



Large Scale Mapping and Land Revenue Management

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Initiatives Showcased

- Haryana Large Scale Mapping Project (HaLSMP)
- Integrated online Revenue Management System – Web HALRIS
- GIS Based Property Taxation System

Flow of presentation

Department of Revenue, Haryana Government

- Haryana Large Scale Mapping Project (HaLSMP)
 - SVAMITVA
 - Large Scale mapping of Revenue area
- Integrated online Revenue Management System – Web HALRIS
 - Evolution of the system
 - Online registration system
 - E-appointments
 - Online stamps
 - Automated Mutation
 - Online verifiable copy of RoR
- GIS Based Property Taxation System

Haryana Revenue Setup

• Divisions	:	6
• Districts	:	22
• Sub-Divisions	:	73
• Tehsils/Sub-Tehsils	:	143
• Kanoongo Circle	:	256
• Patwar Circle	:	2691
• Revenue Estates	:	7088
• Geographical Area	:	44,212 Sq Km

Haryana Large Scale Mapping Project

- Haryana the first state in the nation to adopt modern drone-imagery based digitisation of cadastral maps, with geo-spatial data
- Survey of India as executing agency
- MoU signed on 08th March, 2019
- Project to cover entire state of Haryana
- Deliverables
 - Geo referenced Base Maps
 - Ground Truthing
 - 2D/3D features extraction
 - linkage with unique property ID in ULBs, Abadi Deh areas
- Integration of Cadastral Maps with land records using Bhu-Naksha and Web-HALRIS

Village Sirsi in Karnal was declared as first Lal Dora free village of the country on 26th January 2020

Main components of Project

CORS

Mapping of
Abadi area

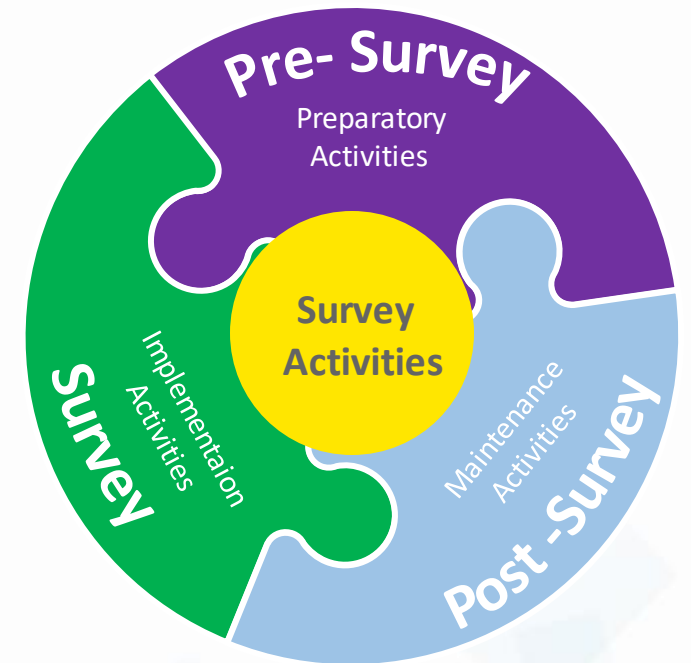
Mapping of
Revenue Area

Mapping of
Urban Area

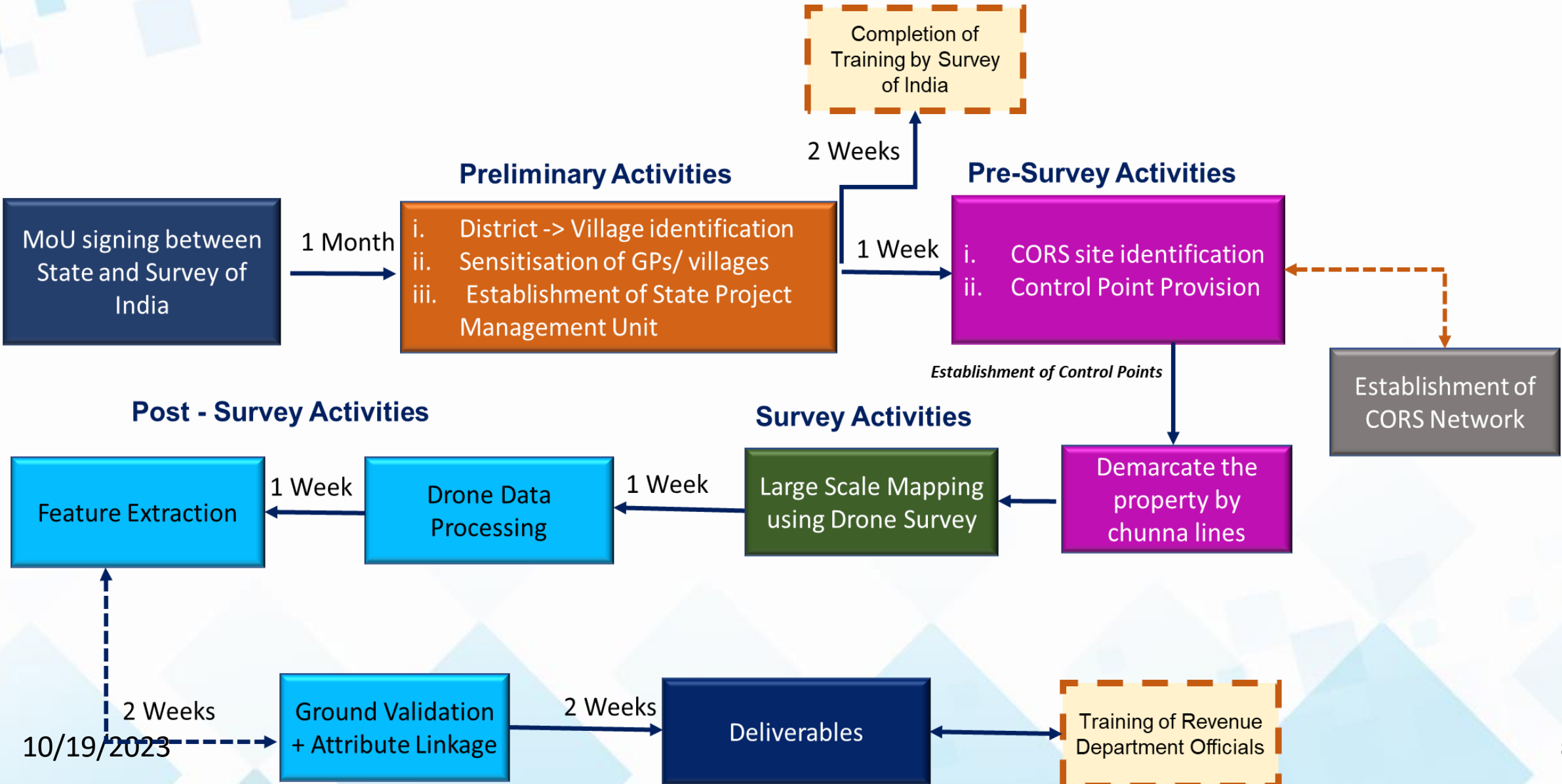
Survey Methodology

Main activities for conducting Drone survey to demarcate inhabited rural areas :

- i. **Marking of boundaries** on ground after due notice to land owners and residents
- ii. Laying out Standard Operating Procedures (**SOP**) for various situations
- iii. **Survey class drones (UAVs) used after** securing all due permissions
- iv. **Processing of data** captured through drone survey
- v. Production of **high quality maps**



Implementation Process Flow



Professional Survey Grade Unmanned Aerial Vehicle/DRONE

Type of Drone used by Sol

Hybrid Fixed-wing Drone

- Cover 2sqm in 1 singleflight
- Endurance : up to 60 min
- Wind resistance: upto 9m/s
- Temp:-12 to 50 degree Celsius



Quadcopter drones

- Cover 1 sqkm in 1 singleflight
- Endurance :up to 40 min
- Wind resistance: 10m/s TO 14 m/s
- Temp :0 to 50 celsius



Accuracy

DEM: 50cm

Vertical Accuracy: +/- 20cm

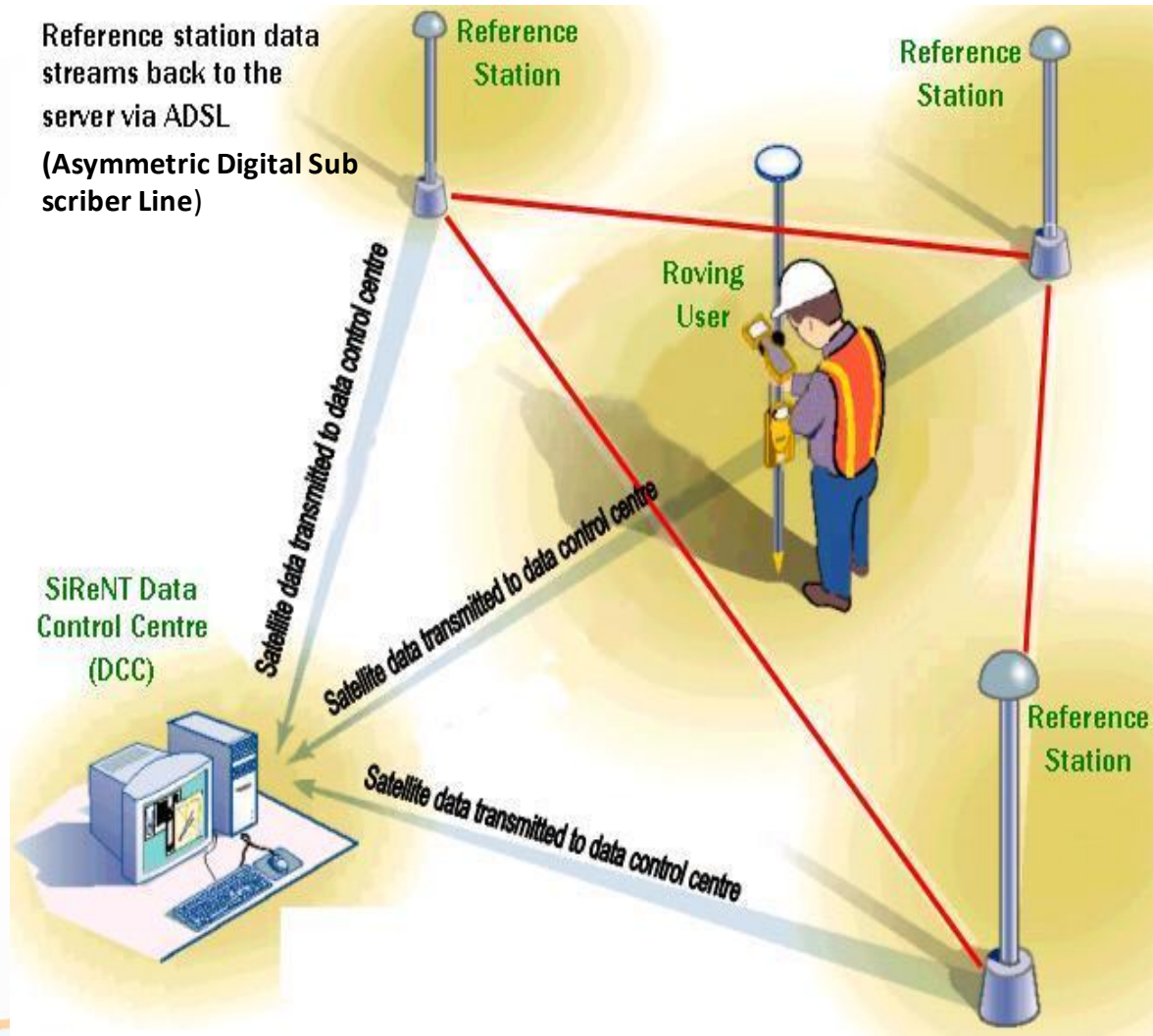
Up to 5 cm GSD Ortho rectified Image

Horizontal accuracy: +/- 10cm



CORS

- 01 CM LEVEL ACCURACY
- 02 REAL TIME PRECISE POSITIONING
- 03 ECONOMICAL



CORS Cont..

CORS Services provided by Survey of India can be accessed from www.cors.surveyofindia.gov.in

State government/private can access CORS service by registering on below link
<https://surveyofindia.gov.in/webroot/UserFiles/files/CORS%20Registration%20Form1.pdf>

BENEFITS OF CORS

Quick and accurate acquisition of position, enable mapping/surveying and measurement activities faster, resulting in faster survey and mapping.

Enables fast accurate staking for layout of civil works

Measurement of executed works, monitoring and tracking progress of work.

Reduction of cost through automation e) Auto driving/ auto navigation result in Reduction in fuel consumption, Increase in driver productivity from improved logistics management f) Improved Logistics/supply chain management, Minimizes idle time to ensure continuity of operations. Improved fleet efficiency (identifying areas of underperformance)

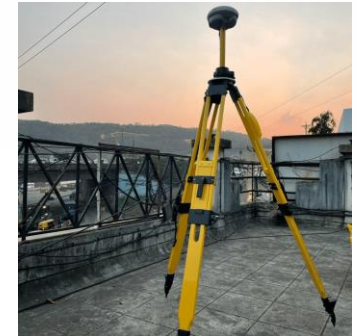
Total Station Vs GNSS



A **total station (TS)** or **total station theodolite (TST)** is an electronic/optical instrument used for [surveying](#) and [building construction](#). It is an electronic transit [theodolite](#) integrated with [electronic distance measurement](#) (EDM) to measure both vertical and horizontal angles and the slope distance from the instrument to a particular point

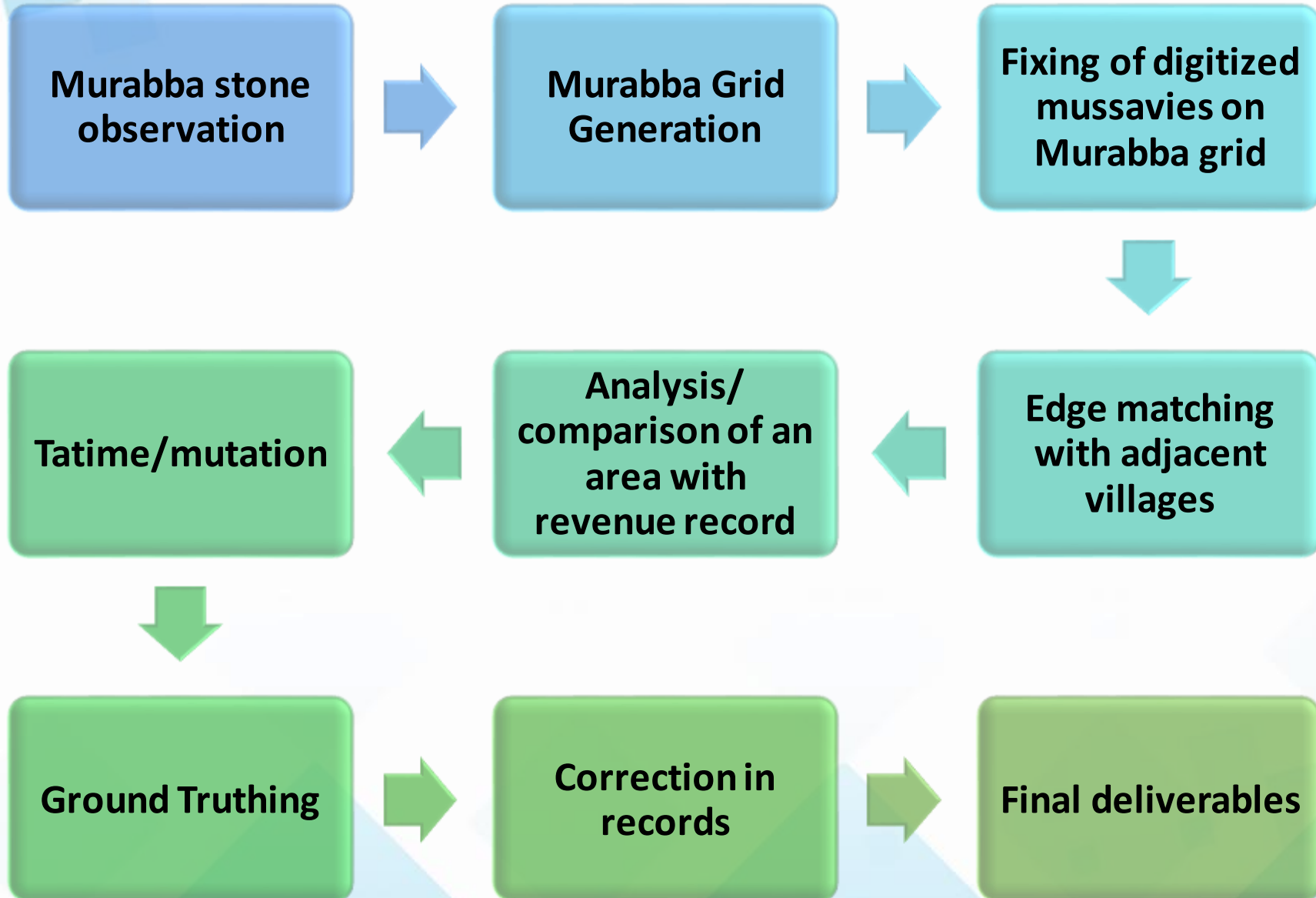
GPS/GNSS surveying is the use of GPS and GNSS signals via a GPS/GNSS receiver and antenna to determine the form, boundary, position of objects or points in space relative to other forms, boundaries or points.

GPS/GNSS for surveying can provide centimetre-level accuracy using RTK positioning method, or sub-centimetre levels of accuracy when post processing algorithms are employed.



	Total Station	GNSS
Ruggedness	Less Rugged (moving part & user maintenance)	Rugged (no moving part) Water & dust proof
Location	Relative	Absolute
Line of Sight	Line of sight to instrument	Line of sight to sky

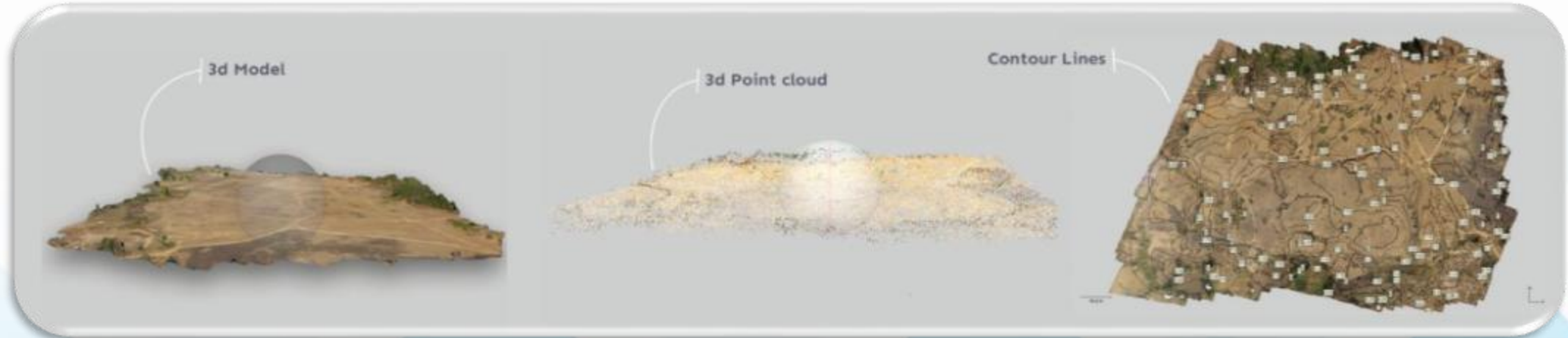
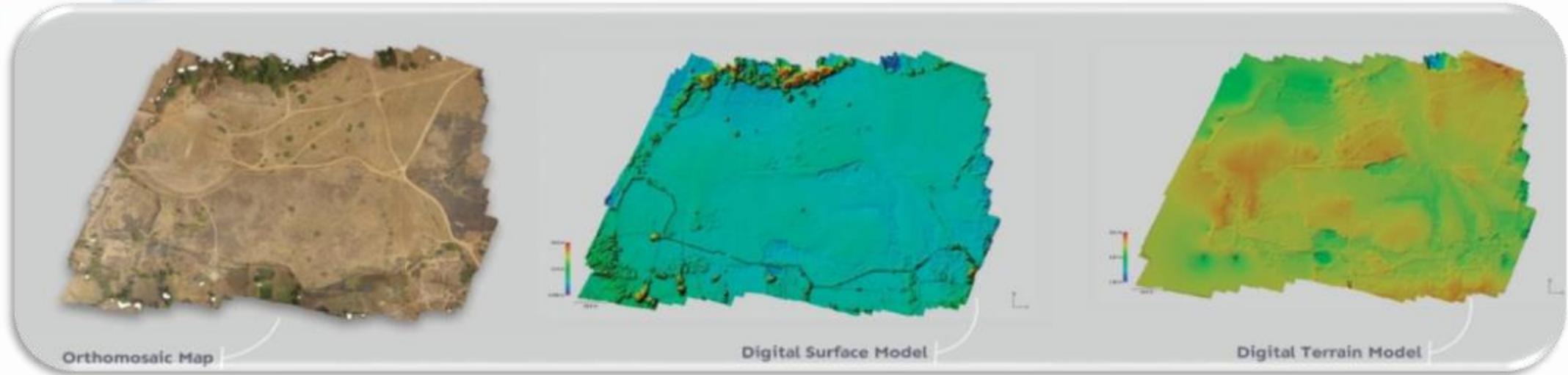
HaLSMP WORKFLOW



Accuracy Standards

- **For Rural areas on 1:1000 scale**
 - (ORI at 10 cm GSD; ± 20 cm horizontal accuracy) for the Revenue Department.
- **For Village Lal Dora/Abadi on 1:500**
 - (ORI at 5 cm GSD; ± 10 to 12.5 cm horizontal accuracy) for Development and Panchayat Department.
- **For Urban areas on 1:500**
 - (ORI at 5 cm GSD; ± 5 cm Horizontal accuracy) for the Urban Local Bodies Department.
- **Vertical Accuracy of 0.2 m for all areas.**

Data Processing



Digital Cadastral Map of Sirsi Village linked with Jamabandi

Email: Inbox (4036) | 10.88.229.63/grievances/UserDet | INT (1)_19052020.pdf | Bhunaksha

Not secure | 10.88.243.208:8080/bhunaksha/06/index.jsp | Paused

Bhunaksha | 9/1/21 | Georeferenced Map | Login | 683985 68638, 3285792 65066

Home

Location

State: Haryana | District: 10 Karnal | Tehsil: 060 Karnal | Village: 06003 Sirsi(05928)

Plot Info

Area: 8 Kanal 0 Marla
Owner Name: हंसराज, जयप्रकाश, सुरेन्द्र कुमार, बाला देवी पुत्रान जयभगवान पुत्र बखतावर हर चार समभाग 2/3 भाग सुशीला देवी पत्नी श्री राम पुत्र पूर्णचन्द्र 1/3 भाग वासीदेह
[Map Report](#)

District: 10 Karnal, Tehsil: 060 Karnal, Village: 06003 Sirsi(05928)

E-Gov Initiatives...pptx | 19 MAY COVID-19...pdf | WhatsApp Image...jpeg | WhatsApp Image...jpeg | WhatsApp Image...jpeg | INT (1)_19052020.pdf | Show all

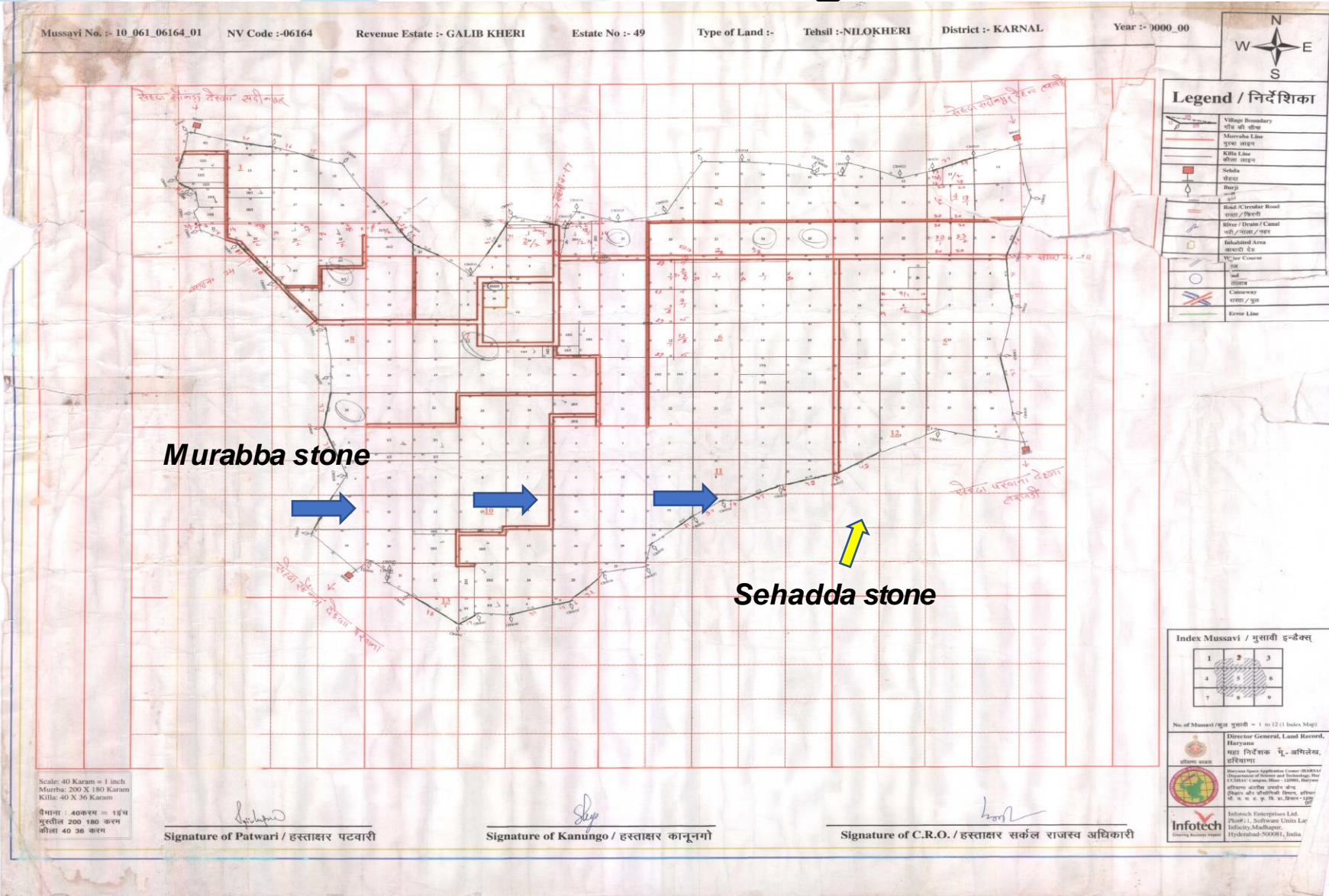
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HaLSMP

- Till 16th October, 2023, drone based imaging has been completed for 43,140 Sq.Km area in the state (total 44,212 Sq.Km.)
- Features Extraction of 10,948 Sq.Km area completed
- Murabba Stone Observations of 2713 villages completed (total 7220)
- Murabba Stone Observation in district Karnal, Sonipat and Panipat has been completed
- Murabba Stone Observation in all other districts commenced
- Survey of India has prepared digital data of 620 villages of Karnal and Sonipat Districts after integrating revenue data/online Jamabandi data

Scanned Mussavi Of Village

Name of Village: **Galib Kheri**
 Tehsil: **Karnal**
 Distt: **Karnal**
 Scale: 1 inch= 40 karam 1:2640



Attribute List Of Villages

GALIB_KHER								
FID	Shape	Mu_Ki	Murbba_No	Kill_No	V_NAME	LGD_CODE	POLY_TYPE	AREA_GEO
0	Polygon	7_5	7	5	GALIB KHER	59026		0.753273
1	Polygon	8_5/1	8	5/1	GALIB KHER	59026		0.256606
2	Polygon	11_7	11	7	GALIB KHER	59026		0.967454
3	Polygon	5_22	5	22	GALIB KHER	59026		0.999729
4	Polygon	4_11	4	11	GALIB KHER	59026		0.470654
5	Polygon	7_20	7	20	GALIB KHER	59026		0.999398
6	Polygon	10_14	10	14	GALIB KHER	59026		0.847306
7	Polygon	1_22	1	22	GALIB KHER	59026		0.214488
8	Polygon	0_19	0	19	GALIB KHER	59026	Road	0.781056
9	Polygon	3_16	3	16	GALIB KHER	59026		0.997788
10	Polygon	5_26	5	26	GALIB KHER	59026		0.244639
11	Polygon	0_15	0	15	GALIB KHER	59026	Road	1.112661
12	Polygon	10_21	10	21	GALIB KHER	59026		0.417808
13	Polygon	7_25/1	7	25/1	GALIB KHER	59026		0.513723
14	Polygon	0_26	0	26	GALIB KHER	59026	Road	0.478922
15	Polygon	6_4	6	4	GALIB KHER	59026		0.861076
16	Polygon	6_19/2	6	19/2	GALIB KHER	59026		0.399926
17	Polygon	7_24	7	24	GALIB KHER	59026		0.889213
18	Polygon	7_26	7	26	GALIB KHER	59026		0.249898
19	Polygon	10_16	10	16	GALIB KHER	59026		0.999646
20	Polygon	0_27	0	27	GALIB KHER	59026	Road	0.609904
21	Polygon	3_22	3	22	GALIB KHER	59026		0.896709
22	Polygon	1_25	1	25	GALIB KHER	59026		0.954901
23	Polygon	6_6	6	6	GALIB KHER	59026		1.000001
24	Polygon	5_21	5	21	GALIB KHER	59026		0.87466
25	Polygon	6_13	6	13	GALIB KHER	59026		0.999888
26	Polygon	1_9/2	1	9/2	GALIB KHER	59026	Road	0.413286
27	Polygon	6_14	6	14	GALIB KHER	59026		0.999939
28	Polygon	6_19/1	6	19/1	GALIB KHER	59026		0.549914
29	Polygon	10_1/1	10	1/1	GALIB KHER	59026		0.774894
30	Polygon	10_23/1	10	23/1	GALIB KHER	59026		0.297722
31	Polygon	7_16	7	16	GALIB KHER	59026		0.924713
32	Polygon	6_22	6	22	GALIB KHER	59026		0.949817
33	Polygon	6_8	6	8	GALIB KHER	59026		0.999899
34	Polygon	10_23/2	10	23/2	GALIB KHER	59026		0.67461
35	Polygon	11_3	11	3	GALIB KHER	59026		1.00018

0 (0 out of 213 Selected)

Revenue data as per SOI

#	Murabba	Killa	OwnerName	LandType	Ownername	Kanal	Marla
1	0	20	ग्राम पंचायत देह।	चाही नहरी	Gram Panchayat Body.	3	19
2	0	21	ग्राम पंचायत देह।	चाही नहरी	Gram Panchayat Body.	1	19
3	0	23	ग्राम पंचायत देह।	चाही नहरी	Gram Panchayat Body.	1	13
4	1	12/1	ध्यान सिंह	चाही नहरी	Meditation	3	3
5	1	12/1	अनोख सिंह	चाही नहरी	Anokh Singh	3	3
6	1	12/1	मोहर सिंह	चाही नहरी	Mohar Singh	3	3
7	1	12/1	जोगा सिंह	चाही नहरी	Joga Singh	3	3
8	1	12/1	जरनेल सिंह	चाही नहरी	Jarnail Singh	3	3
9	1	12/1	गुरनाम सिंह	चाही नहरी	Gurnam Singh	3	3
10	1	12/1	शिशुा सिंह	चाही नहरी	Shisha Singh	3	3
11	1	12/1	अनोख सिंह	चाही नहरी	Anokha Singh	3	3
12	1	12/1	खुशप्रीत सिंह	चाही नहरी	Khushpreet Singh	3	3
13	1	12/1	महल सिंह	चाही नहरी	Mahal Singh	3	3
14	1	12/1	शीशा सिंह	चाही नहरी	Sheesha Singh	3	3
15	1	12/1	बलविन्द्र	चाही नहरी	Balvindra	3	3
16	1	12/1	केहर सिंह	चाही नहरी	Kehar Singh	3	3
17	1	12/1	दलीप सिंह	चाही नहरी	Dalip Singh	3	3
18	1	12/1	अनोख सिंह	चाही नहरी	Anokh Singh	3	3
19	1	12/1	सुखविन्द्र कौर	चाही नहरी	Sukhwinder Kaur	3	3
20	1	12/1	सिमरजीत कौर	चाही नहरी	Simarjeet Kaur	3	3
21	1	12/1	कर्मजीत कौर	चाही नहरी	Karmajit Kaur	3	3
22	1	12/1	सुखविन्द्र सिंह	चाही नहरी	Sukhwinder Singh	3	3
23	1	12/1	दलीप सिंह	चाही नहरी	Dalip Singh	3	3
24	1	12/1	निर्मल सिंह	चाही नहरी	Nirmal Singh	3	3
25	1	12/1	सुखविन्द्र सिंह	चाही नहरी	Sukhwinder Singh	3	3
26	1	12/1	दलीप सिंह	चाही नहरी	Dalip Singh	3	3
27	1	12/1	गुरमीत कौर	चाही नहरी	Gurmeet Kaur	3	3
28	1	12/1	गुरविन्द्र सिंह	चाही नहरी	Gurvindra Singh	3	3
29	1	12/1	कंवलजीत कौर	चाही नहरी	Kanwaljeet Kaur	3	3
30	1	12/1	गुरचरण सिंह	चाही नहरी	Gurcharan Singh	3	3
31	1	12/1	दलीप सिंह	चाही नहरी	Dalip Singh	3	3
32	1	12/1	सरजीत कौर	चाही नहरी	Sarjeet Kaur	3	3
33	1	12/1	दलीप सिंह	चाही नहरी	Dalip Singh	3	3
34	1	12/1	अनोख सिंह	चाही नहरी	Anokh Singh	3	3
35	1	12/1	गुरकिरत सिंह	चाही नहरी	Gurkirat Singh	3	3
36	1	12/1	गुरनाम सिंह	चाही नहरी	Gurnam Singh	3	3

Revenue data as per State records

Comparison Of Area Of SOI Data And Revenue Data

Column1	OWNER NAME IN HINDI	LAND TYPE	REVENUE DATA		SOI DATA		DIFFERENCE	
			AREA IN KANAL	AREA IN MARLA	AREA IN KANAL (SOI)	AREA IN MARLA (SOI)	DIFF. IN KANAL	DIFF. IN MARLA
0_49/3/2	सिविल पंचायत देह	चाही	6	17	6	9	0	-8
1_25	बलिन्द्र सिंहदरवारा सिंहसोरण	चाही	0	1	0	1	0	0
10_1/1	शीशपालधर्म सिंहसोरण	चाही	5	18	5	18	0	0
10_1/2	धर्म सिंहसोरणबखतावर	चाही	2	2	2	2	0	0
10_10	ऋषिपालधर्म सिंहसोरण	चाही	8	0	8	0	0	0
10_11	सोरणधर्म सिंहऋषिपाल	चाही	8	0	8	0	0	0
10_12	ऋषिपालधर्म सिंहसोरण	चाही	8	0	8	0	0	0
10_13	करम सिंहसोरणसोरणसुरेश कुमारओमप्रकाशहरिचन्द नरेश कुमारओमप्रकाशहरिचन्द अर्जुनमिथेशरविन्द्रसुरेन्द्र कर्म सिंहदाखो देवीकर्म सिंह	चाही	8	0	8	0	0	0
10_14	कर्म सिंहदाखो देवीकर्म सिंहसुरेन्द्ररविन्द्रमिथेशअर्जुनहरिचन्दओमप्रकाशन रेश कुमारहरिचन्दओमप्रकाश सुरेश कुमारसोरणसोरणकरम सिंह	चाही	8	0	8	0	0	0
10_15/2/2	करम सिंहसोरणसोरणसुरेश कुमारओमप्रकाशहरिचन्द नरेश कुमारओमप्रकाशहरिचन्द अर्जुनमिथेशरविन्द्रसुरेन्द्र कर्म सिंहदाखो देवीकर्म सिंह	चाही	6	16	6	16	0	0
10_16/2/2	सिविल पंचायत देह	चाही	6	8	6	8	0	0
10_2/1	बखतावरसोरणधर्म सिंह	चाही	2	1	2	0	0	-1

Mosaicing of Villages – and example

District: Karnal

Tehsil: Karnal



Hemda

Shahpur

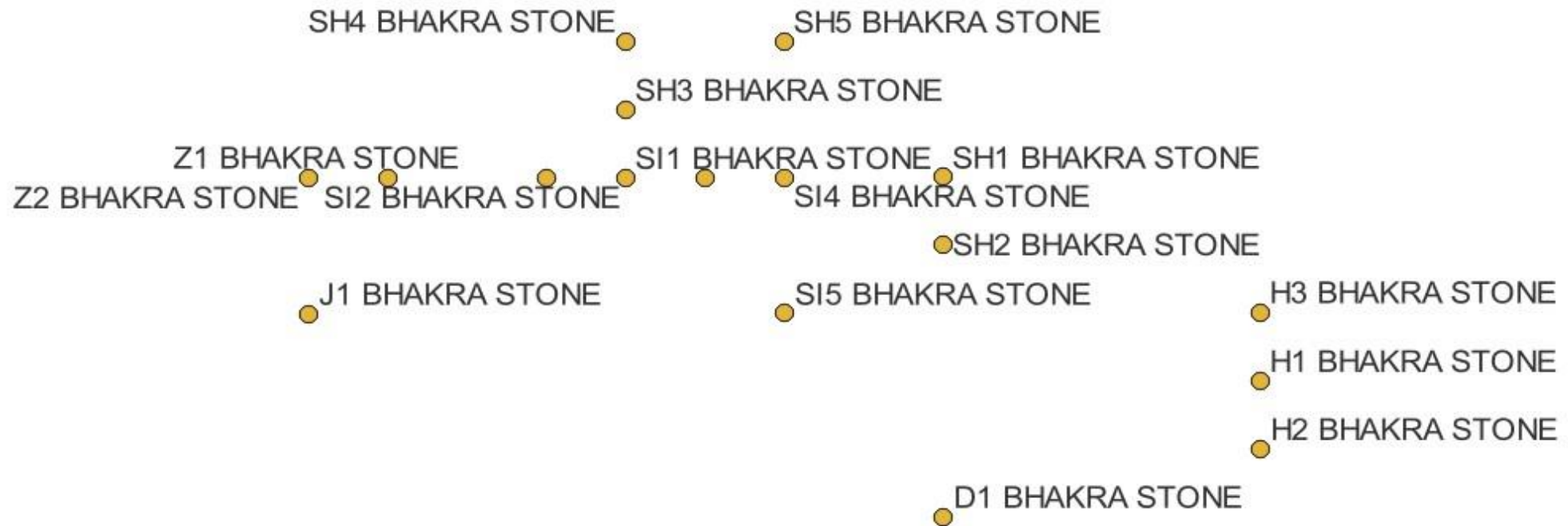
Sirsi

Chirao

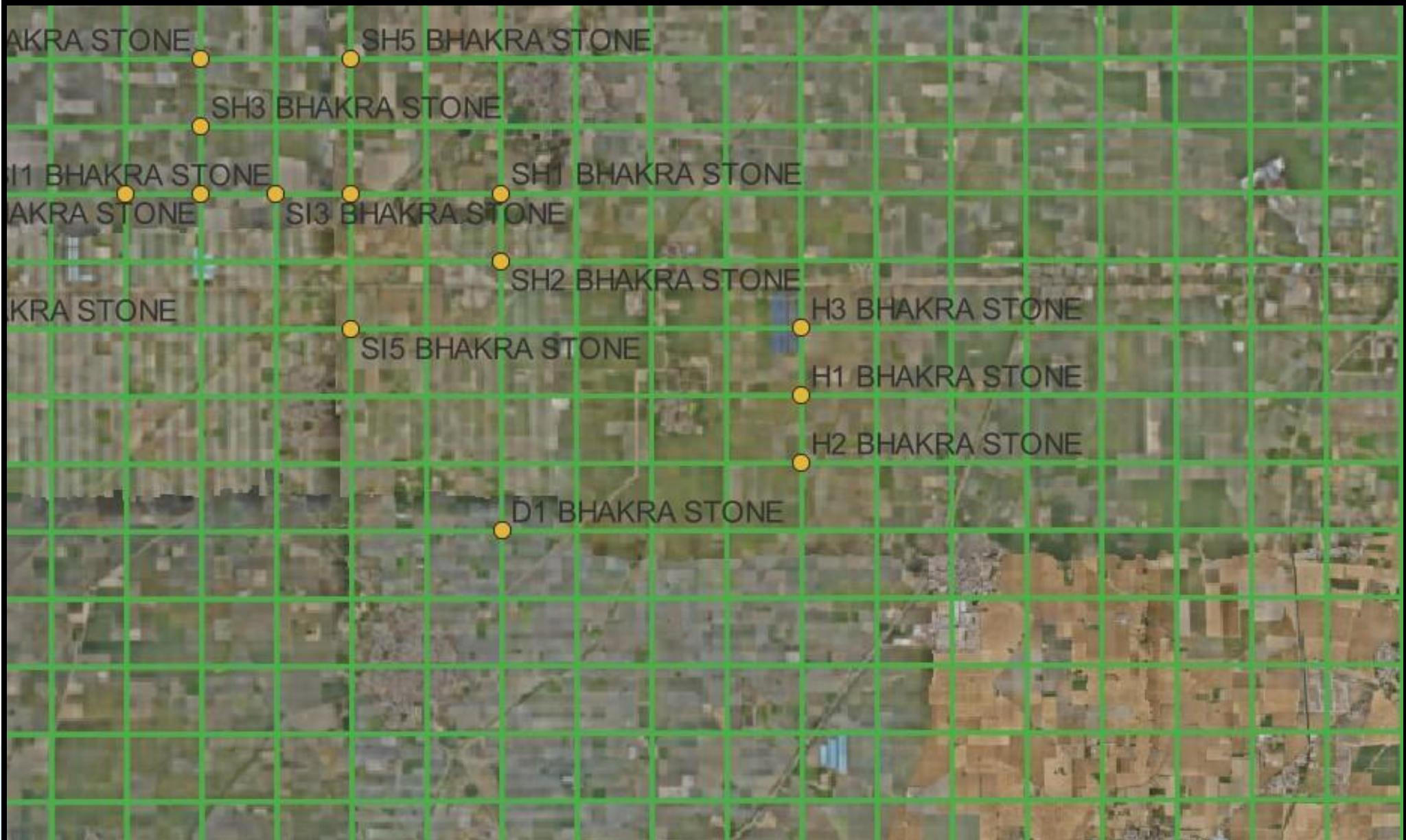
Dadupur Roman

Murraba Stone Observation

17 Murabba stones available on ground



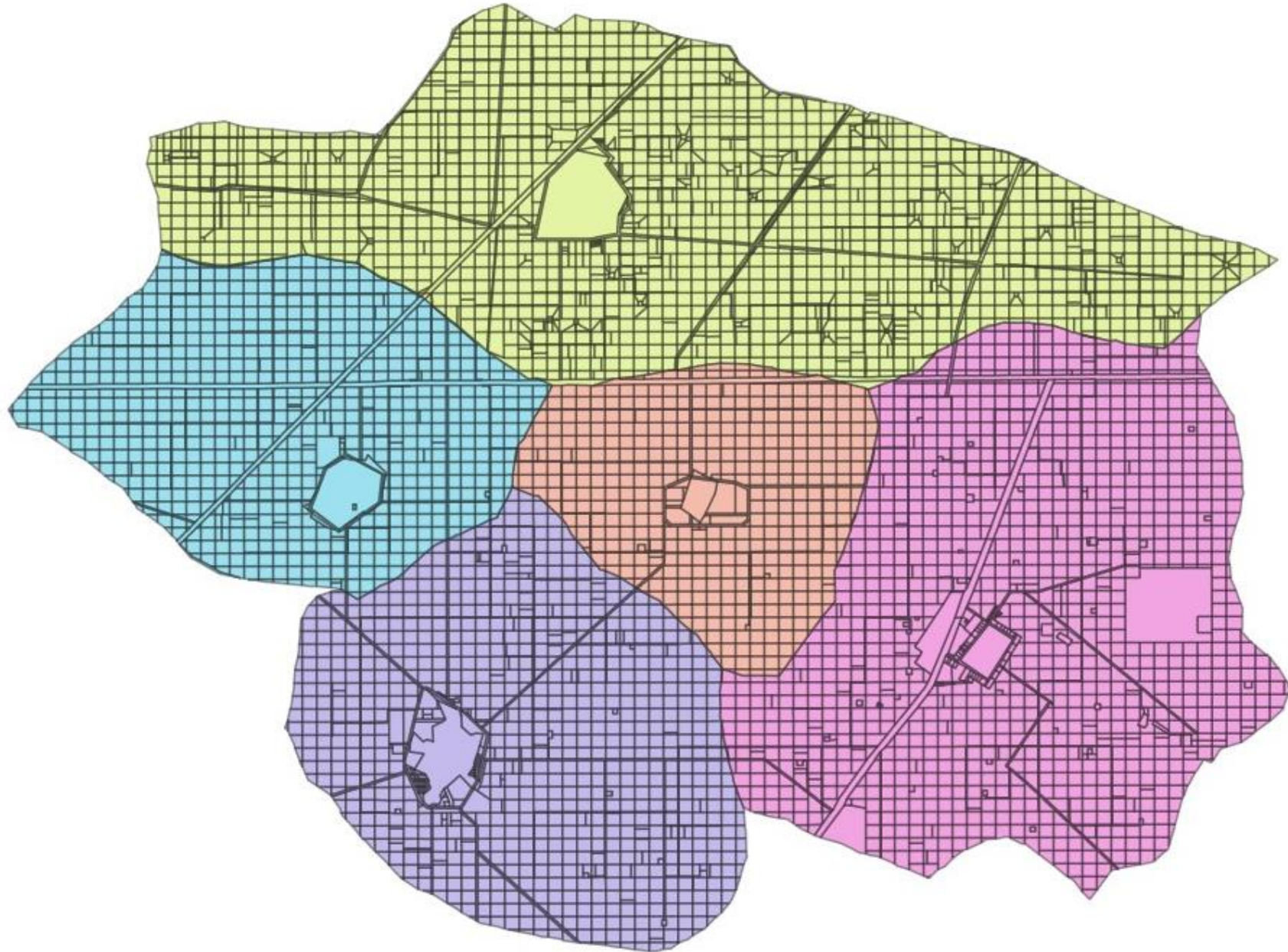
Adjusted Grid On Murabba Stone



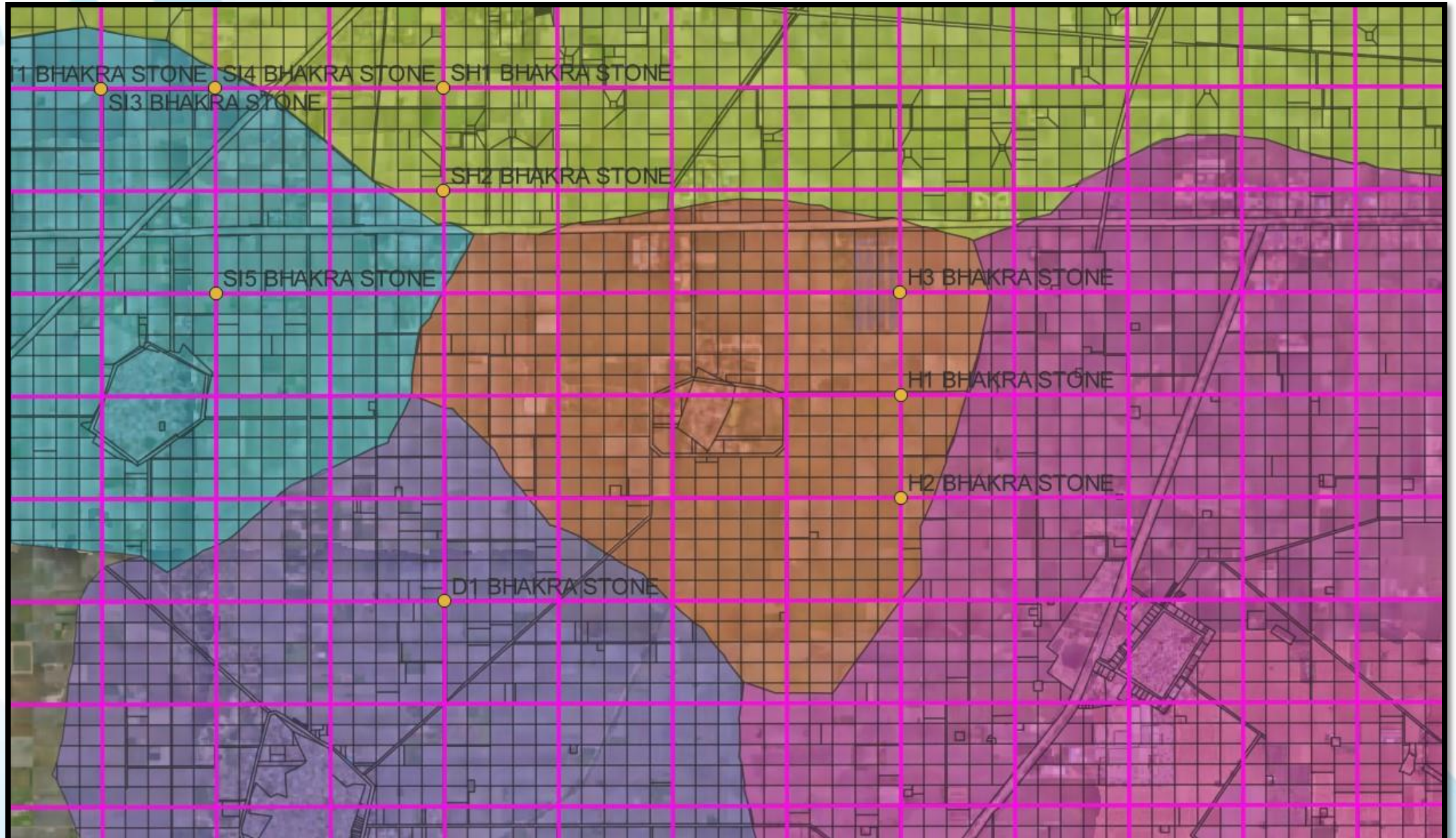
Variation In Murabba Stone

S.no	VILLAGE MO	DISTRICTS	Distance from nearest vpoint in grid(in m)
1	D1 BHAKRA STONE	Karnal	0.573
2	H1 BHAKRA STONE	Karnal	0
3	H2 BHAKRA STONE	Karnal	0
4	H3 BHAKRA STONE	Karnal	0
5	J1 BHAKRA STONE	Karnal	0.392
6	SH1 BHAKRA STONE	Karnal	0.133
7	SH2 BHAKRA STONE	Karnal	0.224
8	SH3 BHAKRA STONE	Karnal	0.196
9	SH4 BHAKRA STONE	Karnal	0
10	SH5 BHAKRA STONE	Karnal	0.354
11	SI1 BHAKRA STONE	Karnal	0.293
12	SI2 BHAKRA STONE	Karnal	0.144
13	SI3 BHAKRA STONE	Karnal	0.227
14	SI4 BHAKRA STONE	Karnal	0.256
15	SI5 BHAKRA STONE	Karnal	0.177
16	Z1 BHAKRA STONE	Karnal	0.589
17	Z2 BHAKRA STONE	Karnal	0

5 Village Adjusted via Mosaicing



Villages Fitted On Grid

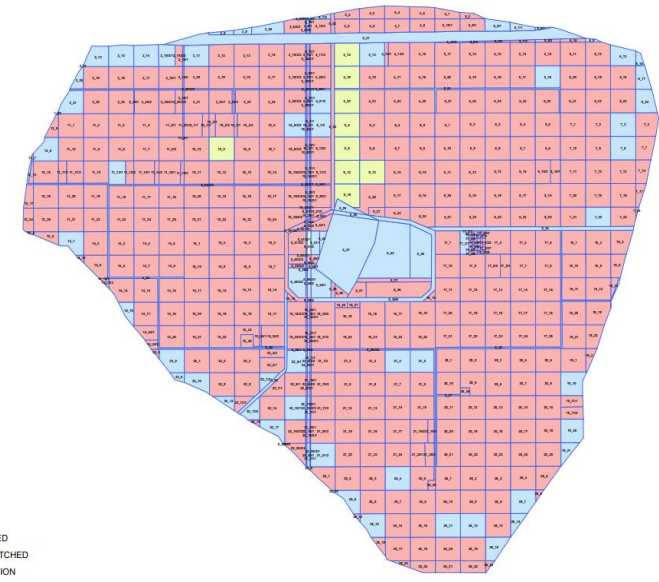
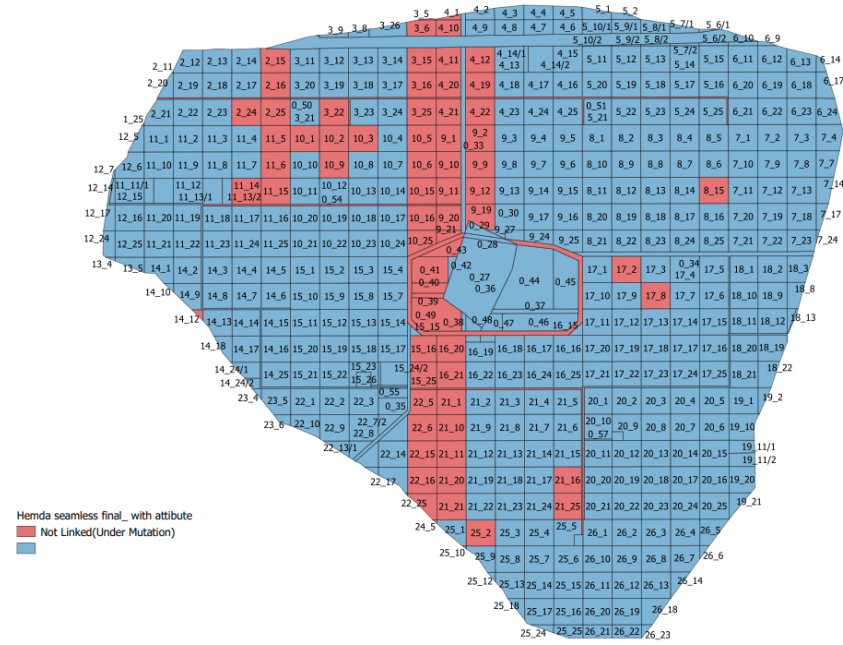


Area variation

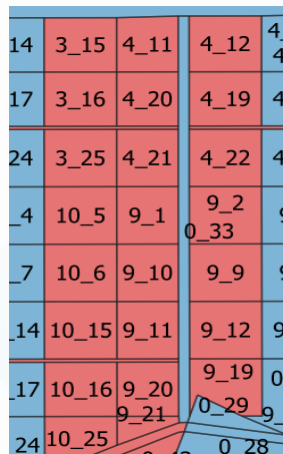
Area comparision

S.no	Name of Village	Area (as per revenue) (acres)	Area (as per SoI) (acres)	Difference	Percentage variantion
1	Hemda	407.775	407.8	0.025	0.0061
2	Sirsi	641.15	641.813	0.663	0.1034
3	Dadupur roman	774.36	774.6476	0.2876	0.0371
4	Chirao	1149.83	1149.1399	-0.6901	-0.0600
5	Shahpur	1281.13	1280.23	-0.9	-0.0703

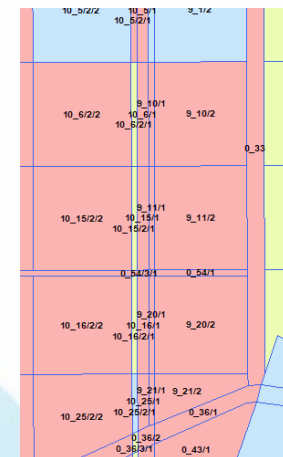
Mutation And Partitioning Of Shares



BEFORE MUTATIONS (TATIMA)



AFTER MUTATIONS (TATIMA)



Digital cadastral Map, Geo Referenced, RoR Linked

Email: Inbox (2616) x Help Desk x BhuNaksha x +

← → ↻ Not secure | 10.145.24.193:8081/bhunaksha/06/index.jsp ☆

BhuNaksha 24//9 Georeferenced Map Login

692053.22690, 3143287.33351

Home

Location

State: Haryana ▾
District: 05 Gurgaon ▾
Tehsil: 116 Manesar ▾
Village: 04132 Badha(062908) ▾

Plot Info

Area: Kanal Marla
Owner Name: श्री मती राजबाला बिधवा व प्रीति पुत्री व चरनसिंह पुत्र जगजीतसिंह पुत्र मातादीन हर तीन समभाग वासीदेह
[Map Report](#)

District : 05 Gurgaon, Tehsil : 116 Manesar, Village : 04132 Badha(062908)

Copy of digital Land Parcel Map



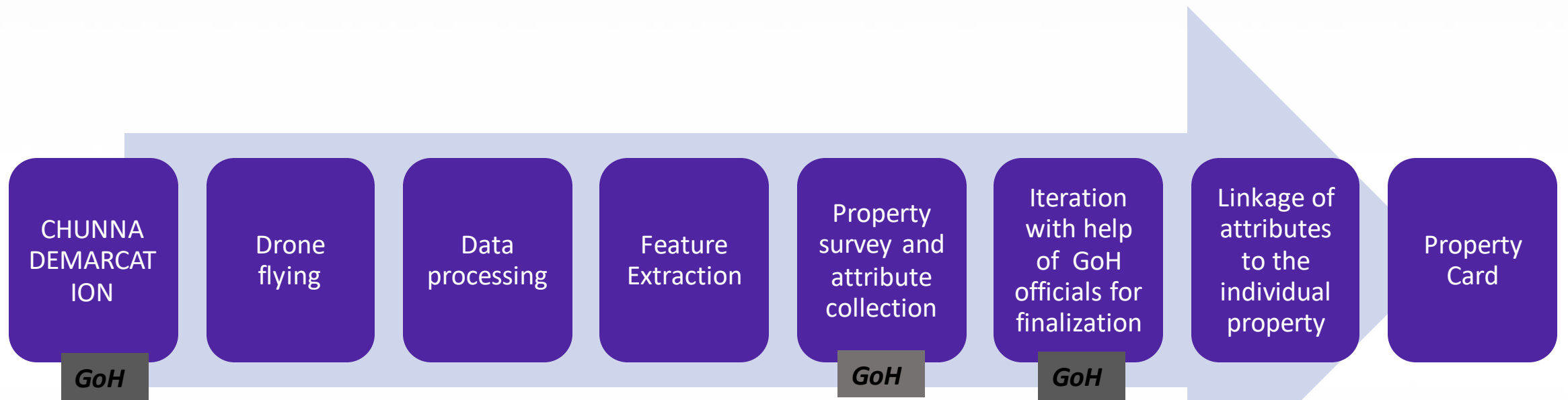
BENEFITS OF LSM PROJECT

- Helps in the accurate demarcation of Land, Detection of Change, identification of encroachments, uniquely identification of each land and property, accurate urban planning and issue of an updated copy of land parcel map with Record of Rights
- Provides faster access to records affecting individual rights, especially the land titles.
- Clarifies the boundaries of areas restricted by zoning, wetland restrictions, pollution controls or other user controls.

SVAMITVA

- 6259 villages were declared Lal Dora free as on 11th July 2023
- Drone mapping and data processing completed in all 6260 Lal Dora Villages
- 25,16,702 property titles conclusively finalised
- 24,35,603 property cards distributed in 6259 villages and these titles have been linked with Parivar Pehchan Number (PPN).
- 51 such properties have also been sold by their owners, after receiving title deeds by the registration process
- Moreover, 136 loans have been sanctioned and disbursed to the beneficiaries by various Banks/NBFCs, by keeping such properties as collateral

Work Flow For SVAMITVA



Feature Extraction: Overview

□ Feature Extraction is the process of converting ground feature into a digital format (i.e. vector data).

• Feature to be extracted in Abadi Area :

1. Residential(Build up and open area)
2. Roads
3. Waterbody
4. Any other feature as required



Input required for Feature Extraction

- Chunna demarcation of Lal Dora boundary is to be done by District Administration.
- Chunna demarcation of property(land) to define the individual owner property
- ORI clearly showing Lal Dora boundary after data processing.



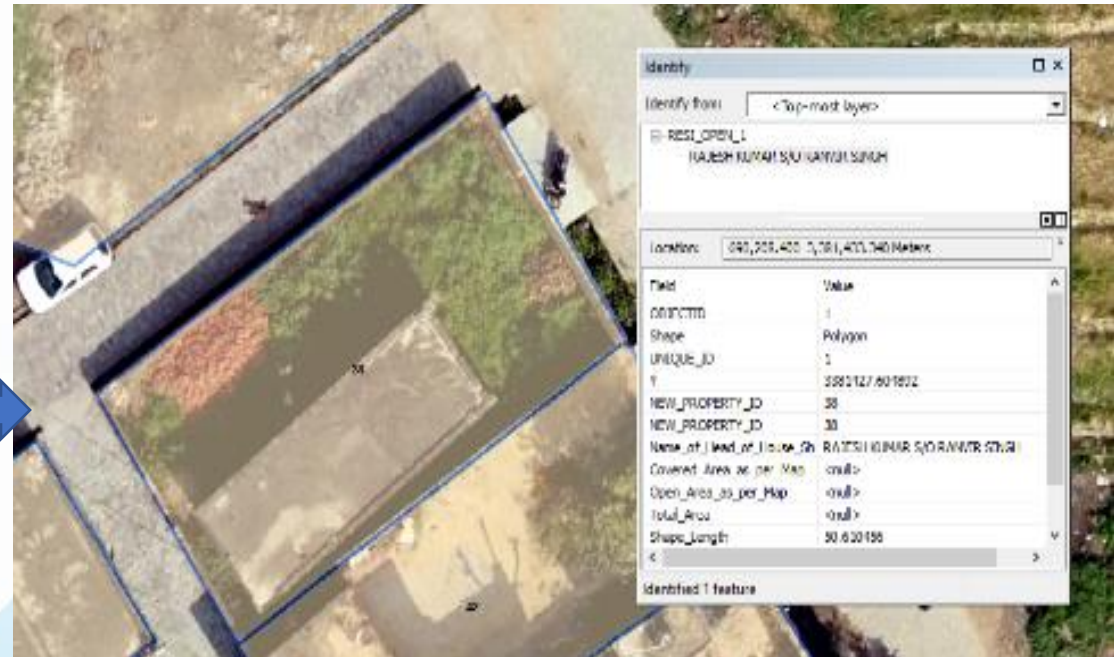
Process Involved in Feature Extraction

- Digitization of the Abadi area boundary with the help of chunna demarcated
- Digitization of built-up area ,open area and Roads feature on basis of building/Road edges and chunna as visible in ORI within abadi area Boundary
- Labelling each polygon by temporary unique Id
- Draft map of lal dora area is prepared and sent to district administration for property identification & attribute collection.



PROPERTY SURVEY

- This activity shall be done by District administration of the state
- Polygons should be identify in order to make a single Complete Property
- Attribute as decided by State shall be collected by District Administration

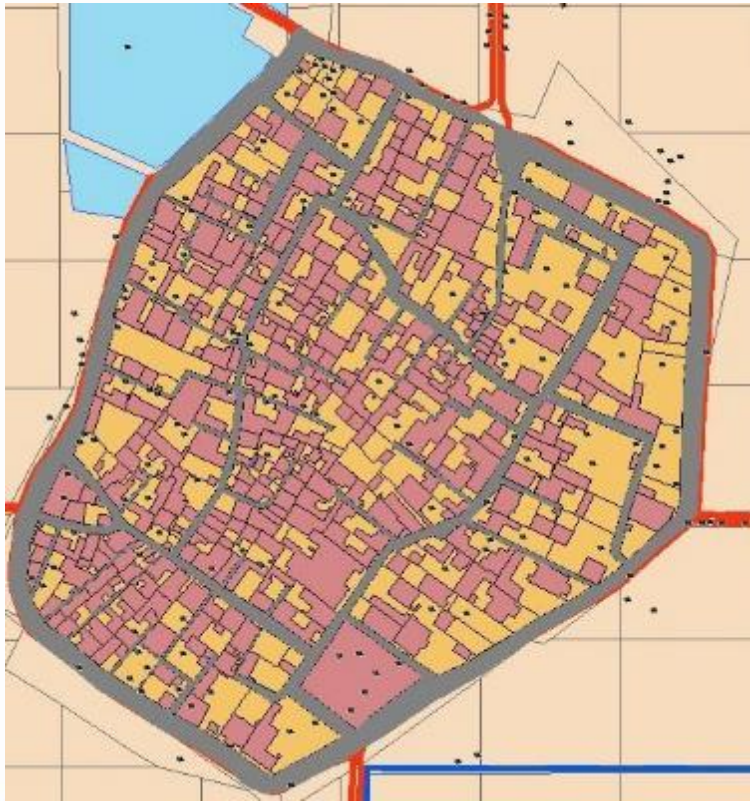


Survey of Gram Panchayat Sirsi, Block Nissing Distt. Karnal (Format- I)

Sr. No.	ID No.	Name/ Type of Property	Owner of Property	BPL Yes/ No	Social Benefits					Drinking Water Connection Yes/ No	House H Toilett Yes/ N
					Old Age Pension (Name)	Widow Pension (Name)	Disability Pension (Name)	PMAY/ IAY House	MGGBY Plots (Yes / No)		
2	93	B7- Rly	By the Purnan chand S/o	No	No	- from Puri	No	No	No	Yes	Yes

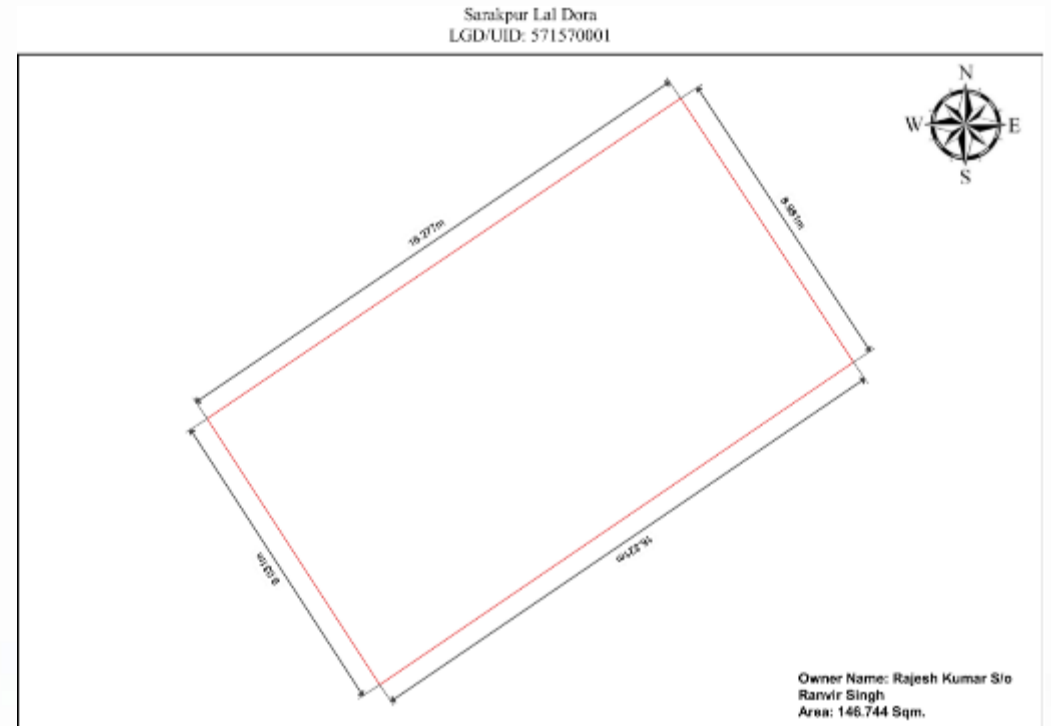
Feature Extraction: 2nd Stage

Editing of the vector data (lal dora) in collaboration with the district administration in order to make a single property



Feature Extraction: 2nd Stage

- Calculation of Total Area, Built up area & Open Area
- Plot showing IDs and Dimension of each land parcel
- Again sent to District Administration for displaying in Gram Sabha for objections, suggestions and data validation.

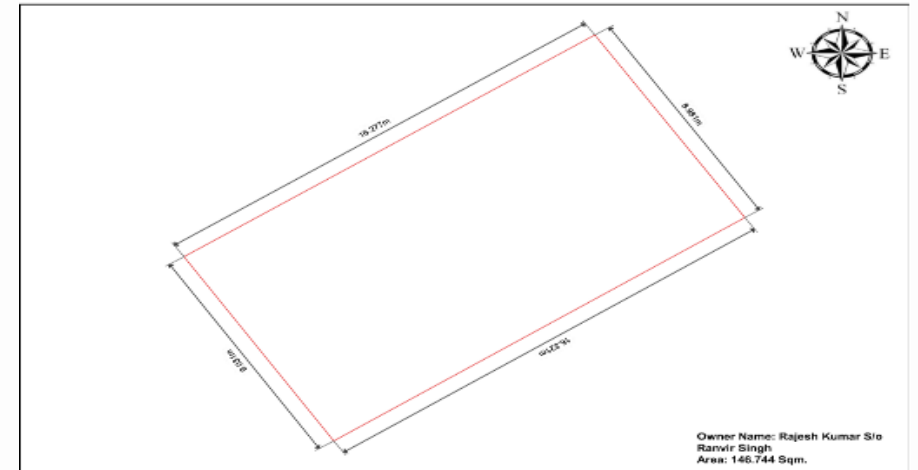


Final land parcel map

Sarakpur Lal Dora Draft Map



Sarakpur Lal Dora
LGD/UID: 571570001



LGD/UID	Feature ID	Old Property ID	Owner Name	Total Area (Sqm.)	Builtup Area (Sqm.)	Open Area (Sqm.)
571570001	1	38	Rajesh Kumar S/O Ranvir Singh	146.744	37.161	109.584
571570002	2	43	Pawan Kumar S/O Balla Ram	212.238	114.807	97.431
571570003	3	120	Shital Singh S/O Jai Singh	333.695	202.558	131.137
571570004	4	191	Pawan Kumar S/O Ranjit Singh	250.290	250.290	0.000
571570005	5	224	Subash S/O Sapatar Singh	459.987	40.718	419.269
571570006	6	245/1	Labh Singh S/O Jamadar Singh	268.268	0.000	268.268
571570007	7	210	Rajkumar S/O Ajmat Singh	298.461	194.727	103.734
571570008	8	280	Gyan Singh S/O Jamadar Singh	366.092	189.132	176.961
571570009	9	123	Shiv Mandir	18.330	18.330	0.000
571570010	10	299	Dharpal S/O Picha Singh	124.555	85.643	38.912
571570011	11	289	Sanjeev Kumar S/O Satpal	202.275	136.810	65.465
571570012	12	256/1	Jagpal S/O Amar Singh	204.711	154.772	49.939
571570013	13	187	Hukkam Singh S/O Mukhtar Singh	118.487	118.487	0.000

PROPERTY CARD

Format Property Card
मूद्रा सम्पत्ति कार्ड

District (जिला)		Tehsil (तहसील)		Block (ब्लॉक)		Gram Panchayat (ग्राम पंचायत)		Village LGD Code (ग्राम कोड नाम)		Survey Year (सर्वेक्षण वर्ष)		Document No. (दस्तावेज सं.)	
मुक्तेशपुर		सोहना		सोहना		बाई खेड़ा		बाई खेड़ा: 029585		2020		XXXXXXXXXX	
1. Aabadi Deh Number (आबादी देह संख्या)		2. Property Unique ID No. (यू-आयडी संख्या)		3. Property Classification (सम्पत्ति वर्गीकरण)		4. Area of property (in sq.m.) (यू-आयडी का क्षेत्रफल - वर्ग मीटर में)		5. Dimension (in m) (आयतन)		No. of Sides (पुस्तकों की संख्या)		Length of Sides (पुस्तकों की लंबाई)	
135		029585XXXXXXXXL007A		3.1 Type (श्रेणी) (निवासी/व्यावसायिक)&P		3.2 Sub Type (उप श्रेणी) (सकान/मकान)-HO		161.23		4		4.23, 31.7, 31.22, 4.61	
6. Owner's Names (यू-स्वामी के नाम)		7. Father/Mother/Husband/Wife Name (पिता/माता/पति/स्त्री का नाम)		8(a). Aadhar Number of Owner (यू-स्वामी का आडर नंबर)		8(b). PPP ID of Owner (परिवार पहचान पत्र संख्या)		9. Address of Owner (यू-स्वामी का पता)		10. Share of Owner (यू-स्वामी का हिस्सा)		11. GP Resolution No. and Date (ग्राम पंचायत संख्या एवं तिथि)	
रमू		रमू जाल		XXXXXXXXXXXX		XXXXXXXXXX		ग्राम		1/3		1/2020 : 2020-09-01 00:00:00	
12. Remark (टिप्पणी)													
Assistant Record Officer (सहायक अभिलेख अधिकारी)													
13. Printed Date (मुद्रित तिथि)		14. Place of Issue (जारी करने का स्थान)		15. QR Code (QR कोड)		Digital Signature (डिजिटल हस्ताक्षर)							

*यदि उत्तर सम्पत्ति मासिक माहों को उपरोक्त सम्पत्ति को सम्बंधित तहसील एवं सब रजिस्ट्रार कार्यालय में पंजीकृत करना सक्ता है।

Format Property Card
मूद्रा सम्पत्ति कार्ड

Property Sketch

North
(029585XXXXXXXXR003A)
(श्री रामेश्वर पुत्र बंधी)

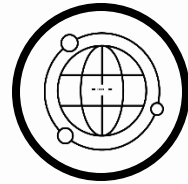
West
(029585XXXXXXXXL006B)
(श्री रामेश्वर पुत्र बंधी)

East
(029585XXXXXXXXL008A)
(श्री राम प्रसाद पुत्र सुरेश)

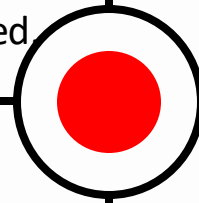
South
(029585XXXXXXXXX0001R)
(रमू)

WEB-HALRIS

Replacing Client Server Architecture, Web Based Integrated Deed Registration and Land Record system Web-Halris was conceptualized. Development Started



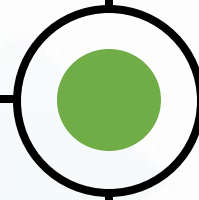
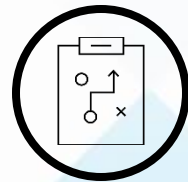
Started



2017

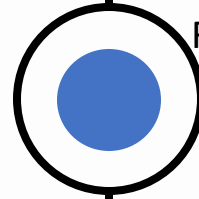
Migration to Web-Halris

In house tools were developed to Migrate Data from LegacyDB to New RDBMS, enforcing constraints, business rules of WebHalris. All 143 tehsils migrated to WebHalris.



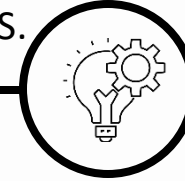
2018-2020

2020-2021



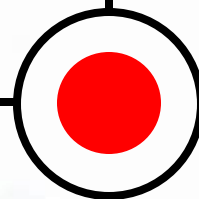
Integration with Urban Properties

New Urban and Rural integrated Online Appointment portal developed. Integration done with ULB (MC's), HSVP, HSIIDC, Housing Board, HSAMB, TCP for 7A Areas, LMS, Revenue Courts in addition to existing Land Records and IFMS.



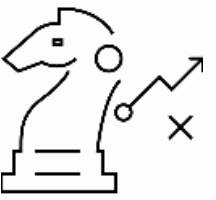
Web-Halris

Webhalris is now an integrated Deed Registration and Land Record Management System, having integration for both Rural and Urban Properties, MFMB, and also serves Land Records via Mutation, Jamabandi, Girdawari, Crop Damage, PM Kisan etc..

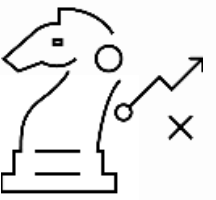


2021

Web-HALRIS



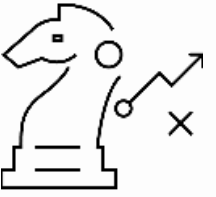
- Web enabled integrated solution for property registration and land records management.
- Major modules included
 - Deed Registration
 - Record of Rights (Jamabandi)
 - Automated Mutation
 - Web enabled crop inspection (Khasra Gridawari)
 - Reports to citizen via Dashboard
- Implemented in all the 143 Tehsils/Sub-Tehsils.



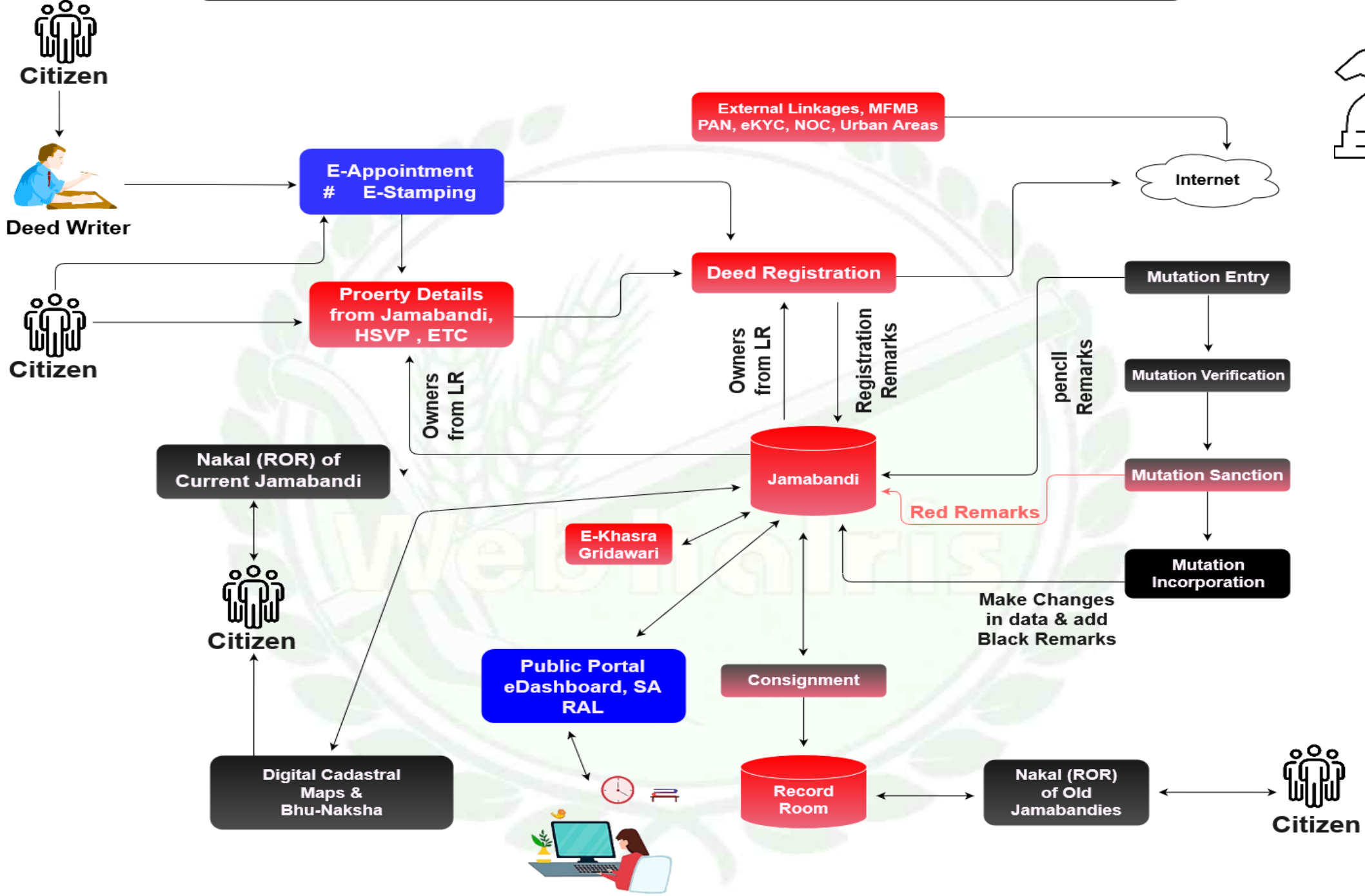
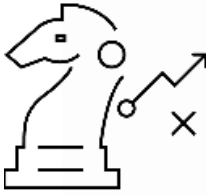
Need for Web-HALRIS

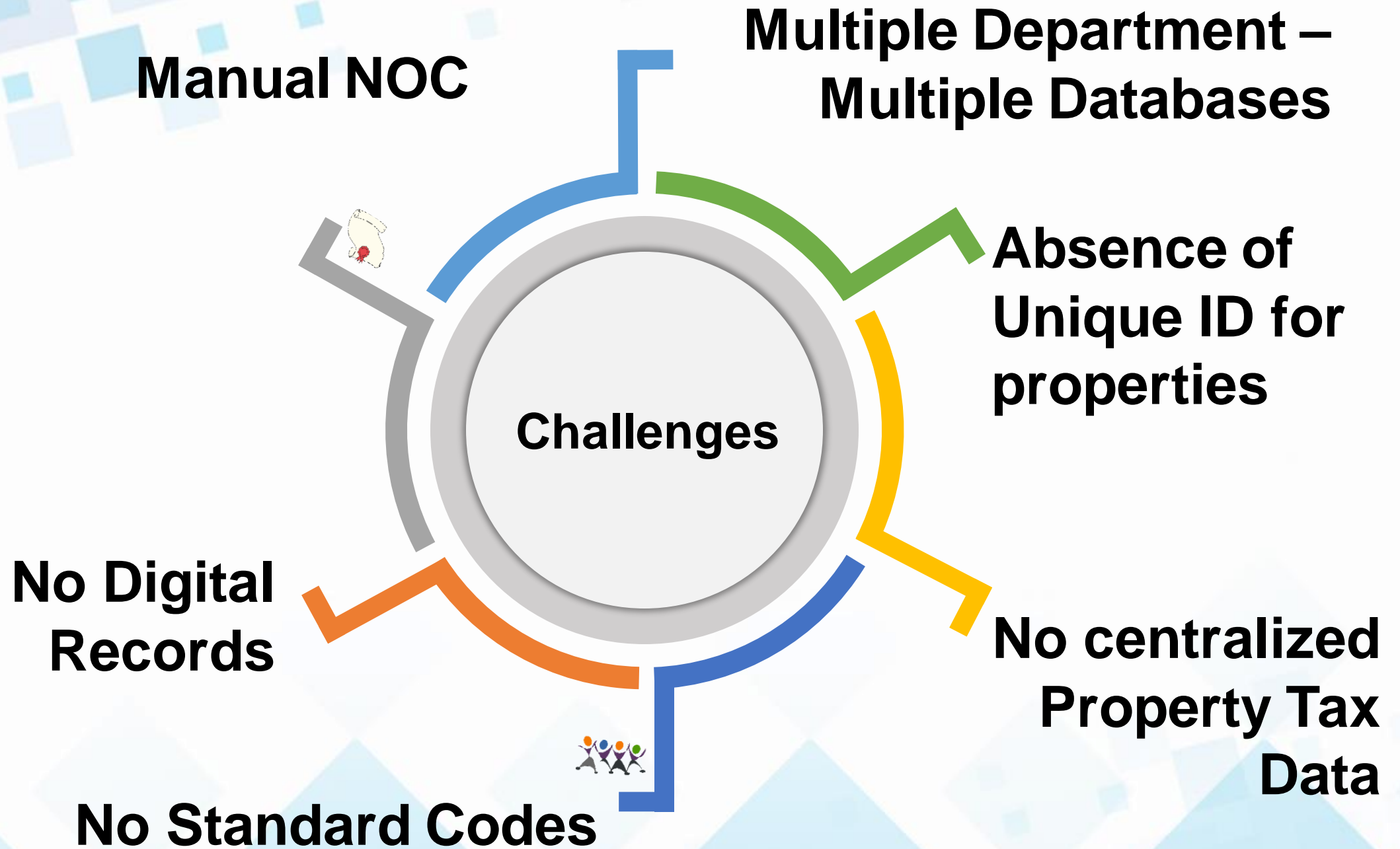
- Deed Registration and land Records system were client/server based. Management of client/server software is very tedious.
- Difficult to maintain the version control of the software.
- Data was residing at Tehsil/Sub-Tehsil level only.
- Security and backup of such a large database at Tehsil level was big issue.
- Integration with other Department was not possible.
- Sharing of Land Records with other Departments not possible.

Web-HALRIS Features



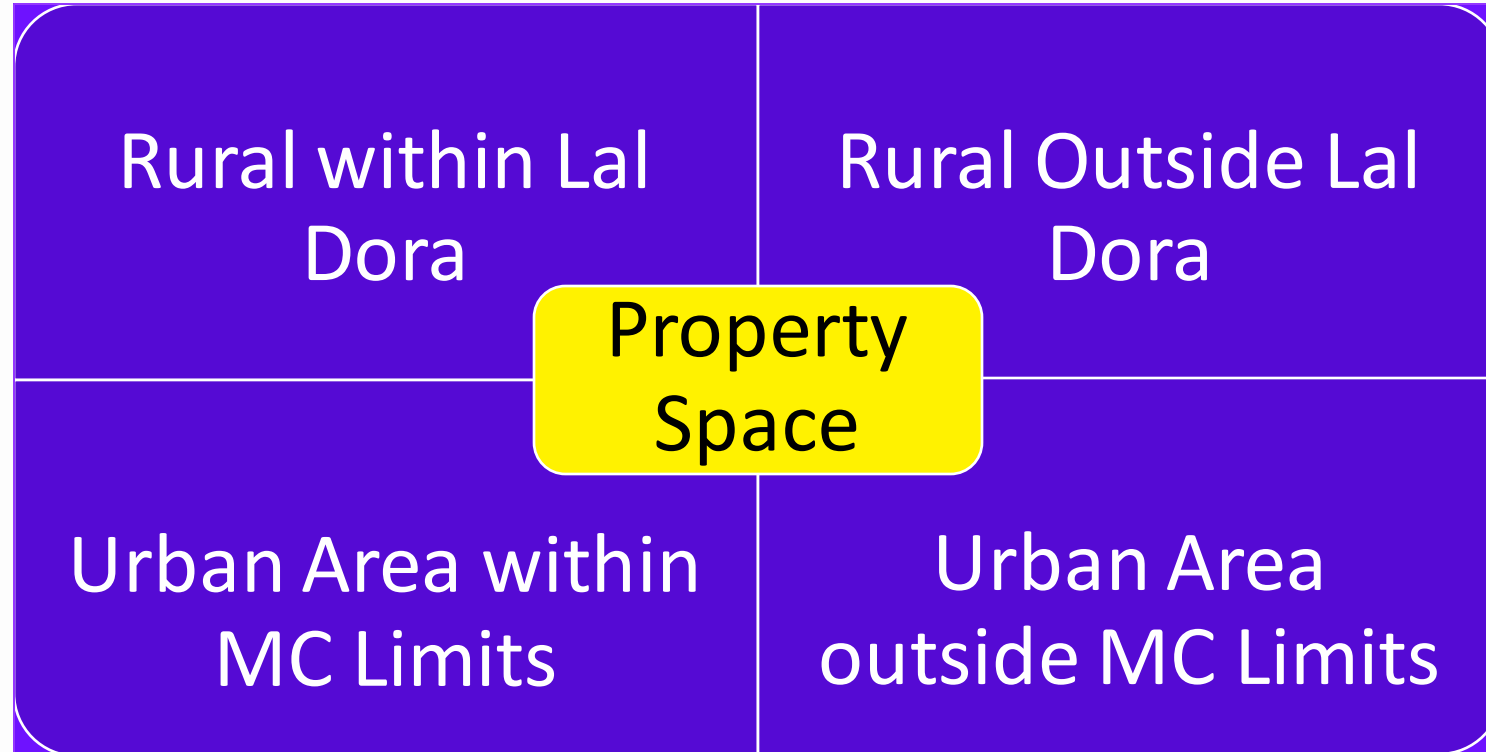
- Integration with e-GRAS for online generation and defacement of Stamps
- Completely online appointments for Deed Registration
- Integration of Deed Registration and land Records
- Integration of Deed Registration with Urban property Records
- Online Automated Mutations
- Preparation of New Jamabandi every 5 years
- Integration with the mobile app for Khasra Gridawari
- Online dashboard





Strategies Adopted

- Entire property space is divided into four categories



- Mapping of Villages and localities on the basis of above given categories.

Strategies Adopted

- Uniform protocol for assigning unique property IDs
- ULB property tax data made available on centralized platform
- ULB and TCP public portals to resolve data discrepancies and digitization
- Digitization of the land records of Forest lands
- Digitization of the acquired lands and those under litigation
- Integration with the Revenue Courts.

Deed Registration Process Re-engineered

- e-Appointment only! via Revenue department website - no physical appointments
- Provision of online Tatkal Appointments
- Standard Deed Templates provided online for 22 type of deeds
- Deed Registration System Integrated with e-GRAS (online e-stamp system)
 - Pay stamp duty using online methods - generate e-stamp anywhere, anytime
 - Real time verification of e-Stamp and Government Receipt Number (GRN) number from e-GRAS server
 - Defacement of the e-Stamp and GRN number after the deed registration.

Sample Appointment

Government of Haryana
Department of Revenue and Disaster Management
Sub Registrar Office, Thanesar

Dated: Jul 18, 2019

Time: 09:48:41

Appointment Slip

Shri / Smt.
rampal
उमरी
Thanesar, Kurukshetra

N



Subject: Appointment for registration of SALE Deed

As requested by you regarding registration of **SALE** deed, your appointment has been scheduled with following Details:-

Token No: 32 **Appointment No:** 07115072019105128000
Date & Time: Jul 15, 2019 11:42 **Appointment Type:** Normal
Delivery Address: N/A

Appointment Fee & Charges (Incl. Tatkal if any)			Stamp Details			
Appointment Fee	Postage	Total	Type	Stamp No	Issue Date	Value
Rs.10.00	Rs.0.00	₹ 10.00	E-Stamp	10o2019g2	15-Jul-19	₹ 446000.00

Please bring the following documents to prove your identity in support of your Deed.

ID Proof:
Driving License

ID Number:
28443

Authorized Sign

Deed Registration – Additional Features

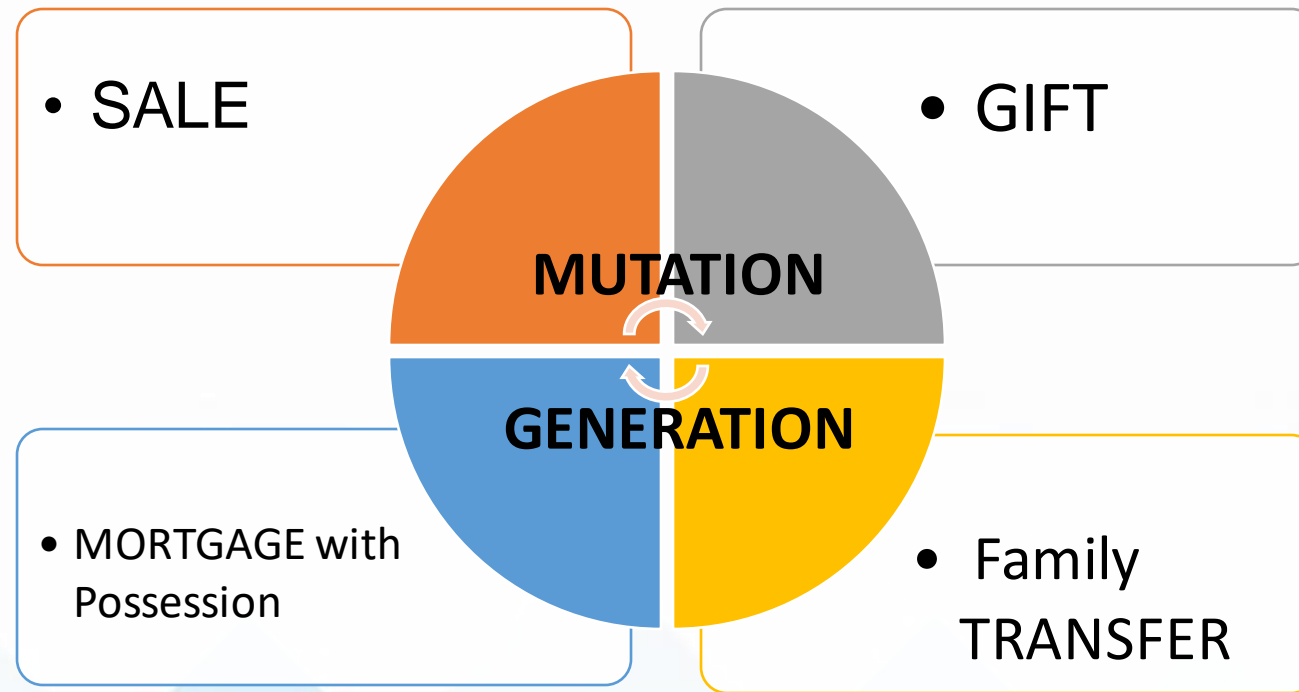
- Parties visit concerned Tehsil/Sub-Tehsil (SDMs, DROs also)
- Same day delivery of Registered Deeds as per RTSA
- Linkages via APIs
 - Online PAN Verification with NSDL Portal
 - Integration with Town and Country Planning Department to verify the NOC issued for Controlled Area
 - Integration with Urban Property Records
 - Various departments - need to verify transfer permissions and NOCs
 - Clearance on pending dues (property tax, development charges etc.)

Integrated Deed Registration System



Automated Mutations

Applicable on 4 most common type of Deeds



Process Flow of Mutation Generation

**Mutation
Generated**

**Verified by
Patwari**

**Verified by
Kanungo**

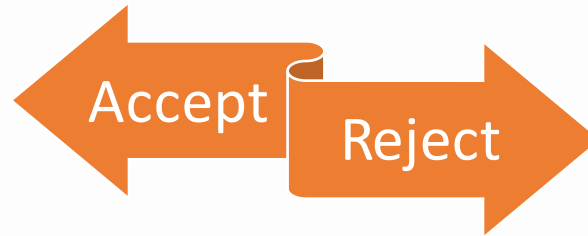
**Objection
resolution by
CRO
(if any)**

**Sanctione/
Contested
declaration
by CRO**

Mutation Options with CRO on Objection

Accept Objection & Contest

On checking objection reason, CRO accepts the objection and declare the mutation Contested.



Reject Objection & Sanction

If CRO doesn't find reason valid, he can reject objection and sanction the mutation

System prompts to Generate Mutation Entry as soon as Deed is registered

District

Panchkula [13]

Tehsil

Panchkula [079]

Deed Name

CONVEYANCE

SubDeed

CONVEYANCE URBAN AREA WITHIN MC

Appointment No

07905072023105807000

First Party Detail

Pcode	Name	Mobile No.	Address
0101	HSVP PKL		PKL

Owner Details of First Party

Second Party Detail

Pcode	Name	Relation	Mobile No.	Proxy Code	Proxy Name	Address	PShare
0201	RADHE SHYAM SHARMA	पुत्र[01]		SELF		PKL	100
0201	TARA CHAND SHARMA	पिताजी[17]				PKL	0

Regularize and Generate Mutation

Village, Period, Source, DeedType, Mobile no is picked from Deed

District

Kurukshetra [11]

Tehsil

Thanesar [071]

Village

Salpani khurd [05577]

Period

2021-2022

Mutation Status

Entry

Mutation Date

11-10-2022

Source

Mutation thru Registration [01]

Type

बै बरूये [01]

Mobile

9416709380

Email

Registration deed number, Book, date, Amount are fetched from Deed.

Registration Detail

Registration No.
1838

Book No.
1

Registration Date
06-06-2022

Amount.
537500

[Save](#) [Save & Next](#)

Draft Mutation Print



रजिस्टर इंतकाल



गांव : Ghamur Kheri

हदबसत नंबर : 388

तहसील : Thanesar

जिला : कुरुक्षेत्र

वर्क संख्या : 1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
इन्द्राज जमाबन्दी गुजस्ता या आखरी बाकी इन्तकाल जिसकी तरमीम मतलूब है							इन्द्राज जदीद जो अब कायम किया जाएगा							
नंबर शुमार	नंबर खाता जमाबंदी सावक	नाम तरफा या चाह	नाम मालिक व विवरण	नाम काशतकार व विवरण	नंबर व नाम खेत व रकबा व किस्म जमीन	मामला या लगान	नंबर खाता जमाबंदी जदीद	नाम मालिक व विवरण	नाम काशतकार व विवरण	नंबर व नाम खेत व रकबा व किस्म जमीन	मामला या लगान	किस्म या तारीख इंतकाल मय बै जररहन	फीस दाखिला खारज	रिपोर्टपटवारी या तसदीक गिरदावर कानूनगो
529	खेवट न. 19/1	गुरबचन सिंह नम्बरदार	गुरबचन सिंह पुत्र सावन सिंह 130/629 भाग	बदस्तूर	6// 3 1-9 कुल		गुरचरण सिंह पुत्र सावन सिंह पुत्र हर सिंह	बदस्तूर	6// 13 8-0 कुल	पारिवारिक हस्तांतरण		हस्ताक्षर पटवारी 22-07-2022		
		वासीदेह			1-3 चाही		130/629 भाग		7-12 चाही	दिनांक		मुकाबला शुद्ध		
		बाकी बदस्तूर			0-6 गै. मु.		वासीदेह		0-8 गै. मु.	06-06-2022		हस्ताक्षर		
		499/629 भाग			टयूब बैल 1-3 चाही 0-6 गै. मु.		बाकी बदस्तूर		रास्ता 14 8-0 चाही 3			हल्का कानूनगो 16-08-2022		
					7/2 6-0 चाही				1-9 कुल 1-3 चाही					
					8 8-0 कुल 6-0 चाही 2-0 गै. मु.				0-6 गै. मु. टयूब बैल 7/2 6-0 चाही					



Raise objection to Automatic Mutations for SALE, GIFT, Mortgage with Possession, and Family Transfer since July 6, 2023 on Jamabandi Website

CHECK MUTATION DETAIL

District: कुरुक्षेत्र
Tehsil: Thanesar
Registry Date From: 2023-06-29
Registry Date To: 2023-06-30
[Search](#)

Total Records **33**

Reg No.	Reg Date	Mutation No.	Mutation Date	Deed/SubDeed	First Party	Second Party	Transacted Area	Must/Khasra	Mutation Status		
2306	30-06-2023	10013	05-07-2023	SALE/SALE URBAN AREA WITHIN MC	रमेश चन्द्र, राम कुमार, रेलिया राम, सरोज, संजय, ज्ञान चना	हरविन्द्र सिंह, जरनैल सिंह, हरभजन सिंह,	246.00 SY		Entered	SHOW MUTATION NAKAL	RAISE OBJECTION
2307	30-06-2023	0		TRANSFER OF IMMOVABLE PROPERTY/TRANSFER OF IMMOVABLE PROPERTY WITHIN BLOOD RELATION	गुरमेल सिंह, चरन सिंह, दया राम	अमरजीत सिंह, दलजीत सिंह, गुरमेल सिंह,	0-0-360 KM	1//14	Mutation not Entered		
2308	30-06-2023	0		SALE/ SALE RURAL AREA	गौरव शर्मा, राजिन्द्रपाल, बाबू राम, बलदेव शर्मा	नीलम, सीता राम,	0-0-85 KM	15//12	Mutation not Entered		



Raise objection to Automatic Mutations for SALE, GIFT, Mortgage with Possession, and Family Transfer since July 6, 2023 on Jamabandi Website

Raise Objection

First Name **Last Name**

Gender
 Male Female

Email **Mobile Number**

Address

Objection Description

Objections are prompted to CRO.

Modify/Delete

Objection Detail

Objection RefNo	Full Name	Address	Mobile
472023172539621	Rajiv Sharma	2113, Shivpui, Ambala City	8950616942
Reg No	Reg Date	Mutation No	Mutaiton Date
1838	06-06-2022	529	22-07-2022
First Party	Second Party		
गुरबचन सिंह, सौदा कौर	गुरचरण सिंह, सावन सिंह,		

	Objection RefNo	Objection Description
<input checked="" type="checkbox"/>	472023172539621	i am co-owner in this khewat it has been sold without my knowledge
<input type="checkbox"/>		

Accept Objection Reject Objection

Objection Remarks


Objection on mutation is valid.

OK

Citizens Services Web Portal


- <http://jamabandi.nic.in> the citizen services web portal provides
 - online access to ROR data and scanned registered deeds - digitally signed and legally valid
 - Information about Property Registration, Collector Rates, Registered Deeds, Jamabandi and Mutations
 - Cadastral Maps on 1:10,000 scale are available as provided by the HARSAC

Online Naqal- Digitally Signed & Verifiable Online Copies of ROR using QR code



2722023185223183

नक़ल जमाबंदी (पड़त पटवार)



गाँव : धिंगताना

हदबस्त न. : 70

जिला : हिसार

तहसील : हिसार

साल : 2017-2018

1	2	3	4	5	6	7	8	9	10	11
खेवट या जमाबंदी न.	खतीनी न.	नाम तरफ या पत्ती	विवरण सहित भानिक नाम	विवरण सहित काबतकार	कुंए या सिंचाई के अन्य साधन का नाम	नम्बर खसरा या मुरब्बे और किले का नम्बर	रब्बा और किस्म जमीन	दर और संख्या के ब्यारे के साथ लगान जो मुजारा देता है	हिस्सा या हकीयत का पैमाना और बाछ का दंग	अभियुक्ति
279 // 257	335	सुजानसिंहपुत्र सर्वश्रीहरिसिंह हेतरामशेरसिंह तीनसमभागनम्बरदार ान	पूर्ण पुत्र हरफूल पुत्र गुगन 1/2 भाग वासीदेह महीपत उर्फ महीपाल , सुन्दर, अशोक पुत्रान माडूराम पुत्र हरफूल हर तीन समभाग 1/2 भाग वासी	खुदकाबत	राणा माईनर राणा माईनर राणा माईनर	45// 16 17/2 24 25/1 48// 4 5 6 7 14 17 24 63// 4	6-4 नहरी 3-2 नहरी 8-0 कुल 4-0 तान 4-0 नहरी 4-0 तान 8-0 तान 8-0 तान 8-0 तान 8-0 तान 8-0 तान 8-0 तान 8-0 टीना		----- पेंसिल आरम्भ----- रजिस्ट्रेशन विवरण ----- रजि न.2170 तिथी:14-07-2020 राशि:500000 --राहिन का नाम-- अशोक महीपत उर्फ महीपाल --मुर्तहिन का नाम-- कैनरा बैक 32 कनाल -15 मरला खसरा न.45//16,45//17/2,45//2 4,45//24,45//25/1,48//1 4,48//17,48//24,48//4,4 8//5,48//6,48//7,63//4 1597 विरासत -- तान आरम्भ----- बरबे रपट न.00106 तिथि Jul 14 2020 के अनुसार मिन जानिब महीपत उर्फ महीपाल पुत्र , अशोक पुत्र माडूराम ने	
						किते 12 कुल मजरुआ 85-6 64-0 तान 13-6 नहरी 8-0 टीना	85-6			

Generated vide Entry/Receipt No. 2722023185223183 : Dated:14-03-2023 10:34:36 Issued to : MANISH KUMAR


Generated by MANISH KUMAR from <https://jamabandi.nic.in>

Report Generation Date : 14/03/2023 10:25 AM

Fees : Govt Fee: Rs10, Service Charge: Rs100

Signature valid

Digitally signed by DS Director Land
Records Haryana
Date: 2023.03.14 10:25:19 +05:30



Last Updation Date: Wednesday, July 15, 2020 8:58:21 AM

This document can be verified by scanning QR Code provided.

Disclaimer: Data is created, updated and managed by Revenue Department, Haryana. Responsibility of accuracy of the data provided in this report lies with Revenue Department. In case of any discrepancy, kindly contact respective tehsil office.

1/2

Completely Digitized Crop Inspection Records

e-Girdawari

- User friendly Mobile App, operates in integration with Web-HALRIS.
- App requires minimum typing and can work in offline mode also.
- User profile login based features for Patwaris and being used by them easily.
- Tablets provided to all Patwaris. Training on usage of tablets and e-Girdawari App provided.

e-Girdawari implemented in all Revenue Estates.

e-Dashboard

- To monitor & review implementation and delivery of online services as per RTSA Haryana.
- Through weekly monitoring at highest level, it has helped to reduce delays in service delivery and to provide efficient services to the citizens
- Mechanism to identifying areas of concern.
- e-Dashboard also helped to fix responsibilities & accountabilities on Revenue Officials , for any delays.
- <http://164.100.137.207/whdashboard>

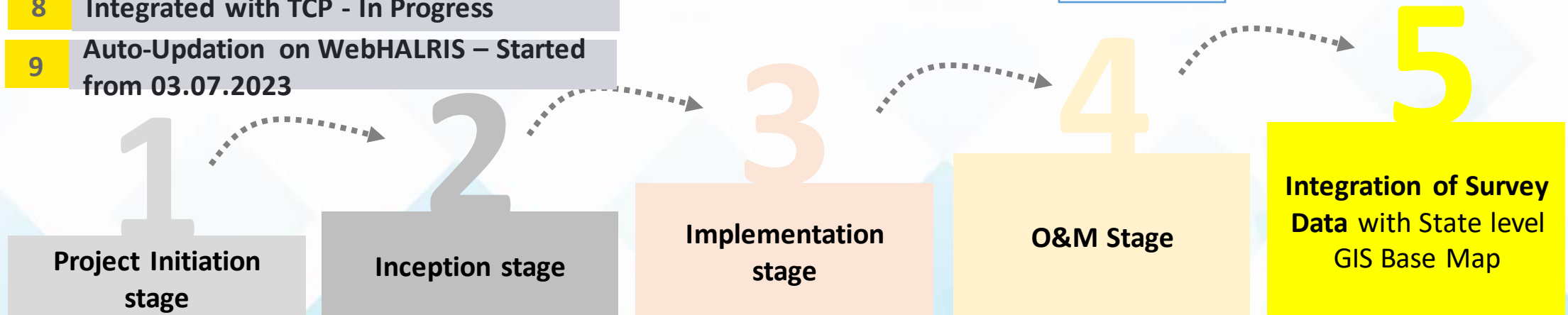
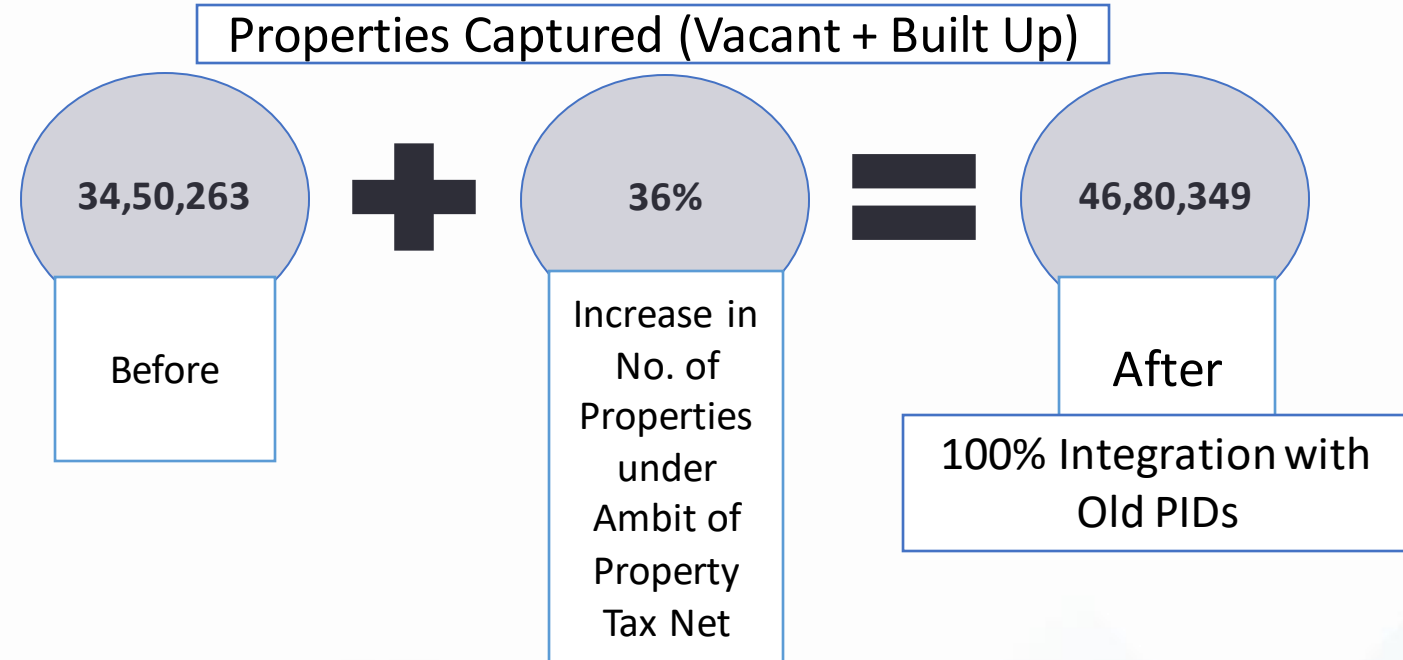
Web-HALRIS – Way forward

- Integration of Web-HALRIS with Cadastral maps - geo-referenced layers, with geo-spatial data
- Property IDs of Urban local bodies will be seeded to the property databases of the other departments
 - property ID of the ULB as the principal identifier of the property.
- Digitization of maps of municipal areas

GIS Based Property Taxation System - Overview

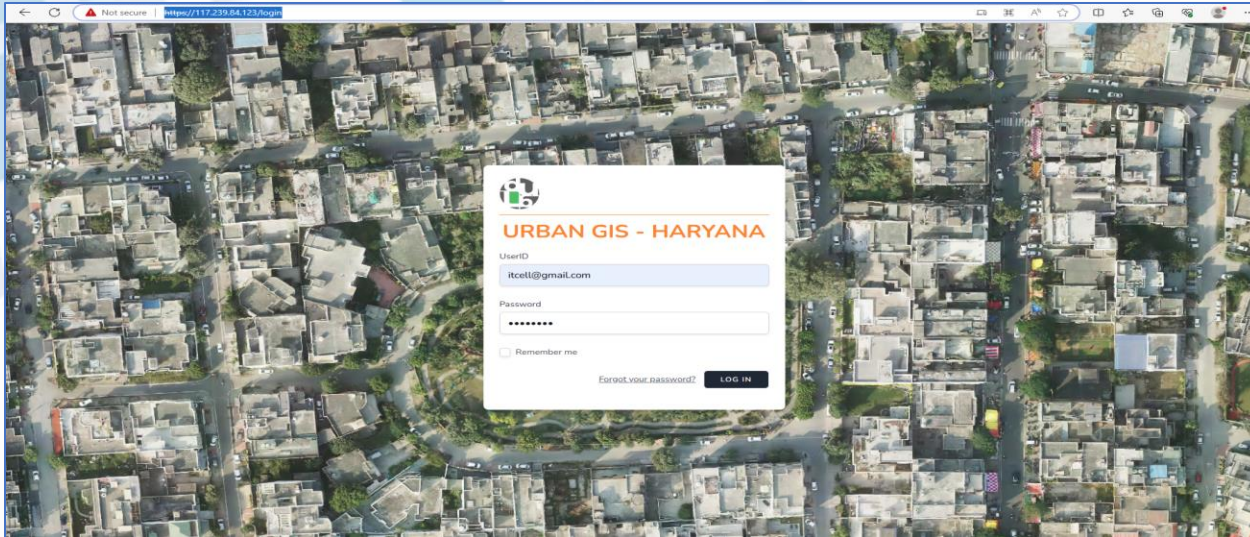
- ▶ Geo-enabled Property, Colony, Street survey with GPS Lat/Long Door-to-Door Property Tax Survey using Mobile/Handheld device with Drone/Satellite based map interface for all the 88 ULBs across the state of Haryana

- 1 Started - November 2019
- 2 Completed – November 2022
- 3 Data ported to NDC – Nov/Dec 2022
- 4 Registration of Sale Deed - Anywhere in Haryana
- 5 Integrated with WebHALRIS Portal of Revenue Dpt.
- 6 Integration with HSVP - Completed
- 7 Integrated with HSIIDC - In Progress
- 8 Integrated with TCP - In Progress
- 9 Auto-Update on WebHALRIS – Started from 03.07.2023



<https://117.239.84.123/login>

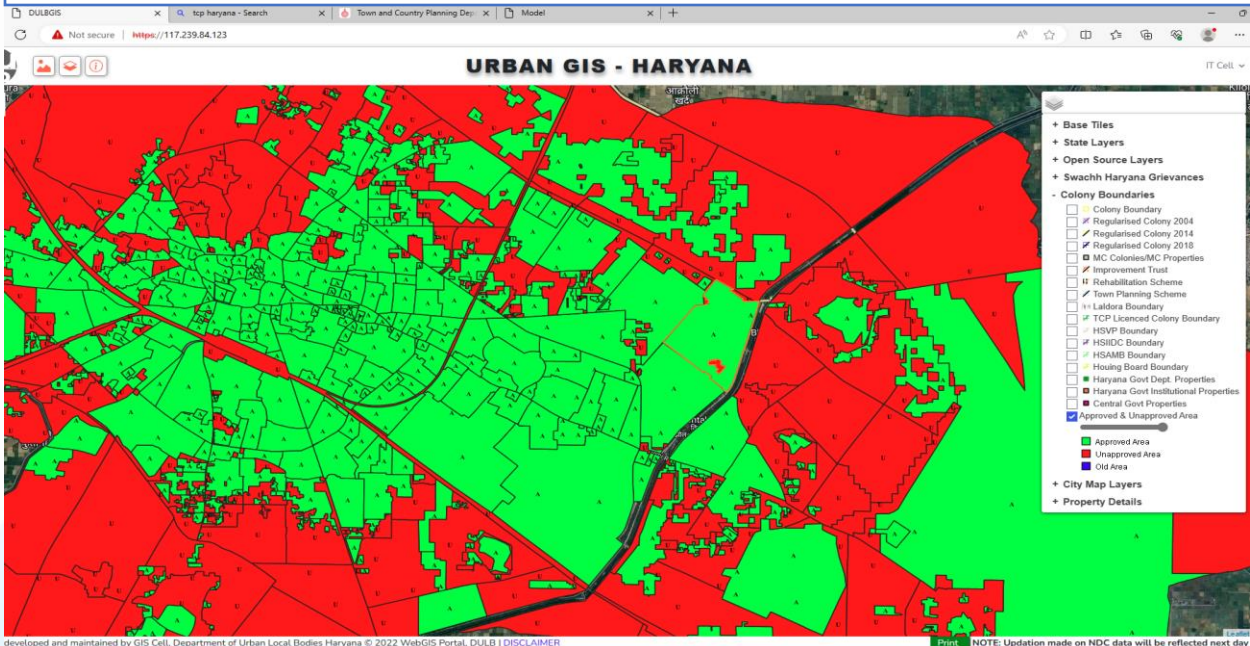
Login to GIS Portal



Selection of Property ID



Layer showing Approved and Unapproved Area



Layer showing Approved and Unapproved Area



Status of Abadi Deh

- Aim – To grant rights of ownership to Property Owners in Abadi Deh/Lal Dora falling in Municipal Areas.
- The Survey of India has started the survey of mapping the properties in areas of Abadi Deh falling in Municipal Areas.
- It will be further mapped with property IDs.
- Pilot project has started in Jind, Karnal and Sonipat.

Thank You

