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**भूमि संसाधन विभाग**  
**Department of Land Resources**  
**ग्रामीण विकास मंत्रालय**  
**Ministry of Rural Development**  
**भारत सरकार**  
**Government of India**

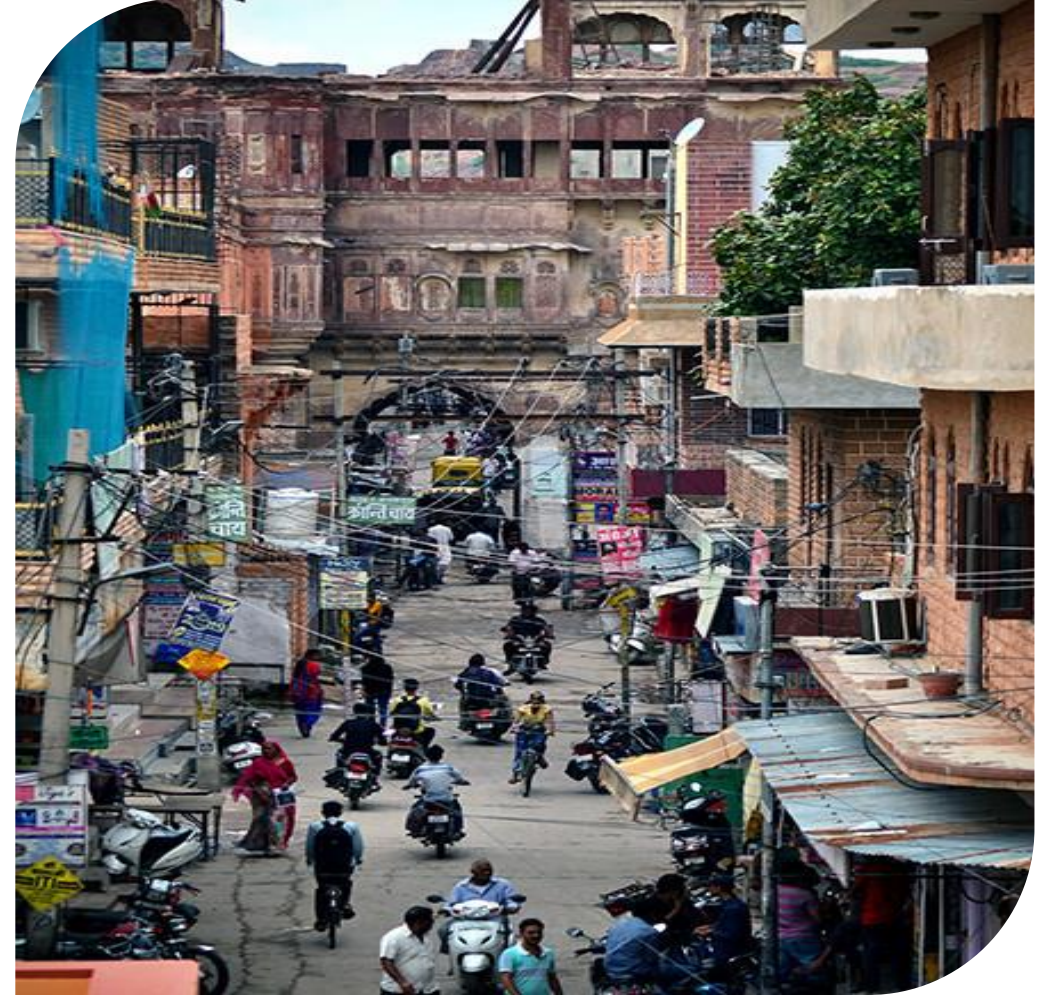
**6<sup>th</sup> September, 2024**  
**Bengaluru**



# Incentives for Land related Reforms by State Govts. in URBAN Areas. (Budget speech Para 98 & 100)

**Scheme for Special Assistance to States for  
Capital Investment 2024-25  
(Dept of Exp MoF 9<sup>th</sup> Aug 2024, PART-VIII)**

**Allotment - Rs. 5,000 Cr. : FY 2024-25**



# **BUDGET ANNOUNCEMENTS 2024-25**



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## **PARA 98**

**Land-related reforms and actions**, both in rural and urban areas, will cover (1) land administration, planning and management, and (2) urban planning, usage and building bylaws. These will be **incentivized for completion within the next 3 years through appropriate fiscal support.**

## **PARA 100**

### **Urban Land related actions**

Land records in urban areas will be digitized with GIS mapping. An IT based system for property record administration, updating, and tax administration will be established. These will also facilitate improving the financial position of urban local bodies.

# Objectives & Milestones



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Urban Land  
Records  
creation/  
Modernization

Basis for  
assessing  
Property Tax;  
Improve ULBs  
fiscals

Integration of  
GIS & Spatial  
databases

Better Urban  
planning



## Categorization of Urban Areas

Category	Population Criteria
A	2 Lakh and above
B	1 Lakh to 2 Lakh
C	50,000 to 1 Lakh
D	Less than 50,000

## Milestones (Sequential)

1. Aerial Survey & Mapping incl Feature Extraction

2. Field Survey & Ground Truthing by Rovers & DGPS

3. Claims & Dispute Resolution & Map Finalization

# Milestone 1



## 1. AERIAL SURVEY & Mapping incl Feature Extraction

Fixing Ground Control Points & city boundaries by CORS Framework.

High Resolution Digital Aerial Photography with survey grade equipment.

Data Processing & 3D Feature extraction incl. DEM & DTM.

Quality control & Production of ORI with land parcel boundaries.

**MAP 1** publication in 1:500 scale.

## Incentive Structure

Category	Population Criteria	Admissible Incentive
A	2 Lakh and above	30 Cr.
B	1 Lakh to 2 Lakh	25 Cr.
C	50,000 to 1 Lakh	20 Cr.
D	Less than 50,000	10 Cr.

**Creation of Ortho-Rectified Images (ORI)**

# Milestone 2



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## 2. FIELD SURVEY & Ground Truthing by Rovers & DGPS

Land Parcel boundary & area ascertaining by CORS based GNSS rovers.

Integration of property holding details of ULBs & ground validation.

Integration of ORI with property tax, LR, authority approvals etc.

Standardized data collection and GIS platform.

**MAP 2** publication with GIS-ready land parcel maps & its dissemination.

### Incentive Structure

Category	Population Criteria	Admissible Incentive
A	2 Lakh and above	30 Cr.
B	1 Lakh to 2 Lakh	25 Cr.
C	50,000 to 1 Lakh	20 Cr.
D	Less than 50,000	10 Cr.

# Milestone 3



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## 3. Claims & Dispute Resolution & MAP FINALIZATION

IEC, awareness, community engagement & sensitization.

Issuance of Notices & Notifications.

Claim finalization & dispute resolution of ownership, area, shape & boundary.

Preparation of updated land and property records.

**Final MAP-3** publication with land property card & register.

## Incentive Structure

Category	Population Criteria	Admissible Incentive
A	2 Lakh and above	30 Cr.
B	1 Lakh to 2 Lakh	25 Cr.
C	50,000 to 1 Lakh	20 Cr.
D	Less than 50,000	10 Cr.

# Incentive Summary

Milestone	Component	Unit Rate per ULB (cr)			
		Population (Less than 50,000) D	Population (50,000- 1 lakh) C	Population (1 - 2lakh) B	Population (2 lakh & above) A
<b>Milestone 1</b>	AERIAL SURVEY: Ortho Rectified Image generation, Quality check and preparation of MAP 1	<b>10</b>	<b>20</b>	<b>25</b>	<b>30</b>
<b>Milestone 2</b>	FIELD SURVEY: Ground truthing by Rovers & DGPS and integration with Property tax holding & other documents and publication of MAP 2	<b>10</b>	<b>20</b>	<b>25</b>	<b>30</b>
<b>Milestone 3</b>	Post-publication: Claim & Dispute resolution, notices, Community engagement & map-RoR corrections and PUBLICATION of final MAP 3	<b>10</b>	<b>20</b>	<b>25</b>	<b>30</b>
		<b>30</b>	<b>60</b>	<b>75</b>	<b>90</b>



# Guidelines 1....



## CATEGORIZATION

Sub-division into 4 ULB classes based on total population.

*Peri-urban could be included.*

## STRATEGY

Maximize benefits with prompt action & response within this FY 2024-25.

*First come First Served.*

## REWARDABILITY

States can claim for progressive milestones in the right **logical sequence.**

## IMPLEMENTATION

The DoLR will be the nodal for issuing **guidelines & reporting.**

## EVALUATION

DoLR will be verifying accuracy & completeness of ground progress before final recommendation to DoE.

**31.1. 2025**

# Guidelines 2...



## TARGETS

Empower more than 100 Urban Local Bodies with milestones 1 & 2 in this FY.

**Milestone 3 too for many, if not all.**

## COMPETITION

If the no. of ULBs exceeds the proposed numbers in the scheme:

**Incentive to be proportionately decreased**

## USAGE

States can use the incentive amount for urban infrastructure projects in any sector.

**Infrastructure of SSLR too.**

## INTEGRATION

ULBs where ORIs under AMRUT, NMCG & ICZM are available will be **eligible only for incentives for Milestones 2 & 3.**

## RELEASE

The final approved amount will be released by the GoI in a single installment.

**List of capital projects to DoE in format.**

## Modernization of Urban Land Records (ModULaR) scheme

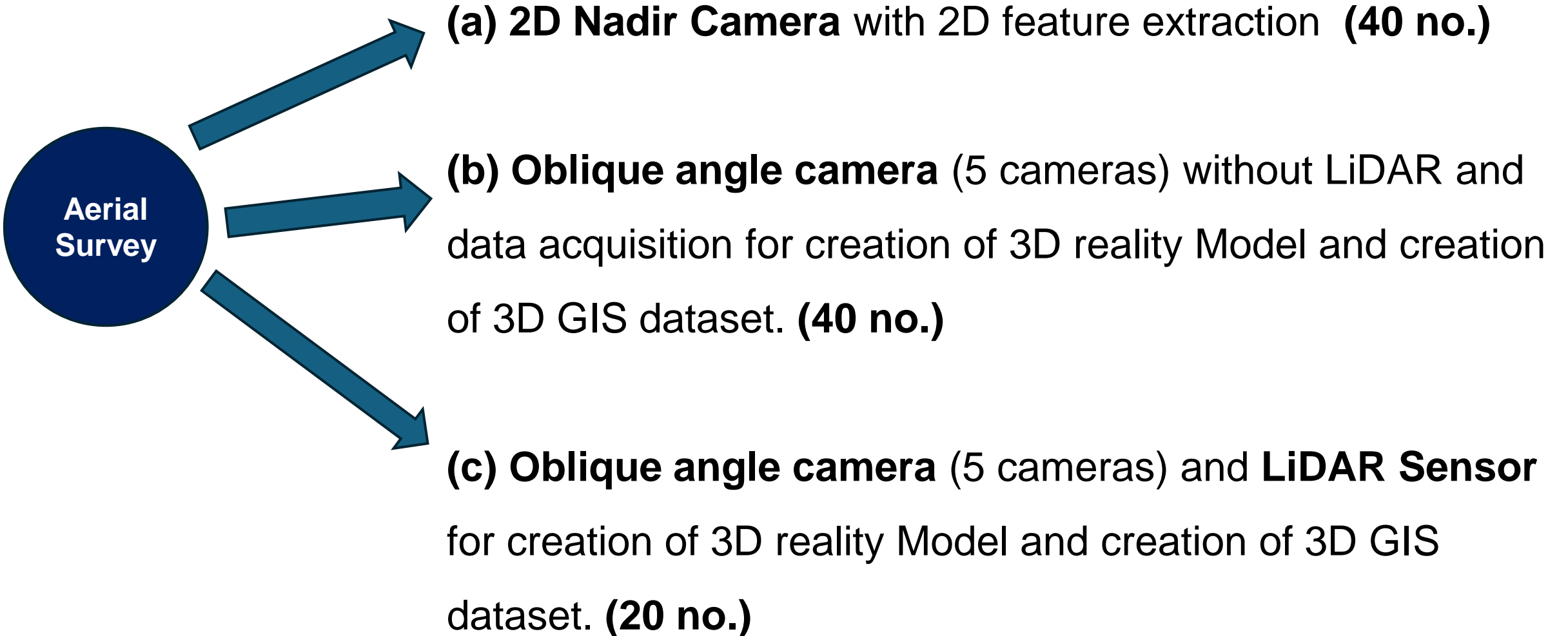
- A new sub-scheme **within DILRMP**
- Under Survey- Resurvey component
- Proposed pilot in more than **100** ULBs (**PHASE-I**)
- One year scheme
- Prepared in consultation with Sol, MoPR, MoHUA, Geospatial industry, inputs from various States and Internal Deliberations
- **CTAG** meeting on 5.8.24 and **PSMC** meeting on 5.8.24 & 9.8.24
- Pilot proposed total cost of **Rs.194 Crores.**
- **PHASE-II** 1000 cities 2025-26 and 2026-27 each tentatively

# ModULaR pilot



## **COMPONENTS**

1. Aerial Survey
2. Field Survey
3. IEC, Training & Documentation
4. Survey equipment
5. GIS software
6. NPMU and SPMU



# Costing for Pilot 1....



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S. No	Component	Activity	Remarks	M1 Nadir Camera (2D GIS)	M2 Oblique Camera (3D GIS)	M3 Oblique Camera + LiDAR (3D GIS)
1	<b>Aerial Survey</b>	Fixation of boundary of the Urban Areas, Establishment of Ground Control Points (GCPs), Procuring of necessary clearances; Aircraft/Drone Flying, Post Processing generation of Mapping Ortho Rectified Imagery (ORI), Orthomosaic, DEM, DSM, DTM, 3D textured model/3D Reality Model Per Sq. Km	<b>Survey of India (SoI) through procurement of private agencies</b>	20,000	25,000	30,000
2	<b>Feature Extraction</b>	Generation of 2D/3D GIS dataset through feature extractions including all Buildings and Public utilities, etc. and generation of Property Layer per Sq. Km	<b>Survey of India (SoI) through procurement of private agencies</b>	20,000	30,000	30,000
3	<b>Scanning, Digitization &amp; Integration of existing records</b>	Scanning, Digitization of existing Records & Maps and Integration of Record of Rights (RoRs) and Other details in Attributes Per Sq. Km	<b>State Government with assistance of SoI</b>			
4	<b>Field Survey</b>	Field Survey including ground truthing of average 1000 households/properties/land parcels per Sq. Km	<b>State Governments</b>	1,50,000	1,50,000	1,50,000
5	<b>Quality Check</b>	Quality checks and Generation of Land Parcel/ Property Layer at the three stages of ORI post flying Ground-Validated data and after inquiry & dispute resolution	<b>State Governments with assistance of Survey of India</b>			
6	<b>Cloud Space and Storage</b>	Storage and misc expenditure per Sq. Km	<b>State Govts and/or SoI</b>	3,000	3,000	3,000
<b>A</b>	<b>Total (1 to 6) Rate Per Sq. Km</b>			<b>1,93,000</b>	<b>2,08,000</b>	<b>2,13,000</b>

# Costing for Pilot 2....

S.No	Component	Activity	Remarks	M1 Nadir Camera (2D GIS)	M2 Oblique Camera (3D GIS)	M3 Oblique Camera + LiDAR (3D GIS)
7	<b>IEC</b>	Standard Operating Procedure (SOP), Manual Publication & IEC etc.	State Govts and/or SoI	10,000	10,000	10,000
8	<b>Training</b>	T&CB, Travel, Exposure Visits, Conferences etc.	State Govts and/or SoI	4,000	4,000	4,000
9	<b>Documentation</b>	Documentation, Evaluation & Monitoring etc.	State Govts and/or SoI	1,500	1,500	1,500
<b>B</b>	<b>Total (1 to 9) Rate Per Sq. Km</b>			<b>2,08,500</b>	<b>2,23,500</b>	<b>2,28,500</b>
<b>C</b>	Cost for 1 City of 35 Sq. Km (40 x A)			72,97,500	78,22,500	79,97,500
<b>D</b>	Cost for 100 Cities of 35 Sq. Km (40, 40 and 20 Cities by M1, M2 and M3)			<b>29,19,00,000</b>	<b>31,29,00,000</b>	<b>15,99,50,000</b>

# Costing for Pilot 3....



S. No	Component	Activity	Remarks	M1 Nadir Camera (2D GIS)	M2 Oblique Camera (3D GIS)	M3 Oblique Camera + LiDAR (3D GIS)
10	<b>Survey Equipments</b>	A) Rovers, Controllers, Hand Held Devices and Tablets etc.	1000 Rovers @ Rs. 6,00,000 each		<b>60,00,00,000</b>	
		B) Continuously Operating Reference Stations (CORS )	10 CORS station setup @ Rs. 25,00,000 each		<b>2,50,00,000</b>	
<b>F</b>	<b>Total Cost of Survey Equipments (One Time Cost)</b>				<b>62,50,00,000</b>	
11	<b>Software Development</b>	State Level Development of WebGIS Portal & Dashboard, Integration of Record of Rights (RoRs); Cadastral Maps; ORIs; Property Taxes database; Development Authority Layout plans; Ground Truthing Database, Hosting, Maintenance, Updation and Integration of Data on Web, APIs and Software Development (One time cost)	For Small States - Rs 1,00,00,000 per State x 10 States		<b>10,00,00,000</b>	
			For Large States - Rs 2,00,00,000 per State x 10 States		<b>20,00,00,000</b>	
<b>G</b>	<b>Total Cost Software Development</b>				<b>30,00,00,000</b>	



# Costing for Pilot 4....



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S. No	Component	Activity	Remarks	M1 Nadir Camera (2D GIS)	M2 Oblique Camera (3D GIS)	M3 Oblique Camera + LiDAR (3D GIS)
12	National Level IEC, Training, Documentation		80 Lakh + 80 Lakh + 40 Lakh	2,00,00,000		
13	Manpower & NPMU Establishment	National Programme Management Unit (NPMU)	12 Manpower @ Rs. 13,40,000 per month i.e. 13,40,000 x 12 months	1,60,80,000		
			Office Establishment cost@ Rs. 15,00,000 (One Time Cost)	15,00,000		
			<b>Total</b>	<b>1,75,80,000</b>		
14	Manpower & SPMU Establishment	A) State Programme Management Unit (SPMU) ( For 10 Large State )	8 Manpower @Rs. 9,65,000 per month i.e. 9,65,000 x 12 = 1,15,80,000 x 10 States	11,58,00,000		
			Office Establishment cost@ Rs. 8,00,000 x 10 States (One Time Cost)	80,00,000		
			<b>Total</b>	<b>12,38,00,000</b>		
		B) State Programme Management Unit (SPMU) (For 10 Small State)	4 Manpower @Rs. 6,00,000 per month i.e. 6,00,000 x 12 = 72,00,000 x 10 States	7,20,00,000		
			Office Establishment cost @ Rs. 5,00,000 x 10 States (One Time Cost)	50,00,000		
	<b>Total</b>	<b>7,70,00,000</b>				
	C) SPMU Total (20 States)			20,08,00,000		
H	Total Manpower (13+14C)			<b>21,83,80,000</b>		
15	Others	Miscellaneous / Incidental Charges		1,00,00,000		
<b>Total Pilot Phase Cost (100 Cities in 20 States/UTs)</b>				<b>193,81,30,000</b>		

# BUDGET ANNOUNCEMENTS 2024-25



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## PARA 98

**Land-related reforms and actions**, both in rural and urban areas, will cover (1) land administration, planning and management, and (2) urban planning, usage and building bylaws. These will be **incentivized for completion within the next 3 years through appropriate fiscal support**.

## PARA 99

### **Rural Land related actions**

Rural land related actions will include

- (1) assignment of Unique Land Parcel Identification Number (ULPIN) or Bhu-Aadhaar for all lands,
- (2) digitization of cadastral maps,
- (3) survey of map sub-divisions as per current ownership,
- (4) establishment of land registry, and
- (5) linking to the farmers registry.

These actions will also facilitate credit flow and other agricultural services.



# Modernization & Digitization of Land Records: RURAL

(Budget speech Para 98 & 99)

**Scheme for Special Assistance to States for  
Capital Investment 2024-25**  
(Dept of Exp MoF 9<sup>th</sup> Aug 2024, PART-VII A)

**Allotment - Rs. 5,000 Cr. ; FY 2024-25**



# Objectives & Milestones.

Catalyse  
Land Records  
Modernization

Accuracy,  
Updation,  
Seamless  
Integration.

Empowering  
farmers.  
Foster Rural  
Development.

Assessment  
& Evaluation  
Approach.



## Milestones (Independent)

1. Sub-Division & Survey-Re-Survey

2. ULPIN & Geo-Referencing

3. Land-Registry & Cross-Integration

4. Saturation of Land Records

5. Modernization of RCCMS

## Categorization of States

Category	List of States
<b>A</b> (11 States)	Andhra Pradesh, Bihar, Gujarat, <b>Karnataka</b> , Madhya Pradesh, Maharashtra, Odisha, Rajasthan, <b>Tamil Nadu</b> , Uttar Pradesh, West Bengal
<b>B</b> (7 States)	Assam, Chhattisgarh, Haryana, Jharkhand, <b>Kerala</b> , Punjab, <b>Telangana</b>
<b>C</b> (10 States)	Arunachal Pradesh, Goa, Himachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttarakhand

# Milestone 1



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## 1. Sub-Division / Survey & Re-Survey

i) Sub-division of all Land Parcels as per Current Ownership.

ii) Re-Survey & Upgradation of RoRs & Cadastral Maps.

iii) Survey of Non-Cadastral Areas.

- Updated Cadastral Maps and RoR
- Backlog mutations and Sub-Divisions
- ❖ Proportional (Sub-div and/or Survey-Resurvey)
- ❖ Percentage of village/Tehsil/District (I & ii) **80**
- ❖ 100% for Non-cadastral areas (iii) **20**

## Incentive Structure

Category	Admissible Incentive
A	1000 Cr.
B	600 Cr.
C	200 Cr.

# Milestone 2



## 2. ULPIN & Geo-Referencing of Land Parcels

i) Geo-Referencing of all Cadastral Maps.

ii) ULPIN (Bhu-Aadhar) of all Land Parcels

- Unique Identifier: Georef for precise identification & location
- Inter-operability between various GIS systems
- ❖ i) & ii) 50: 50
- ❖ Current status 50 + Graded Current year increment 50
- ❖ 100% Georeferencing target
- ❖ 100% ULPIN generation target

### Incentive Structure

Category	Admissible Incentive
A	100 Cr.
B	60 Cr.
C	30 Cr.

# Milestone 3



## 3. Land Registry & Integration with Other Systems.

i) Registry Process Completely Online & Paperless.

ii) Integration of Registration System with Land Records.

iii) All Legacy Registries Online & Searchable by citizens.

❖ i) & ii) 100% completion **(50:50)**

❖ iii) Proportional to completion (**Current status + Graded Current year increment in 3 time periods**)

- Online to 20years (x) (40)
- (x) to 1947 (40)
- 1947 to1908 (20)

## Incentive Structure

3. i) & ii)

Category	Admissible Incentive
A	200 Cr.
B	150 Cr.
C	100 Cr.

3. iii)

Category	Admissible Incentive
A	100 Cr.
B	75 Cr.
C	50 Cr.



# Milestone 4



## 4. Saturation of Land Records

i) Computerization of Balance RoRs & Cadastral Maps.

ii) Integration of all RoRs with Cadastral Maps: Unified Land Information System.

iii) Availability of RoRs Online: searchable, digitally signed & legally valid download.

iv) Consent based Aadhar Seeding and authentication in the RoRs.

- **25%** for each of the four sub-targets
- i) & ii) **Current status 60 + Graded Current year increment 40**
- iii) 100 % completion
- iv) Proportional to the total RoR

## Incentive Structure

Category	Admissible Incentive
A	100 Cr.
B	75 Cr.
C	50 Cr. (100 Cr for NE)

# Milestone 5

## 5. Modernization of Revenue Court Case Management System.

i) Completely Online & Paperless.

ii) Integration with land Records & Registration systems.

- i) & ii) **50: 50**
- 100% completion

### Incentive

Category	Admissible Incentive
A	150 Cr.
B	100 Cr.
C	75 Cr.

# Guidelines 1...



## CATEGORIZATION

Sub-division of states into 3 categories based on multiple parameters.

## INCENTIVIZATION

**Graded incentives** w.r.t. extent of progress made for completion of targets in milestones.

## REWARDABILITY

States can claim for individual milestones, focusing on **specific needs & capabilities**

## SANCTIONING

DoLR will be the nodal for reporting & **issuing guidelines.**

## EVALUATION

DoLR will be verifying accuracy of ground progress before reco to DoE  
**31.1.2025.**

# Guidelines 2...



## TARGETS

Empower States to complete all the Objectives of NLRMP & DILRMP in a time bound manner.

**First-come-first-served basis.**

## COMPETITION

Full incentive amount if they achieve 100 percent of the targets in various milestones.

## USAGE

States can use the incentive amount for infrastructure projects in any sector.

## RELEASE

The final approved amount will be released by the GoI in a single installment.

# Progress so far....

## Letters/Meetings:

- 22.08.24: DO letter from Secretary DoLR to all Chief Secretaries
- 23.08.24: Online meeting with all Secretaries/Directors
- 29.08.24: Meeting of DoE with ACS/Principal Secretary Finance of all States/UTs

## Regional Workshops:

- ✓ 21.08.24: Mumbai
- ✓ 31.08.24: Lucknow
- ✓ 06.09.24: Bengaluru
- 13.09.24: Chandigarh
- 20.09.24: Guwahati

## National Workshop

- 17 & 18.10.24: New Delhi



# Way forward....

- Final list of 3-10 Cities/ULBs: APO
- Coordination LR-UD-MC-DA etc
- Aerial Survey: 3 methodologies
- Ground truthing preparedness
- Manpower SPMU
- Equipment (Rovers)
- DILRMP: UC & APO 24-25
- Strategy for Incentives maximisation



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**Thanks for your attention**