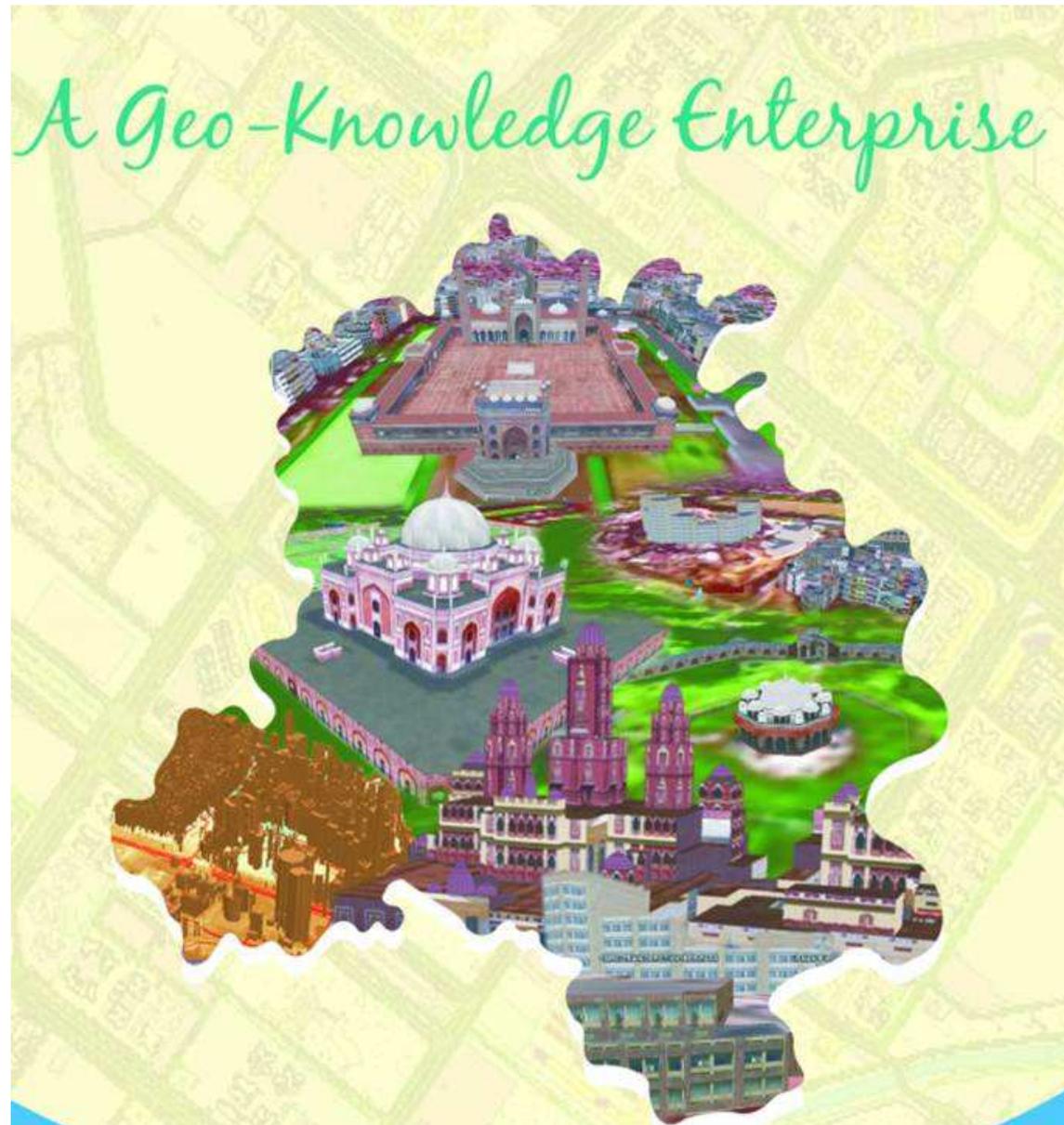


Land Administration: A Delhi Perspective



Overview

- 1** About GSDL & Delhi Land Administration
- 2** Scenario Couples of Year Back
- 3** GIS Workflow & Requirement
- 4** Geospatial Data Requirement for Land Administration
- 5** Geospatial Application Requirement
- 6** Implementation of C-LIS
- 7** Summary

About the Geospatial Delhi Limited

The Delhi Geospatial Limited is a Government of NCT of Delhi Company, Set up under the Delhi Geospatial Act 20 November 2011, with the aim to provide solution & implementation of G-Governance

Domain Expertise in Cluster

Land & Property -DDA, Revenue, MCD, Urban Development & Forest & Wild Life

Utility Management-DJB,IGL,NDPL etc

Transport & Navigation: DTC, DMITS & Delhi Metro

Social Sector: Health, Education , Women & Child Development Board

Environment: DPCB, Env. & Forest

Demography: Election Commission, Census etc

Infrastructure: PWD,DUSIB & UTTIPEC etc

Introduction

Land in Delhi can be generally categorized as-

Urban Land: Under Urban Local Body i.e., MCD/NDMC, Land & Development Office of Govt. of India and Cantonment Board

Land under non-urban or agricultural land generally referred to as revenue land. Most of the agricultural land in Delhi is governed by Delhi Land Reforms Act 1954 and the East Punjab Holdings (of Consolidation and Prevention of Fragmentation) Act, 1948

Delhi Land Administration Agency:

Delhi Development Authority

It was created in 1957 under the provisions of the Delhi Development Act "to promote and secure the development of Delhi". It is responsible for the planning, land development and building agency for Delhi

Land & Building Department

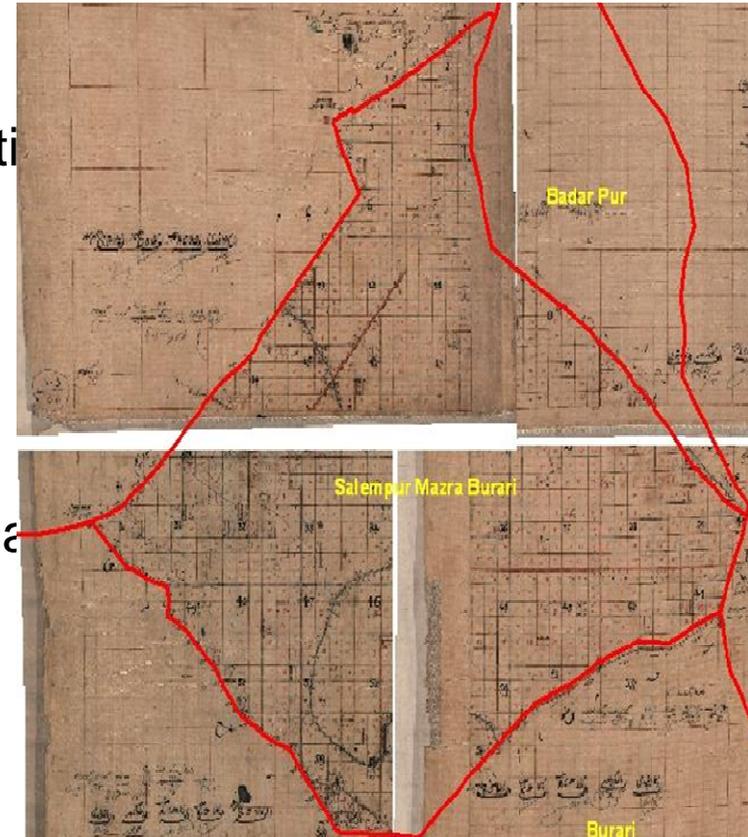
Responsible for large-scale acquisition of land for planned Development of Delhi and placing it at the disposal of DDA

Urban Local Bodies i.e., MCD, NDMC, Delhi Cant. etc)

Service, maintenance and collection of Property tax for all land under its jurisdiction

Scenario Couples of Year Back

- No digitization of Textual data
- No integration between textual and spatial data
- No Geo-referencing of data
- Lack of permanent storage system
- Manual area calculations introduced human errors
- Obsolete Legal frameworks not addressing current issues and challenges



Revenue

**Administered the Land Record
Registration
Mutation
Verification
Store the Land records securely**

Delhi Development Authority

Development Planning and Project
Initiation
Land Acquisition Planning
Actual Acquisition
Infrastructure Development
Asset Management
Preparation of Zonal Plan & Master
Plan

Geospatial Data Requirement for Land Administration

MCD

- Base Map
- Buildings & Building Units Data
- Ownership Details
- Floor & Height Information
- Use Factor
- Tax Details
- High Resolution Satellite Image

Revenue

- Base Map
- Masavi Khasra & Khatauni
- Masavi Village Boundary
- Village Tri Pillar Junction
- Village Boundary Pillars
- Scan Masavi
- High Resolution Satellite Image
- High Precision Ground Control Points etc

DDA

- Land Ownership Data
- Socio & Economic Data
- Base Map
- High Resolution Satellite Image etc

Geospatial Application Requirement

Revenue

- Query Base Analysis
- Land Mutation
- Registration
- Land Titling

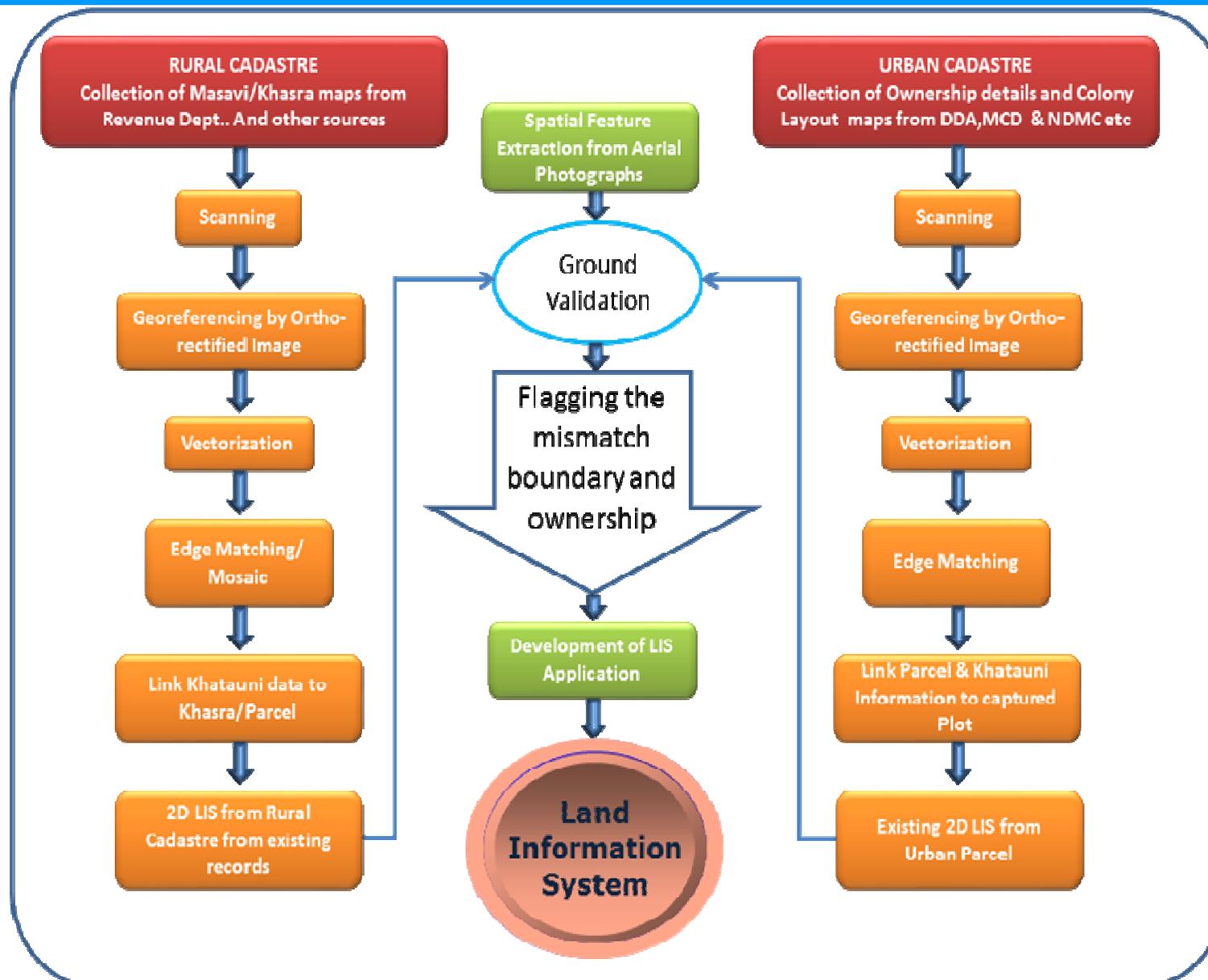
DDA

- Land Acquisition with Ownership
- Socio & Economic for Planning
- Online Requisition System
- Approval Mechanism based on Various Parameters
- Integration of MIS & GIS

MCD

- Property Tax
- Waste Disposal System
- Building Permission
- GPS Based Garbage Collection
- Permit Tracking System
- Citizen Service etc

Implementation of Comprehensive Land Information System



Delhi Geoportal-Revenue Department

Department of Revenue
Delhi Geoportal

Legend Query Analysis Reports Scale : Logout

Jharoda Burari Marg

Jharoda Majra Burari

District name : NORTH
Subdivision : CIVIL LINES
Village Name : Jharoda Majara Burari
Khata Number : 35

Khasra Number	Area(Bigha)	Owner	Father	Address
19	0	Satish Kumar	D.D. Goyal	A-318 Shastri Nagar Delhi

Submit

Set of Query available in Delhi Geoportal (Revenue)

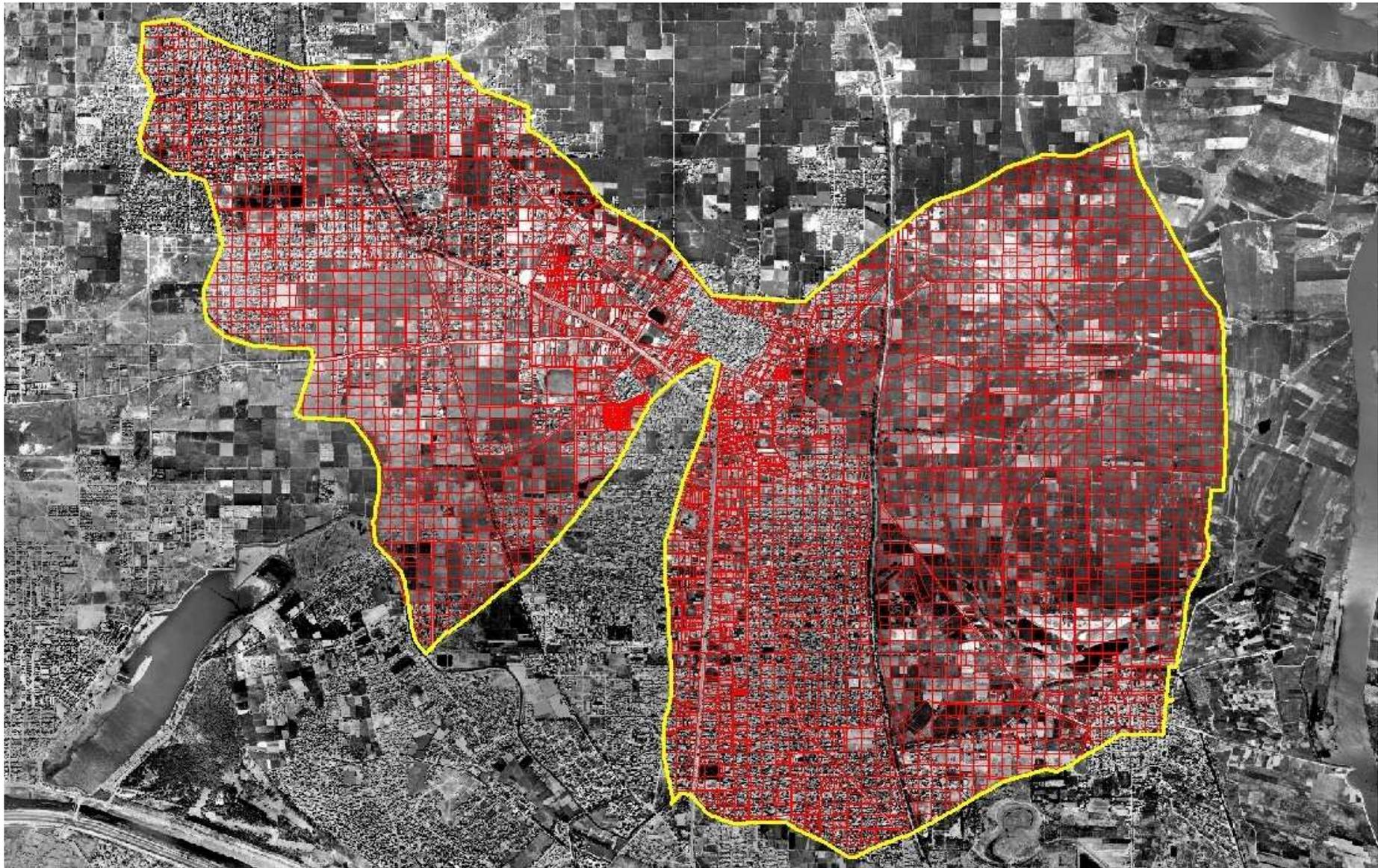
- 1 . District Name : SOUTH WEST
- 2 . Subdivision: NAJAFGARH
- 3 . Village: SURKHAPUR
- 4 . Khata No : 3
- 5 . Khasra No : 145/1
- 6 . Application zooms to the selected Khasra

The screenshot displays the Delhi Geoportal Revenue Department interface. The header includes the text "Revenue Department" and "Delhi Geoportal". Below the header, there are navigation tabs: "Legend", "Query", "Analysis", and "Reports". The "Query" tab is active, showing a search interface with the following fields:

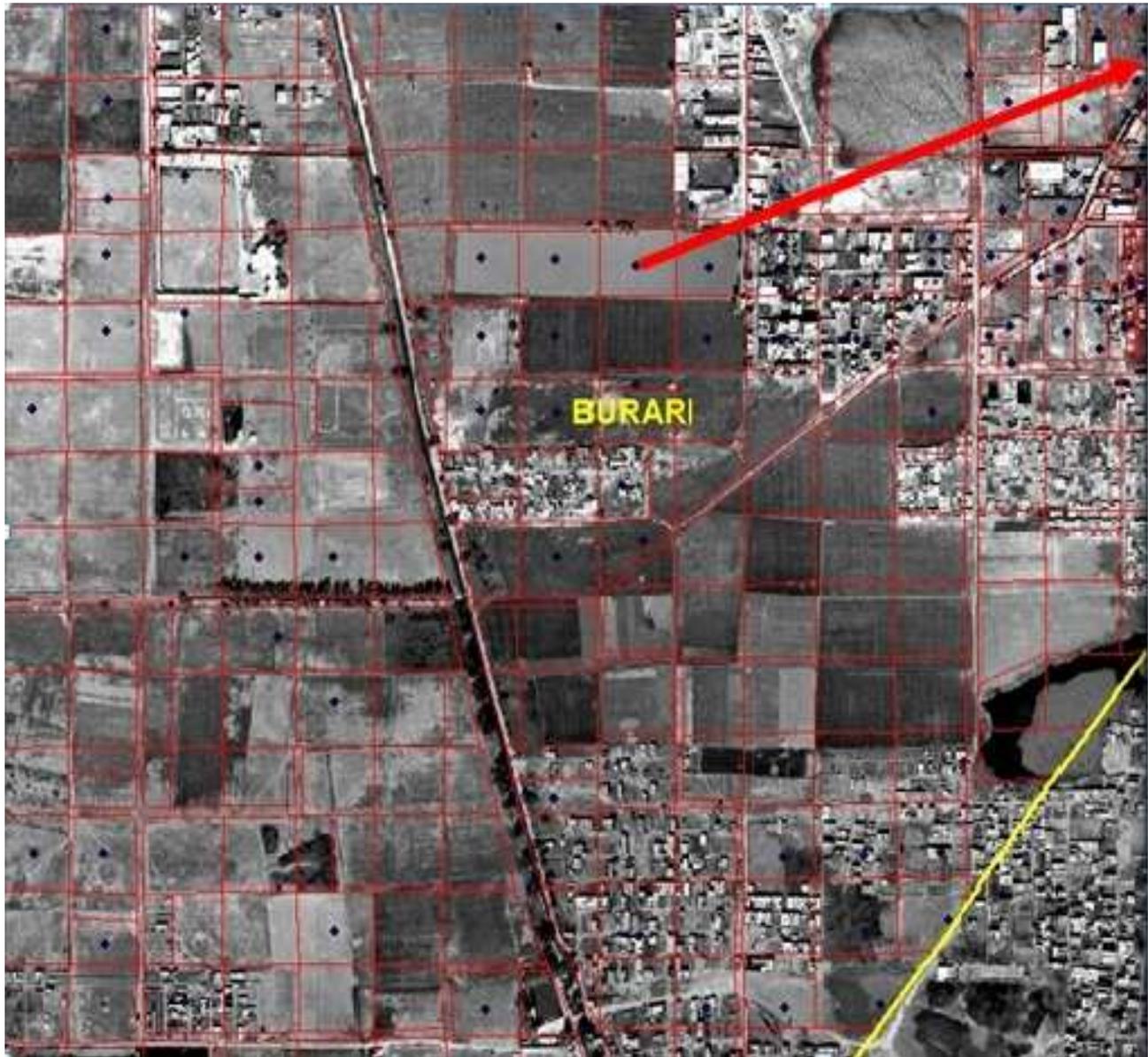
- District name: SOUTH WEST
- Subdivision: NAJAFGARH
- Village name: Surakhour
- Search by: Khata No (selected), Owner Name, Rectangle No
- Khata No: 3
- Khasra No: 145/1

The map shows a grid of Khasra plots. The plot with Khasra No 145/1 is highlighted in blue and circled in red. The map also shows a scale of 4535.81173 and a "Logout" button.

Vector Overlay on Ortho Image



Khatauni Details of Burari Village



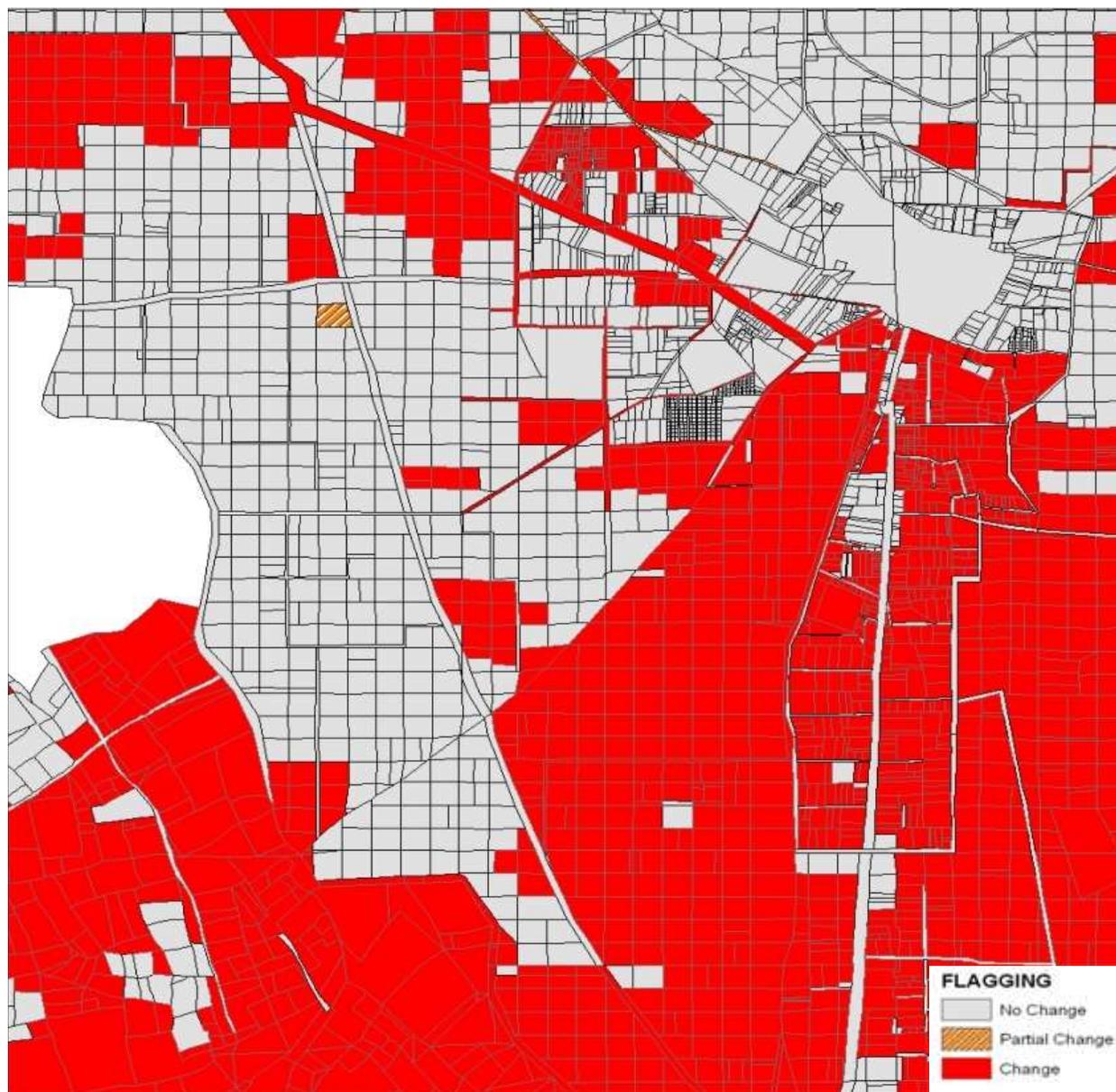
Location: 713,737.947 3,182,828.666 Meters

Field	Value
FID	623
Shape	Point
M_KHAT_ID	713738.805,3182829.5369
IDS	76/1
M_PAR_ID	1336
DIST_NM	NORTH
SUBDIV_ID	07020001
SUBDIV_NM	CEVIL LINES
VILL_ID	12
VILL_NM	BURARI
M_KHASRA_R	76
M_KHASRA_N	1
M_MIN_NO	0
TYPE	ABADI
SUB_TYPE	ABADI
VILLAGE_NA	Burari
KHATA_NO	55
KHATA_TYPE	1
GROUP_NO	1
KHASRA_R	76
KHASRA_N	1
MIN_NO	0
PLOT_TYPE	1
HOLDING_NO	1
OWNER	Devender Kumar
RELN	Son
FATHER	chdatar Singh
ADDRESS	5797 New Chandrawal Subzi Mandi Delhi
P_BHAG_NR	1
P_BHAG_DR	1
P_LANDREV	1-45
P_AREA_BIG	4
P_AREA_BIS	9
PLOT_REMAR	

Mismatching of Rectangle no, Khasra No in Masavi and Khatauni

Perfectly Matched				
	Rectangle Number	Khasra Number	Min Number	
In Khatauni	2	15	0	
In Masavi	2	15	0	
Arbitrarily Matched				
	Rectangle Number	Khasra Number	Min Number	
In Khatauni	2	15	1	
	2	15	2	
In Masavi	2	15	0	
	40	7/2	3	
Not Matched				
	Rectangle Number	Khasra Number	Min Number	
In Khatauni	2	15	1	
In Masavi	Not match at all			

Flagging of Masavi vector with Satellite Imagery for Change Detection

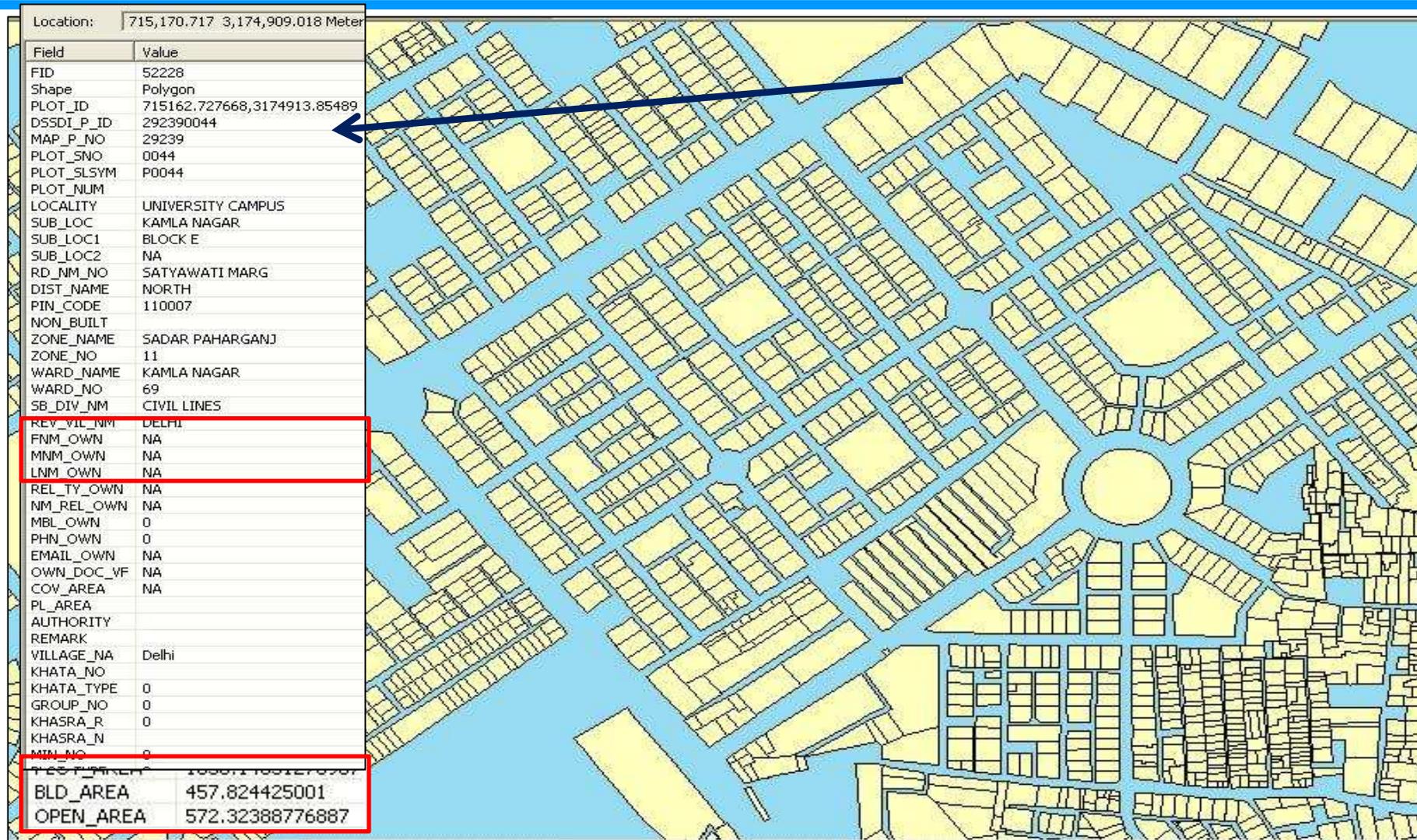


Plot Information Overlaid With Satellite Image

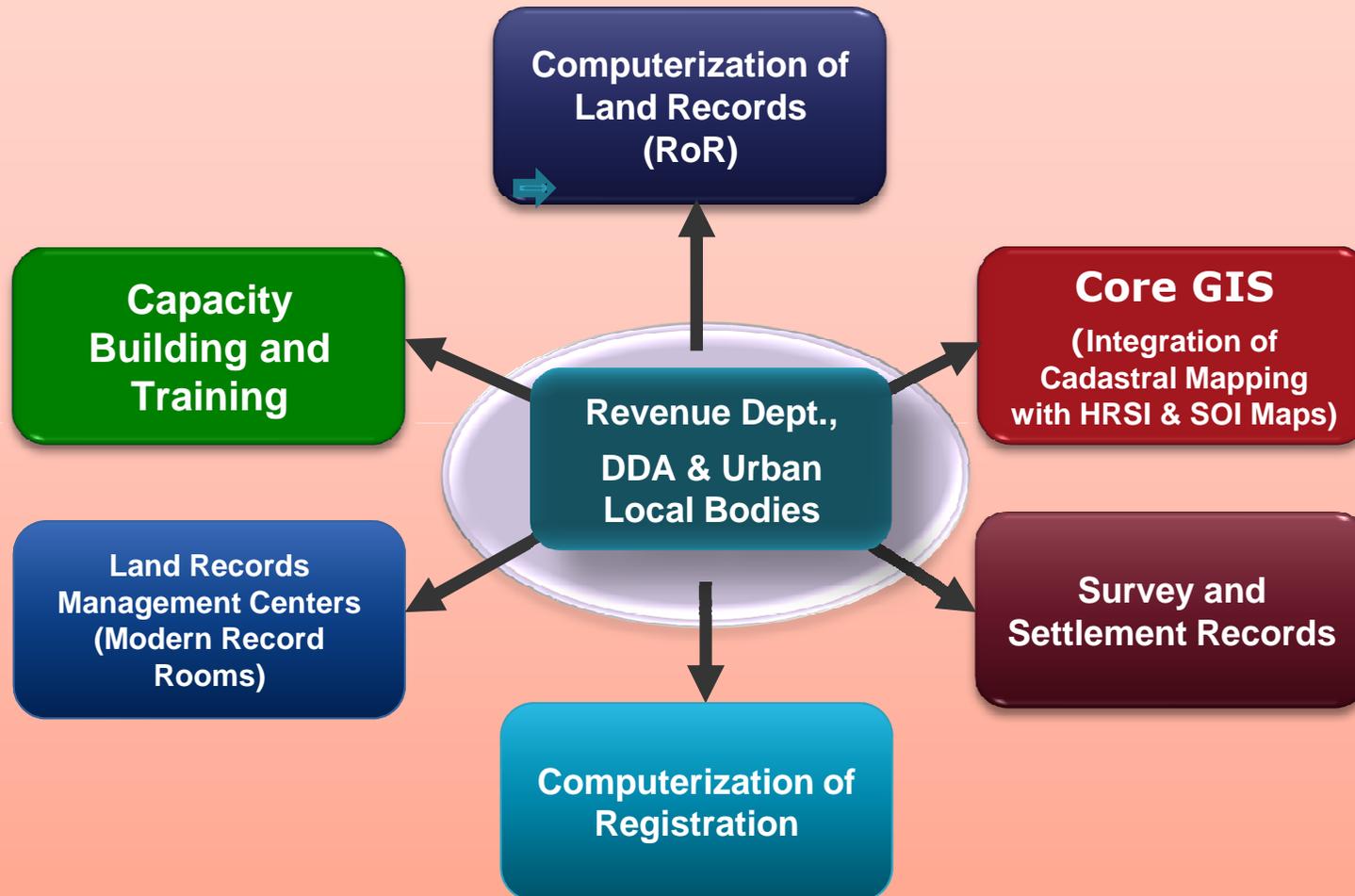


16

Plot Information-Urban

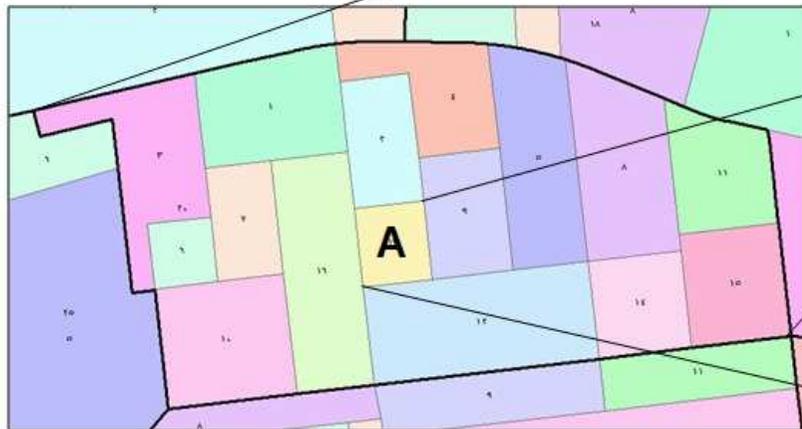
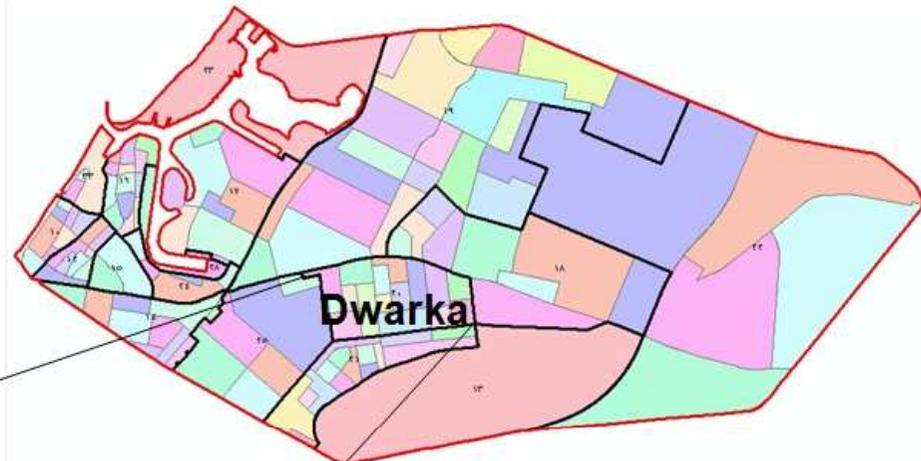
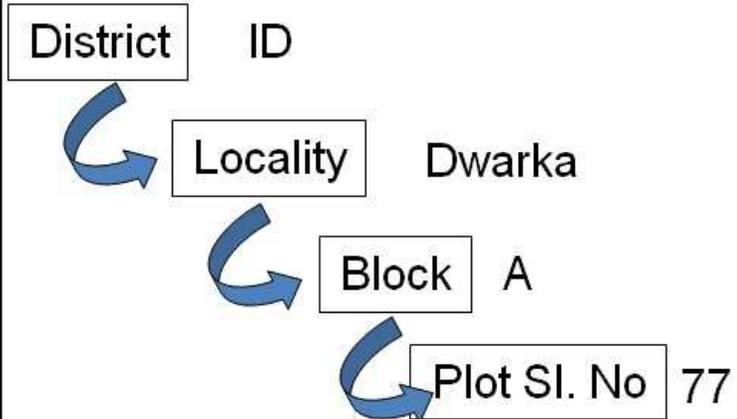


GSDL Approach-Integrated Land Information System



Plot Numbering System in Urban

Plot ID :DW-A-77



Khasra retrieval system(Consolidated / Unconsolidation)

Village | Sultanpur Dabas

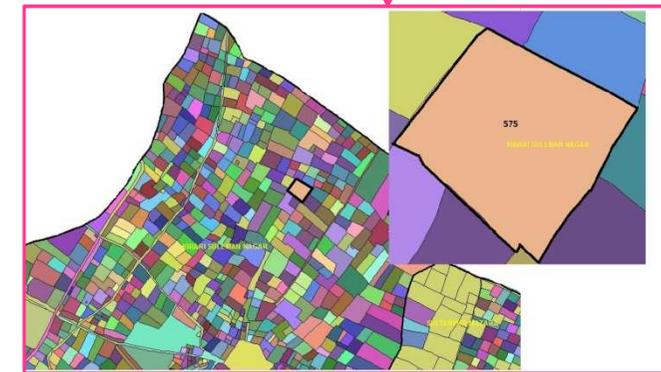
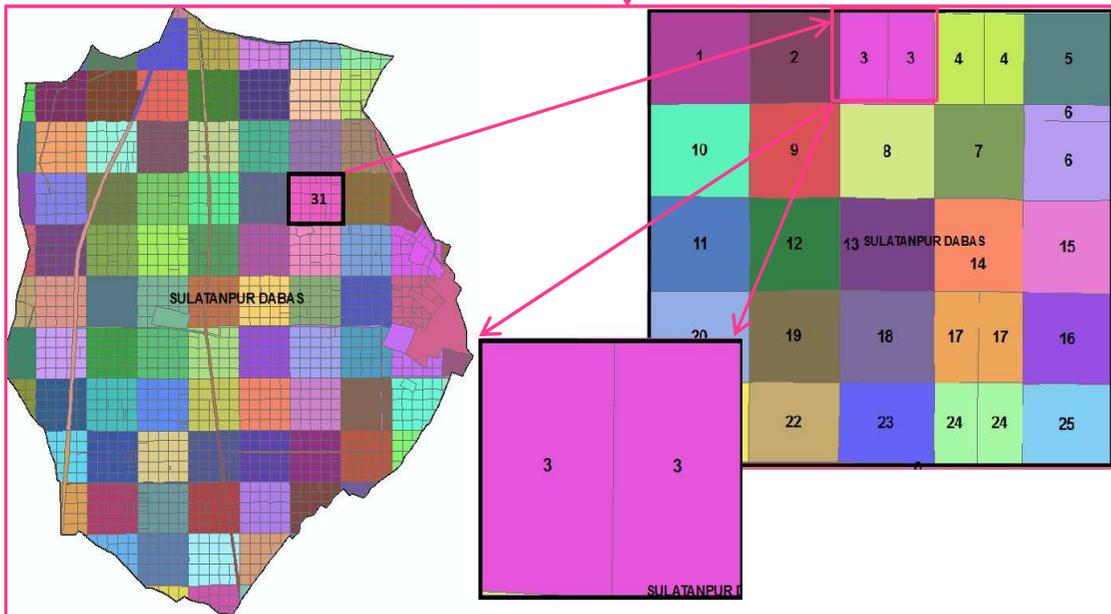
Rectangle No | 31

Khasra No | 3

Min | 3/1&3/2

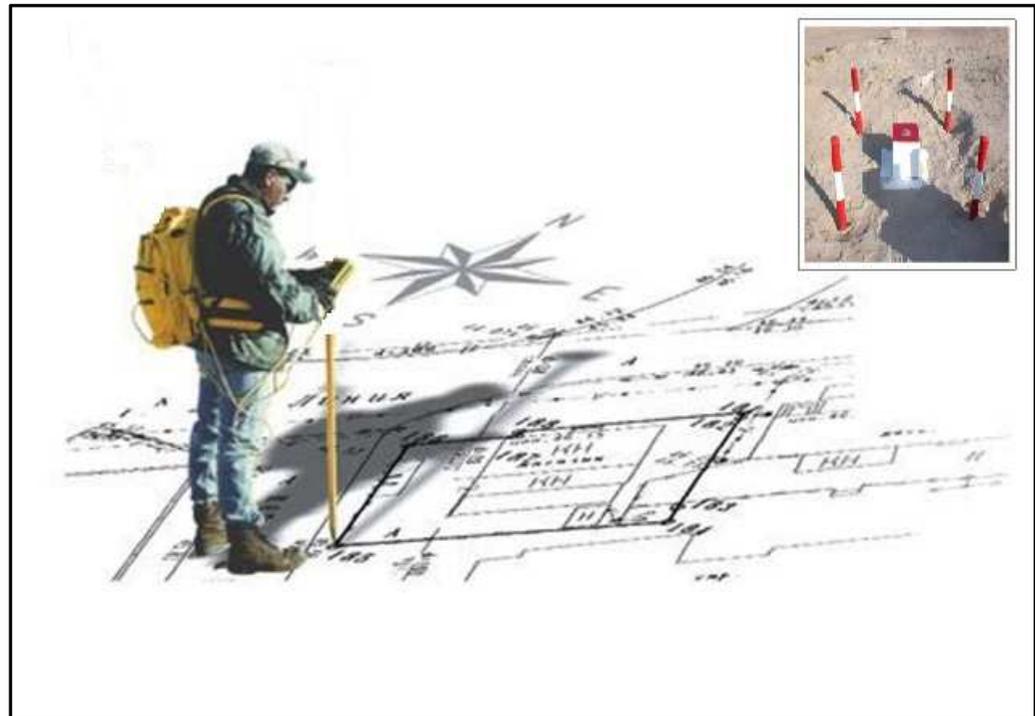
Kirari Suleiman Nagar | Village

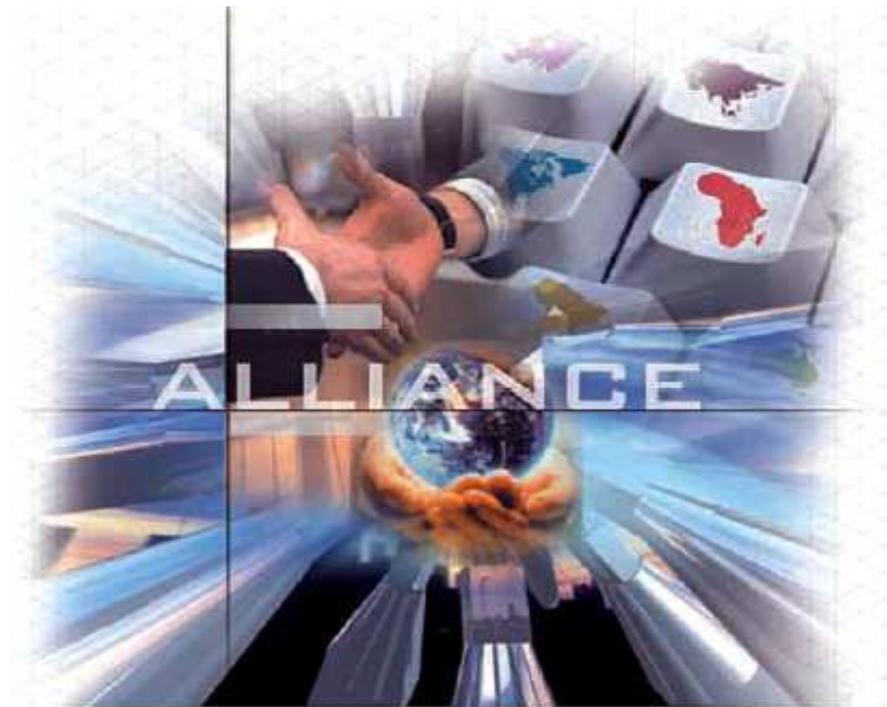
575 | Khasra No



Summary

- Resurvey and Updation of land shall be carried out using GPS assisted Tablet PC or PDI
- User can see real time spatial data in the assisted system that shall connected to District / Tehsil / Block Data centre
- User can plot the desired location that will stored in the system as well as in the data centre too
- Capacity Building of Patwaris





Thank you !

Status of Distribution of Computerized ROR – year wise

State Name: NCT of Delhi

Sr No	District Name	Tehsil Name	No of Computerized RoR distributed			Money Collected
			Year			
			2006	2007	2008 (till date)	
1	South-West	Vasant Vihar	1800	2500	825	--
2	North-West	Saraswati Vihar	1400	1500	450	--
		Narela	100	170	40	--
		Model Town	15	18	5	--
3	North	Civil Line	--	265	110	--
4	South	Defence Colony	168	--	--	--
5	West	Punjabi Bagh	375	546	160	--

Source: <http://dolr.nic.in/nlrmp/lr.asp>

Implementation of National Land Records Modernization Programme (NLRMP).MRD Govt of India