gujarat</th>
<th>AP</th>
<th>MP</th>
<th>Chh’garh</th>
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</thead>
<tbody>
<tr>
<td><strong>1. Cadastral Maps Maintained</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Tippan</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>ii. Hissa Mapani Book/Phodi Tippan</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>iii. Land Acquisition Maps</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>iv. Sub-divi. Plan</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>v. NA measurement Plan</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>vi. Village Map</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>vii. Triangulation Sheets</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
Various map sheets maintained in Maharashtra like Phalni / Sub-Division maps, Gat Book, LAQ and NA measurement sheets, etc. are to be digitized

- More than 20,000 map sheet used in department’s day to day working has been digitized in pilot project
- Provision of IT infrastructure to provide maps to citizens at Mulshi
- State total of 92,75,222 sheets & 4,80,91,174 polygons to be digitized

Following approvals have been asked from GoI
- Government of India has granted approval for the digitization of cadastral maps which includes only tippan and village map. However, In Maharashtra, there exist over 13 other types of cadastral maps which are required to be digitized along with tippan and village maps.
- Unit for cost realization to be changed to polygons instead of FMBs
- Modification in the unit rate for digitization project
## Request for Digitization of Additional Map sheets

<table>
<thead>
<tr>
<th>#</th>
<th>NLRMP Guidelines</th>
<th>Maharashtra requirement</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>FMB/ Tippan</td>
<td>Tippan</td>
</tr>
<tr>
<td>2</td>
<td>Village maps</td>
<td>Tippan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kate Phalani / Phodi Tippan</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Phalani maps / Pot Hissa maps / Gut Plot Maps</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Fair Sketch</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Gut book maps</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Triangulation Sheets</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Cloth mounted maps of Survey No.</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Savistar Bhumapan Mojni Maps</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Others (Resurvey maps)</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>City Survey maps</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>Court Watap maps</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>Land acquisition maps</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>Non Agricultural maps</td>
</tr>
</tbody>
</table>
eMojani

(COMPUTERIZATION OF LAND RECORDS)
eMojani

Computerization of entire process to handle citizen applications for various types of measurement cases received in LR offices

- Manually maintained Mojni registers has been completely stopped
- Running Successfully in all 383 Offices of land records department
- Till today, 5.25 Lakh applications have been processed through eMojni (approx 15,000 per month)
- More than 1164 officials and data entry operators have been trained
- Application security audited before hosting at SDC

- Public Data Entry
- SMS gateway
- GRAS Integration

Completed 3 years and more than 5 lac applications handled
eMojani (Process Flow)

1. Application by citizen
2. Visit to site for Mojani
3. Issue of K Prat to citizen
eMojani (In Statistics)
Frame work of survey in field has completely broken down.

The boundaries shown in the records do not tally with the actual conditions on the ground.

This may happen due to obliteration of field and sub division of boundaries and/or due to misplacement of a large percentage of the local ground control point marks.

As a result of which it is difficult to identify the fields with reference to the records.

Resurvey is also necessary in the case of sudden development of the area due to causes such as -

- Sub-divisions
- Transfer of dry lands into wetlands
- Large scale transfer of holdings
eResurvey – Pilot Project

- 12 Villages of Mulshi Taluka of Pune District.

Methods of Survey:
  - Pure Ground Method: E. T. S. & D. G. P. S.
  - Hybrid Approach: HRSI & ETS / DGPS

- Number of GCPs established: 176

- Detail measurement completed:
  - By Pure Ground Method: 6 villages
  - By Hybrid Approach: 6 villages

Present Status:
- LPM distributed in 12 villages.
- Complaints / suggestions received from the land holders
- Determination of Method to be adopted for Resurvey of State.
Georeferenced Satellite Image
Mauje Mukhaiwadi, Tal. Mulshi, Dist. Pune
Village Map of Survey Numbers: Scanned Copy (Year 1930)
Village Map of Survey Numbers: Digitized Copy
Superimposition of Survey Numbers Village Map on Satellite Image
Original Tippan (1930) : Scanned copy - Survey No. 211
Original Tippan : Digitized Copy
Superimposition of Digitized Tippan on Satellite Image
Phalni Map: Digitized copy (1952)
Superimposition of Digitized Phalni on Satellite Image
Superimposition of Digitized Pot Phalni on Satellite mage
Phalni - Consolidation: Digitized Copy (1979)
Superimposition of Digitized Phalni on Satellite Image
 DETAILS OF CONSOLIDATION SCHEME  
SURVEY NO. 211 (YEAR 1979)  

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>211</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>211</td>
<td>2/1Part, 2Part, 3Part, 4Part, 5Part, 6Part, 7 Part</td>
<td>16</td>
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<tr>
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<td>5</td>
<td>211</td>
<td>6</td>
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<td><strong>Total</strong></td>
<td><strong>1</strong></td>
<td><strong>23</strong></td>
<td><strong>5</strong></td>
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</tbody>
</table>
PREPARATION OF GAT MAP
PREPARATION OF VILLAGE MAP
VILLAGE MAP AFTER RESURVEY
LAND PARCEL MAP
GAT NO. 18
RESURVEY
RECORD OF RIGHT NOT REFLECTING GROUND REALITY

Form No 7

Form No 12
## Village Form No 7 After Resurvey

### Form No 7

<table>
<thead>
<tr>
<th>Village Name</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nandgaon</td>
<td>After Resurvey</td>
</tr>
</tbody>
</table>

### Map

- Village Layout Diagram
  - Village Center
  - Residential Areas
  - Agricultural Land
  - Roads

---

**Note:** The above text is a natural representation of the content on the image. The map and form are also highlighted for easy reference.
**Village Form No 7 After Resurvey**

### Village Form No 7

**Gāv Nāma:** सात

**Abhīkār Abhimāna Parchak**

**Māhārastra Jāmīn Mahaśul Abhīkār Abhimāna Abhimāna Nāivedyā (Tiyār Karyān Vā Suśirūtālī Tīkāvān Nīvan) १९७९**

**Vātīl Nīvan ३५,५,५ आशि ७**

<table>
<thead>
<tr>
<th>गाव</th>
<th>धरे</th>
<th>तालुका</th>
<th>मुळाचै</th>
<th>जिल्हा</th>
<th>पुणे</th>
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<tbody>
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<td><strong>भूपरिमाण वक्रांकनावर विवरण</strong></td>
<td><strong>पूर्व-वर्तमान व्यक्ती</strong></td>
<td><strong>जलों क्र. ३५</strong></td>
<td><strong>सूर्या उत्तर</strong></td>
<td><strong>किलोमीटर</strong></td>
</tr>
<tr>
<td>३</td>
<td>गृहपरिमाण ० १८ ६९</td>
<td>चौकटी कसी १</td>
<td>आंखांकन कसी ० ३६ ६३</td>
<td>१९,६३</td>
<td>१,०५</td>
</tr>
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</table>

*शेषाचे स्वाभाविक रूप*

<table>
<thead>
<tr>
<th>लागती व्यवसाय क्रम</th>
<th>हे</th>
<th>आर</th>
<th>वोटटी.</th>
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<td><strong>वित्तीय</strong></td>
<td>० ६८ ६६</td>
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<td>-</td>
<td>-</td>
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<td><strong>छोटी</strong></td>
<td>० २५ ६४</td>
<td></td>
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</tr>
</tbody>
</table>

*पॅट सर्व सर्व व्यवसायांतीन अविष्कार|

| पर्व (अ.) | ० ३६ ६८ | | |
| पर्व (ब.) | - | - | - |
| **एकुण्ड लौऱ्या** | ० २५ ६६ | | |

| येथा अविष्कार: |
|---|---|
| **हुळा** |

| आवागमन | ०६ | ६६ | |
| जुनि किंवा विशेष आवागमन | - | - | |
| **एकुण्ड** | ०६ | ६६ | जुन फेरकांक (३) (२६) (३५) (२५) | (३५) |

**Map**

**Form No 7**
Total expenditure required for resurvey of the state: ₹1356.95 Cr.

50% share of GoI: ₹203.63 Cr.
(As per the rate of Rs. 15.5000 per sq km sanctioned by GoI.)

The expenses to be incurred by the state Govt.
(measurement, establishment, digitization): ₹1153.32 Cr.

Creation of post for validation and verification, 2048 temporary & 1209 on contract basis, total 3257 posts: ₹290.24 Cr.

The expenditure to be recovered by way of sanad fee: ₹1605 Cr.
(@ ₹300 per Acre)

The grants required in the year 2015-2016 from GOI: ₹45.03 Cr.
# RESURVEY RATE ANALYSIS –
**EXPERIENCE FROM PILOT PROJECT**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Component of Resurvey</th>
<th>NLRMP Guidelines</th>
<th>Resurvey Pilot Project</th>
<th>Actual Rate</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>GCP</td>
<td>2000</td>
<td>GCP</td>
<td>7034</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>GPS Reading</td>
<td>6000</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Digitization of Old Survey Records</td>
<td>7227</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Data entry</td>
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<td>2</td>
<td>Acquisition of HRSI geo-referencing, ground truthing and</td>
<td>6000</td>
<td>Satellite Image procurement per sq.km.</td>
<td>4632</td>
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<td>Ortho-image generation</td>
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<td>Satellite Image processing per sq.km.</td>
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<tr>
<td>3</td>
<td>Feature Extraction</td>
<td>2000</td>
<td>Feature Extraction</td>
<td>2000</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Superimposing old maps and generation of polygon</td>
<td>1800</td>
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<td></td>
<td></td>
<td>Giving chalta no to polygon</td>
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<tr>
<td>4</td>
<td>Field Validation -</td>
<td>2500</td>
<td>Field visit for validation &amp; incorporation of New Pothissa</td>
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<tr>
<td>5</td>
<td>Printing of Maps</td>
<td>1500</td>
<td>Printing of Land Parcel Map</td>
<td>1600</td>
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<tr>
<td>6</td>
<td>Integration of textual details with maps</td>
<td>500</td>
<td>LPM Generation with Integration of textual details</td>
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<td>7</td>
<td>Generation and Serving of Notices</td>
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<td>Distribution of LPM</td>
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<tr>
<td>8</td>
<td>Sundry expenditure</td>
<td>500</td>
<td>Receiving application /grievances</td>
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<td></td>
<td>Field visit for redressal of complaints</td>
<td>2400</td>
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<td>Corrections of maps &amp; Hard copy generation)</td>
<td>600</td>
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<td>Printing of Village map</td>
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<td>Printing of RoR for promulgation</td>
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<td>Printing of Registers</td>
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<td>Hardware charges</td>
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<td><strong>TOTAL (Rate / Sq.km.)</strong></td>
<td></td>
<td><strong>15500</strong></td>
<td></td>
<td><strong>48193</strong></td>
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</tbody>
</table>
Resurvey - The work done so far

- The amendment proposed in following acts.
  - Maharashtra Land Revenue Code 1966
  - Bombay prevention of fragmentation and consolidation of holdings act 1947
  - Proposal submitted on 26/12/2014 to 6/1/2015
- Proposal for amendments in Maharashtra land Revenue (Restriction on use of Land) rules 1968 will be submitted after the amendment in the acts.
- New rules for resurvey are being prepared
- A draft of Manual of resurvey is being prepared
- GCPN
  - To be established through state PWD
  - Grid Prepared by MRSAC, Pune
  - The readings of GCPN by private agencies
  - The validation of DGPS readings by SOI
- Digitization of Cadastral maps
  - RFP for the Digitization is prepared
  - Proposal to be submitted to State Govt.
- Creation of staff
  - Proposal submitted to State Govt. on 5/1/15
- To develop s/w for resurvey will be carried out through MRSAC and NIC Pune
eBhulekh

(INTEGRATION OF TEXTUAL AND SPATIAL DATA)
All Data from below eMahabhumi projects to converge in a single window application
* eRecords
* eMaps
* eResurvey
* eMutation
* eMojni

All land related Information in chronological order for a particular land parcel

Rollout
April’15
THANK YOU