



सत्यमेव जयते

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

20th September, 2024
Guwahati



Nort-East Region: Uniqueness & Focus

Regional
Workshop
Guwahati
3-4th May 2023

Bhumi Samvad-
VII New Delhi
24th Nov 2023

Constitutional
provisions

Customary laws

Central, States
16 ADC (10 Vith
Schedule + 6
Manipur Act, 1971)

Tailor made
solutions:
Traditional +
Modern tech

North-East Region: ISSUES



Forest cover & Community ownership



Plain & Hilly Areas differences



Land acquisition, Market forces, Shifting cultivation



Transliteration & Translation

- Implementation of DILRMP: Proposals & Utilization
- ROR & cadastral maps
- Survey-Resurvey
- RCCMS & NGDRS
- Centre of Excellence
- Training & Capacity building



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 9th Aug 2024, PART-VIII)**

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



BUDGET ANNOUNCEMENTS 2024-25



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

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



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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DEPARTMENT OF
LAND RESOURCES

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
Milestone 1 ↓	AERIAL SURVEY: Ortho Rectified Image generation, Quality check and preparation of MAP 1	10	20	25	30
Milestone 2 ↓	FIELD SURVEY: Ground truthing by Rovers & DGPS and integration with Property tax holding & other documents and publication of MAP 2	10	20	25	30
Milestone 3	Post-publication: Claim & Dispute resolution, notices, Community engagement & map-RoR corrections and PUBLICATION of final MAP 3	10	20	25	30
		30	60	75	90

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

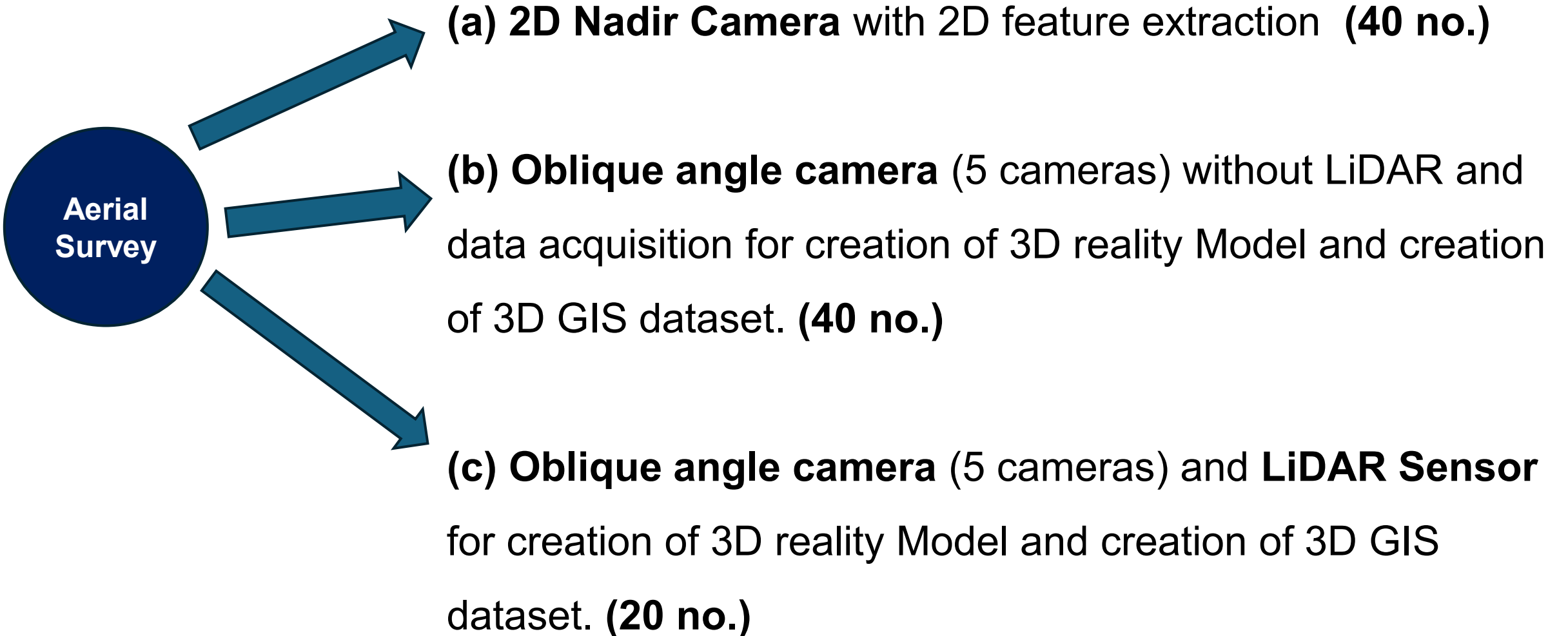
- A new sub-scheme **within DILRMP**
- Under Survey- Resurvey component
- Proposed pilot in more than **100** ULBs (**PHASE-I**)
- One year scheme
- Prepared in consultation with Sol, MoPR, MoHUA, Geospatial industry, inputs from various States and Internal Deliberations
- **CTAG** meeting on 5.8.24 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	Aerial Survey	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	Survey of India (SoI) through procurement of private agencies	20,000	25,000	30,000
2	Feature Extraction	Generation of 2D/3D GIS dataset through feature extractions including all Buildings and Public utilities, etc. and generation of Property Layer per Sq. Km	Survey of India (SoI) through procurement of private agencies	20,000	30,000	30,000
3	Scanning, Digitization & Integration of existing records	Scanning, Digitization of existing Records & Maps and Integration of Record of Rights (RoRs) and Other details in Attributes Per Sq. Km	State Government with assistance of SoI			
4	Field Survey	Field Survey including ground truthing of average 1000 households/properties/land parcels per Sq. Km	State Governments	1,50,000	1,50,000	1,50,000
5	Quality Check	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	State Governments with assistance of Survey of India			
6	Cloud Space and Storage	Storage and misc expenditure per Sq. Km	State Govts and/or SoI	3,000	3,000	3,000
A	Total (1 to 6) Rate Per Sq. Km			1,93,000	2,08,000	2,13,000

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	IEC	Standard Operating Procedure (SOP), Manual Publication & IEC etc.	State Govts and/or SoI	10,000	10,000	10,000
8	Training	T&CB, Travel, Exposure Visits, Conferences etc.	State Govts and/or SoI	4,000	4,000	4,000
9	Documentation	Documentation, Evaluation & Monitoring etc.	State Govts and/or SoI	1,500	1,500	1,500
B	Total (1 to 9) Rate Per Sq. Km			2,08,500	2,23,500	2,28,500
C	Cost for 1 City of 35 Sq. Km (40 x A)			72,97,500	78,22,500	79,97,500
D	Cost for 100 Cities of 35 Sq. Km (40, 40 and 20 Cities by M1, M2 and M3)			29,19,00,000	31,29,00,000	15,99,50,000

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	Survey Equipments	A) Rovers, Controllers, Hand Held Devices and Tablets etc.	1000 Rovers @ Rs. 6,00,000 each		60,00,00,000	
		B) Continuously Operating Reference Stations (CORS)	10 CORS station setup @ Rs. 25,00,000 each		2,50,00,000	
F	Total Cost of Survey Equipments (One Time Cost)				62,50,00,000	
11	Software Development	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		10,00,00,000	
			For Large States - Rs 2,00,00,000 per State x 10 States		20,00,00,000	
G	Total Cost Software Development				30,00,00,000	

Costing for Pilot 4....



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
			Total				1,75,80,000
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
			Total				12,38,00,000
		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
	Total				7,70,00,000		
	C) SPMU Total (20 States)				20,08,00,000		
H	Total Manpower (13+14C)						21,83,80,000
15	Others	Miscellaneous / Incidental Charges					1,00,00,000
Total Pilot Phase Cost (100 Cities in 20 States/UTs)							193,81,30,000

BUDGET ANNOUNCEMENTS 2024-25

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 9th 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
A (11 States)	Andhra Pradesh, Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal
B (7 States)	Assam , Chhattisgarh, Haryana, Jharkhand, Kerala, Punjab, Telangana
C (10 States)	Arunachal Pradesh , Goa, Himachal Pradesh, Manipur , Meghalaya, Mizoram , Nagaland, Sikkim , Tripura, Uttarakhand

Milestone 1

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 to 1908 (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

- 21 & 22.10.24: New Delhi



Way forward....

- Final list of Cities/ULBs (Area, Pop)
- 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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Government of India

Thanks for your attention