



Evaluation of Quality of Land Records in Union Territory of Puducherry
An assessment of 'Digital India Land Records Modernisation Programme (DILRMP)
of DoLR, MoRD, GoI



Summary Report of
Evaluation of Quality of Land Records in Union Territory of Puducherry
“An assessment of Digital India Land Records Modernisation Programme (DILRMP)”
of DoLR, MoRD, GoI



Report Submitted to
Department of Land Resources (DoLR), Ministry of Rural Development (MoRD)
Government of India (GoI),

Submitted by



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Name of State: Union Territory of Puducherry

Title: Evaluation of Quality of Land Records in Union Territory of Puducherry

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1. Methodology:

As per the ToR of DoLR MoRD, study importantly focuses on two key activities for the evaluation study

1. Assessing the computerization of Land Records (CLR) in terms of progress across digitization of textual records, digitization of spatial records, and computerization of the registration process, integration between these three components, training and capacity building and Web Enabled Land Records. Study team collected the required secondary information as per Questionnaire Part-I, which is already available with NIC/State Government (as provided in ToR).
2. Assessing the status of Real time mirror (RTM) in selected villages to test the efficacy of real time integrated updating of textual and spatial records and the registration process. The study team covered all land parcels from each of the two selected villages from two different districts of the Puducherry UT to conduct the beneficiary survey (as per ToR Questionnaire Part-II) for all the parcels and prepared the report for Puducherry UT.

1.1 Approach adopted:

The exercise was involved four stages:

- (a) Collection of complete required secondary data from concerned states and districts offices
- (b) Pre survey stage of finalizing the questionnaire, selection of interviewers and training of interviewers.
- (c) The field survey may be a set of independent investigators equally adopt in carrying out surveys.
- (d) Post survey actions like designing analytical frameworks and drafting the report.

Study team had a Initial discussions with Puducherry UT survey and land records department officials (Nodal Agency) and met with officials from the Puducherry UT survey and land records department officials at all levels, from state to the field level, as well as all associated officials.

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1.2 Sample size and sample selection process, tools used: field study/ questionnaire, primary and secondary data.

As per the ToR, the Evaluation of Quality of Land Records in the Union Territory of Puducherry, selected two districts namely Puducherry and Yanam districts for study purpose.

1. The study level of analysis is state only.
2. The proposed study covered (a) total of selected two districts from the UT'
3. From each selected district, one village was selected based on random sampling procedure.
4. From each selected 'village', available all RoR and Sub parcel have been covered.
5. On the whole, at the state level, (a) total of 369 beneficiaries were interviewed.

As per the above table 1.1, from the Union Territory of Puducherry, total of 369 RoRs beneficiaries were interacted by covering 107 Land parcels and 262 sub parcels.

Table : List of selected districts for study

Sl.No	Selected District	Selected Village	Total covered RoRS	Land Parcels	Sub Land Parcel
1	Puducherry	Mana Kuppam	231	27	204
2	Yanam	Francethippa	138	80	58
		Total	369	107	262

Methods of data collection:

Questionnaire design

- Study used the DoLR pre-designed questionnaires for the evaluation of the Quality of Land Records
- Data collected through Epicollect5

For the required secondary data collection, demonstrated questionnaire – I (Module I-V) was used provided by the DoLR, MoRD department and for the beneficiary survey interviews, used the pre-designed questionnaires provided by DoLR, MoRD. as provided in ToR.

The beneficiary survey interviews, entire data collection has been completed through electronic data collection process, i.e., both the questionnaires are entered in Epicollect5 data collection software and complete data is collected through smart phones. Data collection through Epicollect5 will bring more

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transparency and it captures the complete data collection details like who is the actual respondents are with 100 percent accuracy i.e., respondents' photo, place and location of the interview were taken, etc.

Quality controls:

The survey at the selected offices and their jurisdictions was carried out by a trained enumerator / survey team appointed and supervised by the NIRDPR study team. A comprehensive training programme involving briefing on the data collection instruments, mock call exercises, and pilot field visits will be carried out before the actual implementation of the survey. The actual field survey was commenced immediately after the briefing exercise to field enumerators and entire data collection was closely monitored by the NIRDPR study team through spot checks, back checks and on-site scrutiny of the data collection instruments.

Analytical Framework: Statistical and Qualitative techniques (percentages, cross tab) will be used for analysing the data.

2. Objective of the Study

The evaluation study will assess the extent of the Digital India Land Records Modernisation Programme (DILRMP) of Department of Land Resources (DoLR), MoRD, GoI implemented by the Survey & Land Records department of Puducherry. This will be done by considering and collecting the field based real time experiences of all the stakeholders on the quality of land records services offered by the land records department the evaluation of the quality of Land Records in the Union Territory of Puducherry by the study will cover the following key objectives

- ❖ To verify the extent of saturation of basic components of the DoLR programme like
 - (i) Computerisation of record of rights;
 - (ii) Digitisation of cadastral maps;
 - (iii) Integration of record of rights (textual) and cadastral maps (spatial).
- ❖ To verify and validate the extent of quality of computerization /digitization of land records in terms of the following six components:
 - i. Computerisation of Land Records (RoR)
 - ii. Digitization of Cadastral Maps/FMBs
 - iii. Linkage of RoR with Cadastral maps
 - iv. Computerisation of Registration
 - v. Integration of Registration (SRO) with Land Records (Revenue Office) and Modern Record Room
 - vi. To prepare a state-wise gap analysis in term of reported achievements and desired outcomes of the program

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- ❖ Assessing the computerization of Land Records (CLR) in terms of progress across digitization of textual records, digitization of spatial records, computerization of the registration process, integration between these three components and Web Enabled Land Records.
- ❖ Assessing the status of Real time mirror (RTM) in select villages to test the efficacy as per the standards set by the DoLR
- ❖ Obtaining individual beneficiaries (Land Parcels /RORs(complete village on quality services of land records) feedback on access, process, usage, leakages, outputs, successfulness, and extent of improved land record services etc.

Output / Outcome Indicators

Sl. No	Output / Outcome Indicators	Response
1	Number of villages where RoRs computerized	129
2	Number of RoRs linked with Aadhaar	Nil
3	Number of cadastral maps digitized	21,424
4	Number of Tippans/FMBs digitized	2,73,306
5	Number of villages where cadastral maps/ FMBs/ Tippans are linked with RoR	129 (not 100 %)
6	Number of geo-referenced land parcels	Nil
7	Number of Land Parcels assigned ULPIN	Nil
8	Number of Districts in which sub-division of land parcels is as per current ownership	Nil
9	Number of Villages where legally valid digitally signed RoR available online for download by citizens	129 villages
10	Number of States where Registration process is completely online & paperless	Nil

2.2 Additional parameters

- a) **Implementation mechanism:** Through the available Nilamagal and collabland software programme being implemented.
- b) **Training / Capacity Building of administrators / Facilitators:** Timely training given through survey institute at Orathanadu and Survey training Institute, Kerala.
- c) **IEC activities:** As per guidelines and requirements, departments conducted the IEC activates
- d) **Asset/Service creation & its maintenance plan** - Action taken to digitize the legacy records.
- e) **Benefits (individual, community)** –To have a fool proof land record and a completely digitized land details. For complete befits, land records information will be available on completion of the resurvey activity, which will at least take 5 years to complete the resurvey operation as a whole.
- f) **Convergence with scheme of own Ministry / Department or of other Ministry /Department:** Digital resurvey is yet to start, on completion of the resurvey work necessary information will be made available for implementation of various central sponsored schemes like- Agristack, BRAP, e_Samikha, aadhar seeding with ROR etc.

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2.3 Gaps in achievement of outcomes

Inadequate staff, Lack of technical expertise and dependency on neighboring states for training and other implementation work making slow progress towards the targeted results.

2.4 Key Bottlenecks & Challenges

Expertise guidance in accomplishing the scheme work need to be given, lack of full-fledged knowledge on DILRMP complete implementation process at state level etc.

2.5 Input Use Efficiency: As per the information provided it is moderate only and not using at full-fledged due to insufficient technical experts and subject experts.

The Activities Carried Out Under DILRMP :

- Land Records (textual data) and FMBs (spatial data) pertaining to UT of Puducherry are 100% digitized and both of them are integrated on one-to-one basis. However, spatial data of Puducherry is yet to be geo-referenced. In this regard, this administration has signed MoU with Survey of India for technical assistance in respect of Large Scale Mapping which will be started in first week of January 2024. Once aerial survey is completed using drone technology, geo-referenced spatial maps will be prepared after successful ground truthing and the same will be migrated to Bhū-Naksha which will achieve real time updation of RoRs and maps.
- All Sub-registries are FULLY COMPUTERIZED. Citizens can very well check all the transactions pertaining to a property using an Android device or desktop computers for the years starting from 1969. Further, they can download online ENCUMBRANCE CERTIFICATE 24X7. Further, registration software has been upgraded with all facilities to enable the citizens to calculate stamp duty, registration fee and they can feed the input property data pertaining to the proposed purchase.
- e-pathiram of Puducherry is an advanced software which contains all the modules that are in NGDRS. However, as per the directions of DoLR, this administration has started pilot testing of NGDRS as e-pathiram v2.0 wherein many gaps have been found and the same was addressed to NIC, Pune for resolving.
- Integration of e-pathiram (registration software) and Nilamagal (Land records software) have been completed and automatic mutation of land records was already implemented in Puducherry where the patta holder is selling the whole land.
- On the lines of Tamilnadu Government's automatic mutation, Puducherry has completed integration of e-pathiram (registration software) and Nilamagal (Land records software). As a

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result, automatic mutation of land records was triggered by concerned Sub-Registry and the same are approved by concerned Tahsildars for the cases involving full extent transactions only as of now. In case of purchase of a portion of land, auto mutation will not be triggered and manual procedure has to be followed. In order to avoid delays, seller or layout promoter has to be directed for subdivision of land parcels before granting layout approval by planning authorities.

- This UT Administration has successfully installed Modern Record Rooms in all 8 out of 8 Taluks.
- Further, this Administration has signed a MoU with Survey of India for Survey/Resurvey work using modern survey technology which will transform the present land records into a GIS enabled Geo-referenced land records platform which will act as base layer for integration of textual and spatial data of other line departments such as Registration, Town and Country Planning, Local bodies, Electricity, PWD, Banks, Civil Courts etc.
- It is proposed that in future all land records transaction, approval, updation and maintenance will be under the Block-Chain Technology mode.
- This will enable the citizens for seamless access to land records and efficiency of services and development of a comprehensive integrated land information management system which will be the main driving force for development of infrastructure and economic growth of the New India.

3. Observation and Recommendation

Fool proof record of rights with linkage of Aadhar, Geo referenced data and implementation of ULPIN to avoid duplication of record. Puducherry has made significant strides in its land records digitization initiatives:

- **Cadastral Mapping:** A substantial portion of the Union Territory's cadastral maps has been digitized and is now accessible online.
- **RoR Accessibility:** Records of Rights (RoR) for the majority of urban and rural properties have been digitized and can be accessed through government portals.
- **Online Mutation Services:** The Puducherry government has not yet launched online mutation services.
- **GIS Integration:** Efforts are underway to integrate Geographic Information System (GIS) technology with the land records management system for more precise mapping of land parcels.

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The central Government is enabling the UT Government in bringing best land resource management. Necessary training may be given in working the way out. Shortfall arises due to lack of man power as there are more vacancies in the revenue department yet to be filled.

3.1 Thematic Assessment

The thematic assessment examines key cross-cutting themes in the evaluation of land records modernization in Puducherry:

Accountability and Transparency

- Digitization of RoRs has improved transparency in land transactions.
- Lack of Aadhaar linkage in RoRs reduces accountability in ownership verification.

Employment Generation and Capacity Building

- Implementation of digital land records has created employment opportunities in data collection and IT support.
- Need for enhanced training programs to build expertise in geo-referencing and cadastral mapping.

Climate Change and Sustainability

- Digital records reduce reliance on paper documentation, contributing to environmental sustainability.
- Geo-referencing can support climate-resilient land use planning and resource management.

Use of Information Technology

- Web-enabled land records management has improved efficiency.
- Need to integrate AI-based automation for real-time data validation and fraud detection.

Social Inclusion and Beneficiary Impact

- Marginalized groups still face challenges in accessing digital land services due to low digital literacy.
- Expansion of mobile-based services can enhance inclusivity and ease of access.

3.2 Externalities

Not found any specific best practices or innovations as programme in not implementing at full-fledged due to lack of man power as there are more vacancies in the revenue department yet to be filled and due to insufficient technical experts and subject experts.

4. Conclusion

DILRMP status in the Union Territory of Puducherry: Since French Rule in Puducherry Land tax was initially collected on the basis of a Payemache survey register drawn up in palm leaves subsequently a Cadastre survey was conducted during the French regime from 1889-1910. After Independence and the enactment of the Pondicherry Survey and Boundaries Act, 1967 was passed, and resurvey operations were completed in 1973; and thereafter a Town Survey of urban and peri-urban areas was conducted from 1976 to 1980. Under the broad agis of Digital India Land Records Modernization Programme (DILRMP), a Central Sector Scheme implemented by the Department of Land Resources, Ministry of Rural Development, the following activities are carried out by this Directorate.

The key conclusions and recommendations of DILRMP of MoRD in the Union Territory of Puducherry as follows.

CONCLUSIONS COMPUTERIZATION OF LAND RECORDS (CLR)

Analysis and findings of the Computerization of Land Records (CLR) in terms of progress across digitization of textual records, digitization of spatial records, computerization of registration process, integration between these three components, training and capacity building, and Web-enabled Land Records are explained as follows.

A. The Record of Rights (RoRs)

1. The total number of Land parcels & RoRs are 2,56,168 and all are have been successfully computerized.
2. The computerization of government-held land records in the state has been successfully implemented. This initiative, often referred to as the digitization of Records of Rights (RoR), enhances transparency, efficiency, and accessibility in land management. The Records of Rights (RoR) for government-held land in the state are now available on a dedicated web portal, accessible to all citizen

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3. The state has created significant land administration systems, and one of its key advancements is the availability of digitally signed Records of Rights (RoR) for download by any citizen.
4. In a continued effort to enhance transparency, security, and convenience in land record management, the UT has introduced a feature that allows the verification of digitally signed Records of Rights (RoR) through a QR code or unique ID. Technologies have led to significant changes in how records are maintained and accessed. One of the most significant changes has been the shift from manual record keeping to digital records. The availability of Record of Rights (RoRs) for entire villages to any citizen marks a significant step toward transparency and efficiency in land management.
5. The single landholder RoRs are to be estimated, but approximate estimation is that, around 75% are single land owners.
6. Currently, RoRs excluded details on the specific share of each landholder in cases where multiple holders are listed.
7. Currently, RoRs are not linked to Aadhaar numbers and or mobile numbers of landholders.
8. Phone number linking occurs during new registrations, record updates, and administrative notifications, whereas Aadhaar seeding is typically carried out during land transactions, inheritance processes, and government scheme applications.
9. As of now, there are no provision for citizens to apply online to correct their Record of Rights (RoR).
10. As of now, the RoR database is not linked to cadastral maps, not linked with banks for mortgage purposes and does not mention or red-flag mortgages
11. The land records for both urban and peri-urban areas have been successfully digitized and are regularly updated. A total of **74,610** urban Record of Rights (RoRs) are currently maintained in the system.

B. Cadastral Maps

1. The last survey conducted was in 1978 using the 1:5000 scale cadastral maps.
2. The total of 21,424 cadastral maps covers a substantial portion of the state and successfully scanning all maps
3. But, (However) none of the Scanned Maps Converted into Digital Format (Vectorized).
4. In total, 42 cadastral maps were successfully geo-referenced in pilot test.

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5. As of the now, there are no land parcels that have been assigned ULPINs, not assigned unique to land parcels, and not made available of online facility for land owners to request surveys for sub-division.
6. As a practice, the subdivisions are updated in the cadastral map.

C. Registration

1. The state has total of 10 Sub-Registrar Offices (SROs), and these offices are strategically located across the state to provide accessible services to citizens. As of now all 10 Sub-Registrar Offices (SROs) in the state have been fully computerized. The first Sub-Registrar Office in the state was computerized in January 2005.
2. In the financial year 2023-24, a total no. of 40,799 land properties were registered across the state. 10 Sub-Registrar Offices are integrated with the Revenue Offices, and the Land Record database represents a significant achievement in the state's efforts to modernize its land administration system. The online facility for booking appointment slots allows individuals to reserve time for their property registration at their convenience.
3. The online system for property registration captures essential property attributes such as the Survey Number, Plot Number, Door Number, and Patta Number, ensuring that the property is accurately and legally documented.
4. In the state, government land is subject to specific regulations to prevent unauthorized transactions and ensure proper management. A key mechanism for managing government land is the process of blocking or red-flagging these properties in the registration system.
5. Property valuation rates such as **Circle Rates, Ready Reckoner Rates, Guideline Values, and Collector Rates** play a critical role in property transactions, influencing stamp duty and registration fees. These rates are made available to the public through **the Nilamagal Software** of the Directorate of Survey and Land Records.
6. Online e-stamp facility (Online Stamp Duty Calculator) for application fees, including stamp duty and registration fees and advancement in the property registration process. By enabling digital payments up to **Rs. 500/-**, the state has improved the convenience, efficiency, and transparency of fee transactions.
7. Updating the subdivisions in the cadastral maps is not merely a practice but a mandated requirement under the IGR Instructions.

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8. The practice of searching registration deeds is from **1969** onwards and there is SR login for verifying the Encumbrance of the property check seller's ownership document by from past record.
9. Capturing **PAN, Aadhaar, and mobile numbers** of each party involved in registration processes.
10. As of now, the online PAN verification system is not yet fully integrated for registrations as it involves higher costs and the facility of eKYC to verify for Aadhaar and PAN during the admission of parties is not available.
11. As of now, the practice of capturing party signatures using a digital pen and a pad has not been implemented.
12. As of now, the facility to upload identification documents is not available in the registration process, and Sub-Registrar Offices (SRO) are not able to complete the registration process online.
13. Currently, not every registration automatically triggers a corresponding digital mutation in the Records of Rights (RoR).
14. Currently, Sub-Registrar Offices (SRO) do not have a dedicated mechanism to automatically push pending mutation data if there is a network failure and SRO do not have the facility to check litigations online for properties scheduled for registration.
15. As of now, there is no online registration system available for citizens that employ eKYC for the first sale, lease, and license agreements.
16. AI Nibhrit solution is available to generate personal information about PAN, Aadhaar number and fingerprint impressions on registered pdf deeds.
17. From **1969** to **2005**, the digitization of Index records available for the Puducherry & Karaikal region.
18. An online grievance redressal system for filing complaints related to property registration at Sub-Registrar Offices is not yet available and is under development.
19. No mobile app has been developed for land registration related services

D. Mutation

1. In the year **2023-24**, a **total of 1,978** applications for mutation were received by the concerned authorities.
2. As in the end of the year 2023-24, there were 5,000 pending applications for mutation.

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3. As of now, an online facility for requesting mutation is not available.
4. An auto trigger mutation facility is available in the State. Extent involving full transaction is eligible for auto-trigger mutation.
5. There is no such transactions occurred in FY 2023-24 which were eligible for auto-mutation.
6. As of now there is no online facility available for submitting objections related to property administration.
7. As of now, certified copies of mutation orders are not sent to applicants via email, WhatsApp, or made available for download from the RCMS website.

E. Revenue Court Management System.

1. All 20 Revenue Courts in the state have been successfully computerized, providing significant improvements in efficiency, accessibility, and resource management.
2. The state does not have an online system for the public to enter case details.
3. The state does not provide notifications to applicants regarding their online appointment date and time through email, WhatsApp, or a website.
4. During the last financial year, no revenue court cases were handled through using the computerized system.
5. Court hearings are conducted only in physical mode form and court case documents are stored physically.
6. The Land Records database is linked to the RCMS system.
7. Revenue Courts have the capability to view and download RoR from this integrated system.
8. The registration software is not linked to the RCMS software for enable the automatic pushing of land registration data for auto mutation.
9. Pending revenue court cases are not red-flagged in the RoR in the state.
10. The Land Records database is not linked to the eCourts system of Civil courts, and none of the eCourts are linked to the Land Records database.
11. The Land Records database is not linked to the eCourts system, and civil courts do not have the capability to view or download RoR through this system.

CONCLUSIONS OF REAL TIME MIRROR (RTM)

The study team assessed the RTM Status with field validation and discovered whether spatial and textual records are updated, at the time of transaction, succession, and/or sub-division at

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the land parcel level, in real time by covering the following key components like updation and real-time status of textual and spatial records on the ground, through interviews with land owners, tenants, and any other Institutions involved.

The key findings of Real Time Mirror (RTM) of six important components are as follows.

A. Differences between spatial records and textual records

1. The extent of land parcels difference between land records and land parcels with regard to updating partition and demarcation actions was expressed by more than two-third (66.4%) and the rest said that there was no such difference found.
2. With regard to differences between spatial records and textual records, especially in terms of updating partition and demarcation actions, 24.4% reported that bother RoR and spatial records were updated followed by 31% only in RoR, and almost half of the respondents (41.7%) reported that no difference was found in neither RoR nor spatial record updates.

B. Differences between on-ground status and land records status in terms of ownership details

1. State as whole, more than two-thirds (89%) reported that RoR format was not able to capture non-agricultural land uses in detail (e.g. in- built up areas, ownership of flats or individual floors), and only 11% reported that it took place In terms of differences between on-ground status and land record status in terms of ownership.
2. More than 78% of respondents reported that on-ground ownership details, including any built-up area on the land parcel, coincide with the details in the land record, especially in the context of shared ownership.
3. Around one-fourth (22%) of respondents reported that records are not up-to-date with regard to on-ground ownership details, including any built-up area on the land parcel, coincide with the details in land record, especially in context of shared ownership or multiple owners? This is caused because of since 1980 no survey took palace to update the records.

C. Differences between the on-ground land use and the one stated in ROR?

1. On the whole, more than 87% of respondents reported that there is no any discrepancy between On-Ground Land Use and Record of Rights (RoR) while the rest reported that there are some d discrepancies between On-Ground Land Use and Record of Rights (RoR).

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2. Regarding the effectiveness of the ROR format in capturing non-agricultural land uses in detail, only 15.4% of respondents reported that RoR is capturing the non-agricultural land uses while the rest stated that it is RoR is not capturing the non-agricultural land use.

D. Difference between the on-ground location and that marked in the revenue maps

1. More than 92% reported that they didn't find any discrepancies between On-Ground Locations and Revenue Map Markings.
2. Similarly, 85% reported that they didn't find any differences in Area between On-Ground Situation, Spatial Records on Paper, and Records of Rights (RoR).
3. Around 15% of respondents reported that there are differences in Area between On-Ground Situation, Spatial Records on Paper, and Records of Rights (RoR) due to no land survey taken place since 1980.
4. Around 90% of respondents reported that, no on-ground partition and demarcation proceedings been incorporated in textual and spatial records.

E. Differences between on-ground status and land records status, in terms of Encumbrances on parcel

Almost all respondents reported (99%) that they didn't find any differences between on-ground status and land records status, in terms of Encumbrances on parcel.

F. What are the various encumbrances on the land parcels and how many of these are mentioned on the RoR.

Only four respondents from Yanam dist. reported various encumbrances' issues like court cases, litigations and issue of RoR not updation since 1980 reported.

Finally, as per the interactions with state officials, a resurvey has to be completed at the earliest and as UT department staff is not in position of expertise in this field and lack of knowledge in implementing the schemes. Received a suggestion that , DoLR can identify and posted one Nodal officer /Senior consultant at state level, who can become a catalyst between DoLR and UT for effective and successful programme implementation as per the DILRMP targeted objectives. For instance, UT department officials are not aware of the technical parameters in buying rovers etc., so DoLR may supply or help in procurement in such kind of cases. The steps to be taken in successful implementation depends on the expertise guidance, which is lacking in UT of Puducherry.

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4.1 Issues & Challenges

Data Accuracy: Inconsistencies between physical and digital records can pose challenges in maintaining accurate information.

Technology Adoption: Effectively training government officials and citizens to utilize digital platforms and services is essential for the success of digitization initiatives.

Legacy Records: Older records, often several decades old, may be incomplete or inaccurate, necessitating thorough verification before digitization.

Connectivity Challenges: Limited internet connectivity in rural areas of Puducherry can hinder access to digital services.

4.2 Vision for the future

Comprehensive Digitization: Puducherry is striving to achieve 100% digitization of all land records, with a focus on completing the process in rural areas.

Capacity Building: Continuous training for government officials and citizens is crucial to ensure effective use and long-term sustainability of digital systems.

Mobile Accessibility: The government is developing mobile applications to enhance citizen access to land records conveniently.

4.3 Recommendations for scheme with reasons

As per the analysis of secondary data collected, field observations and feedback obtained from all the stakeholders in the implementation of DoLR launched centrally funded project, the Digital India Land Records Modernisation Programme (DILRMP), by assessing the computerization of Land Records (CLR) has been assessed. This assessment includes the digitization of textual records, digitization of spatial records, computerization of the registration process, integration between these three components and Web Enabled Land Records and Assessing status of Real Time Mirror (RTM) in selected villages to test its efficacy according to the standards set by the DoLR in the Union Territory of Puducherry. Based on the findings of the study, a few additional recommendations are being added for the betterment and effective reach out of the programme as follows.

- 👉 Land Records (textual data) and FMBs (spatial data) pertaining to the UT of Puducherry are 100% digitized and both of them are integrated on a one-to-one basis. However, the spatial data of Puducherry is yet to be geo-referenced and this needs to be completed at the earliest.

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- ☞ Needs to strengthen with sufficient manpower and technical expertise human resources may be addressed immediately for successful implementation of the scheme.
- ☞ Conversion of scanned cadastral maps not yet completed which needs to be completed on a priority basis.
- ☞ None of the Scanned Maps have been converted into Digital Format (Vectorized), which needs to be addressed immediately.
- ☞ Very minimal cadastral maps (42 out of 21223) are geo-referenced which need to be completed cent percent at the earliest.
- ☞ Online facility for requesting mutation is not available, which needs to be made available immediately.
- ☞ The Real Time Mirror (RTM) findings with field (few respondents) validation varied only in case of extent of land parcels difference between land cords and land parcels with regard to updating of partition and demarcation actions and records are not up-to-date with regard to on-ground ownership details, caused due to since 1980 no survey took place to update the records, which needs to be addressed immediately.
- ☞ DoLR may extend required support and directions in association with NIC to complete e-pathiram v2.0 successful implementation by resolving gaps identified during the pilot testing of NGDRS.
- ☞ Need to immediately ground the proposed Survey/Resurvey work along with Survey of India (MoU signed) using modern survey technology. This will transform the present land records into a GIS enabled Geo-referenced land records platform. This will transform the present land records into a GIS enabled Geo-referenced land records platform that will act as base layer for the integration of textual and spatial data from other line departments such as Registration, Town and Country Planning, Local Bodies, Electricity, PWD, Banks, Civil Courts etc.
- ☞ Upon successful completion of Survey/Resurvey work, it will enable citizens to have seamless access to land records and improve the efficiency of services. This will contribute to the development of a comprehensive integrated land information management system which will be the main driving force for the development of infrastructure and economic growth in new rural India.
- ☞ DoLR is trying its best practices in bringing development in all states. As few states are deprived of knowledge in implementation they are not able to succeed. For instance NLRMP which

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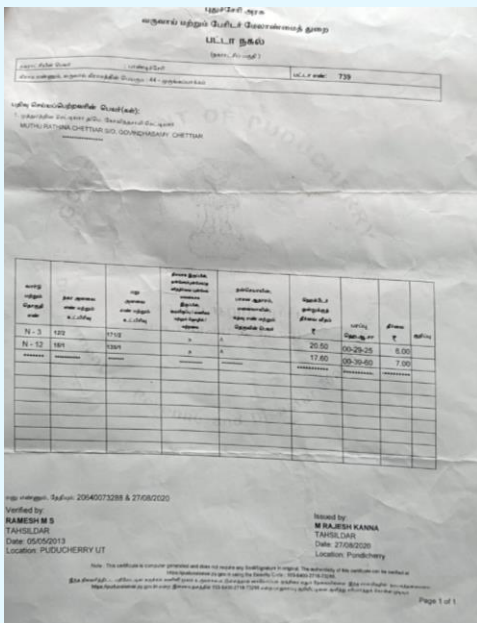
started way back 2006 is still not able to generate digitized data even after 15 years. To make things happen DoLR can recruit teams and send them to implement it in various states with the assistance of state Government and such team must be the point of contact between the State and DoLR, otherwise Just funding and asking to implement without such technical and human resources doesn't serve the purpose.

5. References

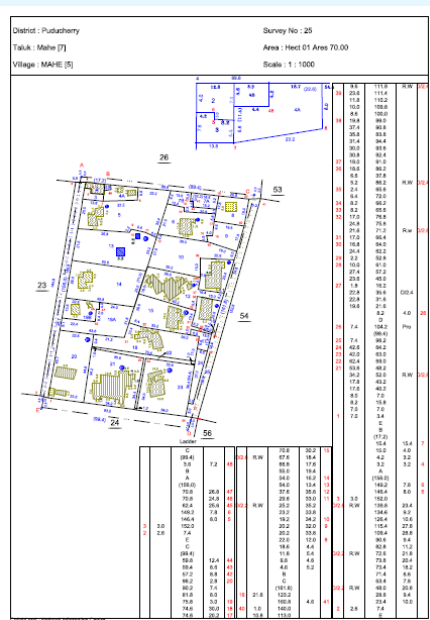
1. Department of Land Resources, Ministry of Rural Development, Government of India. (2023). Digital India Land Records Modernisation Programme (DILRMP) Guidelines.
2. National Informatics Centre. (2023). Implementation Report on Land Records Modernisation in Puducherry.
3. Survey of India. (2023). Geo-Referencing of Cadastral Maps: Best Practices and Implementation Strategies.
4. Puducherry Department of Revenue and Disaster Management. (2023). Annual Report on Land Administration and Digitization Progress.

6. Appendices:

Digitized Patta Copy



Digitized FMB copy (Mahe)



Modern Record Room



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Modern Record Room



Survey Training for surveyors & Draughtsman



Hands on training on Robotic total station



FIELD PHOTOS:



ANNEXURE –I: PART –I (MODULE I-V)

Sl.No.	Parameter and Indicators	Response
Module I Record of Rights (RoRs)		
1.	Total number of Land Parcels	2,56,168
2.	Total number of RoRs in the state	2,56,168
3.	No. of RoRs computerized	2,56,168
4.	What are the other documents/registers maintained by the Revenue authorities in the state related to RoR such as Jamabandi Register etc.	Settlement, Register, Chitta Register, FMB, Adangal
5.	A brief process flow of who maintains, what and when entries are made in these documents/ registers to be provided.	As mentioned in Annexure-II
6.	Is RoR of Govt. held land computerized in the state	Yes
7.	Is RoR available on web portal for view/ download by any citizen	Yes
8.	Is digitally signed RoR a legally available for download by any citizen	Yes
9.	Is digitally signed RoR a legally valid document in the state	Yes
10.	Is digitally signed RoR verifiable through a QR code/unique ID.	No
11.	Have manual records been discontinued so that digital records are sole legal record ?	Yes
12.	Is list of all RoRs of entire village available for view/download by any citizen.	Yes
13.	Total Khata numbers in the State	2,08,962
14.	Average number of land holders in each RoR	3 to 4
15.	Number of single land holder RoRs	Around 25% are joint pattas
16.	Number of pending applications for including names in RoRs	5000
17.	Where more than one land holder is mentioned in RoR, is share of each holder is mentioned to elaborated	No
18.	Details regarding in what format and in which column share of each holder is mentioned to be elaborated	NA
19.	Where more than one land holder is mentioned in RoR, is sub-division of plot also done (Details of process followed may be briefly mentioned)	No
20.	Is RoR seeded with Aadhaar	No
21.	If yes, number of RoRs seeded with Aadhaar	NA
22.	Is RoR seeded with mobile number of land holder	No
23.	If yes, number of RoR seeded with mobile	NA
24.	On what occasion phone number and Aadhaar are seeded ?	NA

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25.	Is an alert message sent to the registered mobile number in case of any change in that RoR/Mutation ?	NA
26.	Is there a provision for citizen to apply online for correction of their RoR	No, only physical application
27.	Total number of RoRs corrected in the last financial year (April 2023-March-2024)	1216
28.	Is RoR database linked with Cadastral Maps	No
29.	If yes, number of RoRs linked with Cadastral Maps	Not Linked
30.	Is RoR database linked with banks for Mortgage	No(5920 mortgages flagged in IGRS)
31.	If yes, number district where it is linked	NA
32.	Also number of banks and bank branches which are linked	NA
33.	Number of banks and bank branches which are not linked	NA
34.	Is mortgage mentioned/ red-flagged in the RoR	Mortgage to be registered
35.	Process flow followed for mention/red-flag in RoR to be provided.	NA
36.	Number of RoRs with mention/ red-flag of mortgage (as on date)	Release of mortgage to be registered. (1208 mortgages)
37.	Is mortgage release updated in RoR	No
38.	Process flow followed for mention of release of mortgage in RoR to be provided.	NA
39.	Is online transliteration facility available for RoRs.	Available in Tamil, English
40.	Number of columns in RoRs; what details are prescribed to be captured in RoRs; what details are actually captured and not captured in practice ?	Survey no, sub div no, old survey no, Area, assessment classification, type of land, sources of irrigation, pattadar and tenant name etc. Enclosed sample copy
41.	Is gender of land holder captured in RoR? If yes, how many females are land holders ?	No
42.	What is the unit of land measurement used in RoR? What is its conversion in acres ?	(Hectare : Are : Cantire) (H:A:Ca) (1 Hectare = 2.47 acres)
43.	Is land record of urban and peri-urban areas also digitized and updated ?	Yes
44.	If yes, how many urban RoRs are there and which entity maintains it ?	74610, Maintained by Taluk Tahsildars
45.	Describe terms used in RoRs and Maps along with English/Hindi standard terms in tabular form.	Chitta, (record of each patta), Not available in Hindi.

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Module II : Cadastral Maps		
1.	Year when Survey was last done in the State	1978
2.	Scale of available cadastral Maps	1:5000
3.	Total no. of Cadastral Maps	21,223 +201
4.	Total number of maps scanned	21,223 +201
5.	Total Scanned maps converted into digital format (vector zed)	21,223 +201
6.	Total no. of cadastral maps Geo-referenced	42 fms
7.	Number of land parcels Geo-referenced	789
8.	Number of Land Parcels assigned ULPIN	Nil
9.	Whether any other unique ID assigned (Is unique ID a random number or does the ID has some logical basis ? if logical, details of the same	Nil
10.	Is online facility available for land owners to request survey of their land parcel for sub-division	No
11.	Brief description of process flow from receipt of request to updation of sub-division including time taken (average days)	As mentioned in Annexure-I/ Average time taken 3 months
12.	Number of online requests pending for sub-division (as on date)	Not yet implemented
13.	Is subdivisions updated in the cadastral map, as a practice ?	Yes
14.	Ratio of Survey number and RoRs land holders per RoR.	12

MODULE – III REGISTRATION		
1	Total no. of SROs in the State	10
2	Number of SROs computerized	10
3	Month and Year of Computerisation of 1 st SRO in the State	January, 2005
4	Month and Year of computerisation of latest SRO in the State	In the Mahe from September, 2008
5	Number of land properties registered in FY 2023-24	40799
6	Number of SROs integrated with Revenue Offices and Land Record database	10
7	Is there online facility for booking appointment slot for registration	Yes
8	What information/ details are captured during online system for appointment slot booking	Complete information of the Property, details of the Claimant, Executant & Witnesses.
9	What Property attributes (survey number, door number, plot number, khasra, khewat, khatouni number, etc.) are captured in online system	Survey Number, Plot No, Door No, Patta No. Area
10	Whether anywhere registration is allowed in the state	Yes
11	Whether sale of Govt Land is blocked/ red-flagged (details of process followed be provided)	Yes, in case of Govt. land the Guide line Value is assigned as Zero and when the value is assigned as Zero registration will be automatically blocked.
12	Whether Circle Rates/ Ready Reckoner Rates/ Guideline values / Collector Rates for lands are available to citizens in the	Yes, available through Nilamagal Software of Directorate of Survey&

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	Registration software	Land Records (nilamagal.py.gov.in)
13	Is Online payment facility available for application fee - Stamp duty, registration fees, etc.	Online e- stamp is allowed
14	Is e-Calculator (Online Stamp duty calculator) made available for citizens to compute fees	Yes
15	Is party/ owner names and area details checked from Land Records (RoR) before registration. Is the copy of RoR downloaded as proof of checking? If not, what process is followed as proof for checking?	Yes, RoR is checked by the sub-registrars before registering using nilamagal.py.gov.in portal.
16	Is this mandated in Rules, SOP, Manual or just a practice?	Mandated through IGR Instructions
17	In practice, how many year's registration deeds are searched by SRO before registration?	From 1969 onwards
18	Do SRO check seller's ownership document by past record.	Yes, facility is available in SR login for verifying the Encumbrance of the property.
19	Whether PAN, Aadhaar number, mobile number are captured for each party	Yes
20	Is online PAN verification system integrated for Registrations involving higher cost	No, approval obtained from Protean integration in process
21	Is facility available to verify eKYC of Aadhaar/ PAN during admission of parties	No
22	Whether party signature is captured using digital pen and pad	No
23	Whether identification documents upload facility is available	No
24	Whether SRO is able to complete registration online	Yes
25	Whether home visit module is available for SRO	yes
26	Whether SRO has facility to generate encumbrance certificate and e-search	Yes
27	Whether SRO can access legacy data as a ready reference	Yes
28	Does every registration trigger a corresponding digital mutation in the RoR	No (form -13A is sent to Tahsildar)
29	Whether SRO can push pending data of mutation in case of any network failure	No
30	Whether SRO can check litigations online for a property scheduled for registration	No (Objections submitted will appear in EC)
31	Whether SRO is able to trigger SMS for important events during document registration	Yes, automatic SMS during cash receipt generation, Regularization and completion of document scanning.
32	Whether there is an online registration system for citizens available through eKYC for first sale, Lease and License Agreements to facilitate presence less registration anywhere anytime	No
33	Whether dynamic deed templates are available	No (five templates are available in regn.py.gov.in portal)
34	Whether (AI Nibhrit) solution is available for masking personal information of PAN, Aadhaar number and fingerprint impressions on registered pdf deeds	Yes
35	From which year is digitised legacy data available	Digitization of Index records from 1969-

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		2005 available for Puducherry & Karaikal region
36	Whether an Online grievance redressal system is available for filing complaints related to property registration at Sub Registrar Office	No, module under development
37	If yes, number of online grievances received and settled during FY 2023-24	No
38	Whether a document can be searched based on Name, Property details like survey number, deed number, etc.	Yes, through eServices portal in public domain (regnec.py.gov.in/eservices)
39	Whether there is a mobile app developed for land registration related services (Yes/No)	No

Module IV : Mutation		
1.	Number of applications received for mutation in FY 2023-24	1978
2.	Number of applications disposed in FY 2023-24	1:5000
3.	No. of applications pending for mutation	5000
4.	Is online facility available for requesting mutation	No
5.	Is auto trigger mutation facility available in the State	Yes
6.	What type of transactions are eligible for auto-trigger mutation ?	Extent involving full transaction
7.	How many such transactions occurred in FY 2023-24 which were eligible for auto-mutation ?	15
8.	Of these, how many mutations were actually completed through auto-trigger	15
9.	Number of mutations related to sub-division	To be estimated
10.	Out of total mutation cases received through Registration how many are for mutation of land with entire Khasra	15
11.	What is the process flow followed in the state for mutation process	As mentioned in Annexure-I
12.	What is the process followed for receiving objections from public ?	To submit the objection letter in respective Taluk Office
13.	Is SMS sent to all mobile number of all villagers ?	No
14.	Is there facility for objections to be sent online ?	No (physical objection)
15.	What is the prescribed period for issue of mutation orders from the date of receipt and what is actual period in practice	90 days
16.	Is SMS alert sent to applicant at each stage for his information	No(physical notices)
17.	Does Patwari Submit his report online	No
18.	Are certified order copy of the mutation sent to the applicant through email or whatsapp or is it available for download from RCMS website	No
19.	How many cases are pending where mutation orders have been passed but certified copy is not yet sent to the applicant? Average number of days of pendency of such cases?	NA
20.	Is cyber Tehsil functional or proposed to be functional in the state. If proposed, what is the stage?	NA
21.	Are RoRs updated immediately after issue of mutation orders or does the state follow a different practice and cycle of updation of RoRs ?if so the details of	Yes A register and FMB are

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	process and cycle followed for updation ?	updated
22.	In what type of mutation request it is carried out without inviting objection?	NA
Module V : Revenue Court Management System		
1.	Total number of Revenue Courts in the State	20
2.	Number of Revenue Courts Computerized	20
3.	Number of revenue court cases handled in the computerized system in the last financial year	0
4.	Number of revenue court cases handled in the manual system in the last financial year	0
5.	Does state have online system for public to enter case details? what details are captured at data entry stage ?	No
6.	Is online appointment date and time notified to applicant through email/whatsapp/ website?	No
7.	Is the court order typed on the RCMS system directly or is separate pdf of the court order uploaded?	No
8.	Is court order sent to litigants on email/whatsapp/ posted on website	NA
9.	Are court hearings held online/VC or only in physical mode or hybrid	Physical mode
10.	How the court cases documents are stored in the court (electronically/physically)	Physically
11.	Is Land Records database linked to RCMS system and can RoR be viewed/downloaded by Revenue Courts	Yes, RoR can be viewed.
12.	Is Registration software linked to RCMS software enabling pushing of land registration to auto mutation ?	No
13.	Is the fact of a pending revenue court case red-flagged in RoR ? What is the system followed in the State for red-flagging and what exact remarks are mentioned on the RoR and in which column ?	No
14.	Number of revenue court cases red-flagged in the RoR (as on date)	NA
15.	Is Land Records database linked to eCourts system of Civil courts?	No
16.	If yes , how many eCourts are linked with LR database ?	NIL (9 cases flagged in IGRS database)
17.	Is Land Records database linked to eCourts system and can RoR be viewed/downloaded by Civil Courts	No
18.	Is the fact of a pending civil court case red-flagged in RoR? What is the system followed in the state for red-flagging and what exact remarks are mentioned on the RoR and in which column ?	NA, (to be submitted physically to SRO to reflect in EC)
19.	Number of civil court cases red-flagged in the RoR (as on date).	NA

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ANNEXURE – II: WORK FLOW FOLLOWED IN MUTATION & SUB-DIVISION OF THE SURVEY NUMBERS.

The Tahsildar and Taluk offices have been appointed as Specified Officers under Section 16(1) of the Puducherry Settlement Act, 1970 for the purpose of modifying or including the entries in the Approved Register of Rights. Individuals who wish to mutation in the register of rights must to submit an application along with the required title deed to the concerned Taluk office where the property is located. The application will then be then forwarded to the respective Village Administrative Officer of the Revenue Village where the property is located.

If the petitioner has purchased the entire extent in the said survey number vide his title deed then the mutation process involves the entire extent. Whereas if the petitioner is said to have purchased only part of the extent in the said survey number , then Sub-Division of the said Survey number is required in the mutation process. In the case of mutation involving the entire extent the Village Administrative Officer of the concerned Revenue Village scrutinizes the documents submitted by the petitioner, verifies the possession of the petitioner in the field and furnishes the report to the concerned Revenue Inspector. The Revenue Inspector after verifying the same will forward the application to the Tahsildar. Based on the report of the VAO& R.I, the mutation in the Register of Rights for the said survey number will be carried out by the Tahsildar.

In the case of Sub-Divisions, after receipt of the report from VAO & R.I the said application will be forwarded to the survey section. The Surveyor will inspect the said field and prepare a sketch by sub-dividing the said field corresponding to the extent of enjoyment made by the petitioner. The said sketch will be forwarded to the technical section for scrutiny and after the technical scrutiny the Thasildar will approve the creation of the said new sub-division and mutation of the said property will be carried out.
