



SURVEY/RESURVEY UNDER DIGITAL INDIA LAND RECORDS MODERNIZATION PROGRAMME

VISION- The vision is to build a modern, efficient, transparent land record system, ensure citizen-friendly services, adopt conclusive land titling with government guarantees, and integrate advanced technologies into existing land management systems..”

REVENUE AND DISASTER MANAGEMENT, HARYANA

Presented by : Sh. Rahul Hooda, Special Secretary Revenue, Haryana

Basic Statistics

- Number of Divisions: 6
- Number of Districts: 22
- Number of Sub-Divisions: 73
- Number of Tehsils : 94
- Number of Sub-Tehsils: 49
- Number of Kanungo Circles: 256
- Number of Patwar Circles : 2691
- Number of Villages: 7089
- Total Geographical Area: 44212 sq. km
- Total Population: 2.53 Cr.

(as per Census 2011)

(2.78+ Crore estimated 2019)

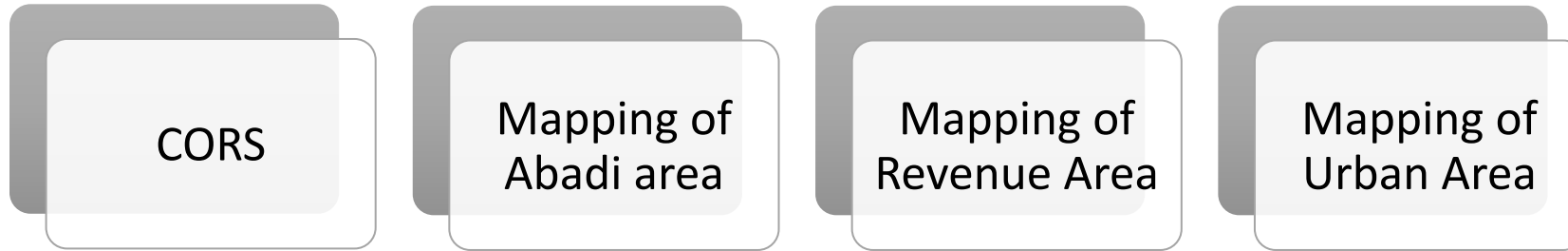


Digitization steps taken by Government of Haryana

- The Web-HALRIS implementation was started w.e.f. 2nd April, 2018.
- 100% migration (all 143 tehsils/sub tehsils) on Web-HALRIS was completed by the end of July, 2020
- Revamping of e-Appointments, e-Registration and two way integration with all line departments (ULB, TCP, HSVP, UE, HSIIDC, HBH, Forest, PWD (Irrigation) etc.), dealing with Land & Property for online No Demand Certificate (NDC) before deed registration & updating their respective web portals after registration (Sept. 2020)
- Integration with Revenue Court Cases, Civil Court cases, Litigation management System for Land Disputes related cases
- Centralized online integrated workflow based property registration and land records management system developed 'Web-HALRIS'
- www.jamabandi.nic.in offers land records, property registration, collector rates, cadastral maps, stamp duty calculator, and urban property search.



Main components of Project



Accuracy Standards

- ❑ For Rural areas on 1:1000 scale
- ❑ (ORI (Orthorectified Image) at 10 cm GSD (Ground Sample Distance).
- ❑ For Village Lal Dora/Abadi on 1:500
- ❑ (ORI at 5 cm GSD) for Development and Panchayat Department.
- ❑ For Urban areas on 1:500
- ❑ (ORI at 5 cm GSD) for the Urban Local Bodies Department.

Haryana Large Scale Mapping – HaLSMP & SVAMITVA

- MoU was signed by Revenue department with Survey of India, for large scale mapping of entire Haryana covering all areas (Rural, urban, controlled areas and Abadi Deh (Lal Dora)) using Drone imaging, Rovers (remotely operated ground vehicle) and CORS (Continuously Operating Reference Station) Network as a first State of India, dated on 8th March, 2019.

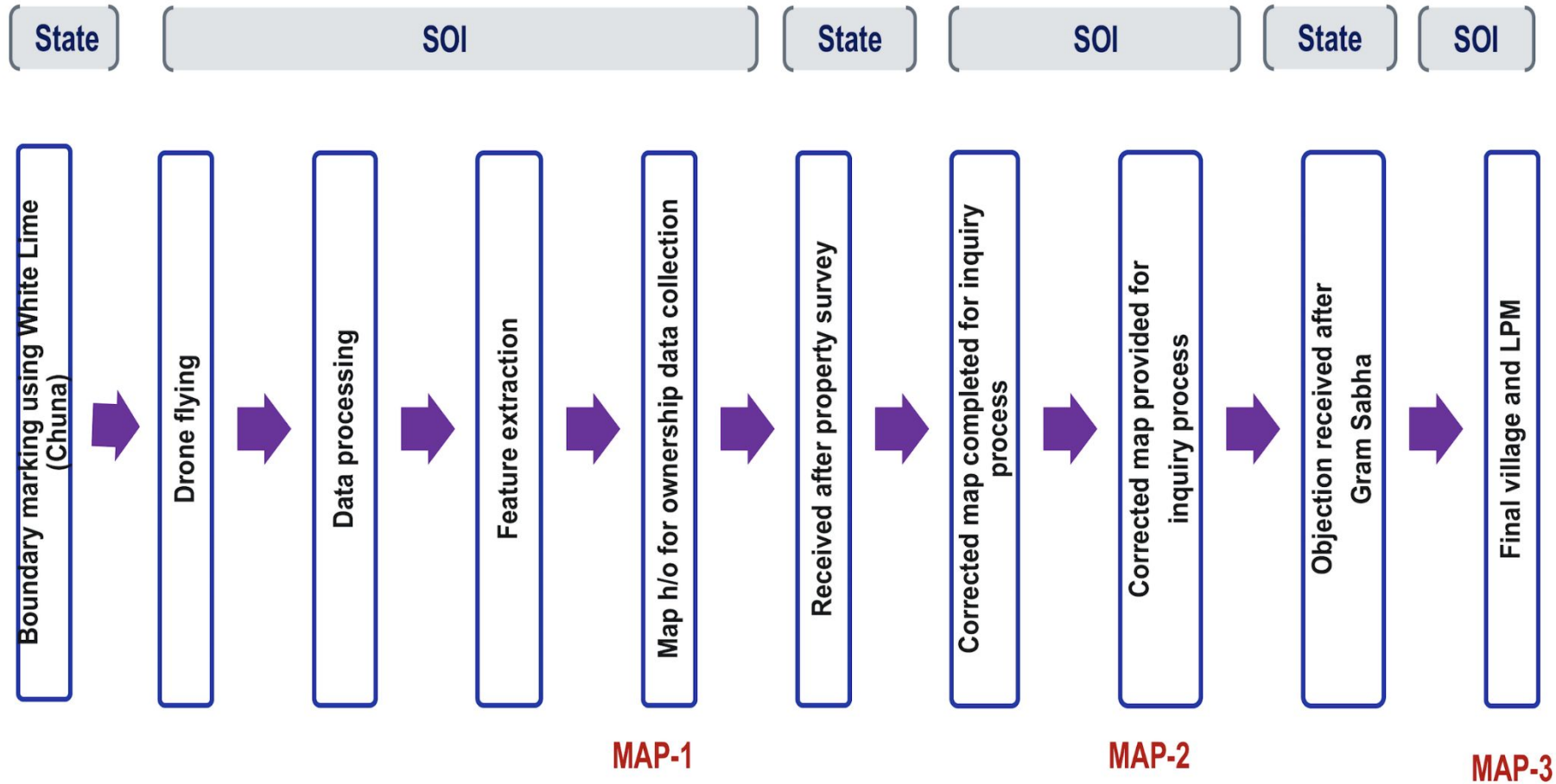
SVAMITVA (Abadi Deh) aims at

- Creating accurate land records for better rural planning
- Reducing property related disputes through conclusive titling
- Unlocking the monetary value of vast land resources within Lal Dora
- Bringing citizens in Lal Dora areas within the fold of financial services by enabling them to use their property situated within Lal Dora as a financial asset
- Accurate determination of Panchayat properties and documentation of the same, which will safeguard Panchayat assets
- Aiding the preparation of a more efficient Gram Panchayat Development Plan (GPDP)
- Creating survey infrastructure and GIS maps that can be utilized by any department who wishes to set up projects in any village

Haryana Large Scale Mapping – HaLSMP

- **Expected benefits:** Helps in accurate demarcation of Land, Detection of Change, identification of encroachments, uniquely identification of each land and property, accurate urban planning and issue of updated copy of land parcel map with Record of Rights
- The Revenue Estate areas, i.e., agricultural lands of each village, also require mapping so that accurate location of murabba stones are determined and these are not subject to movement due to any land changes such as earthquakes, land slides etc.

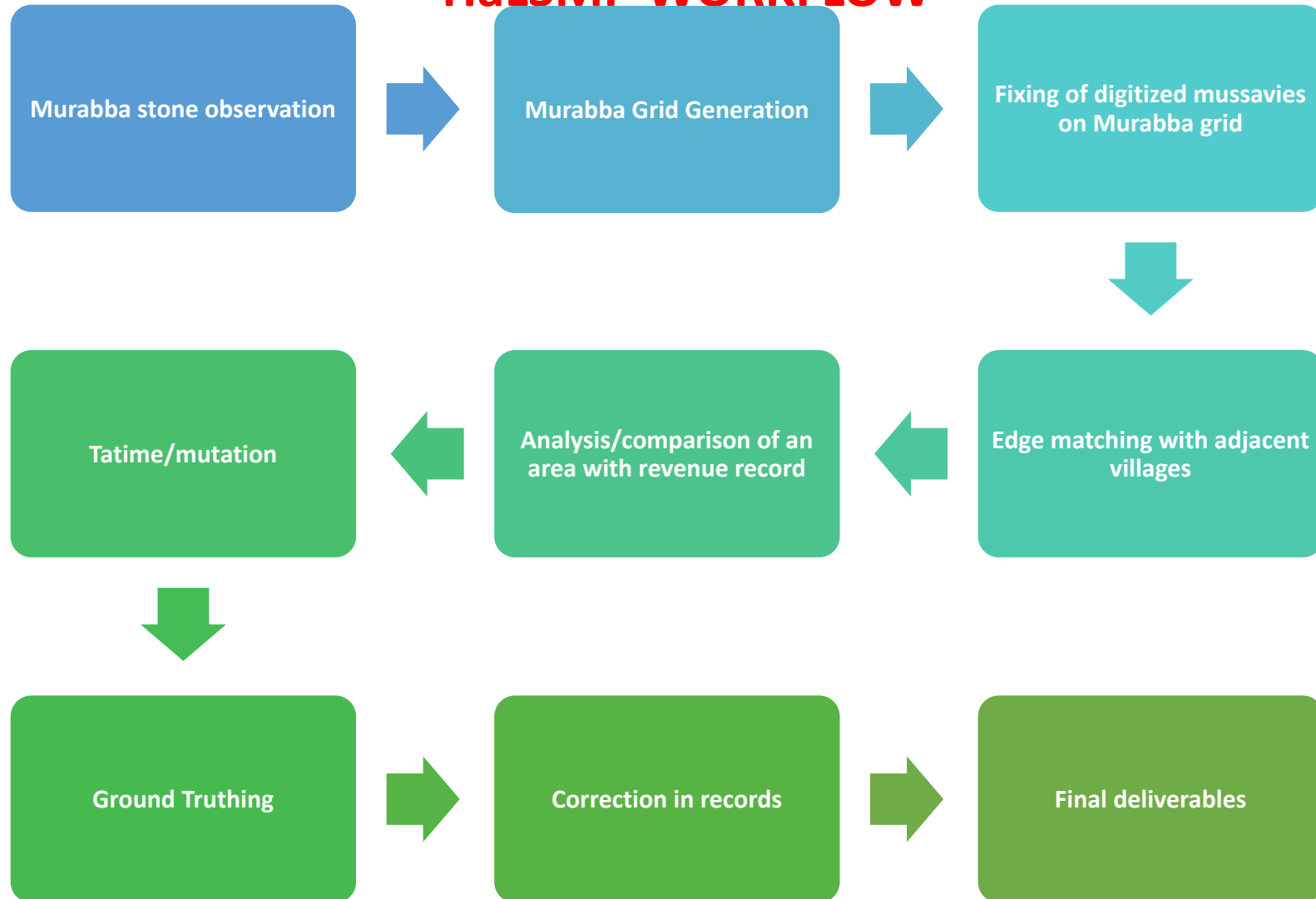
Process for Conclusive Titling under SVAMITVA, as followed by Haryana



Achievements

- The Sirsi was declared as first Lal Dora free village of the country.
- Sirsi initiative of Haryana was adopted by Govt of India and launched SVAMITVA (Survey of Villages and Mapping with Improvised Technology in Village Areas) Project on 24 April, 2020 in 6 pilot States including Haryana.
- On October 11, 2020, the Prime Minister of India had declared 22 villages Lal Dora free, one from each of the 22 districts of Haryana.
- 6249 villages are declared Lal Dora free as on 10th October 2024.
- Drone mapping and data processing has been completed in all 6250 Lal Dora Villages done by Survey of India
- Under SVAMITVA scheme, 25,16,190 numbers of property cards have been conclusively finalised in all 6249 Lal Dora Villages out of 6250 Lal Dora Villages and 25,16,109 numbers of property cards have been distributed as on 17th April 2025 and the same has been linked with Parivar Pehchan Patra
- SVAMITVA Project has been awarded Haryana Good Governance Award on 25 December, 2021
- In Geo-smart India Summit 2023 held from 17th to 19th October 2023 at Hyderabad, HaLSMP has been awarded Geo-smart India Excellence award 2023 in the category of “Geospatial for Land Records”.

HaLSMP WORKFLOW



Latest Status of HaLSMP

- As of 17th April 2025, drone-based imaging has been completed in 43579.32 Sq.km. in the State.
- Feature extraction has been completed by Survey of India (Sol) for an area of 2,822.24 sq.km across 88 Urban Local Bodies (ULBs). Data of 88 ULBs, complete in all respects, has been handed over to the ULB Department along with 2D drone images.
- Out of 41,389.76 sq.km. of rural area, feature extraction in 40757.08 sq.km. has been completed by the Survey of India and remaining work is to be completed by 30.06.2025.
- The work of Murabba Stone Observation has been completed in 6910 villages/Revenue Estates.

Digitization of Cadastral Maps

- Bhu-Naksha software is a Geo tool, developed by NIC, for handling Cadastral Maps, standardized to manage the digitized cadastral maps.
- Bhu-Naksha customized, by incorporating the requirements of Haryana Land Records.
- Mutation process of WEB-HALRIS customized & integrated with the Bhu-Naksha to cut the tatima in mutations involving the part of the khasra i.e. to divide the khasra/plot during the mutation process as First State.
- Integration of textual land records with digitized Mussavies / cadastral maps, WEB-HALRIS- Bhu-Naksha bridge, provide a complete integrated solution for management of Property registration, Land Records Textual Jamabandi, mutation process and maps of land parcels.

NAKSHA

Survey Methodologies & Teams required for 3 ULB of Haryana State



- Three methodologies were Specified in 150 ULBs based on terrain condition, population density, canopy etc.
 - (i) Large-scale mapping of urban areas using 2D Nadir Camera for the generation of Orthorectified Imagery (ORI) and Digital Elevation Model (DEM) for creating a 2D dataset.
 - (ii) Large-scale mapping using oblique angle cameras (5 cameras) for data acquisition without LiDAR, for generating ORI, DEM, and a 3D Reality Model to create a 3D GIS dataset.
 - (iii) Large-scale mapping using oblique angle cameras (5 cameras) with LiDAR sensors, for generating ORI, DEM, and a 3D Reality Model for the creation of a 3D GIS dataset

3 ULB of Haryana State for NAKSHA Program

No of ULBs - 3		
District	ULB	No. of Teams
Mahendergarh	Narnaul (drone flying oblique camra completed)	32
Panchkula	Panchkula (Flying not start)(Oblique Camra + Nadir+4 camra	32
Gurugram	Manesar(drone flyong oblique + nadirCamra 68 Sq. Km and LiDAR 185 sq.km completed)	46
Total	* Field survy pending	110

NAKSHA - Survey Methodology



- Team has been constituted for field survey and have been provided Rovers by Deputy Commissioners.
- Each team has to be provided with a Rover for ground-truthing.
- Rovers are already available with the DCs and same will be provided to the concerned teams.

Capacity Building, Training and Collaboration



- Specialized training programs were conducted by Survey of India and HARSAC, for Government officials, surveyors, and other stakeholders to enhance technical and operational expertise.
- Dedicated centers like GIS Labs have been created for knowledge sharing, research, and technical support at district level. These GIS Labs are operated in collaboration with HARSAC. Research Scholar in university are roped in for this project to capitalise their knowledge and expertise.

FUTURE COURSE OF ACTION

- Implementation of Paperless Registration process.
- Tatima updation on Bhu-NAKSHA Portal via online mode.

THANK YOU