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NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH

A Pilot Impact Assessment of the Digital-India Land Records Modernisation Programme

Synthesis Report

Partner Institutions

The National Council of Applied Economic Research
The Indira Gandhi Institute for Development Research
The National Institute of Public Finance and Policy

Supported by

Omidyar Network

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Foreword

India is among the world's most land-scarce countries relative to population. By 2050, the land per capita in India will decline four fold and China will have four times more land per capita and Brazil some 20 times. Land-related disputes in India account for about 60 to 70 percent of all civil litigation and as much as 90 percent of land parcels are subject to legal dispute.[1] Security of property rights and land titles are fundamental to well-functioning land markets, themselves essential for robust economic activity in agriculture, manufacturing or services. The situation on the ground is a far cry from India's aspirations of conclusive land titling based on the well-known 'curtain', 'mirror', and 'assurance' principles.

In 2014 the Department of Land Resources, Ministry of Rural Development, felt that its desire to reform its flagship programme, the National Land Records Modernisation Programme (NLRMP) should be informed by a prior impact assessment. The scheme, now relabelled the *Digital India Land Records Modernisation Programme,* or DILRMP), has been in existence for many years, but had not been evaluated in any detail in the field. Instead of an in-house or government evaluation, the Department rightly felt there would be multiple advantages to requesting independent research institutions to do the task. The quality and rigour of the work might be higher, and there might be some additional modest but badly needed capacity building in land economics. In consequence, three research institutions, NCAER, NIPFP and IGIDR, came together to collaborate in a unique impact assessment study of the DILRMP designed as a learning pilot to importantly inform any national assessment. NCAER was privileged to lead the three institutions in coordinating the effort and in preparing an overall synthesis report.

The pilot impact assessments were carried out in Himachal Pradesh (NCAER), Rajasthan (NIPFP) and Maharashtra (IGIDR) yielding three state reports in parallel with this overall report that pulls together and builds on the rich findings of the individual state reports. This synthesis report also presents the overall policy and programme design recommendations for moving ahead on India's quest for more secure land titles.

[1] K P Krishnan, Venkatesh Panchapagesan, MadalasaVenkataraman (2017), "Distortions in Land Markets and Their Implications for Credit Generation in India," *Economic & Political Weekly*, LII (35), 48-55.

The impact assessments show that while all three states have pursued the computerisation of land records and of the registration process, the emphasis has varied. The computerisation of hand-written record has received the greatest attention in Himachal Pradesh, while Maharashtra has focused on automating the registration process. But in all three states, the contribution of the DILRMP to these efforts (mostly in its earlier incarnation, the NLRMP), has been rather muted. As a result, the potential inherent in digitising land records and their registration has so far been realized only partially, and much more needs to be done. This synthesis report and the constituent state reports offer a number of key suggestions, including better staff training and process flows to ensure comprehensive, accurate records that can be updated in near real time, linking disparate data bases, and technological innovations that were simply not possible just a few years back. These and other design and deployment improvements suggested by this work have the potential to dramatically improve land record services to the public and hopefully reduce property related litigation in India over time.

The findings of this work hold tremendous significance for India's rapid economic growth through the better functioning of rural land markets. The findings can help formulate state action plans to attain the goal of secure, assured land records that mirror ground realities and are generated by efficient titling services. As originally envisioned, this work can importantly help the Department of Land Resources make evidence-based design and implementation changes in the DILRMP that would encourage and support state efforts to bring about palpable improvements in their land recording services. NCAER is planning to build a Land Records Index for each Indian state and Union Territory to gauge their progress toward this goal and to reflect how land buyers and sellers perceive this progress. NCAER is also considering a study on land litigation in selected High Courts to shed light on the extent to which inappropriate land records are the cause of land disputes.

I am grateful to the Omidyar Network and to Peter Rabley and Shreya Deb for supporting this unique effort as a part of Network's programme priorities in securing improvements in property rights globally. I am particularly grateful to all the state officials who cooperated fully and guided us in our work. Ajay Shah at NIPFP and Susan Thomas at IGIDR provided overall guidance. The working level effort at NIPFP was led by Anirudh Burman and at IGIDR by Bhargavi Zaveri, supported by excellent teams that are mentioned in their state reports. I must commend the spirit of discovery, mutual assistance, and knowledge sharing that permeated this collaborative work throughout. At NCAER, the work was superbly led by Senior Advisers Deepak Sanan and Devendra Gupta working closely with Associate Fellow Prerna Prabhakar. NCAER owes them all a big debt.

New Delhi
November 1, 2017

Shekhar Shah
Director-General
NCAER

Acknowledgment

This pilot impact assessment of the DILRMP was conceptualised in consultation with the Department of Land Resources (DoLR). A series of meetings were held by Shri Vijay Madan (former Secretary) and Shri K P Krishnan (former Additional Secretary) for this purpose, in 2015 and 2016. These eventually culminated in the terms of reference that have been the basis for this study. We would like to place on record our deep appreciation to DoLR and its officials, specially Dr K P Krishnan for his unstinted support and advice in ensuring that this study sees the light of day.

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We would like to acknowledge the help and cooperation that we received from the IGIDR and NIPFP teams during the entire course of this study. Our grateful thanks to the project leaders and their team members.

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Deepak Sanan (Senior Advisor)
Prerna Prabhakar (Project coordinator)
Devendra B. Gupta (Project Leader & Lead Coordinator)

Contents

List of Tables

List of Figures

Executive Summary

The need for maintaining efficient land records is underscored by the fact that several million cases relating to land disputes are pending in the courts in India due to the lack of comprehensive, up to date land records. Ensuring better land records is expected to enhance efficient functioning of land markets and facilitate compensation processes in the cases of land acquisition. This has positive ramifications for the ease of doing business in India as land is a significant requirement for industrial activity. The Government of India recognises the relevance and significance of better land record management. This is reflected in its efforts to computerize the land records since the late 1980s. In 2008, the Department of Land Resources (Ministry of Rural Development), Government of India, merged two land record computerisation schemes to launch the flagship National Land Records Modernisation Programme (NLRMP), which was revamped as the Digital India-Land Records Modernisation Programme (DI-LRMP) in 2014. Although it began as Centrally-sponsored Scheme (with joint Central and state government funding), the programme is now a Centre Sector Scheme (entailing 100 per cent Central funding for all components). The immediate objective of the programme is to establish a modern, efficient land records management system in the country with real-time updated land records. The ultimate aim is a system of conclusive titling that would ensure conclusive proof of ownership of a property.

In view of the existence of NLRMP/DI-LRMP for almost a decade, it was considered imperative to evaluate the extent to which its goals have been achieved. In this context, before undertaking a more comprehensive exercise, this pilot impact assessment of DI-LRMP was undertaken in three Indian states – Himachal Pradesh, Maharashtra and Rajasthan (selected to take into account both geographical variation as well as differences in systems of land administration). This synthesis report gathered the findings of the state specific impact assessments in order to make a comparison between the three states, draw lessons for future studies in this direction and make suggestions for changes in DILRMP design to enhance the effectiveness of the programme. The details of the methodologies adopted by the three IAAs in their respective states are provided in the first chapter of this report. Broadly, the impact assessment exercise was divided into three parts – a state level assessment, tehsil level test checks and Focus Group Discussions (FGDs)/State consultation with revenue officials. These are discussed in chapters two, three and four respectively, of this report. Finally, the fifth and last chapter presents a way forward for further studies and to improve the effectiveness of DI-LRMP, based on the lessons learnt from this pilot assessment.

The state level assessment pertained to the status of land record computerization, delivery of land record related services and an understanding of instructions with respect to real time updating of land records. A comparison of the status of land record computerization highlighted the relative strengths and weaknesses with regard to various components of the land records in the three states. While the HP assessment brought out the presence of the highest degree of computerisation of the Record of Rights (in making this available in legally usable form), Maharashtra is ahead of the other states in terms of digitization of the registration process. While the digitization of Cadastral Maps (CMs) is a late starter in all the three states, it is picking up pace, particularly in HP. The state level assessment of delivery of

land record related services in all three states showed receipt of negligible applications under the public service guarantee acts to obtain the copies of land records. At the same time, it highlighted the importance of private or autonomous citizen service centres as a mechanism for delivery of these services, specifically in HP. The comparative analysis of instructions/guidelines for real time updating of land records, on account of possible changes in various components of the record, indicated limited attention to ensuring real time updation. There appears to be a need to both improve monitoring systems to ensure adherence to existing instructions as well as update the instructions to take into account contemporary reality.

Chapter three of the synthesis report presented a relative picture of the situation brought out by the Real Time Mirror (RTM) check in the three states. This compared the on ground situation with that exhibited in the land records, with respect to five aspects – ownership, possession, land use, land area and encumbrances. The RTM check was carried out through a land parcel sample survey in two selected tehsils in each state. With regard to the sampling strategy for the parcel surveys, the Maharashtra and Rajasthan IAAs chose a methodology which selected land parcels which manifested a low degree of variation between the on ground situation and the land records while the selection in HP was purely random. This meant the results in terms of variation in components like ownership, possession, use and encumbrances were not strictly comparable across the three states. Land area variation was consistently large in all the three states, flagging concerns both about the accuracy of spatial land records and the inherent difficulties in creating a more accurate record in the face of this legacy. For encumbrances, all the IAAs observed only mortgages being entered in records and important information on land acquisition proceedings, court cases, and land use restrictions were not recorded in the RoRs. The large extent of variation between the record and the on ground situation depicted by this analysis (specially in Himachal Pradesh) brings out the need to strengthen systems for real time updating of land records, if the objective of a sustained availability of comprehensive and accurate land records is to be achieved. This chapter also involved a sample check with respect to delivery of land record copies and land record related services, which bore out the observation from the state level assessment about delivery of land record copies through citizen service centres being quite effective.

The fourth chapter of the synthesis report presents the recommendations that emerged during the FGDs held by the IAAs with the district revenue officials as well as the state level consultations. These recommendations and suggestions are presented in a comparative format under four major categories – improving overall land records and registration; real time updation of land records; revenue administration system and DI-LRMP design.

Against the backdrop of the impact assessment exercise in the three states and the recommendations obtained from discussions at various levels, the last chapter of the synthesis report discusses the way forward in two matters. First, the lessons learnt from this pilot impact assessment that would be useful in carrying out similar studies in future and second, ways to increase the effectiveness of the DI-LRMP. The latter involves incentivising the states to take steps towards obtaining a system of accurate and updated land records. In this direction, it is suggested that the DI-LRMP be redesigned in such a way that half of the funding from the centre is based on the inputs required for digitization of land records and the other half is based on the performance of the states in computerising the land records and ensuring real time updation of the

land records. Further, the report suggests that the comparative performance can be assessed by constructing a Property Record and Services Index (PRSI), and thereafter ranking states on this index. This will incentivise states to make the necessary efforts in the direction of both improving land record systems and their regular management so that the improvements are sustained. The suggested PRSI can be constructed annually in very quick time by issuing directions to states to report information on achievements under the DI-LRMP in an appropriate format. Based on the information acquired during this impact assessment, the report illustrated the PRSI estimation for the three pilot states, and provides an idea of the performance based ranking that could facilitate the possible DI-LRMP funding strategy. This approach would fit well with the contemporary accent on a competitive 'co-operative federalism' and could prove a significant step towards achieving the national goal of effective land record management and conclusive titling.

Chapter 1: Introduction and Methodology

1.1 INTRODUCTION

India was ranked 130th in the World Bank's Ease of Doing Index out of 189 countries surveyed in the year 2016. An important component of this index is the ease of registering property, which also seeks to capture the quality of land administration. India was ranked 138th on this component, pointing to one of the major reasons accounting for India's low ranking on the overall Ease of Doing Business Index. It is estimated that land market distortions account for about 1.3 percent of the lost annual economic growth and a significantly large number of land parcels in India are the subject of litigation. In this context, it has been suggested that conclusive titling needs to be adopted as a way of reducing litigation and the associated transaction costs, and consequently improving the "Ease of Doing Business".

The importance of modernising land records through the application of technology has for long been recognised. After running two parallel programmes on computerisation and modernisation of land records for many years, the Government of India (Department of Land Resources (DoLR), Ministry of Rural Development) amalgamated these programmes in 2008 into a new centrally sponsored scheme called the National Land Records Modernisation Programme (NLRMP). The NLRMP,which projected conclusive titling as the ultimate goal of land record modernisation, has now been made a central scheme and renamed as "The Digital India Land Records Modernisation Programme (DI-LRMP)". The main aim of DI-LRMP is enunciated as the provision of a system of updated land records, automated and automatic mutation, integration between textual and spatial records, inter-connectivity between revenue and registration, and finally the replacement of the present deed-based registration and presumptive titling system with conclusive titling including guarantee of the title.

The ultimate objective of the DI-LRMP is, therefore, to facilitate the setting up of a modern and efficient land records management system in the country with land records updated in real time. The main components of the programme are:

- Computerisation of the records of rights (RoRs) and digitisation of maps to integrate the textual and spatial data,
- Survey and resurvey of land,
- Computerisation of the registration process; and
- Integration of all these three activities.

Although the programme has been under implementation for almost a decade (and its two preceding programmes for close to two decades), no detailed performance evaluation has been conducted till now. It was in this backdrop that the pilot impact assessment of the NLRMP/DI-LRMP was taken up. The pilot was jointly conducted by three selected Impact Assessment Agencies (lAA) and one overall coordinating agency (OCA). The National Council of Applied Economic Research (NCAER) was both the IAA for the first state (Himachal Pradesh) as well as the OCA for the project. The National Institute of Public Finance and Policy (NIPFP) was the IAA for the second state (Rajasthan) while the Indira Gandhi Institute of Development Research (IGIDR) for the third state (Maharashtra). The three states were selected to capture some of the

variations in the geographical context as well as land administration systems in the country.

The preliminary work for this impact assessment exercise involved a number of training workshops. (See Annexure 1 for the minutes of the meetings). The meetings helped the teams to better understand the objectives of the project and assisted them in arriving at key decisions for guiding the proposed work. The main issues addressed in these meetings were:

- Understanding the Terms of Reference;
- Finalising sample selection modalities for the tehsils and villages to be covered; and
- Developing questionnaires for the data to be gathered at the state level and for the field work to test check of sample parcels and office records to be conducted at the tehsil and village level (see Annexure 2 for the draft questionnaires).

The preparatory work included the conduction of a training workshop for the field staff to provide clarity on the information sought to be collected at the state/tehsil level based on the questionnaires prepared for the survey, as well as a reiteration of the project timelines.

Following this groundwork, the assessment study was initiated by the three IAAs in their respective states. A Technical Advisory Committee (TAC) was constituted for the continuous review and guidance of the project work. The three IAAs presented the progress of work in the three TAC meetings held during the course of the impact assessment .

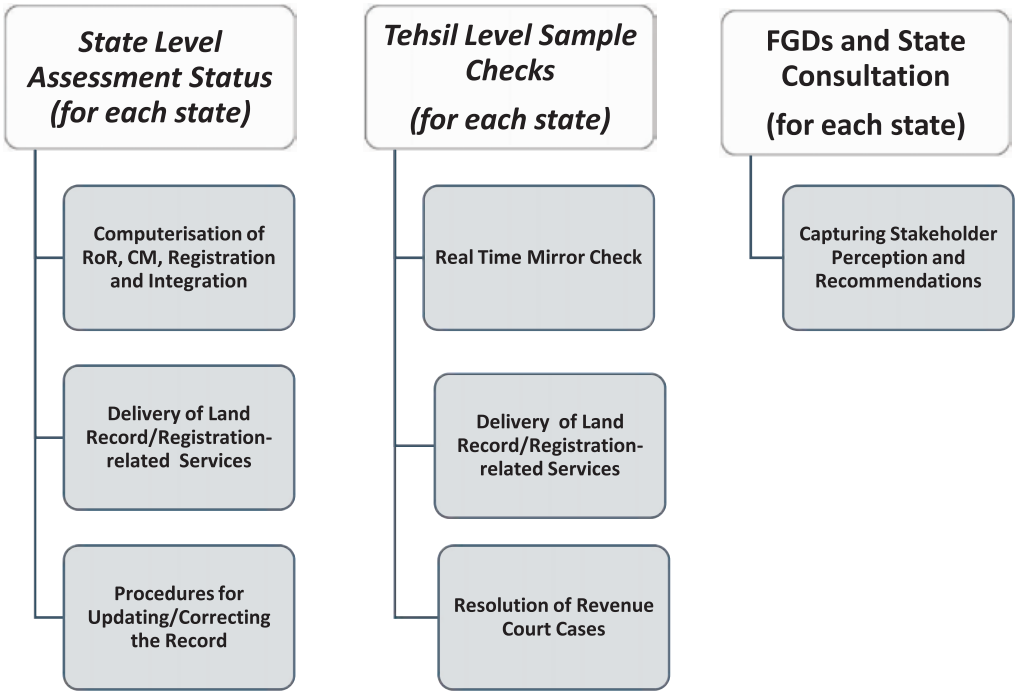
This synthesis report collates the findings of the three individual assessment reports for the three selected states. While the assessment techniques and methods had been laid out jointly by the three Impact Assessment Agencies (IAAs), variations have occurred in the methodologies actually adopted by the three agencies, on account of regional variations and the respective constraints experienced by the IAAs in the course of their work. These differences have impacted the comparability of the results obtained. In this backdrop, this chapter offers a comparative analysis of the methods followed by the three agencies in securing the information relating to the impact assessment. The subsequent chapters compare the results obtained. Chapter 2 provides an analysis of the state level situation with regard to the status of computerisation, service delivery, and processes related to updating/correcting the record. Chapter 3 compares findings from the tehsil/village level sample checks to ascertain the level of correspondence between the land record and on-the-ground situation, the time taken in the delivery of various services and the processes employed for updating/correcting the records. Chapter 4 reviews the suggestions and recommendations emerging from the Focus Group Discussions (FGDs) and the relevant state level consultations, conducted by each of the agencies (Figure 1.1).

1.2 METHODOLOGY

This impact assessment was designed in two parts—a state level assessment and tehsil level surveys. As stated earlier, the methodology for these steps was laid out through joint discussions and deliberations among the IAAs involved in the project. However, in view of certain state- specific conditions and requirements, this

methodology underwent some changes and deviation from the jointly decided format. This chapter discusses the variations between the templates originally decided and the state-wise methodologies adopted by the agencies concerned to lay down the context that needs to be kept in mind while comparing the findings of the impact assessment in the three states.

Figure 1.1: Methodological Framework of Impact Assessment



Source: NCAER study team.

1.3 STATE LEVEL ASSESSMENT

The state level assessment entailed evaluation of the extent of computerisation of land records, time taken in the delivery of land record-related services, and review of the existing legal framework and state government instructions regarding updating/correcting the land recordsdue to the occurrence of various events necessitating change in ownership, possession, land use, area and encumbrances/restrictions attached to the property.

1.3.1 Computerisation of Land Records

In order to secure information regarding the status of computerisation of land records in the state as a whole under different components, questionnaires were drafted jointly by the IAAs (see Annexure 1). These questionnaires were designed to obtain information to facilitate an accurate assessment of the extent of computerisation of land records, efficient delivery of various land record-related services, and review of instructions on the timely updation of land records. The assessment of the extent of computerisation covered four components: Record of Rights (RoRs), Cadastral Maps(CMs), the registration process, and integration of these three components.

Broadly, the three agencies relied on the DI-LRMP Management Information System (MIS) and the relevant state government departments to gather information on the questionnaires that had been drafted to examine the computerisation status at the state level (Table 1.1 highlights the state-specific sources). Information obtained from the MIS of the programme was verified with the concerned department of the state government, and where relevant,with the National Informatics Centre at the state level.

Table 1.1: Sources for State Level Assessment

State	Source
Himachal Pradesh (HP)	DI-LRMP MIS, Directorate of Land Records and Department of Information Technology, Himachal Pradesh and the NIC, Shimla.
Maharashtra	DI-LRMP MIS and Revenue Department of the Government of Maharashtra.
Rajasthan	DI-LRMP MIS and Settlement Commissioner office (nodal authority for the DI-LRMP) and the Inspector General of Registration office in Ajmer.

Source: NCAER study team.

State Level Test Checks

As a part of the assessment of state level computerisation of land records, the claims made by the state government were verified by performing random test checks. The aim of these test checks was to examine the degree of computerisation under the four identified components: RoRs, CMs, registration, and integration between these components through a systematic random sample check covering the entire state. For this purpose, two IAAs relied on a similar sampling methodology covering all the relevant tehsils. Thereafter, they selected the sample revenue villages by systematic random sampling, and then the sample land parcels within the villages were picked at random. However in Maharashtra, the test checks were carried out in only two selected tehsils (Table 1.2) instead of all the tehsils where the land records have been computerised.

Table 1.2: Sampling Strategy for State Level Test Checks

State	Sampling Strategy
HP and Rajasthan	• There was 100 percent coverage of the relevant tehsils. • Within a tehsil, five Revenue Estates (REs)/villages were selected through systematic random selection,involving selection of the first village at random and then picking the next one at the third number in order, and so on. • Within each of the selected villages, land parcels were selected at random to check availability of the computerised records.
Maharashtra	• Two tehsils were selected. • Within each tehsil, five villages with high transaction intensity were selected. • Ten land parcels from each of these villages were randomly selected to check the availability of the computerised records (these parcels were the same as those for which the tehsil level sample checks were undertaken).

Source: NCAER study team.

1.3.2 Delivery of Land Record-related Services

The agencies were also expected to evaluate the efficiency exhibited by the delivery system of land record related services in the three states. Questionnaires were drafted in advance to outline the information to be gathered by the three agencies on this aspect. The details sought for the state-wise analysis ranged from provisions of the Right to Public Services Acts/Rules (and orders thereunder) in the three states to information pertaining to the process for delivering services and data for assessing the actual status of delivery of the land record-related services. All the agencies collected information on these aspects. However, the information gathered in the three states shows considerable variation among the states. For instance, the HP report contains details of the total number of copies of the RoRs delivered and the agency employed to deliver this service to the public. In the other two state reports, on the other hand, such overall data could not be obtained. In Maharashtra, this data is not available on account of the lack of a central agency that consolidates such data. Further, the Maharashtra report also contains data regarding the overall status of online applications filed under the Maharashtra Right to Public Services Act, 2015. While the Rajasthan report mentions procedural time lines, it does not contain actual data on the services sought since this was not made available despite efforts made to secure this data.

1.3.3 Instructions for Real Time Updation of Land Records

The third section of the state level assessment involved a review of the state instructions with regard to the provisions for updating/correcting the land records. Specifically, this focused on instructions in relation to five broad categories—Ownership, Possession, Land Use, Land Area, and Encumbrances. Apart from offering an

understanding of the extent to which these provisions facilitate updating of the land records, this exercise was meant to assist the agencies by lending background support in the next stage of assessment when the ground level situation was compared with the position reflected in the record. In all the three states, the information was gathered from an amalgam of the details available on websites, published Acts/Rules and manuals, notifications and government orders available with the relevant departments.

1.4 TEHSIL LEVEL ASSESSMENT/SURVEY

The tehsil level assessment involved a deeper analysis of these three areas, including a real time mirror check to assess the accuracy of the record (in relation to the ground level situation), promptness in the delivery of land record-related services, and assessment of the efficiency of the system/process for resolution of land record-related applications/cases seeking updating/correction of the record.

1.4.1 Real Time Mirror

This section entailed a comparison of the on-the-ground situation with the land records to evaluate the accuracy of the records. This was slated to be done by conducting a land parcel survey to assess the extent of updation with respect to five components—ownership, possession, land area, land use, and encumbrances. Although the sampling methodology for selection of the tehsils and land parcels was finalised in advance to ensure the employment of a uniform pattern in the assessment, in practice, the methodology adopted varied in the three states.

Tehsil Selection

The methodology decided in advance was to list tehsils which met the following conditions and thereafter to select the two tehsils in consultation with the state authorities:

- Peri-urban location;
- Relatively high land transaction intensity;
- Relatively high land litigation prevalence;
- At least some interventions under NLRMP/DILRMP; and
- Ease of transport and access.

In practice, in Himachal Pradesh, the tehsils chosen were the peri-urban ones which anecdotally showed high transaction intensity and somewhat differing traditions of record maintenance and geographical conditions while meeting all the other specific criteria mentioned above. In Maharashtra, the selected tehsils included a model tehsil (*Mulshi*) wherein the state has already carried out a pilot in a few villages to update the record through modern resurvey techniques. The sample included only one pilot village. The remaining villages were regular villages where no pilot had been conducted.

- In Rajasthan, the agency decided to adopt somewhat different criteria for tehsil selection (listed below) to take into account the diversity of the state and at the same time capture the results of a pilot that had used modern techniques to update the

record (in part similar to the objective in Maharashtra).These criteria entailed:
Selection of one “typical" tehsil and one “model" tehsil;
Location of the tehsils in different agro-climatic zones;
Choice of tehsils that were historically part of different *riyasat*s; and
Ensuring that the selection included one rural and one peri-urban tehsil.

Land Parcel Selection

The methodology decided in advance for the selection of revenue villages and the sample land parcels in these villages specified the selection of five REs/villages through systematic random sampling, including random selection of the first RE and thereafter specific selection of every third RE.The selection of the 50 land parcels from each of the fiveselected REs was to be based on systematic random sampling such that the share of the 50 land parcels for each RE would be equivalent to the share of the land parcels of each RE in the total land parcels of all the five REs taken together. It was also decided to exclude certain specified categories of land parcels (based on ownership and use) in selection of the sample.

In Himachal Pradesh, the selection of the revenue villages and thereafter the sample plots was done almost exactly as per the pre-decided methodology. However, in Maharashtra and Rajasthan, there was a significant variation in the methods followed for selection of the target villages and plots. As regards the measurement of the land parcels, in Himachal Pradesh, Electronic Total Station (ETS) was used,whereas in Maharashtra, both ETS and a hand-held GPS device were used for each tehsil, and in Rajasthan, only the hand-held GPS device was used (Table 1.3).

Table 1.3: Sampling Strategy for Land Parcel Selection

State	Sampling Strategy Steps
Himachal Pradesh	• Five REs selected from each tehsil through random stratified sampling. • Fifty land parcels within these five REs were selected on the basis of random stratified sampling such that the share of each in the 50 parcels was equivalent to the share of the total land parcels of each RE in the total land parcels of all the five REs taken together. By and large, the specified criteria for excluding certain land parcels was followed. • For on ground land area measurement, ETS was used.
Maharashtra	• Within each tehsil, five villages with high transaction intensity were selected • Ten land parcels were randomly selected from each village to facilitate comparison of the computerised records with the on-the-ground situation. • For measurement of the on-the-ground land area,both e-Trex GPS devices as well as ETS were used.
Rajasthan	• Random sampling was done to select ten villages from each tehsil. • Five villages from among these tenvillages were picked on the basis of the highest transaction intensity. • From these selected five villages in each tehsil, land parcels that have undergone any type of mutation in 2016-17 were identified with the help of the local *patwari*. • From these identified land parcels, 50 land parcels were selected at random.

Source: NCAER study team.

1.4.2 Delivery of Land Record-related Services

Copy of Land Records

This section of the assessment involved an analysis of the extent to which computerisation-related efforts in land records and registration had impacted the actual delivery of services. This was largely gauged by examining the ease with which copies of land records including RoRs, CMs, and registered documents could be secured.

In Himachal Pradesh, in addition to the collection of information from the respective citizen service centres, the assessment also entailed recording the views of random applicants on the timeliness of delivery of RoRs and registered documents. In Maharashtra and Rajasthan, random applications recorded in registers were picked for each category of services and the time taken to deliver the copies was calculated on the basis of the data entered in the relevant columns.

Updation/Correction of the Land Records

It was decided that the test check for analysing the time taken in updating/correcting the record would be performed by examining the time taken in resolving applications/cases with regard to mutation, correction of revenue entry, partition and demarcation events. This would allow for observations on both the efficacy of the process itself and the efficiency of delivery of the relevant service to members of the public. The selection of these events/cases was slated to be done through systematic random sampling from the recent records in the relevant offices. In Himachal Pradesh, the process followed in this regard largely adhered to the methodology laid down for the purpose. Five applications were selected from the relevant registers maintained in the concerned offices to assess the time taken between the institution of the process and the decision. In Maharashtra, fiverandom applications each for updation and correction in each tehsil filed before the land administration offices in this regard were selected to assess the efficiency with which the relevant decision was implemented. The IAA for Rajasthan also studied random entries from the office registers to assess the situation with respect to applications for correction and updation of land records.

1.5 FOCUS GROUP DISCUSSIONS AND STATE CONSULTATION

Finally, for canvassing suggestions to help improve the accuracy of the records as well as the efficacy of the digitisation programme, Focus Group Discussions (FGDs) and interviews with stakeholders were conducted. Further, the impact assessment findings were discussed with key stakeholders in each state. In Himachal Pradesh, this involved conduction of the FGDs with the revenue departments in Shimla and Solan districts,followed by a consultation held at the Directorate of Land Records, Government of Himachal Pradesh. In Maharashtra, this involved discussions with the office of the Settlement Commissioner and Director of Land Records, Maharashtra. In Rajasthan also, discussions took place both in the field and relevant offices.

Chapter 2: State Level Assessment

2.1 INTRODUCTION

The objectives of the state assessment, as stated in Chapter 1, were threefold: to assess the status of computerisation of the land records (including registration), to examine the provisions for delivery of the land record-related services to the public, and to analyse the legal provisions for updating or correcting land records to mirror the real-time situation at the ground level. In order to correlate this assessment with the implementation of the NLRMP/DI-LRMP, all the three IAAs discussed the progress achieved in the respective states under the programme.

2.1.1 Comparative Performance on DI-LRMP

The financial picture of the DI-LRMP in the three states indicated considerable under-utilisation of the funds allocated and released by the centre to the states. This was most pronounced in the case of Himachal Pradesh (Table 2.1).

Table 2.1: Utilisation of Funds

State*	Funds Sanctioned by the Centre (in Lakh Rs.)	Funds Released by the Centre (in Lakh Rs.)	Expenditure Incurred (in Lakh Rs.)	Fund Utilisation (expressed as a %age of the funds released)
Himachal Pradesh	6907	4330	303	7.00
Maharashtra	8420	6536.16	1673.67	25.61
Rajasthan*	752.630	550.450	263.650	47.90

Source:Department of Land Resources, Ministry of Rural Development, Government of India.

Note: *Details in the case of Himachal Pradesh and Maharashtra pertain to the period 2008–09 to 2015–16,while for Rajasthan, the data is for the time period 2012–13 to 2014–15.

The DI-LRMP comprises various components under which funds are sanctioned. Many of these components had different matching requirements from the states (for example, for registration-related digitisation, the Centre contributed only 25 per cent of the total funds). This possibly induced the states to seek more funding under segments with a higher central share (for example, there was 100 per cent Central funding for computerisation of land records and survey/resurvey), which did not necessarily translate into the concomitant expenditure. This is evident from the break-up of the component-wise sanction of funds in each state (Table 2.2).

Table 2.2: Component-wise Sanction of Funds under DI-LRMP

Activity*	Himachal Pradesh (in Lakh Rs.) 2008-2015	Maharashtra (in Lakh Rs.) 2008-2015	Rajasthan (in Lakh Rs.) 2009-2013
NLRMP Cell/Centre/PMU	239.27 (3.5)	631 (7.5)	-
Computerisation of Land Records	2101.76 (30.4)	401 (4.8)	396.00 (3)
Survey/resurvey	2652.16 (38.4)	4275 (51)	11271.55 (82)
Computerisation of registration	226.28 (3.27)	174 (2.07)	326.79 (24.67)
Modern record room	1687.5 (24.4)	2938 (35)	1450.00 (10.6)
Interconnectivity among revenue offices			280.000
Establishment of network and data storage facilities at the UT HQ	0	0	
Total funds sanctioned by the Centre	6907	8419	13724.35

Note: * The percentages of the total sanctioned funds are given in parentheses.

The actual performance with regard to the progress made on the ground in the three pilot states, as delineated on the DI-LRMP website, is detailed in Table 2.3.

Table 2.3: Progress Achieved in the Three Pilot States Regarding Various Components of DI-LRMP (as Reported by the Government of India)

Component	Total number of States/Union Territories reported to have completed the component activities	Number of pilot states reported to have completed the component activities
Computerisation of Land Records	27	3 (Himachal Pradesh, Maharashtra and Rajasthan)
Computerisation of property Registration	30	3 (Himachal Pradesh, Maharashtra and Rajasthan)
Integration of land records and property registration	11	2 (Himachal Pradesh and Maharashtra)
Stoppage of manual issuance of RoR	18	1 (Maharashtra)
Data Placed on Websites	22	3 (Himachal Pradesh, Maharashtra and Rajasthan)
Bhu-naksha (Cadastral Maps) customised	15	3 (Himachal Pradesh, Maharashtra and Rajasthan)
Digitally Signed RoRs	7	1 (Rajasthan)
Integration of *Bhu-Naksha* and RoR and as a service to public on the website	5	-

Component	Total number of States/Union Territories reported to have completed the component activities	Number of pilot states reported to have completed the component activities
Linking with Aadhaar (UID)	5	1 (Maharashtra)
Capacity building		3 (Himachal Pradesh, Maharashtra and Rajasthan)

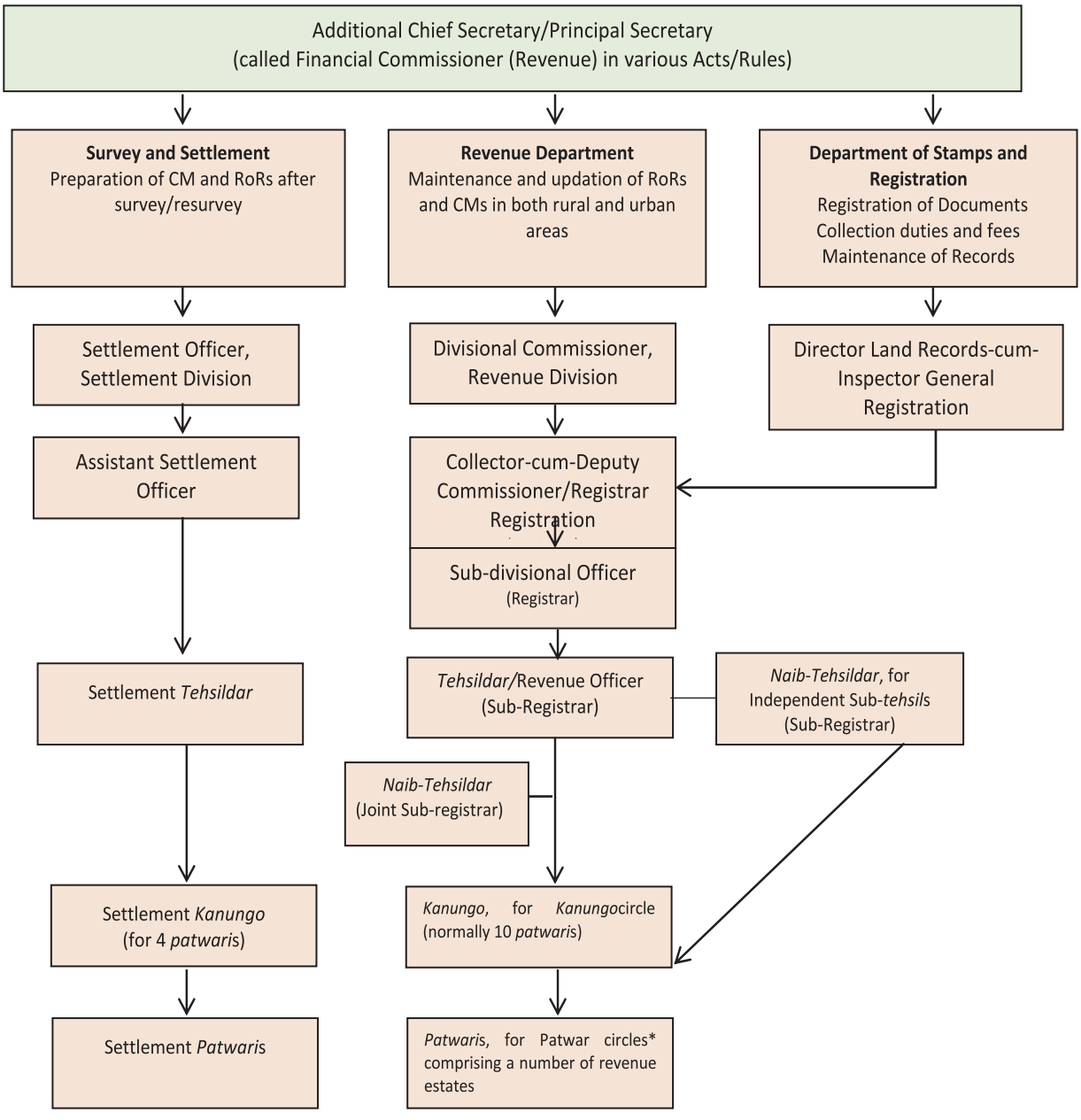
Source: Department of Land Resources, Ministry of Rural Development, Government of India.

The financial and physical progress reported in connection with the tasks pertaining to various components of the DI-LRMP is anomalous. Even as the expenditure reported is far below the allocation/release level, the physical achievement is significant. This is even more contradictory when the component-wise picture is analysed. What accounts for this anomaly? How far are the achievements claimed actually reflected in the situation on the ground? Does this warrant any changes in the design of the programme? These are some of the questions that this study hoped to address.

2.2 COMPARATIVE POSITION OF THE REVENUE ADMINISTRATION

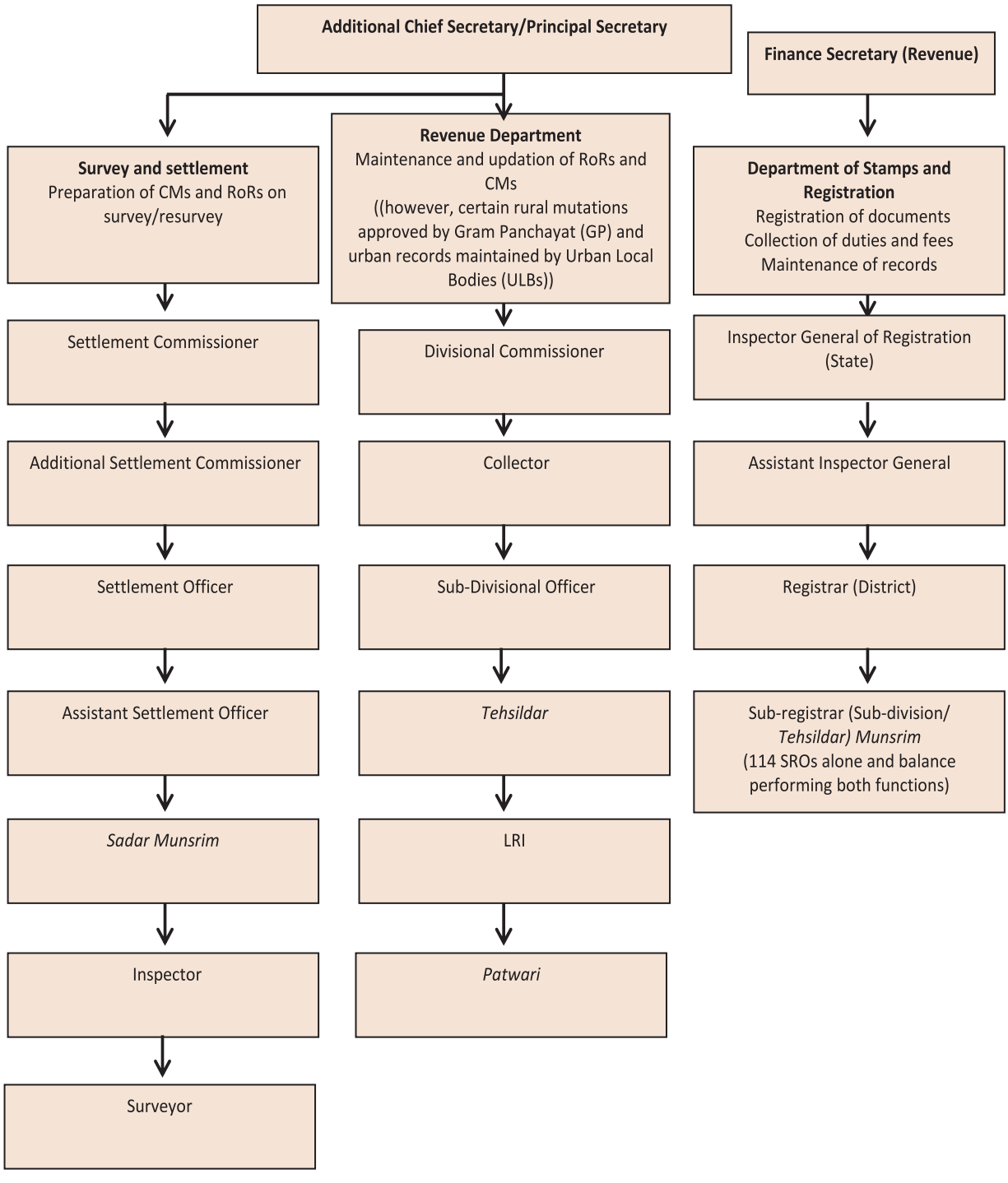
In order to promote an understanding of the land administration system in the states, the three IAAs have provided a description of the revenue administration structure in each state, as delineated in Figures 2.1 to 2.3.

Figure 2.1: Land Administration Structure in Himachal Pradesh



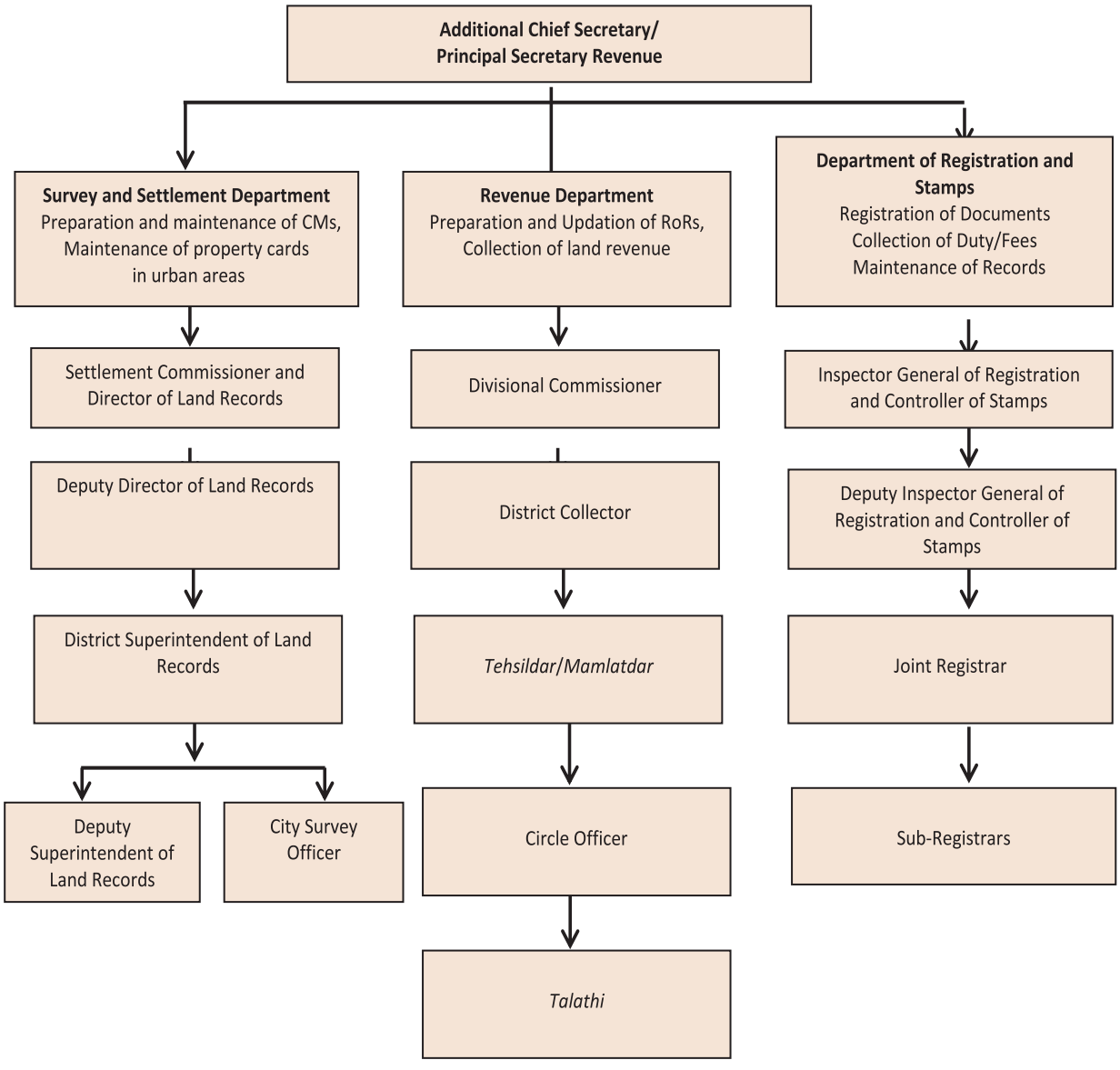
Source: NCAER study team.

Figure 2.2: Land Administration Structure in Rajasthan



Source: NCAER study team.

Figure 2.3: Land Administration Structure in Maharashtra



Source: NCAER study team.

The responsibility for drawing up the original records on surveys/resurveys is assigned to a survey and settlement department in each of the three states. However, this department plays a more extensive role in Maharashtra as compared to the other two states. The Settlement Commissioner also discharges the function of the Director of Land Records in Maharashtra and Rajasthan, and is, therefore, responsible for laws/rules in relation to the creation/updation/correction of records. The task of updating and correcting the revenue records, however, rests with the Revenue Department. This function (related to the rules law and rules) is performed by a separate Director of Land Records in Himachal Pradesh, who also doubles up as the Inspector General of Stamps and Registration. The Settlement Department in Maharashtra also continues to be responsible for updating the CMs and the urban textual records (property cards) even after constituting the same. In Himachal Pradesh,

all record updation (of the CMs and RoRs in both rural and urban areas) is the responsibility of the Department of Revenue.However, in Rajasthan, the responsibility for updation is shared between the Department of Revenue and the elected local bodies. On the registration side, both Maharashtra and Rajasthan have separate organisations in the field, whereas in Himachal Pradesh this function is performed by the functionaries of the Department of Revenue at the district and tehsil levels.

2.3 STATUS OF COMPUTERISATION OF LAND RECORDS

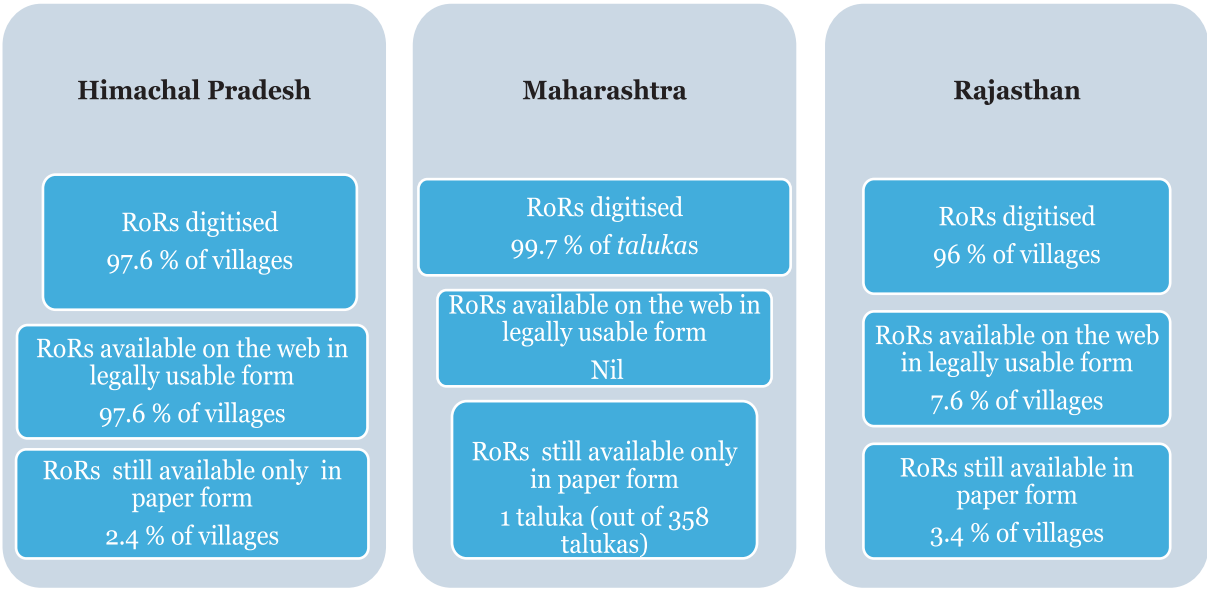
The three IAAs highlight the trajectory of computerisation efforts in the respective states assigned to them, which is reflected in the nature of their achievement. Himachal Pradesh began with computerising its RoRs first while Maharashtra led in registration. Both efforts were essentially home-grown and predated the NLRMP. Consequently, Himachal Pradesh is ahead in the level of computerisation achieved in relation to its RoRs while Maharashtra leads in registration. Rajasthan, on the other hand,being a late starter, does not show an exceptional level of achievement in any component. However, post the completion of this study, it has reportedly made significant progress in the computerisation of registration.

2.3.1 Computerisation of RoRs

The questionnaires formulated to assess the extent of computerisation of RoRs were designed to examine the progression from the manually maintained RoRs through the digitised textual records available on standalone computers to those available on networked computers or state level servers, and finally to determine whether the record is accessible on the web in a legally usable form.

A comparison across the three states with respect to the computerisation of RoRs points to substantial progress in all the states (Figure 2.4). However, there are differenceswith regard to their availability in a legally usable form. In Himachal Pradesh, all the RoRs are digitally signed and consequently, approximately 97 percent of the RoRs are available in this format. In the case of Rajasthan, only 7.6 percent of the computerised RoRs are legally usable while the legally usable copies of RoRs are not yet available online in the case of Maharashtra. This situation is a reflection of the different routes adopted by these states in computerising their respective RoRs. In Himachal Pradesh, this was done through a long drawn process carried out by the revenue officials themselves, with simultaneous verification and certification of the records being undertaken by the officials concerned.In Maharashtra and Rajasthan, on the other hand, the methodology adopted (in common with most of the states) is a one-time campaign of data entry, which is carried out quite rapidly. However, this results in numerous errors that need time for rectification. Consequently, the verification and certification of all the RoRs (which will permit their copies as available on the web to be readily used for all legal purposes) is still a distant reality in these states.

Figure 2.4: Computerisation of RoRs



Source: NCAER study team.

The test checks carried out to verify the information detailed in Figure 2.4 shows that 88 per cent of the recordswere actually available in the case of Himachal Pradesh. (There was a limited failure with regard to accessing the records because the test check was conducted under the tehsil names listed as on March 31, 2016, whereas some of the village RoRs had been transferred under new tehsils created after that date). Overall, it appeared that the claims made regarding the availability of records were correct in Himachal Pradesh. In the case of Rajasthan, 87.6 per cent of the claimswere verified. The failure cases could have arisen partly due to connectivity problems and partly as a result of missing records for the entire village or some Khasra numbers. In Maharashtra, the test check was carried out for 64 parcels selected from 44 villages spread across all six divisions of the state. The RoRs were retrieved fairly easily. Clearly, simple digitisation of the textual record is not very difficult to achieve.

2.3.2 Computerisation of Cadastral Maps

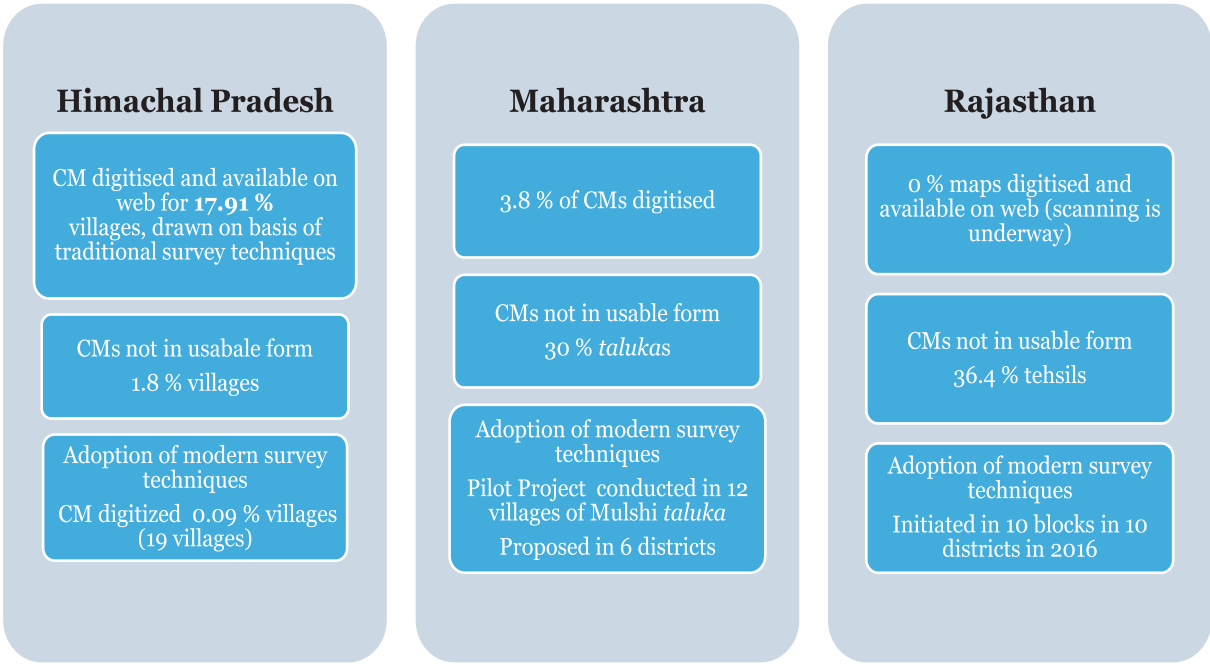
The process of computerisation of cadastral maps (CMs), as detailed in Figure 2.5, has been a late starter in all states. Since the initial focus was on the textual records,computerisation of the RoRs generally engaged more attention. The understanding that a de novo survey or a resurvey using modern methods is the best route for creating an accurate digitised spatial record is also an important reason for this delay. There is a perception that digitising old maps with the inaccuracies inherent in traditional survey techniques may be a redundant exercise. The painstaking process required to scan, vectorise, verify and certify the digitisation of old maps is another reason as to why this process received less attention. However, it has now been realised that digitised old maps are required even for finalising new maps after a resurvey, to facilitate comparisons and sorting out of variations with the legacy records. At the same time, there is increasing recognition of the fact that conduction of fresh surveys/resurveys is an extremely time-consuming process and in the meantime, digitised old maps can add real value to the goal of securing a more up-to-date, readily

accessible spatial record. This understanding has possibly led the DoLR to issue a policy note in December 2016, suggesting that for now fresh surveys/resurveys be restricted to only situations where the record is torn, mutilated, or otherwise not available.

All the three states have displayed varying degrees of interest in conducting resurveys. In Himachal Pradesh, the process was initiated as a pilot in 2012 in 19 revenue estates/villages. Till now, the record has been finalised for two of these villages. In Maharashtra, a resurvey pilot was started in 2012–13 in 12 villages of the Mulshi *taluka* in Pune district. The final notification of the record is yet to be issued for these villages. Meanwhile, Maharashtra is proposing a comprehensive resurvey in six districts. In Rajasthan, the conduction of a resurvey is a recent occurrence and was started in 10 blocks of 10 districts in 2016.

This assessment has set out to gauge the level of access to the spatial records, by checking the extent of availability of the records at various levels: from the lowest stage of being mutilated, torn, or in general, not useable, to the highest level wherein copies of the record are accessible on the web in a legally usable form (with the digital signature of a competent authority). In Himachal Pradesh, in the case of 1.8 per cent of the revenue estates, the record was found to be at the lowest level (torn, mutilated, and/or not useable). In Rajasthan, on the other hand, while no exact figures were available, it was estimated that in 88 out the 242 tehsils in the state, a significant portion of the spatial records was not in useable shape,while the corresponding proportion in the remaining tehsils (154) was about 10 per cent. In Maharashtra, 30 per cent of the spatial records are reported to be torn, disfigured, or mutilated as per the state report. Most of the spatial records in all the three states are still available only in a manual form in the relevant offices. In none of them can any portion of the spatial record be obtained in legally usable form on the web. However, copies of records of some of the revenue villages are accessible on the web, even if not in a legally usable form. In Himachal Pradesh, the process of digitising the old recordshas gathered speed. Till March 31, 2016, in the case of 17.91 per cent of the revenue estates in 24 tehsils, the spatial record was available on the web. By the time the verification of this claim was carried out in March 2017, the spatial record for 43 tehsils (out of a total of 150-odd tehsils) was already available on the web. The test check to verify this claim showed an accuracy of 94 per cent. In the case of Rajasthan, the spatial record of only one tehsil, Uniara, has been placed on the web (224 out of a total of 47,918 villages in the state, amounting to 0.0046 per cent of the total). Test checks showed that actual access to even this record was less than 5 per cent. Maharashtra reported a digitisation of 3.79 per cent of its maps, but these cannot be accessed on the web.

Figure 2.5: Computerisation of CMs



Source: NCAER study team.

2.3.3 Computerisation of Registration

On the DILRMP website. as many as 27 states (including all three covered by this survey) have answered in the affirmative to the query as to whether they have completed computerisation of registration. Obviously such a response can cover a wide variety of situations. Therefore, in this assessment, the attempt was to probe further to find out both the geographical spread of this computerisation as well as its depth when viewed in relation to various aspects of the registration process.

In effect, the computerisation of registration was assessed along the following parameters in this study:

i) The extent to which computers are being used by the Sub Registrar Offices (SROs) in each state, with the lowest level being one in which the operations are handled manually and ascending through stand-alone systems used for office operations to stand-alone systems with Internet access enabling access to other databases relevant in the registration process to networked systems linked to a central database in which various steps are handled online.

ii) The extent to which the computerisation of registration facilitates the performance of various steps to be undertaken by a client or the registration office.

Again amongst the three states, Rajasthan exhibits the least level of computerisation. Out of the 527 SROs in the state, 350 (66 per cent), still function without any computerised support. The balance have some form of computerisation ranging from stand-alone systems performing basic word processing and similar functions to those with Internet access enabling them to undertake some of the functions requiring a link to other databases to ease the process of registration. It has been reported that in the last two months, SROs have been brought online through an

'e-panjiyan' software modelled on Maharashtra's i-sarita. In Himachal Pradesh, all SRO offices have stand-alone systems with Internet access that enables linking to other related databases. In Maharashtra, all SROs are part of a Virtual Private Area Network (VPAN) with a central database and operate in an online mode.

In order to assess the extent to which computerisation at the SRO level has facilitated the client and the registration office, the registration process has been divided into a number of steps (Table 2.4). The comparative position of the three states in this regard is exhibited in Table 2.4.

Table 2.4: Digitisation of the Registration Process— Comparative Position of the States

Steps	Undertaken By Client, Registration Office or Both	Himachal Pradesh	Maharashtra	Rajasthan
1. Title Search	Client			
1a. Checking with RoR	Client	Online	Offline (mostly)	Offline
1b. Access to Legacy Registration Record	Client	Nil	46% SROs permit search from 1985 onwards and 47.3% from 2002 onwards	Nil (rapidly being made available for last 2 years)
2. Circle Rate (real time availability of notified rate)	Both	Available	Available	Available
3. Payment of Duty	Client	e-stamp	On line system	e-stamp/on line system introduced
4. Document Preparation and Application	Client	Offline	Partially web based	Off line (now data entry partially web based)
5. Verification of Duty and Documents	Office	Offline	*Duty verification*- Online Documents verification – partially web-based	Off line
6. Attestation of Registration	Office	Offline	Partially web-based	Off line
7. Delivery of Document	Office	Offline	Online system	Off line
8. Updating of record	Office			
8a Notice for Updating is noted in the land/property record:	Office	In all cases where RoR is computerised (97.6%)	2.8% of SROs	Offline

Steps	Undertaken By Client, Registration Office or Both	Himachal Pradesh	Maharashtra	Rajasthan
8b Actual Record Updation occurs in real time:	Office	No	No	No

Source: NCAER study team.

The test checks for the level of computerisation of registration were undertaken to a limited extent in all the three states. The level of computerisation of the SROs was accepted as reported. The level of online access in the various steps was verified where applicable. While Himachal Pradesh and Rajasthan had reported nil facility to search for legacy records, Maharashtra had reported a considerable degree of access. However, in the test check in two *talukas*, the legacy record could not be accessed by the Maharashtra IAA. The test check for the availability of circle rates for every revenue estate in the state brought a 100 per cent result in Himachal Pradesh and Maharashtra. A similar claim for Rajasthan, while not subjected to any systematic check, prima facie appears to be valid. The next five steps are either completely or partially web-based in Maharashtra (completely online for leave and licence agreement and for flats by large developers) and can only be performed offline in the other two states. The payment of stamp duty through an online process is only possible in Maharashtra. The other two states use a system of e-stamps. The preparation of the document for registration and the application process is partially web-based wherein though the details about the property, valuation and the party are entered online via Public Data Entry (PDE) in Maharashtra, the actual deed is not entered online. There is no corresponding system in the other two states. The verification of duty determination/payment is done online in Maharashtra by putting in the Government Receipt Note (GRN) number obtained from the e-*challan* copy provided by the applicant in the i-sarita software and verifying this with the online copy of the *challan*. As in the application process, the document verification in Maharashtra is partially web-based. In Rajasthan, verification is reportedly done electronically in 117 SROs but it is not clear how this occurs since there is no system of online application. The need for the parties to be physically present for registration has also been dispensed with in the case of some documents in Maharashtra. The attestation of registration can also be performed digitally (digital signature) by the competent official in Maharashtra. However, in practice it has been observed that the signature is more like a 'lock-in' of the final data entered in the PDE, after which no changes can be made, unless specially permitted.This process is manual in the other two states. Even the delivery of the registered document takes place electronically in Maharashtra while the paper documents have to be physically collected in the other two states. While a hard copy is signed and returned to the client in Maharashtra, the office scans and stores a digital record, which is also made available to the client. In the case of the leave and licence agreement, there is only a digital document. For updating the title records post registration of a transaction, the level of computerisation of the RoR (including its verification and certification) comes into play. In this case, Himachal Pradesh's relative strength in computerising land records is evident in that once a registration takes place, it is immediately noted in the land record for subsequent updating to take place. This integration is exhibited to a limited extent in Maharashtra but not at all in Rajasthan.

2.3.4Integration of RoRs, CMs, and Registration

Integration between the textual records (RoRs), the spatial records (CMs) and the most important process necessitating the updating of these records,that is, registration, would result in a more holistic access to a record exhibiting a higher degree of accuracy than is currently seen. The integration of RoRs and CMs would enable visualisation of spatial and textual information about a property number and its area, and vice versa. The integration of registration with the RoR means that the changes caused by registered transactions can be noted in the RoR in real time, and if the CM is also linked, then any sub-division or change in boundaries as a consequence can also occur in the spatial record in real time.

Currently, the level of integration between the RoR and the CM allows for securing of copies of the digitised CM with the information available in the RoR and vice versa. This is possible in Himachal Pradesh for all the revenue estates where digitised CMs have been made available on the web through the *Bhu-Naksha* and automatically linked to *Himbhoomi* (the RoR-related software). Since CM digitisation is still in the nascent stage in the other two states, the effective linkage with RoRs is still to be witnessed.

The integration between RoRs and registration facilitates the occurrence of a registered transaction to be noted in the RoR. This is only the first stage in the benefits that can accrue from integration. The final stage would be an automatic updating of both the textual and, where required, the spatial record, on the occurrence of a registration. As noted in the preceding section on computerisation of registration, the first stage of integration between the RoR and registration is present in all the 97.6 per cent of the computerised RoRs in Himachal Pradesh. In Maharashtra, the revenue and registration departments have been integrated to the extent that before a document is registered, the SRO office can verify the details of the registering parties and the property with the revenue database wherein the RoRs are maintained. If the details do not tally, the SRO will not proceed with registration. In practice, online checks of this nature are not frequent in the absence of verified and certified RoRs. After the document is registered, information pertaining to the registration is sent through the server (by a text message on the mobile phone) to the relevant *talathi* who is in charge of updating the RoR. The integration process has not begun in Rajasthan.

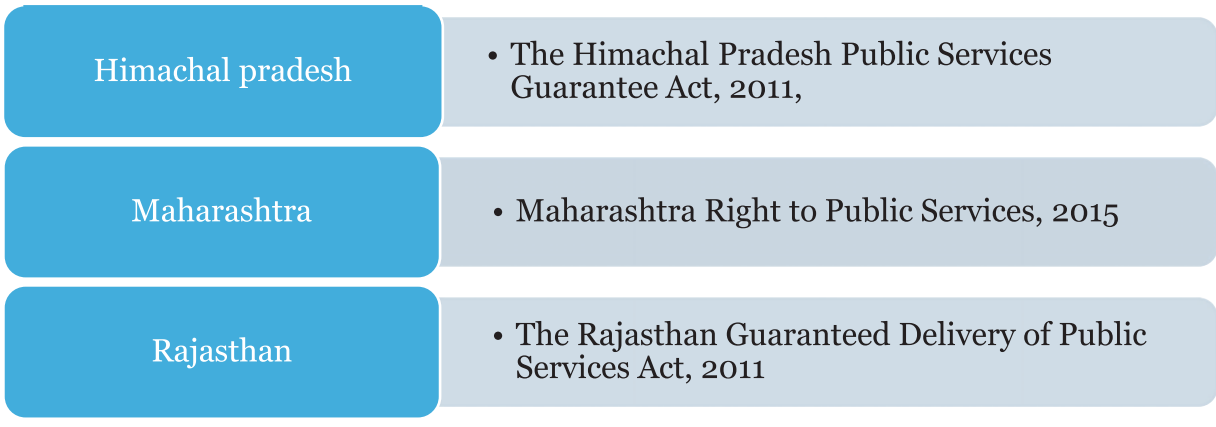
2.4 DELIVERY OF LAND RECORD-RELATED SERVICES

Land administration has a close public interface. The maintenance and updating of land records is important not only because of the relevant rights mentioned in the record per se but also because of a whole host of benefits that are available to citizens only on the basis of this record. Important examples of such linkages involve the issue of caste or domicile certificates which have an impact on employment opportunities, admission to educational institutions as well as availing of the benefits under various social security and other schemes (a scheme proposed for DBT of fertiliser subsidies will, for example, be based on rights and land details incorporated in the land records). An updated and accurate land record is, therefore, a core aspect of the service required by the public from the department looking after land administration. This is the larger objective that the DI-LRMP must meet and this impact assessment is attempting to

gauge an overall level the extent to which the programme has been successful in this regard. At a more specific level, this section is about the importance accorded by the state to the provision of land record-related services and any evidence of the actual delivery of services.

All the three IAAs have examined the law, rules and instructions with regard to the provision of these services. In all the three states, an act to confer rights on the public to secure such services has been promulgated (Figure 2.6).

Figure 2.6: Public Services Act



Source: NCAER study team.

The IAAs have discussed the provisions for securing services under the Act, including appellate provisions, the extent to which land record-related services are notified under this Act, and the timelines for delivery of services by relevant offices. In Rajasthan's case, no details of applications made under this Act are available. In Maharashtra, the details of applications received under the Act are as follows: applications received-116, approved-39, rejected-18, and pending-59. In the case of Himachal Pradesh again, there are no details of applications under this Act. It would appear that the Act is not really being used by the public in any of these states to secure land record-related services. Is this merely the result of lack of awareness of the Act? Or is it more because the need to make an application under this Act is not felt since services are being availed of under pre-existing provisions for this purpose and are, in general, satisfactory? The data made available in this report would tend to support the latter conclusion. In Himachal Pradesh, where digitally signed copies of the RoR are available on the web, there appears to be no need for any application under the Act for this service. In fact, the data obtained from the Department of Information Technology by the IAA shows that the provision of copies of the RoR is an important service rendered by private and state-run Citizen Service Centres (e-Sugam Kendras and Lok Mitra Kendras supplied 10,11,162 copies in one year). It is expected that with the digitisation of the CMs and their availability on the web, even copies of the CMs will be made available in this manner. Even in Maharashtra, copies are, by and large, obtained without relying on the Public Services Act. In the one year preceding this assessment, 11,90,209 copies of the record were reportedly provided to applicants (with over 50 per cent in a computerised form) against the 116 applicants received under the Act! For Rajasthan, while the exact details of copies provided were not available, the fact that the

RoR copies are provided through 35,794 Common Service Centres reflects a similar position as in the other two states. The picture that emerges from the assessment in all the three states is that involving the private sector (with the ability to access the record online) is sufficient to improve the delivery of the service. It does not really require an Act. The value of this service can be further enhanced by providing digitally signed copies and extending this to cover not only copies of the RoR but also CMs and registered documents in all the states.

2.5 PROVISION FOR MAINTAINING/UPDATING RECORDS

The rationale for this section is that for computerisation of land records to actually result in benefits, it must be ensured that the record is maintained and updated in a sustainable manner,otherwise this can end up in an exercise that merely shifts the mode of record-keeping from paper to a digital media with similar deficiencies. This impact assessment, therefore, sought to understand the extent to which the provisions (laws, rules, and instructions) relating to updating of the record promote the objective of securing a comprehensive, accurate record updated in real time in the three states selected for the programme.

This exercise was largely conducted in the context of viewing of the RoR as the most important record containing information on various facets of a property. In general, the RoRs include information on five characteristics of a land parcel property: ownership, possession, extent or area, land use, and encumbrances. The requirement to give information on all these aspects may be explicit as in Himachal Pradesh or implicit as in Maharashtra (although for Rajasthan, the IAA notes that there is no requirement to record possession at all as distinct from ownership). The IAAs have, accordingly, gathered information on various provisions to facilitate updating of five aspects.

This section is an analysis of the position in each state with regard to the manner of communication of a change in each of these five matters, and the process by which the record is subsequently updated (see Tables 2.5 and Tables 2.6a to 2.6i). While analysing the provision about communication, the aim is to pinpoint the responsibility in this regard and the likely implication for the objective of real-time updation. In the assessment of the process for updating, a distinction is being made between the undisputed and disputed changes again in order to shed light on the likelihood of securing an accurate record updated in real time.

Ownership of property can be affected by many kinds of events but an overwhelming number pertains to either succession or sale. Accordingly, the assessment primarily looked at these two while explaining the provisions for communicating changes and the process for incorporating the changes in the record.

Table 2.5: Responsibilities for Intimation of Events Necessitating Change in the Record

	Himachal Pradesh	Maharashtra	Rajasthan
Ownership (Sale)	Report to *patwari* by party or by SRO via monthly memo	Report to *talathi* (*patwari*) party or SRO via monthly memo	Report to *tehsildar* by party or SRO via monthly memo

	Himachal Pradesh	Maharashtra	Rajasthan
Ownership (Succession)	Report to *patwari* by parties	Report to *talathi*(*patwari*)by parties	Report to *tehsildar* by parties
Possession (other than due to sale/succession)	*Patwari* at the time of harvest inspection	*Talathi* at the time of harvest inspection	
Extent/Area (other than sub-division due to sale/succession)	No procedure specified	No procedure specified	No procedure specified
Land use	*Patwari* during the biannual harvestinspection	*Talathi* during the annual harvest inspection	*Patwari* during the tri-annual harvest inspection
Encumbrances (mortgage)	Bank/financial institution informs *patwari* to make note about equitable mortgage in the ROR before releasing money	Party acquiring any right in property must intimate the *talathi* within three months from the date of such acquisition	The bank or borrower informs the *tehsildar* once a mortgage deed is registered
Dispute in civil/revenue court :	Revenue court intimates the *patwari* to make note in the ROR of when the dispute was instituted/settled. No procedure is specified for the civil court	No procedure for reporting/entry	Courts intimate the*patwari* to make note in the ROR whenever there is an order in a dispute
Land acquisition	No procedure for information/entry till acquisition is final	No procedure for information/entry till acquisition is final	No procedure for information/entry till acquisition is final
Land use restrictions:	No procedure for intimation/entry in the RoR	No procedure for information/entry till acquisition is final	No procedure for intimation/entry in the RoR

Source: NCAER study team.

2.5.1 Process for Effecting Change in the Record

Table 2.6a: Process for Effecting Change in the Record: Ownership-Undisputed

Ownership (Undisputed)		
Himachal Pradesh	**Maharashtra**	**Rajasthan**
Mutation The *patwari* is required to enter mutations which are ultimately attested/sanctioned by the revenue officer (*tehsildar*) on his visit to the area. It requires the presence of parties	**Mutation** The *talathi* is required to enter mutations which are ultimately attested/sanctioned by the certifying officer	**Mutation** The *patwari* required to enter mutations, the Gram Panchayat (GP) takes up mutation for disposal and the patwari finally attests it. *If the GP fails to dispose of the mutation case within 30 days, it is sent to the tehsildar for disposal.*
Appeal and revision Attestation of mutation is an appealable order	**Appeal and revision** Attestation of mutation is an appealable order	**Appeal and revision** Attestation of mutation is an appealable order
Time Period Not specified, however, there is system of monitoring reports about pending cases	**Time Period** Not specified, however, there is system of monitoring reports about pending cases	**Time Period** 50 days

Source: NCAER study team.

Table 2.6b: Process for Effecting Change in the Record: Ownership-Disputed

Ownership (Disputed)		
Himachal Pradesh	**Maharashtra (RoR/PC)**	**Rajasthan**
Mutation Summary procedure specified for hearing objections and passing order which is appealable	**Mutation** Detailed procedure specified for hearing objections after giving due notice, before passing an order which is appealable	**Mutation** Objections to a mutation can be raised in the Gram Sabha. If objections are raised, then the case is sent to the *tehsildar* for disposal. The *tehsildar* passes an appealable order after hearing objections.

Source: NCAER study team.

Table 2.6c: Process for Effecting Change in the Record: Possession-Undisputed

Possession (Undisputed) – Presence ofjoint owners in record even if on the ground possession of the specific plot lies with particular owners		
Himachal Pradesh	**Maharashtra**	**Rajasthan**
Separate column to record possession exists If all co-owners jointly represent, possession can be entered as per their agreement. Voluntary partition through such a joint application can even be reflected in the ownership column. For possession other than as owner, entry is possible if the owner(s) agree(s) in writing before the revenue officer.	No separate column to record possession. It is recorded in a separate book or in remarks	No separate column to record possession,and not recorded separately

Source: NCAER study team.

Table 2.6d: Process for Effecting Change in the Record: Possession-Disputed

Possession (Disputed)		
Himachal Pradesh	**Maharashtra**	**Rajasthan**
Case to be instituted before the revenue officer and decision after hearing of all parties involved. This includes cases for partition of joint ownership or recording of possession due to any other claim (like finance mortgage with possession, etc.)	Case to be instituted before the revenue officer, being the Collector. This includes cases of partition and sub-division. Intimation is then given to the *Talathi*.	

Source: NCAER study team.

Table 2.6e: Process for Effecting Change in the Record: Extent/Boundary-Undisputed

Extent/Boundary (Undisputed)		
Himachal Pradesh	**Maharashtra**	**Rajasthan**
Procedure for change of extent/boundary is the same as that for undisputed possession although in practice even these matters are addressed only at the time of the detailed resurvey	Demarcating the boundaries of a survey number or of a sub-division and construct boundary marks thereon, can be done in case of an undisputed property, after application of the parties involved to the survey department	Application filed with the *tehsildar* or SDM

Source: NCAER study team.

Table 2.6f: Process for Effecting Change in the Record: Extend/Boundary-Disputed

Extent/Boundary (Disputed)		
Himachal Pradesh	**Maharashtra**	**Rajasthan**
Same as for disputed possession although in practice such matters are addressed only at the time of the detailed resurvey	If any dispute arises, it must be decided by the Collector after holding a formal inquiry at which all persons interested shall have an opportunity of appearing and producing evidence.	Suit filed with the *tehsildar* or SDM

Source: NCAER study team.

Table 2.6g: Process for Effecting Change in the Record: Land Use-Undisputed

Land use (Undisputed)		
Himachal Pradesh	**Maharashtra**	**Rajasthan**
Crop/use changes to be recorded by the *patwari* at the time of harvest inspection	Crop/use changes to be recorded by the *patwari* at the time of harvest inspection	Crop/use changes to be recorded by the *patwari* at the time of harvest inspection

Source: NCAER study team.

Table 2.6h: Process for Effecting Change in the Record: Land Use-Disputed

Land use (disputed)		
Himachal Pradesh	**Maharashtra**	**Rajasthan**
Requires institution of a revenue case to be heard by a revenue officer. After hearing parties, appealable order to be passed	Cases relating to disputes are to be instituted before the Collector. The Collector has the power to call for the payment of non-agricultural use assessment and the restoration of the land to its original use	

Source: NCAER study team.

Table 2.6i: Process for Effecting Change in the Record: Encumbrances

Encumbrances		
Himachal Pradesh	**Maharashtra**	**Rajasthan**
Included in the Remarks column in the ROR		Included in a separate column (16A) except for land use restrictions
Mortgage: Note made in the RoR Remarks column either by way of mutation if the mortgage is registered or directly by the *patwari* on intimation of equitable mortgage by the bank/financial institution	**Mortgage**: Made in the RoR Remarks column either by way of mutation if the mortgage is registered or directly by the *talathi* on intimation by the bank/financial institution	**Mortgage**: The *tehsildar* sanctions the mutation and instructs the concerned *patwari* to enter it in the RoR;the bank releases money after it is entered in the RoR
Dispute in civil/revenue court: Entry in the Remarks column by the *patwari* on intimation of an order by the relevant court/officer	**Dispute in civil/revenue court:** Entry may be made in the Remarks column if intimation is given by parties	**Dispute in civil/revenue court:** Entry in the RoR by the *patwari* on intimation of an order by the relevant court/officer

Encumbrances		
Himachal Pradesh	**Maharashtra**	**Rajasthan**
Land acquisition: Cases are not recorded;no procedure specified for entry of acquisition proceedings or	**Land acquisition:** Cases are not recorded	**Land acquisition:** Cases are not recorded
encumbrances relating to land use change;special restrictions on transfer of ownership to or by categories like non-agriculturalists or in case of special grants are recorded by *patwari* at the time of mutation		

Source: NCAER study team.

Chapter 3: TehsilLevel Assessment

3.1 INTRODUCTION

This segment of the study was designed to assess the impact on the ground of the computerisation-related achievement and associated processes mentioned in Chapter 2 towards furthering the objective of achieving a more comprehensive record updated in real time. This assessment also sought to determine the impact of the computerisation process on the delivery of services to the public. This field level assessment was designed to yield information on the following aspects:

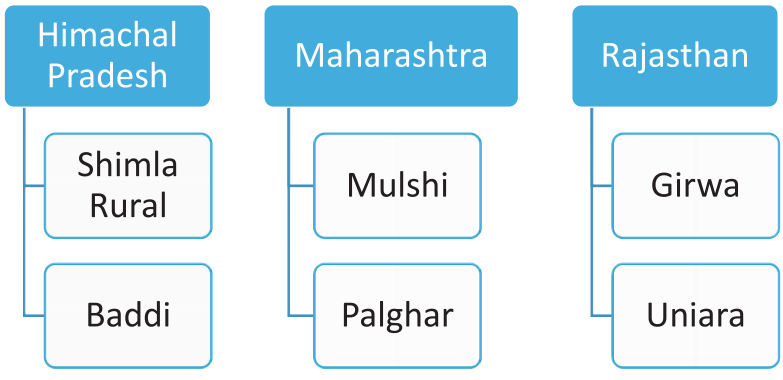
1. The extent to which the record is a real-time mirror of the actual situation (this check assessed the variation between the record and the on-the-ground situation in 100 sample land parcels in two tehsils of each state).
2. The efficiency exhibited in the Delivery of Land Record Related Services, for which the following two kinds of services were assessed:

   2a. Making available copies of the Land Record; and

   2b. Making available orders on applications/events seeking change/updation of the Record.

The tehsils selected for this assessment in the three states are shown in Figure 3.1. In Himachal Pradesh, one tehsil each was selected from the districts of Shimla and Solan; in Maharashtra, the tehsils were from the Pune and Palghar districts; and in Rajasthan, they were from the Udaipur and Tonk districts.

Figure 3.1: Selected Tehsils for the Tehsil Level Assessment



Source: NCAER study team.

3.2 REAL-TIME MIRROR CHECK

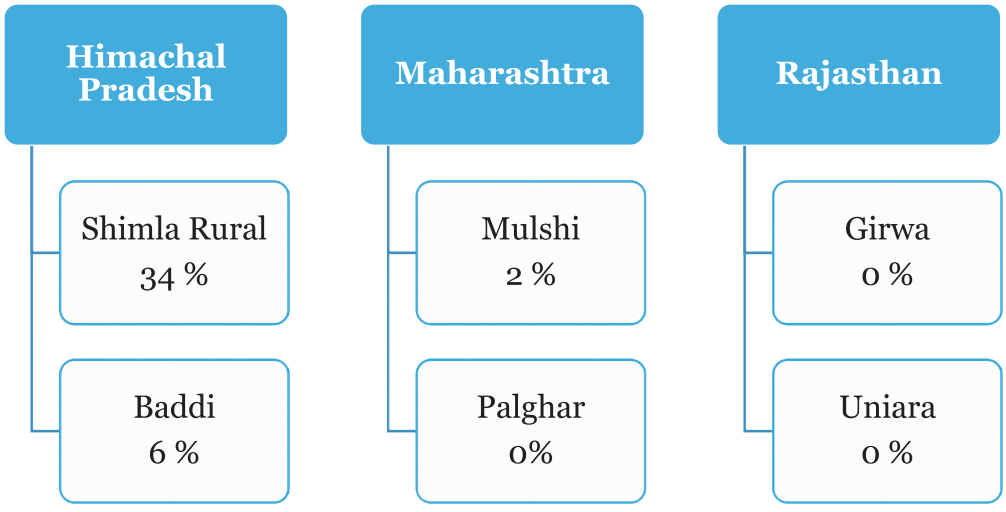
The real-time mirror (RTM) check in the two tehsils involved a land parcel survey for examining the status and extent of variation between the record and the on-the-ground situation with respect to changes that fall in the following five major categories—Ownership, Possession, Land use, Land Area and Encumbrances. The assessment sought to record the extent of variation, and if possible, the time period for which the variation had existed. The sampling strategy adopted by the three IAAs for

performing these land parcel checks varied (as delineated in Chapter 2), and hence the findings are not necessarily comparable. In Himachal Pradesh, a total of 100 land parcels,that is, 50 land parcels in each tehsil, were selected on the basis of a random stratified sample selection methodology. In Rajasthan, ten villages from each tehsil were selected at random, out of which five villages in each tehsil that showed the highest transaction intensity, were picked. From the ten villages selected in each tehsil, the mutations for 2016–17 were analysed with the help of the local *patwari* to select land parcels, with a target of ten parcels per village. Consequently, 76 mutations (most of the mutations involved more than one parcel) were analysed, based on which 99 land parcels across two tehsils were finally selected for the sample survey. In Maharashtra, five villages from each of the two tehsils were selected in accordance with the highest transaction intensity. Within each village, ten parcels were picked (with such transactions) and in a situation where enough land parcels were not available in a village, more villages were included. Finally, a total of 102 parcels were surveyed, including 50 in Mulshi and 52 in Palghar.

3.2.1 Ownership

With respect to ownership, no variation was observed in the selected land parcels in both the tehsils in Rajasthan. The picture was almost the same in Maharashtra, with the Palghar tehsil exhibiting no variation between the ground situation and the land records with respect to ownership, and only one land parcel in Mulshi displaying any variation in this regard. This overall result was as expected since the method of sampling was actually based on recently attested mutations in relation to the concerned land parcels. In effect, the sampling methodology was meant to eliminate variations in ownership. It was, therefore, surprising to actually find a variation in one land parcel in Mulshi. In Himachal Pradesh, this variation was observed in 17 out of 50 and 3 land parcels out of 50, respectively, in the Shimla rural and Baddi tehsils (Figure 3.2). These cases of variation largely pertained to changes on the ground due to the occurrence of a sale or succession that had not been incorporated in the record. The tehsil assessment in Himachal Pradesh also tracked the time that had elapsed since these changes had occurred on the ground. In many cases, this period was more than 5 years in the Shimla rural and 2–4 years in the Baddi tehsil. Unfortunately, the time period between the occurrence of relevant events and their recording as mutations could not be ascertained in Rajasthan and Maharashtra,which is why these results could not be compared.

Figure 3.2: RTM Check—Ownership



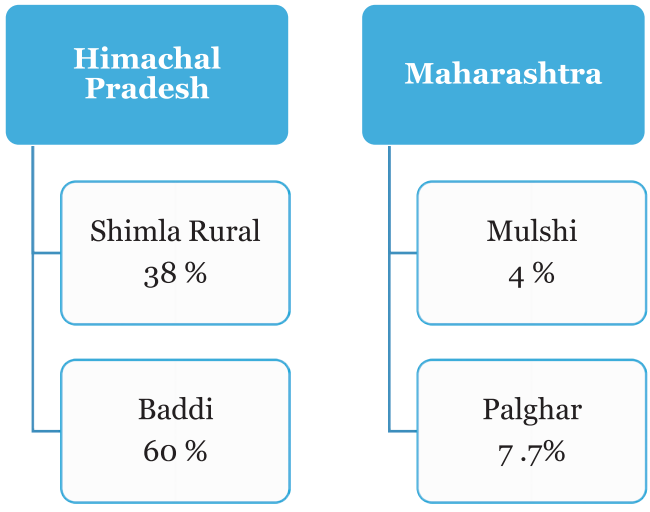
Source: NCAER study team.

3.2.2 Possession

Possession in the RoR is meant to reflect the actual users of the land/property since these may be different from the owners (or include only some of the owners in the case of multiple owners). Section 2.5 in Chapter 2, which details instructions for updating of land records mentions that there is no separate column in the RoR to record possession in two of the three states,that is, Rajasthan and Maharashtra, though in Maharashtra, there is a separate register for such matters. With regard to real-time updation of changes in possession, the Rajasthan IAA has observed that 94 percent of the land parcels exhibit joint ownership and all the title-holders' names are recorded, without explicitly stating which title-holder (if any) is occupying which part of the land. Also, the revenue department has stopped recording possession since the 1970s under explicit orders from the Rajasthan Government. In Himachal Pradesh, there is a separate column for possession to be explicitly mentioned in the RoR while in Maharashtra, the possession details can be given in the Remarks column of the RoR. Therefore, the IAAs in Himachal Pradesh and Maharashtra have attempted to capture the variation between the information in the RoR and the on—the-ground situation with respect to the possession or actual occupant of a piece of land (Figure 3.3). In Himachal Pradesh, there was a variation in 19 out of 50 land parcels and 30 out of 50 land parcels in the Shimla rural and Baddi tehsils, respectively. In a majority of the cases, all the shareholders were recorded in the RoR but only some of them had the actual possession. In Maharashtra, there was a variation in 2 out 50 land parcels, and in 4 out of 52 land parcels, respectively, in the Mulshi and Palghar tehsils. These cases largely pertained to events wherein possession was in the name of descendants or some family members though the ownership was not in their name. Other cases related to scenarios of unrecorded tenancies and a caretaker being in possession of the piece of land. With all this, it would appear that in all the three states, recording of joint ownership of many owners is a common phenomenon, and variation, with respect to actual possession on the ground, is a likely occurrence. This would appear to highlight the need to encourage mutually

accepted (voluntary) partitions between joint owners in order to obviate the possibility of future disputes and litigation, and to prevent constraints on transactions in property.

Figure 3.3: RTM Check—Possession



Source: NCAER study team.

3.2.3 Land Use

An accurate record of land use confers numerous benefits in terms of better estimation of agricultural production and property valuation. It also facilitates better land use planning and making available land for various purposes. An accurate recording can also create, where relevant, a database to take other actions that may relate to compliance with statutory requirements.

In the case of Rajasthan, no detailed comparison between the RoR and the on-the-ground status has been mentioned by the IAA. However, there is a mention of a peri-urban area (adjoining the sample survey village) in which diversion to non-agricultural usage is occurring rapidly and is not recorded. Rajasthan land conversion rules allow certain kinds of non-agricultural uses of agricultural land, without requiring conversion. To wit, the sample contains two cases of non-agricultural use, which do not require conversion (and by extension, any notation in the RoR). Therefore, the RoR is still technically an accurate record of land use as per the conversion rules but not in relation to the actual on-the-ground situation.

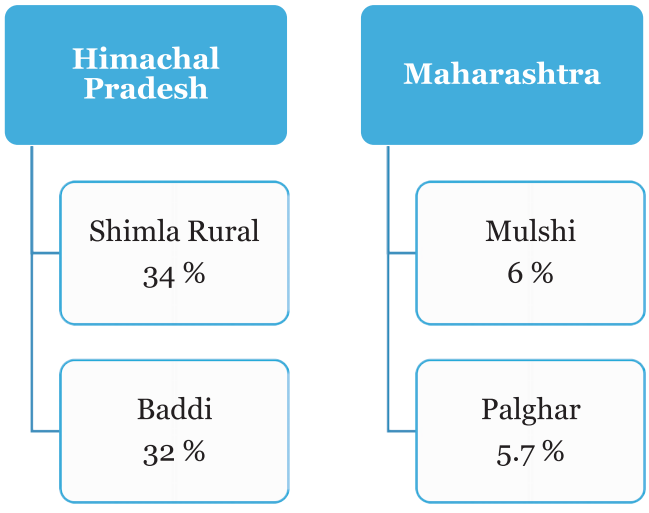
In Maharashtra, the IAA mentions a 6 per cent variation between the record and the on-the-ground situation at the level of the broadest categories of agricultural and non-agricultural usage classifications. It notes that the variation is much higher if the difference within the agricultural (to fallow/orchard) or in transition (plotting/partial construction) categories was to be included. However, this variation has not been quantified.

The Himachal Pradesh IAA has attempted to quantify every kind of variation including a partial change in a parcel or within the broad category of agricultural usage. Variation was seen in 17 out of 50 and 16 out of 50 land parcels, respectively, in the Shimla rural and Baddi tehsils (Figure 3.4). The time elapsed since these changes have taken place on the ground—more than 5 years for the Shimla rural tehsil, and even 20

years in one of the cases in Baddi tehsil—showed the lack of interest in the system for recording these changes.

The assessment in all the three states implicitly highlighted that this is a component of the land record in which accurate updating has received scant attention in both the formats and processes (including rules/instructions) specified and the attention paid by the field functionaries to this task.

Figure 3.4: RTM Check—Land Use



Source: NCAER study team.

3.2.4 Land Area

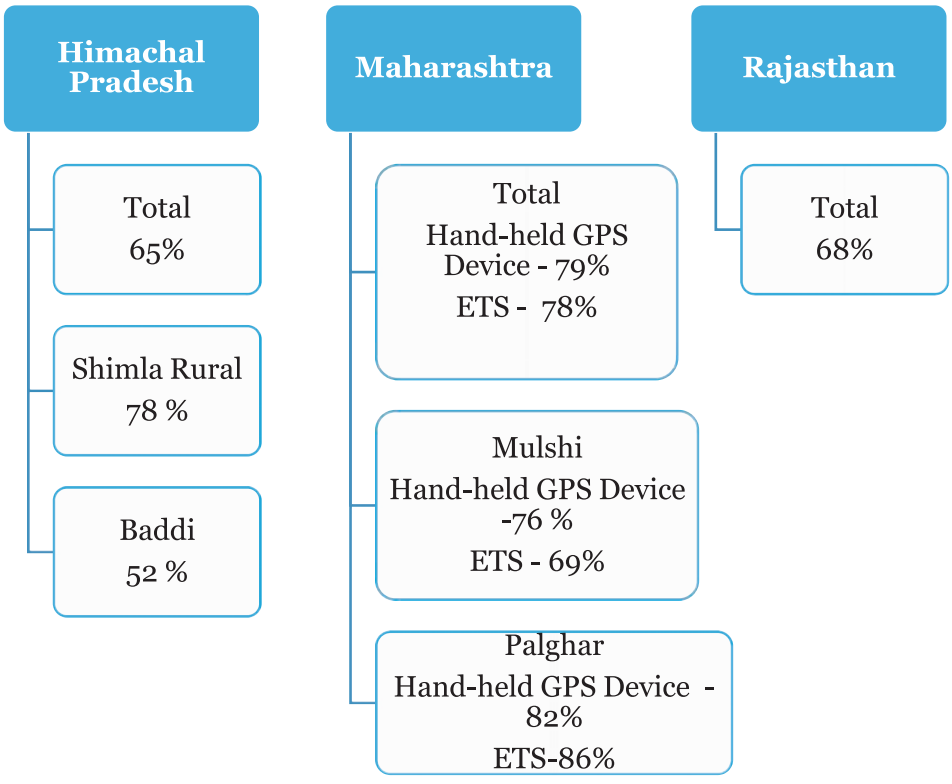
This is a component of land records that is not updated frequently. The area of each original land parcel is as noted in the last survey and the settlement operation and updating is only a process of noting sub-divisions of the original land parcels. This component was expected to bring about a large-scale variation, and this was actually the case. For the on-the-ground measurement of the area, the three IAAs resorted to different measurement devices. While the IAA in Himachal Pradesh used Electronic Total Station (ETS), in Maharashtra, the IAA relied on both a hand-held GPS device as well as an ETS, and the Rajasthan IAA used only a hand-held GPS device for measuring the land area.

The on-the-ground measurements were compared to the measurement given in both the CMs and RoRs in the Himachal Pradesh report. In addition to this comparison, the land area in the RoRs and CMs was also compared in Himachal Pradesh. In Maharashtra and Rajasthan, the land area as measured by the hand-held GPS and ETS was compared to the information on the land parcel area in the RoRs as the CMs do not reflect the area of a land parcel.

For comparison between the three states (of the extent of variation in the area), therefore, only the difference between the RoR and the on-the-ground situation can be used (Figure 3.5). In this regard, an appropriate cut-off figure, above which the extent of

variation is considered significant, can be taken as 5 per cent[1] (this is often a percentage mentioned in records as the upper limit for ignoring variations at the time of the resurvey).

Figure 3.5: RTM Check—Land Area



Source: NCAER study team.

Figure 3.5 shows very high variations between the record and the on-the-ground situation in all the three states. This may be seen by many as a reason for immediate commissioning of resurveys to enhance accuracy. In fact, it should also be a reason for exercising caution in this regard in the absence of appropriate protocols for addressing the variations between the legacy record and resurvey measurement. In the absence of detailed appropriate protocols (all states have fairly perfunctory instructions), this will only increase the extent of disputes and litigation instead of reducing the problem. It may be more useful to first digitise the existing CMs. Then wherever there are requests for measurement of individual parcels and a variation with the on-the-ground is shown, then ways to incorporate this in the record may be considered. In Himachal Pradesh, the comparison between the three sets of data showed that part of the variation between the RoR and the on-the-ground situation can by sorted out by accepting the measurement in the digitised CM and giving this precedence over the RoR. In other cases where all the neighbouring parcel holders accept the on-the-ground measurement, this can be given precedence, and so on. Once the ambit of undisputed variations,which are incorporated in the existing records, is expanded, the segment that

[1] In the Rajasthan report, the closest size class in which the variation has been exhibited is 4-6 per cent. The number of land parcels in this class with variations above 5 per cent have been taken as half for purposes of comparison.

can result in any dispute will shrink and become more amenable to early resolution. This will facilitate the emergence of a more accurate record over time even without the time, effort, and possible increase in disputes that a one-time, detailed resurvey can cause.

3.2.5 Encumbrances

Encumbrances are in the nature of restrictions/conditions attached to ownership or use of the land/property. These are generally recorded as remarks in a RoR. Encumbrances can range from mortgage of a property as collateral on taking a loan to matters like pending disputes, pending land acquisition proceedings, statutory or community-enforced restrictions on land use, or the ability to transact in relation to the property. The failure to mention these various kinds of encumbrances can become a cause for dispute and litigation.

Assessment of the extent to which encumbrances find any mention in the record and variation between the record and the on-the-ground situation revealed the following common features in the three state reports:

1. The understanding of encumbrances is, by and large, limited to the mortgage of land or property (to banks and financial institutions) on the availing of loans. The systems for recording this appear to be relatively robust.
2. Other encumbrances are seldom recorded. Ongoing litigation (even if it finds mention in instructions) or pending acquisition proceedings or statutory restrictions on land use in town planning or development areas usually do not find any mention. (A restriction on the non-agricultural purchase or sale of land in Himachal Pradesh did appear to find a mention in the record, reflecting the political importance of the issue). The IAAs implicitly drew attention to the need for finding ways to ensure various encumbrances in the RoR, if the goal of achieving comprehensive, updated land records is to be fulfilled.

3.3 DELIVERY OF LAND RECORD-RELATED SERVICES

3.3.1 Copies of Land Records

An assessment of the efficiency in delivery of the copies of computerised land records indicates that the approach exhibited in the Maharashtra and Rajasthan reports is different from that adopted in Himachal Pradesh. In Himachal Pradesh, as seen from the state level assessment, there is an effective system for the delivery of copies of the RoR through the Citizen Service Centres (CSCs). The tehsil level assessment of the CSCs revealed instant delivery of computerised RoRs to the public, which the IAA verified by interviewing the public outside the CSCs who had come there to collect the RoRs. The verification exercise highlighted that the record seekers could obtain the RoR copies in a few minutes from the CSCs.

In Maharashtra, the assessment reveals that certified copies of the RoRs can be obtained from the specific centres at an average time of two days (approximately) in the Mulshi tehsil—this includes the time period between the application and receipt of a RoR copy. In the Palghar tehsil, the average time taken for the same process is one day. In addition to the certified copies of the RoRs, the Maharashtra assessment also looked

at the delivery of copies of CMs. In both the tehsils, the scanned CM copies are delivered within a day to the public.

In Rajasthan, the RoRs and CMs are delivered within a day in the Girwa tehsil whereas in Uniara, the tehsil office issues printouts of the digitised maps from Apna Khata, and these are given immediately on application.

Overall, it would appear that computerisation of land records has facilitated the early availability of land record copies to the public.

3.3.2 Updation/Correction of Records

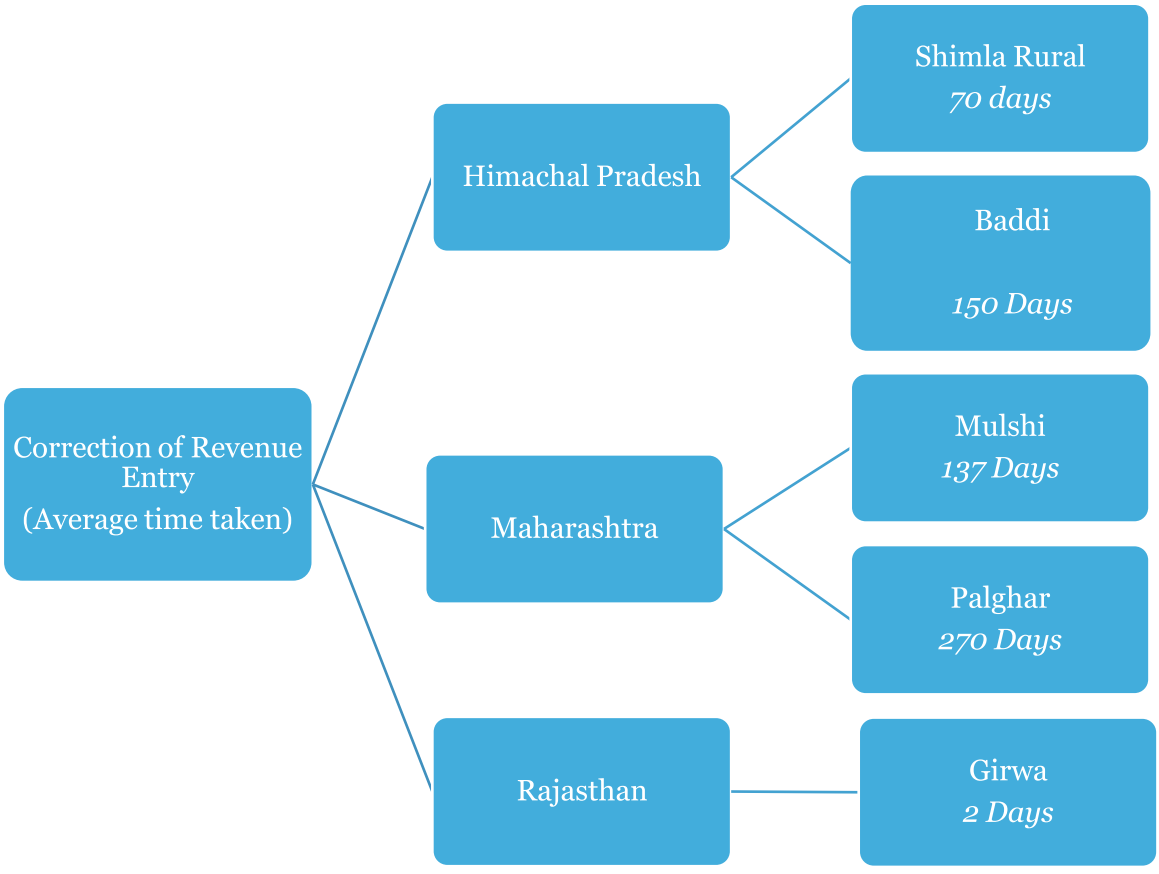
An effective land administration system requires that the applications seeking changes with regard to land-related matters and land records should be disposed of at the earliest. Consequently, an attempt was made to assess the situation in the three selected states with regard to these matters. For this purpose, this exercise focused on examining the time taken for resolving applications/cases with regard to the correction of revenue entry, partition, demarcation, mutation, and registration applications.

Correction of Revenue Entry

Correction of revenue entry may be required on account of various errors in the RoR. These may be undisputed (and merely clerical in nature) or disputed. Clerical errors may or may not necessitate hearing the parties involved and may be disposed of on simple application by the affected person or on this being brought to the notice of the revenue officer by the *patwari/talathi*concerned. Correction of errors would require institution of revenue cases with all the parties to be heard and the passage of a proper order. The assessment of the random cases from registers relating to correction of revenue entry highlights that this is a time-consuming process in Himachal Pradesh and Maharashtra, indicating procedural delays in updating of the records (Figure 3.6). It is difficult to arrive at any conclusion in this matter from the available data that the process in Rajasthan[2] is indeed more efficient.

[2] For Rajasthan, this information is available only for the Girwa tehsil.

Figure 3.6: Time taken for Correction of Revenue Entry

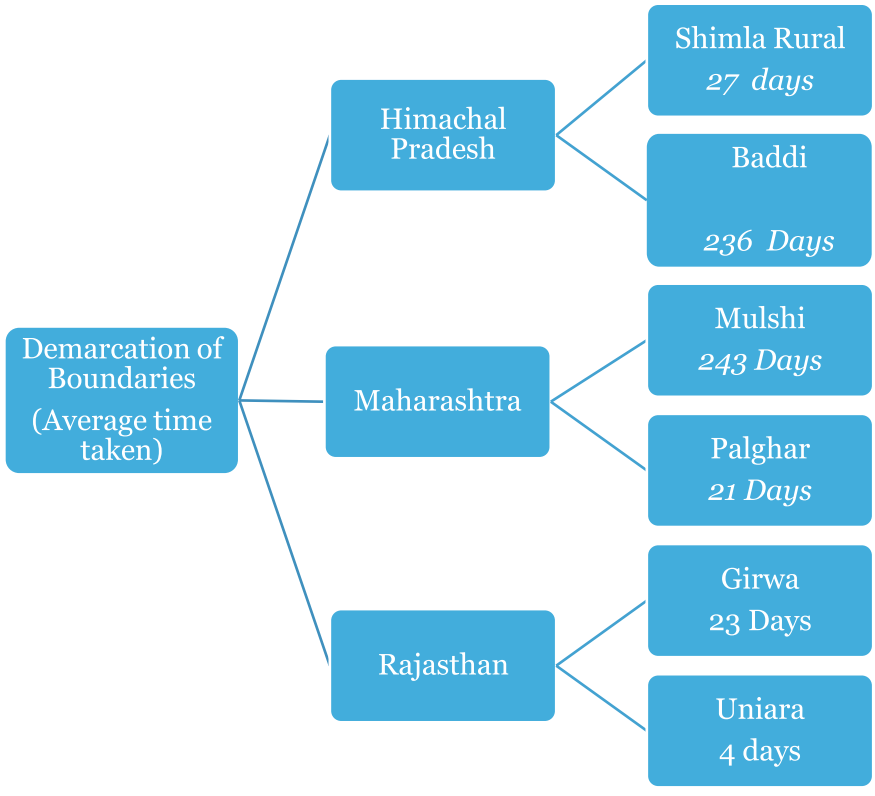


Source: NCAER study team.

Demarcation of Boundaries

As regards the application for demarcation of boundaries, the state of Rajasthan as well as the Shimla rural and Palghar tehsils from Himachal Pradesh and Maharashtra, respectively, exhibit a relatively swift disposal process as compared to the other two tehsils of Himachal Pradesh and Maharashtra,that is, Baddi and Mulshi, respectively. Again, however, it is not always possible to arrive at firm conclusions in this regard given that the recording/reporting systems are not necessarily accurate in these matters (Figure 3.7).

Figure 3.7: Time Taken for Demarcation of Boundaries



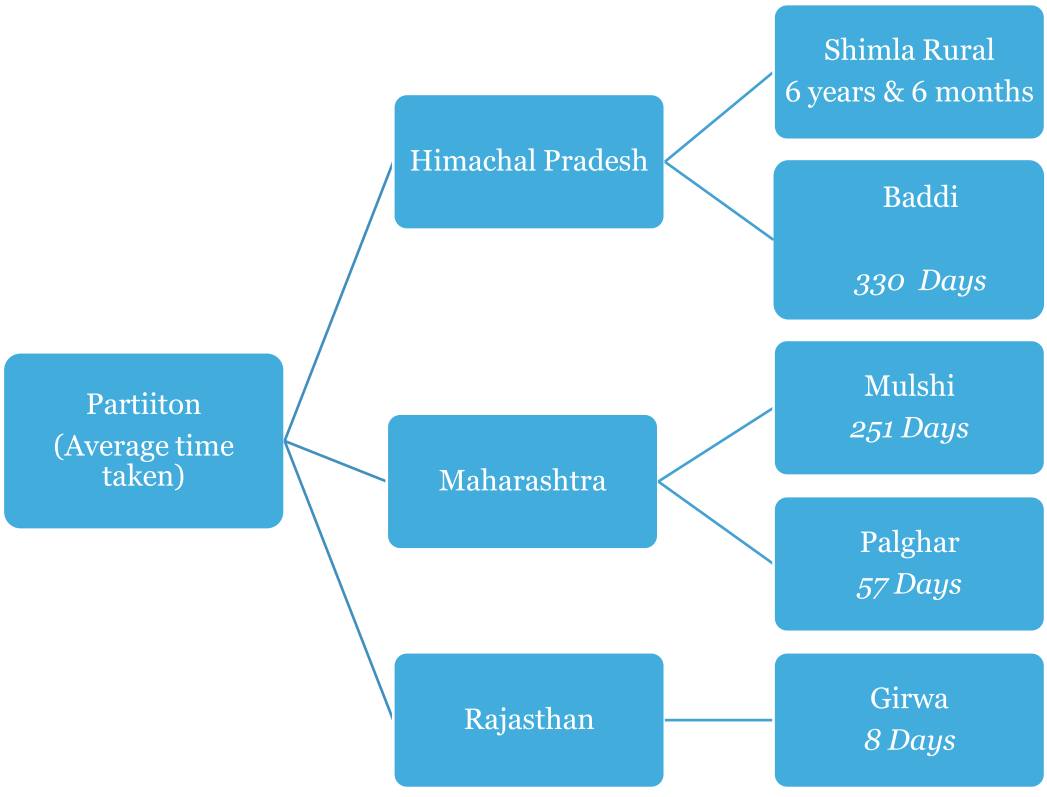
Source: NCAER study team.

Partition Cases

Effective partition is a solution to numerous land/property related disputes and the problem of excessive joint holding. In this regard, it is important to ensure the swift execution and conclusion of all requests for partition. The limited data gathered in these reports, however, shows a mixed picture of both early conclusion in some cases and long delays in effecting partition in others (Figure 3.8).

Partitions, when undisputed that is, when they are voluntary partitions by mutual consent of joint owners, require only a simple application in Himachal Pradesh, for which an order is passed by the revenue officer and a mutation is initiated. In the other two states, even an undisputed partition may go through a process of hearing out of the parties before an order is passed. Consequently, the data pertaining to Himachal Pradesh, does not include voluntary partitions while the corresponding data on the other two states may include such undisputed partitions.

Figure 3.8: Time Taken for Partition



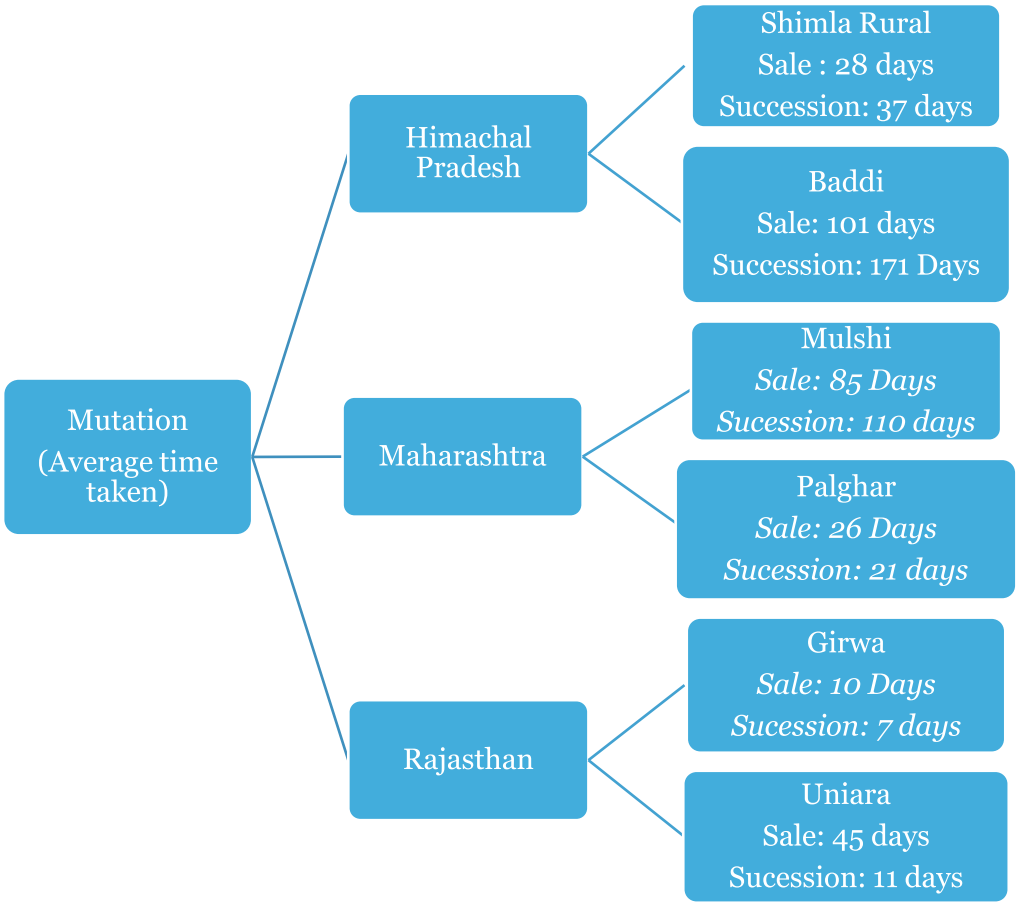
Source: NCAER study team.

Mutation

The most significant land record-related service, which affects all property owners, is the attestation of a mutation. This is the action that gives effect to a change of ownership in the land record in the event of a sale, succession, partition, gift, etc.

The time taken to have a mutation attested, after the occurrence of the relevant event (registration of a document of sale or a death resulting in the need to effect changes in the record), was analysed in a few cases in all the three states (Figure 3.9).

Figure 3.9: Time Taken for Mutation



Source: NCAER study team.

Any delay in updating of the record can create scope for litigation. Eliminating this gap is an important objective of computerising and integrating the land record related databases of the RoR and registration. In Himachal Pradesh, where the delay exhibited is the longest, a saving grace is that post registration, a note to this effect, is automatically made in the RoR, drawing attention to the fact that this requires the attestation of a mutation. In Rajasthan, where the delay exhibited is the least, an integration of the two databases involved, is most distant, at present. The assessment brought out that there is a need to make this integration more effective in all the three states. At the same time, it highlighted that it is important to consider other steps for allowing for real-time updation. These include integration of other relevant databases with the land records as well as re-engineering processes so that the real-time updating of the record can actually be effected.

Registration

The registration of documents that record transactions like a sale or gift of property is an important property-related service to be availed of by the public from the government. An attempt was made to assess the efficiency of this service by examining the time taken to complete the registration process and to receive the attested documents. In Maharashtra and Rajasthan, random entries (5) from registers were examined for this purpose. In both the selected tehsils of Maharashtra, and in the model tehsil of Uniara in Rajasthan,[3] the registration of documents is done within a day.

In Himachal Pradesh, the applicants (5) present outside the SRO were interviewed for obtaining responses in this regard. Half of the respondents reported that the entire registration process was concluded within a day as in the case of the other two states. However, the remaining 50 percent of the respondents stated that the process was delayed (with the average delay being 23 days in these cases).

An analysis of the situation emerging from this assessment shows that the online registration process, which includes various stages from application to delivery of the registered document, can be implemented quite easily and result in considerable savings of time and effort on the part of both the applicants and the concerned authority.

3 Information is available only for this tehsil.

Chapter 4: Suggestions and recommendations

4.1 INTRODUCTION

The state and tehsil level assessment conducted by the three IAAs in their respective states highlighted the gaps that need to be addressed in order to secure the goals of a more comprehensive, accurate record and improved delivery of services by the revenue and registration systems. The impact assessment findings were discussed with the revenue officials and other stakeholders in Focus Group Discussions (FGDs) in the field and where possible, at a state level consultation. The ground level observations and subsequent discussions led to the enumeration of various issues that need to be addressed and the associated recommendations for addressing these.[4]

These recommendations for each of the three states have been grouped into the appropriate categories as delineated below.

4.2 IMPROVING THE OVERALL LAND RECORDS AND REGISTRATION

The impact assessment exercise unveiled deep-rooted weaknesses in the system of land record management, which obstructs the real time updation of land records. In all the three states, suggestions were made to improve the RoRs per se to ensure the availability of better records. The other suggestions included facilitating the availability of digitised CMs and all legacy records on the web and introducing web-based applications in the registration process. A summary of the recommendations received in each of the three states is provided in Table 4.1.

[4]These are not recommendations of the IAAs or of this synthesis report. They are only suggestions emerging in the FGDs.

Table 4.1: Recommendations for Improving Overall Land Records and Registration

Himachal Pradesh	Maharashtra	Rajasthan
Suggestion to abandon the five-year cycle of RoR generation to facilitate real-time updation of records	Need to make efforts to ensure availability of certified copies of the RoR and Property Cards online, which is not the case currently	Amendment in registration rules to make the SROs check the RoRs and maps before registering a transfer deed
Option of the web-based registration system		Setting standard formats for RoRs to record the relevant data like encumbrances, land use changes and restrictions, easements rights and to accordingly modify the e-Dharti software for accepting this data
Need for a Document Management System (DMS) to enable data web accessible legacy records		Need for legal provisions to allow the CMs to be updated with on-the-ground changes by moving towards digital maps

Source: NCAER study team.

4.3 REAL-TIME UPDATION OF RECORDS

This includes five sub categories, including ownership, possession, land use, land area/boundary and encumbrances,which need to be updated over time. Real-time updation necessitates the immediate reflection of the changes with respect to these five categories in the land records. However, currently, instructions have either not been issued to update the record in the event of a change or even if they have been issued, they are not being adhered to in practice. In this situation, recommendations to ensure updated, comprehensive, and accurate land records were received from all the three states. These state-wise recommendations for various categories have been enlisted in Tables 4.2 to 4.6.

Table 4.2: Recommendations for Ownership Updation in Land Records

Himachal Pradesh	Maharashtra	Rajasthan
Online mutation - Automatic updation of RoRs with registration	Automatic online intimation of the registration to be sent to the revenue officer to enhance real time updation of ownership	Integration of registration records and RoRs
Possible linkage between the data base of the Registrar of Births and Deaths of every local body and the *shajra nasab* to facilitate real-time updation of succession-related ownership changes		

Source: NCAER study team.

Table 4.3: Recommendations for Possession Updation in Land Records

Himachal Pradesh	Maharashtra	Rajasthan
Encourage voluntary partition to deal with excessive instances of joint ownership reflected in the record and to incentivise revenue staff for taking steps in this direction		Required statutory provisions to record possession and tenancy
		Need for legal provisions to allow amalgamation of plots to facilitate partition and to reduce extreme fragmentation of parcels

Source: NCAER study team.

Table 4.4: Recommendations for Land Area/ Boundary Updation in Land Records

Himachal Pradesh	Maharashtra	Rajasthan
Suggestion to formulate a fresh Resurvey Manual to guide resurveys	Recommendation to grant more ETS equipments and impart relevant training in this regard to the departments to ensure more efficiency in land measurement	Introduce statutory provisions to record easement rights
Prioritise fresh survey only in the *'abadi deh'* areas that have been left out		Introduce modern surveying tools such as smartphones with dual-frequency GPS augmentation system modules and drones
Limit resurvey to cases where the record is extremely mutilated or torn and is hence not fit for digitisation		
Explore possibility of resurvey through superimposition of digitised CMs over satellite imagery		
Introduce ways to deal with variation between the legacy record and the fresh accurate measurement/imagery		
A new chapter of the Land Records Manual (LRM) should be drafted to consider all aspects of entering built-up property in the record		

Source: NCAER study team.

Table 4.5: Recommendations for Land Use Updation in Land Records

Himachal Pradesh	Maharashtra	Rajasthan
Need to draft an LRM chapter on recording land use; *alternatively*, the current chapter on Harvest Inspections should be rewritten to take into account the contemporary context		Required statutory provisions to record all land use changes, irrespective of whether they require conversion or not
Record permanent change of land use relating to non-agricultural usage in the shape of buildings and public assets, with possible use of Google maps as well as databases of public assets		
Delineate procedure for sub-division of existing land parcels (*khasra* numbers) that undergo land use change		

Source: NCAER study team.

Table 4.6: Recommendations for Encumbrances Updation in Land Records

Himachal Pradesh	Maharashtra	Rajasthan
New LRM chapter for encumbrances that can include the proposed initiative on e- encumbrances which entails provision for online request by banks for entry of mortgages in the record	Integration of revenue offices with courts and judicial forums to ensure real-time updation of court cases	Need for statutory provisions to record encumbrances other than mortgages, including land use restrictions, ongoing litigation, and transfer restrictions
Linkage of encumbrance record in RoRs with Revenue Court Management System (RCMS), civil courts, Town and Country Planning (TCP) databases, e-gazette in relation to acquisition notifications and Section 118 permissions database maintained in the Secretariat		

Source: NCAER study team.

4.4 REVENUE ADMINISTRATION SYSTEM

The discussions pertaining to Himachal Pradesh tended to focus on enhancing the capacity of the department through appropriate direction and training of staff on new systems and procedures to improve record maintenance and updating. The focus in Maharashtra, on the other hand, was more on updating of technology, ensuring the availability of the requisite equipment, and reducing the workload of the existing staff. In Rajasthan also, the focus was similar with a greater accent on bridging the human resource shortfalls and incentivising the GPs. A summary of these recommendations has been provided in Table 4.7.

Table 4.7: Recommendations for Improving the Efficiency of the Land Revenue Administration

Himachal Pradesh	Maharashtra	Rajasthan
1. Need to explicitly state the mission of the Revenue Department while categorising it as the custodian of a comprehensive property record updated in real-time;this will enable a focus on this objective instead of the current tendency wherein the instructions and actual practice often seem to point in contrary directions 2. Drafting of training modules with respect to procedural changes in matters like partition, demarcation, built-up property, and also for the other changes proposed by this impact assessment like resurvey, *girdwari*, and encumbrances	Imparting technical training for digitisation of land records in the relevant departments.	Dealing with shortfalls in the number of *patwaris*
	Appointment of software and hardware training and support teams	Rationalisingthe responsibilities of revenue officials in the direction of land record management and abolishing land revenue collection
	Ensuring availability of technical resources like computers, printers and scanners to facilitate	Ensuring availability of technical resources like computers, printers, scanners and Internet

Himachal Pradesh	Maharashtra	Rajasthan
	service delivery	connection to facilitate service delivery
	Limiting the number of villages assigned to a single *talathi* to ensure service efficiency	Need to compensate GPs for administrative costs for sanctioning mutations
		Imparting software training to *patwaris* and LRI level revenue officials

Source: NCAER study team.

4.5 THE DI-LRMP DESIGN

The overall impact assessment exercise conducted at the state as well as the tehsil levelshighlighted the specific characteristics of the design and features of the DI-LRMP, which need improvement to augment the effectiveness of the programme. This section thus includes recommendations for improving the performance of the programme.

Table 4.8: Recommendations for Improvement in the DI-LRMP Design

Himachal Pradesh	Maharashtra	Rajasthan
Realignment of DILRMP design as follows: A. *States:* Encourage states to prepare action plans to attain comprehensive and updated records B. *Centre:* Divide central allocations between the funding of action plans and a reward for performance with a greater weightage to performance over a period of time with regard to an updated and accurate record	Deal with inconsistencies between the information available with various revenue administration departments and the information reported on the NLRMP information system	Gram Panchayat (GPs) need to be included in DI-LRMP for streamlining the mutation process
	Ensure accessibility of historical data on the DI-LRMP website for a specified state, and monthly updation of information	

Source: NCAER study team.

Chapter 5: Conclusion and Way Forward

This study set out to assess the impact of implementation of the DI-LRMP in three states, viz. Himachal Pradesh, Maharashtra and Rajasthan. It sought to go beyond a typical programme evaluation that usually looks at only the physical and financial achievements in a given time frame. This assessment went behind these figures to draw an overall picture of the status of land records in order to understand the extent of the success achieved in securing a more comprehensive, accurate record updated in real time with consequent benefits in the services availed of by the public.

The results of this exercise were explicitly meant to cover two underlying objectives. The first was to imbibe learnings from this in order to take forward an agenda for conducting more such studies covering other states. As regards the lessons derived from this exercise, the key question that needs to be answered is: What worked and what did not in the indicators and methodology used in the assessment? The second objective was to suggest ways to make the DI-LRMP more effective. In this the key questionsthat need to be answeredare: What has inhibited the programme from making greater progress, and what changes in design could increase interest at the state level and augment efforts in the goal of securing a more comprehensive, accurate record updated in real time to ensure consequent benefits in the services to be availed of by the public?

5.1 RELEVANCE FOR FUTURE STUDIES

This study was primarily concerned with assessments of the following:

i) The extent of computerisation of land records and registration in each state:this was to be done by taking the data on formats designed for this purpose from official sources and then verifying the status by carrying out test checks.

ii) The arrangements for the delivery of land record related services and the extent to which some of these services are actually delivered; this was also to be done by securing information on the formats specifically designed for this purpose.

iii) The nature of the procedures designed for updating/correcting errors in the land records by collecting information from official sources.

iv) The extent to which computerisation of the land records and procedures for updating the records and correcting errors have succeeded in producing a record that mirrors in real time the on-the-ground situation of ownership, possession, land use, area of a land parcel, and encumbrances, if any, attached to it:this was to be done through sample checks of the selected land parcels in two tehsils of each state.

v) The delivery of land record and registration-related services to the public through sample checks of applications recorded in the official registers.

vi) The ways of bringing about improvements in meeting the objectives of securing a better record and better service delivery from various stakeholders by holding FGDs and consultations at the tehsil and state level, and collating all the suggestions received in this regard for their effective implementation.

How far were the indicators used in the impact assessment instrumental in ensuring that the relevant information was easy to collect, meaningful, credible, and comparable across states? How robust was the methodology? The analysis indicates that based on these criteria pertaining to the extent of computerisation of the record and various elements of the registration process, it is feasible to collect information from official sources with the caveat that the specified criteria are adhered to. Wherever this record and processes can be accessed on the web, test checks yield credible results that can be used to make comparisons across states regarding the extent of computerisation of RoRs, digitisation of CMs, ease of the registration process, and integration of the databases.

The availability of a Public Service Delivery Act to give an assurance of services can be verified quite easily. However, by itself, the existence of such a statute has little meaning. The study showed that for revenue-related services, this Act has not been used much in any of the states. At best, applications under this Act may led to an inference that the services offered through channels pre-dating this Act are less than satisfactory. The one credible, comparable indicator of a significant improvement in services relates to the supply of legally useable copies of RoRs, CMs, and registered documents on the web. If digitally signed copies of these records can be readily accessed (with or without payment), then it can safely be inferred that service delivery has improved radically. The extent of this availability can be test checked quite easily and can be used as a credible indicator of performance in service delivery, for undertaking comparison across states.

For any study of land record management systems, an analysis of the statute, rules, and instructions relating to updating or correcting errors in the record, is essential. It helps draw attention to the gaps which need to be filled, and comparisons that can be made across states to help the states learn from and adopt the best practices of each other. It is not difficult to collect information on the procedures laid down for updating and correcting errors in the record. A useful qualification for the collection of this kind of information and its analysis, is access to sufficient prior knowledge of land record management systems in India, among those carrying out the study. The absence of such knowledge would adversely affect the quality of comparisons across states.

The objective of a computerised land record system and relevant processes to update the record is to yield a comprehensive, accurate picture of the actual status of a property. This assessment set for itself an ambitious goal of conducting field checks of sample land parcels to assess the extent to which the record mirrors the on-the-ground situation in this regard. The size of the sample, and the mode of selecting sample tehsils, villages and land parcels could only yield indicative results. These cannot be considered to convey the representative picture of an entire state. The variations in the mode of sampling adopted by the three IAAs implies that even the results obtained in the three states are not really comparable. However, conducting field level checks is per se a valuable exercise in any study that seeks to assess the accuracy of land records. This can yield information on the variations between the record and the on-the-ground situation while also permitting an analysis of the causes of the variation. This can lead to meaningful suggestions for bringing about a more accurate, updated record. Further, within a particular state, additional suggestions for adopting efficient procedures for updating records can be made through selection of samples both from areas already having computerised/digitised records and those still awaiting computerisation.

Can such sample checks be used for carrying out regular comparisons across states to examine which records present a real-time mirror of the on-the-ground situation? However, this may not be practical from either a time or a methodological angle. Securing credible information of the on-the-ground situation is not easy. Finding knowledgeable respondents willing to share accurate information could also be a problem. Without official support, the actual measurement of land parcels can prove to be a difficult task.[5]

Instead, it may be possible to secure credible information for such a comparison by using proxy indicators and accessing information in relation to these from the computerised record as available on the web. For carrying out a comparison across the five aspects of ownership, possession, land use, area of a land parcel, and encumbrances affecting a property, without necessarily conducting ground level surveys, it may be feasible to adopt the following alternative course. For checking on ownership, an indicator that can gauge the swiftness with which a record is updated on the occurrence of a relevant event can be a good proxy for greater or lesser accuracy of the record. A good indicator can be to simply look at how quickly the land record is updated on the occurrence of recorded events. Thus, sample registrations of sale can be cross-checked to reveal when this fact gets noted in the RoR and also when the record is actually updated. For an assumption on variations in possession, a proxy indicator of value that emerged from this study is the extent to which joint ownership is recorded in the RoR. This fact has been recorded with the strong likelihood that the larger the number of shareholders, the greater would be the probability of a variation between ownership and possession. It even takes care of situations wherein possession is not recorded in the RoR. It is immediately accessed and not subject to any bias, misrepresentation or failure to elicit information that primary surveys may be subject to (apart from sampling errors and the time required). Accurate knowledge of land use is most relevant (for various purposes) with regard to the broad category of agricultural and non-agricultural use of the land. The position in the record vis-a-vis the ground level situation for the sample plots can be checked by using readily available Internet-based maps for a particular area. The area variation may be compared between that recorded in the computerised RoR and the digitised CM as a proxy for a more or less accurate record. Finally, the recording of encumbrances in the RoR can be test checked by taking entries from the relevant databases (such as court records of disputes or land parcels noted in acquisition proceedings or land parcels noted for land use restrictions, or any restrictions on sale, possession, etc.), and analysing the relevant RoR. The key in such an exercise would be to devise meaningful sample sizes for the various aspects being covered.

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[5]On the face of it, quick sample surveys or culling the information through phone calls appears to be an attractive option with regard to the on-the-ground situation of ownership, possession or land use. However, in practice, getting credible information on land-related matters through such means is not easy as discovered by the IAAs involved in this study, and as revealed by the delays in finalising the records after resurveys. The respondents have been seen to be reticent, unsure of how the information shared can affect rights or claims (on the property) or end up creating new liabilities, due to updating of land use, for example. The survey design and its implementation imposes cost and time constraints apart from raising questions about the credibility of the information obtained. High resolution satellite imagery (HRSI) may appear to be a good substitute for on-the-ground measurement. However, distinguishing parcels without distinct boundaries between them can pose a problem for comparison. Selecting sample plots can then become a rather elaborate exercise apart from the cost and effort involved in securing HRSI for comparisons within a set time frame. However, this could possibly become an easier option over time.

There was one more area in the study wherein sample checks were envisaged in the field. This related to the time taken in the delivery of land record- and registration-related services. These checks were limited in number and scope. They did not add much value to the findings from the other sections of the assessment. They merely corroborated the fact that a more computerised record with ready access on the web aids greatly in service delivery. Accessing copies of the land record or registering a sale deed was facilitated by a greater level of computerisation of the record or registration process. It was difficult to derive any definitive conclusions by looking at the time taken in other areas like mutations, partitions, correction of revenue entries, etc., because of a lack of uniformity in processes and definitions across states. Overall, this section of the assessment does not seem very relevant for continuation in future studies.

The terms of reference also specified that the findings of the assessment should be shared with the relevant stakeholders in FGDs and state level consultations in order to canvas suggestions and recommendations for achieving a better record and improved service delivery. This was a fruitful exercise, in relation to the interaction with the field level revenue officials. However, state level consultations were not easy to hold as getting time from senior officials proved difficult. Again the value of these discussions can be enhanced if they are facilitated by persons with a sound knowledge of land record-related systems. In general, it is recommended to share the findings of such studies with relevant officials in future studies. This may result in influencing positive decisions to further the goals of a better record and improved service delivery.

5.2 RELEVANCE FOR DI-LRMP DESIGN

The following inferences can be culled from information on implementation of the DI-LRMP and further details about the three states included in this study, which are available on the programme website:

I. The programme has consistently shown expenditure to be far less than the funds allocated to it at the central level. This is borne out by the data on the three states included in this study. All of them have shown a significant shortfall in utilisation as compared to the amounts sanctioned to them.

II. In Himachal Pradesh, where there has been a significant achievement in computerising RoRs and in Maharashtra, which is in the vanguard with respect to the computerisation of registration, the offtake of funds for these purposes has been negligible. The NLRMP/DI-LRMP has not been able to meet the state requirements even where the state has shown an interest in computerising a particular sphere of the record or processes.

III. Overall, the programme has clearly failed to capture state interest in securing the objectives of the programme. Apart from the fact that the expenditure has been low, even the physical achievements reported by the states on the website appear to take considerable latitude in putting forward their claims. For example, most states have reported achieving computerisation of land records but it is clear that this does not even cover all the RoRs in the state and it definitely does not imply availability of the record on the web).

The reason as to why the expenditure has been low is explained partly by the fact that under the NLRMP, the different components had different sharing patternswith the

Central share ranging from 100 per cent to 25 per cent. States tended to include a greater requirement for components with 100 per cent central funding such as resurvey in their proposals. However, the difficulties inherent in such activities and the time entailed in carrying them out meant that these largely remained unspent. However, with the DI-LRMP now being a centrally funded programme, it may be possible to address this problem.

The second problem relates to the items on which expenditure is allowed and the cost norms in relation to these items. Clearly, these may often not match state priorities or requirements and the cost norms may not be in synchronisation with reality. Greater flexibility in these matters may improve the offtake as programmes like the erstwhile Rashtriya Krishi Vikas Yojana (RKVY) have demonstrated.

The third issue of incentivising states to actually focus on the creation of better land records and improved delivery of land record- and registration-related services may require a radical rethink of the design of this programme. It may be necessary to go beyond funding inputs to actually rewarding performance. It may also be useful to consider funding inputs under the DI-LRMP only to the extent of about 50 per cent of the funds allocated under the programme. These could be further allocated to the states on a normative basis that gives appropriate weightage to the population and area (which are the two critical factors for considering the costs of delivering land record-related services). The balance 50 per cent of the funds could be disbursed on the basis of performance in improving the record and delivery of services. This amount can be disbursed (again suitably moderated to take into account the population and area while avoiding the kind of skew that the Thirteenth Finance Commission awards suffered from) partly on the basis of the absolute performance levels exhibited and partly on the basis of year- to-year improvement shown by the states—this will also serve as an incentive for the laggard states to show an improvement in performance. This would require structuring an index for ranking the performance of the states with regard to the quality of the land record and service delivery, and to gauge performance on this index annually. The findings of this assessment yield valuable insights for constituting such an index.

5.2.1 Property Record and Services Index

The Property Record and Services Index can comprise two groups of indicators with equal weightage. One set can examine the computerisation of the RoRs, CMs, and registration process, and the delivery of services in relation to these. The second set can assess the extent to which the record is a Real Time Mirror along the five aspects of ownership, possession, land use, extent of computerisation, and encumbrances (this set of indicators can be structured to automatically assess the level of integration between various databases).

An illustrative example of how this exercise can be conducted is given below. The index is constructed on the basis of a computerised record available on the web and as reported by the relevant state on the DI-LRMP website. The reporting requirements on this website are expected to be suitably modified for the states to report their achievements, which can then be test checked for constructing the index.

The states would be expected to report annually on the following details by a certain cut-off date for the data to be used for the index in relation to that year.

1. Number of tehsils/talukas or other administrative division for property record purposes and revenue villages/estates in the entire state.
2. Names of tehsils/talukas reported to have computerised/digitised the RoRs/CMs (separately) and the number of revenue villages/RoRs in each of these tehsils/talukas.
3. Names of tehsils/talukas where copies of the RoRs/CMs (separately) in a legally useable form can be accessed from the web and the number of revenue villages/RoRs in each of these tehsils/talukas.
4. Names of tehsils/talukas where registration of property-related transactions is automatically done in the computerised RoRs and the number of revenue villages/ RoRs in each of these tehsils/talukas.
5. Names of tehsils/talukas where registration of property-related transactions result in instant mutation in the computerised RoRs and the number of revenue villages/RoRs in each of these tehsils/talukas.
6. Names of tehsils/talukas where encumbrances in the form of mortgages can be immediately noted in the computerised RoRs and number of revenue villages/RoRs in each of these tehsils/talukas.
7. Names of tehsils/talukas where encumbrances in the form of revenue court cases can be immediately noted in the computerised RoRs and the number of revenue villages/RoRs in each of these tehsils/talukas.
8. Names of tehsils/talukas where encumbrances in the form of civil court cases can be immediately noted in the computerised RoRs and the number of revenue villages/RoRs in each of these tehsils/talukas.
9. Names of tehsils/talukas where encumbrances in the form of land acquisition proceedings can be immediately noted in the computerised RoRs and number of revenue villages/RoRs in each of these tehsils/talukas.
10. Names of tehsils/talukas where encumbrances in the form of statutory land use restrictions can be immediately noted in the computerised RoRs and the number of revenue villages/RoRs in each of these tehsils/talukas.
11. Number of SROs in the state.
12. Number of SROs in the state where registration of a sale deed requires and/or has a facility for online:
    i) entry of data with regard to the proposed registration;
    ii) availability of updated circle rates;
    iii) payment of stamp duty/registration fee;
    iv) verification of payment/scrutiny of requisite details and completion of registration process with digital signature; and
    v) immediate delivery of the registered document.

For the construction of the index, the above information will be test checked in the following manner with regard to the extent of computerisation of the RoRs, CMs, and

the registration process, and the delivery of services in relation to these (with the weight in the index and mode of calculation of each state's points against this as mentioned in brackets).

I.Computerisation Status of Land Record and Registration

1. Stratified random sampling of 'x' land parcels in 'y' villages of every tehsil/taluka reported to have computerised RoRs accessible on the web (a maximum of five points to be reduced by the proportion of RoRs not available on the web in the first place and then further reduced by the proportion not found to be available on test check).
2. Stratified random sampling of 'x' land parcels in 'y' villages of every tehsil/taluka reported to have digitised CMs accessible on the web (a maximum of five points to be reduced by the proportion of CMs not available on the web in the first place and then further reduced by the proportion not found to be available on test check).
3. Stratified random sampling of 'x' land parcels in 'y' villages of every tehsil/taluka reported to have legally useable copes of the computerised RoRs accessible on the web (a maximum of ten points to be reduced by the proportion of RoRs with legally usable copies not available on the web in the first place and then further reduced by the proportion not found to be available on test check).
4. Stratified random sampling of 'x' land parcels in 'y' villages of every tehsil/taluka reported to have legally usable copes of the digitised CMs accessible on the web (a maximum of ten points to be reduced by the proportion of CMs with legally usable copies not available on the web in the first place and then further reduced by the proportion not found to be available on test check).
5. Verification of claims with respect to each stage of the registration process by online test check in respect of every SRO in the relevant category (a maximum of four points for each stage of the five stages mentioned, to be reduced by the proportion of SROs not reported to have the facility at all in the first place and then further reduced by the proportion not found to be available on test check).

For the second component of the index, which is meant to gauge the extent to which the state's land record is a Real Time Mirror along the five aspects of ownership, possession, land use, extent of computerisation, and encumbrances, the following proxies will be test checked (with the weight in the index and mode of calculation of each state's points against this as mentioned in brackets).

II. Real-time Mirror

1. As a proxy for real-time position on ownership:

i) For each SRO office related to tehsils/talukas where registration of property related transactions are automatically noted in the computerised RoRs, stratified random sampling of 'x' number of recent sale deeds to be checked against the land record (a maximum of five points to be reduced by the proportion of RoRs

not linked to registration for this purpose in the first place and then further reduced by the proportion of sale deeds not found to be noted immediately in the RoR on test check).

ii) For each SRO office related to tehsils/talukas where registration of property related transactions result in instant mutation in the computerised RoRs, stratified random sampling of 'x' number of recent sale deeds to be checked against the land record (a maximum of five points to be reduced by the proportion of RoRs not linked to registration for this purpose in the first place and then further reduced by the proportion of sale deeds not found to be instantly mutated in the RoR on test check).

2. As a proxy for real-time position on possession:

Stratified random sampling of 'x' land parcels in 'y' villages in 'z' tehsil/taluka reported to have computerised RoRs accessible on the web to check the number which have more than one owner listed in the record (a maximum of ten points to be reduced by the proportion of numbers in the sample found to have more than one owner).

3. As a proxy for real-time position on land use:

Number of land parcels/properties in which the land use revealed by Google maps of a random sample of 'x' land parcels in 'y' villages in 'z'' tehsils/talukas is non-agricultural while the land record still shows agricultural use with 'agricultural' defined as cultivated, fallow, orchard, tree grove, and non-agricultural as any building, path, road, pond, tank, borewell (a maximum of ten points to be reduced by the proportion of numbers in the sample found to have agricultural use in the record).

4. As a proxy for real-time position on area/extent of the land parcel/property:

Stratified random sampling of 'x' land parcels in 'y' villages in 'z' tehsil/taluka reported to have computerised RoRs and digitised CMs accessible on the web to check the variation between the area as recorded in the RoRs and that revealed by the digitised CMs (a maximum of ten points to be reduced by the proportion of numbers in the sample found to have variation in the area between the RoRs and the CMs).

5. As a proxy for encumbrances:

i) For each tehsil/taluka where mortgages can be immediately noted in the computerised RoRs, a test check of an entry from the database at a relevant office.

ii) For each tehsil/taluka where a revenue court case institution can be immediately noted in the computerised RoR, a test check from the database at a relevant office.

iii) For each tehsil/taluka where a civil court case institution can be immediately noted in the computerised RoR, a test check from the database at a relevant office.

iv) For each tehsil/taluka where a land acquisition proceeding can be immediately noted in the computerised RoR, a test check from the database at a relevant office.

v) For each tehsil/taluka where a statutory land use restriction can be immediately noted in the computerised RoR, a test check from the database at a relevant office (a maximum of two points for each of the five encumbrances listed above, in each case to be reduced by the proportion of RoRs not linked to the relevant database for this purpose in the first place and then further reduced by the proportion of cases not found to be noted in the RoR on test check).

On such a Property Record and Services Index (PRSI), from the data as available on the three states that were the subject of this assessment, their score would be as delineated in Table 5.1.

Table 5.1: Computed PRSI from the Impact Assessment Findings

	Himachal Pradesh	**Maharashtra**	**Rajasthan**
Computerisation of RoR (out of 5)	4.28	4.88 (Mulshi) 4.58 (Palghar)	4.18
Legally usable copy of RoR (out of 10)	8.56	Nil	0.76
Computerisation of CM (out of 5)	0.6	0.2	Nil
legally usable copy of CM (out of 10)	Nil	Nil	Nil
Computerisation of Registration (out of 4)			
i) application	Nil	2	Nil
ii)circle rate	4	4	4
iii) payment	Nil	4	Nil
iv) approval	Nil	2	Nil
v)document delivery	Nil	4	Nil
Ownership (out of 5)			
i) Note	4.88	Nil	Nil
ii)mutation	Nil	Nil	Nil
Possession (out of 10)	2	-	0.6
Land use (out of 10)	8	9.7	
Land area (out of 10)	2.6	-	-
Encumbrances (out of 2)			
Mortgage	Nil	Nil	Nil
Revenue cases	Nil	Nil	Nil
Civil cases	Nil	Nil	Nil
Land acquisition	Nil	Nil	Nil
Land use restriction	Nil	Nil	Nil
Total (100)	**34.92**	**30.78**	**9.54**

Source: NCAER study team.

Annexures

Annexure 1: Minutes of Meeting for the Training Workshops

August 30, 2016

A meeting to discuss the ToRs and the preliminary steps required to be taken in relation to the proposed NLRMP – DI-LRMP impact assessment project was held at NCAER from 10.00 AM to 1.00 PM on 30th August 2016.

All three Impact Assessment Agencies (IAAs) – NCAER, IGIDR and NIPFP participated. While the NIPFP team came to NCAER for the meeting, the IGIDR team joined through video.

The Director General of NCAER, Dr. Shekhar Shah, introduced the project and shared the current stage of discussions with DoLR and the likely funder, Omidyar Network. He made the following points:

a) In line with DoLR's wishes, NCAER has written to DoLR to request DoLR's endorsement in principle for this work following the discussions we have had with them on this pilot assessment starting in November 2015. NCAER has explained that we are seeking funding for this work, which will be at no cost to DoLR, and we would get back to them as soon as funding has been established to get their final go-ahead.

b) Omidyar Network has been in discussion with us and with DoLR to provide the funding. They are currently processing a possible grant to cover the three IAAs and NCAER's additional costs and overheads as the coordinating agency.

c) Omidyar is planning to provide their grant to NCAER as the Coordinating Agency, and in turn, to support NIPFP's and IGIDR"s work, NCAER will merely be pass-through providing sub-grants to NIPFP and IGIDR. The source of all funding would be Omidyar and the funding would come through NCAER's FCRA account.

d) We envisage Omidyar signing the grant agreement with NCAER based on research MoUs that NCAER will sign with IGIDR and NIPFP and based on DoLR's endorsement of this work.

Thereafter, detailed discussions on the ToRs, time lines and activities resulted in the following clarifications/decisions.

1. The first ToRs circulated by DoLR (ToR-1) in early August were amended to provide for clear time lines for various stages in the end-August version (referred to as ToR-3) shared with all IAAs and DoLR. ToR-3 is expected to be the final ToRs for the project, subject to fine-tuning as the work progresses.
2. The more detailed draft ToRs (ToR-2) formulated in between ToR1 and 3 by NCAER, building also on ToR-1 will be useful to delineate the nature of information required to be gathered and to assist in structuring templates/presentations as the work progresses.
3. Certain issues in relation to the ToRs were clarified as follows:

   The parcel samples for detailed analysis of status of the property record in relation to the on ground situation would be selected at random subject to the conditions mentioned in the ToR.

- The information to be gathered from diverse stakeholders may be gathered through informally structured FGDs. Possible questions for these discussions will be finalized in advance.,
- There will be a Technical Committee for regular interaction/review of project implementation comprising DoLR and IAA representatives. A separate Advisory Committee, which, in addition to Technical Committee members, will have external representation from NITI Aayog, IIHS, CPR and Landesa, will also be constituted to advice on the project.
- Among the project deliverables, an inception report from each IAA will be the first deliverable, and will be in the nature of a brief statement about Tehsil selection, project personnel and overall work plan.

4. It was agreed that pending the formal launch of the project, certain preliminary activities could be undertaken. These could include the following:

   a) Selecting retired revenue officials of the state for carrying out project field activities (including collection of information at both Tehsil and state level). Actual appointment would of course be made only on formal launch of the project. For this, Mr. Deepak Sanan will facilitate NIPFP and IGIDR in getting in touch with appropriate state government officials in Rajasthan and Maharashtra, respectively, who could assist in this process. He will do likewise for Himachal Pradesh for NCAER.

   b) Preparing a list of Tehsils out of which the two Tehsils will be selected for the survey work. It was agreed that in each state, a list of Tehsils may be prepared based on the following 5 criteria:

   - Peri-urban location
   - Relatively high land transaction intensity
   - Relatively high land litigation prevalence
   - At least some interventions under NLRMP/DILRMP
   - Ease of transport and logistical access (given the tight time lines under the project).

Once the project is formally launched and state nodal persons are designated by the state government, the selection of two Tehsils out of this list can be made in consultation with the state nodal person.

   c) Finalizing Questionnaires/Survey Schedules on which information is to be canvassed. A list of all aspects on which information is to be collected was circulated to all participants. It was decided that drafts in relation to each would be circulated by Mr. Deepak Sanan and after obtaining comments from all, these would be finalized by the end of September, 2016.

5. It was decided that a training workshop be held on 27th September, 2016 at NCAER in New Delhi (with IGIDR colleagues joining by VC) to enhance understanding of land record management, registration processes and property titling related infirmities for all the project implementation persons. This

training event would of course make the most sense based on the formal approval of the project by Omidyar as well the final go-ahead by DoLR.

An e-mail group list to be created for the project, wherein the issues are discussed and sorted and information is exchanged. Alternatively, as indicated in earlier conversations between Susan Thomas, Shekhar Shah, and Ajay Shah, Ajay may wish to set up a more modern digital collaboration platform on Slack, SharePoint, or Google Drive (the only requirement being that the platform should have considerable ease of use and definite advantages over a group email list).

List of Participants

- Dr Shekhar Shah, Director-General, National Council of Applied Economic Research (NCAER)
- Prof. D. B. Gupta, Project Leader, NCAER
- Mr Deepak Sanan, Project Technical Advisor
- Research teams of Impact Assessment Agencies
- NCAER – Prerna Prabhakar, Rajesh Jaiswal, Dinesh Kumar Tiwari, Akansha Dubey
- NIPFP – Anirudh Burman, Suyash Rai, Itishree Rana
- IGIDR (joined through Video Conference) – Rajeswari Sengupta, Sudha Narayanan, Bhargavi Zaveri, Gausia Shaikh

September 27, 2016

A training workshop to discuss the questionnaires and other survey instruments for the proposed NLRMP - DILRMP impact assessment project was held at NCAER from 10.30AM to 1.30 PM on 27th September 2016.

All three Impact Assessment Agencies (IAAs) – NCAER, IGIDR and NIPFP participated. While the NIPFP team came to NCAER for the meeting, the IGIDR team joined through video.

The workshop was conducted by Deepak Sanan who is the technical advisor for this proposed study and was chaired by Prof. D B Gupta, who is leading the project at NCAER. Apart from the three participating institutions, the workshop was attended by Ms. Sudha Keshari (Economic Advisor) and Mr. Vipin Bansal (DIGF), both from the Department of Land Resources (DoLR), Ministry of Rural Development.

The discussion was based on the details of multiple lists for questionnaire development. This process of discussion paved a way for clarification of doubts of the project teams on various issues vis a vis ROR and registration distinction; technicalities of cadastral maps; integration of RORs, cadastral maps and registration. The broad outcomes of the discussion on the future plan are the following:

1) In the 2nd list, Sr. No. 6: while analysing the geographical distribution of allocations under NLRMP / DILRMP in the state, it would be useful to see these in the context of the transaction intensity of the relevant administrative units (district, tehsil / taluka). The information on physical and financial progress can be tracked from the websites.

2) In the 2nd list, Serial No 7: Revenue Administration Structure: In the note on the revenue administration structure, a brief section on the historical background of the revenue administration system may be included and any variation in different parts of the state arising from their differing backgrounds (different land settlement systems in British India or princely states) may be included.

3) In the same section, information should also be obtained on status of the technology used for computerization in terms of hardware, software, connectivity and their up-gradation requirements / possibilities (sub point iii).

4) Under 2nd list, Sr. No. 8 (i): State Level Provisions relating to RTM: Updating of record: the stages of the mutation process noted there may also be given under List 3, Sr. No. 10(i).

5) Under same section in list 2, after e), instructions if any, relating to integration of the various data bases relating to encumbrance may be added.

6) The selection of two tehsils within a state is to be done according to the TOR. However, selection of land parcels needs a sampling strategy.

In relation to point 6, another training workshop on sampling and related issues pertaining to the field survey for the project will be held on 7 October, 2016 at NCAER.

List of Participants

- Ms Sudha Keshari, Economic Advisor, Department of Land Resources (DoLR), Ministry of Rural Development
- Mr Vipin Bansal, DIGF, Department of Land Resources (DoLR), Ministry of Rural Development.
- Prof. D. B. Gupta, Project Leader, NCAER
- Mr Deepak Sanan, Project Technical Advisor
- Research teams of Impact Assessment Agencies
- NCAER – Prerna Prabhakar, Rajesh Jaiswal, Dinesh Kumar Tiwari, Akansha Dubey, Ruchi Jain
- NIPFP – Anirudh Burman, Suyash Rai, Itishree Rana
- IGIDR (joined through Video Conference) – Sudha Narayanan, Bhargavi Zaveri, Gausia Shaikh

October 7, 2016

A training workshop on the sampling issues for the proposed NLRMP - DILRMP impact assessment project was held at NCAER from 10.30AM to 12.30 PM on 7thOctober 2016.

All three Impact Assessment Agencies (IAAs) – NCAER, IGIDR and NIPFP participated. While the NIPFP team came to NCAER for the meeting, the IGIDR team joined through video.

The workshop was conducted by Deepak Sanan who is the technical advisor for this proposed study and was chaired by Prof. D B Gupta, who is leading the project at NCAER.

The meeting broadly focused on three aspects - clarification of doubts of the project teams on various issues vis a vis five lists of questionnaires discussed in the last training workshop, held on 27th September 2016; sampling strategy for the impact assessment and a discussion on the next steps for the study. The broad outcomes of the discussion on the sampling strategy are the following-

1. Test check of the status of computerization with regard to RoR and CM to be done for iii(c and d) and iv (c and d) as given in the points 1 and 2 of the first list of questionnaire
2. Sample for the test check of the status of computerization with regard to RoR and Cadastral Maps(CM) to cover 100 percent tehsils/talukas and stratified random sampling within talukas of minimum 5 villages
3. Sample for the test check of the status of registration to cover 100 percent SROs in the talukas.
4. Sample for the test check of the status of integration process involves two steps-
   - Stratified random sample of 5 for registration in preceding reporting period to be checked with the corresponding RoR to see whether relevant entry / note has appeared in RoR.
   - RoR data to be matched/checked with CM data – sample same as point 2 (for RoR and CM separately). To simply check if CM of a plot number given in RoR can be accessed through RoR and vice versa.
5. Point 2 in the sampling note- test check of availability of copy of record within specified period to be done telephonically
6. An additional point to be added in the sampling note pertaining to crop inspection - random stratified sampling of 3 revenue estates in the tehsils. This will check whether crop inspection has been carried out as per laid down schedule.
7. The future plan for the project teams include the following-
   a) Preparation of technically coded field survey questionnaires/schedules
   b) Letters to be sent to the state government officials for obtaining state specific information
   c) Pre testing of the questionnaires

List of Participants

Prof. D. B. Gupta, Project Leader, NCAER
MrDeepak Sanan, Project Technical Advisor
Research teams of Impact Assessment Agencies
NCAER – Prerna Prabhakar, Rajesh Jaiswal, Dinesh Kumar Tiwari, Akansha Dubey, Ruchi Jain
NIPFP – Anirudh Burman, Suyash Rai, Itishree Rana
IGIDR (joined through Video Conference) – Sudha Narayanan, Bhargavi Zaveri, Gausia Shaikh, Diya Uday, Nirali Bakhla

November 8, 2016

A meeting on the proposed NLRMP - DILRMP impact assessment project was held at NCAER from 11.30AM to 1.30 PM on 8th November 2016.

All three Impact Assessment Agencies (IAAs) – NCAER, IGIDR and NIPFP participated. While the NIPFP team came to NCAER for the meeting, the IGIDR team joined through video.

The meeting was conducted by Deepak Sanan who is the technical advisor for this proposed study and was chaired by Prof. D. B. Gupta, who is leading the project at NCAER.

The meeting broadly focused on three aspects - clarification of doubts of the project teams on the past discussions; firming up the questionnaires for the field study and a discussion on the next steps for the study. A summary record of the decisions taken is as follows-

1. The clarifications sought by team members were addressed as part of the decisions on the questionnaires.

2. Changes in draft questionnaires circulated in advance of the meeting:

a) Questionnaire (State Level)

i. It was decided to include information about respondent/respondents in each section rather than at the level of the questionnaire as a whole.`
ii. In Sub point 4 in section 5, details of services can be taken from sub point 12 in the same section
iii. Under section 5, it was decided to convert the sub point 5 into a note format.
iv. Sub point 6 in section 5 can be recorded in note form and can include details about different services in the Act/guidelines and its timelines. It can also be a possible question for the FGDs
v. Delete sub point 9 of section 5
vi. Add point 13 (v) – How many applications are made under Public Service Act in relation to 12 above
vii. Section 6 and 6.1 can be combined and redone for the entire duration of NLRMP upto the last financial year. The components should be divided on the basis of the sharing pattern between the centre and States. A matrix may be created to also reflect the geographical spread in terms of districts / tehsils. It was agreed that the format in which this information is to be collected will be done by the NIPFP team.
viii. Delete sub point 2 from Section 7
ix. Enter sub point 7 of section 7 in a note format
x. Redo and combine Sub points 10 to 13 of section 7 – Note on training: subjects/duration/frequency for different employee cadres
xi. Add a sub point to section 7 – a note on training policy in the department, kind of training imparted
xii. Redo sub point 1 of section 8A – make three categories, Succession (will and intestate), Sale and Decree
xiii. In the sub point 2 of section 8A, seek answers in relation to the specified activities (who performs)
xiv. Record sub point 2, 3 and 4 of section 8 B as notes

xv. Seek attachment of copy of instructions for 8 C sub point 1
xvi. Make all of 8 C into a note form and seek inclusion of information on all the matters mentioned in 2, 3, 4 and 5 in the note
xvii. In 8 D sub point 1 do not mention time period options and let it be answered as per the practice.
xviii. In 8 E, the answer may be sought in Y?N form in each category
xix. Combine sub points 2 and 3 of section 8 E and provide this as well as sub points 4 and 5 as notes
xx. Provide sub points 2 to 5 of section 8F as notes
xxi. Shift sections 9 to 15 to tehsil level questionnaire and reformat as required to align with the changes made in the preceding sections.

b) Questionnaire Discussion (Test Check of Records)

i. This questionnaire does not need a respondent
ii. Change the format of section 2.1 and 2.3– only options for yes/no for each of the categories of information
iii. Section 2.2 to be done SRO wise as above
iv. For quasi-judicial orders in cases of correction of revenue entry, demarcation and partition proceedings, the time elapsed between institution and final order to be ascertained. In registration, the time between presentation of document and receiving copy of document to be ascertained.

c) Test Checks of Land Parcels

i. Section instructions to be re written to seek information on the variation between position as RoR and the situation on the ground. For ownership and possession details to be ascertained through local interviews; for extent and classification actual measurement and visual observation to be used; for encumbrances specific details of encumbrances to be sought in local interviews
ii. Specific questions mentioned to be used in FGDs.

3. Future Plans/Timelines

It is presumed that the first tranche of grant will be received in the next week and based on this sub grantee agreements will be signed. Further action on the following may be taken on this basis.

- The Three IAAs should identify, select and appoint two retired revenue officers by 7th December, 2016
- Select the two tehsils for each state by 7th December,2016
- A training workshop to be held on 19th or 20th December, 2016
- Pre-testing of the questionnaires to be done by 31stth December, 2016

List of Participants

Prof. D. B. Gupta, Project Leader, NCAER
Mr Deepak Sanan, Project Technical Advisor
Research teams of Impact Assessment Agencies
NCAER – Prerna Prabhakar, Rajesh Jaiswal, Dinesh Kumar Tiwari, Akansha Dubey, Ruchi Jain
NIPFP – Anirudh Burman, Suyash Rai, Itishree Rana
IGIDR (joined through Video Conference) – Bhargavi Zaveri, Gausia Shaikh, Diya Uday, Nirali Bakhla

December 20th, 2016

A training workshop on the field work for the proposed NLRMP - DILRMP impact assessment project was held at NCAER on 20thDecember 2016.

All three Impact Assessment Agencies (IAAs) – NCAER, IGIDR and NIPFP participated in the meeting.

The workshop was conducted by Deepak Sanan who is the technical advisor for this proposed study and was chaired by Prof. D B Gupta, who is leading the project at NCAER. Apart from the three participating institutions, the workshop was attended by Mr Kahan Singh and Mr Devinder Singh Chandel, retired revenue officials from Himachal Pradesh appointed by NCAER for the field work. Mr Deepak G Dhopat from TRIPS, a field survey agency hired by IGIDR for the field work was also present. Shreya Deb from the Omidyar Network joined the workshop for part of the time through a call.

The meeting covered the following four maters:

1. Briefing about the project to the field officials to that they are aware of project objectives, processes and proposed outputs.
2. Discussion of the timelines as well as the deliverables (listed below), considering the start date of the project as 1st December, 2016. The following time lines were agreed to:

Table 1: Project Deliverables

S. No.	Activity	Time Line for Completion	Deadlines
1.	State level reports on status of CLR and provisions of law, rules and instructions in relation to RTM	12 weeks from start date	28th February, 2017
2.	Draft Reports on Tehsil level status of CLR, RTM, and stakeholder perception of delivery of land record and registration related services	20 weeks from start date	30th April, 2017
3.	State level consultation on draft reports of state/Tehsil to get feedback on constraints and way forward	22 weeks from start date	Mid May, 2017
4.	Final State and Tehsil level reports	24 weeks from start date	31st May, 2017
5.	Draft Synthesis Report of all three states to be presented before DoLR and representatives of all three states	28 weeks from start date	30th June, 2017
6.	Submission of Final Synthesis Report	32 weeks from start date	31st July, 2017

3. Discussion on the questionnaires to be used for the field survey. Based on the detailed discussion, a few changes in the state and tehsil level questionnaires for incorporation before they are used by the field officials for the survey.
4. Use of information collected through this impact assessment. Members of the three IAAs felt that the output of the project should be brought out as a report. There after material gathered in this process can be used in research / publications after citing the report.

In addition to the above, the research teams also spent some time on finalizing the inception report for the project.

Future meetings will review progress on project processes and deliverables in the beginning of February and every month thereafter.

The meeting laid the necessary groundwork for the field survey to kick start, to be followed by the analysis.

List of Participants

- Prof. D. B. Gupta, Project Leader, NCAER
- Mr Deepak Sanan, Project Senior Advisor
- Mr Devinder Singh Chandel, Consultant – DILRMP project, NCAER
- Mr Kahan Singh, Junior Consultant– DILRMP project, NCAER
- Mr Deepak G. Dhopat, TRIPS
- Ms Shreya Deb (through call), The Omidyar Network
- Research teams of Impact Assessment Agencies
- NCAER – Prerna Prabhakar, Rajesh Jaiswal, Ruchi Jain
- NIPFP – Anirudh Burman, Suyash Rai, Itishree Rana
- IGIDR -Bhargavi Zaveri, Gausia Shaikh, Diya Uday Patkar

Annexure 2: Questionnaires for the Field Work

- Guidelines: DI-LRMP Impact Assessment Study
- Questionnaire: State
- Questionnaire: Tehsil/Taluka
- Test Checks of Records
- Focus Group Discussion

Guidelines

General Instructions

1. All responses are to be filled in blue pen.
2. You are free to write notes wherever required for purpose of clarity. You may also attach additional sheets.
3. In support of responses, you need to attach rules, notifications, circulars, website screenshots, and other relevant documents.
4. You must indicate the contact number of respondents along with their complete address.

Guidelines for Collection of Data

1. Recording the responses

The types of questions in the questionnaires are as follows:

- Most of the questions are pre-coded questions in which you have to first circle the response and then code in the appropriate box.
- There are empty boxes, in which you have to fill the actual response.
- There are open- ended questions in which you have to record the exact response.
- There are filters and skip questions, which you have to take care of.
- You may circle more than one response if it is a multiple response question.

After you have completed an interview, you must review the questionnaire very carefully checking the response to each question. It is important to check that you have not left any section incomplete/unfilled. You can write any comments about the interview that you feel would clarify the responses you have recorded in the questionnaire.

2. Preparation of Notes

Wherever note is required, it needs to address requisite issues. Always seek support documents like circulars, etc. and mark respective section and question number as a reference.

3. Filling of Questionnaires

All the data needs to be filled-in by ball point pen. Corrections (if any) need to be done by circling the original response.

4. Test Checks

For drawing the appropriate sample for each type of sample checks, kindly follow the methodology as follows:

Note on Selection of Samples

The impact study involves test check with regard to a number of matters. It is proposed that sampling for this be done in the following manner:

I. Test check of status of computerization as reported in State / Tehsil data with regard to RoR, CM, Registration and integration.

In each category relating to availability on the internet of the relevant record or stage in the registration process, the position may be checked with respect to every revenue estate (RE) / village (as the case may be) listed in that category or for every stage in the registration process.

Sample strategy for this is as follows-

a. Sample for the test check of the status of computerization with regard to RoR and Cadastral Maps (CM) to cover 100 percent tehsils/talukas and stratified random sampling within talukas should be of minimum 5 villages. This means that the first revenue estate / village in each tehsil will be picked at random and then four more will be picked as every third number thereafter. Tithing each revenue estate / village, random Khasra / 7/12 numbers will be checked for availability of a computerized RoR / CM as the case may be.

b. Sample for the test check of the status of registration to cover 100 percent SROs in the talukas.

c. Sample for the test check of the status of integration process involves two steps-

   i) Stratified random sample of 5 registrations in preceding reporting period to be checked with the corresponding RoR to see whether relevant entry / note has appeared in RoR.

   ii) RoR data to be matched/checked with CM data – sample same as at point - above (for RoR and CM separately). To simply check if CM of a plot number given in RoR can be accessed through RoR and vice versa.

II. Test check of availability of copy of record within specified time period.

Procure list of applications received in the concerned office (Tehsil, sub registrar, any one revenue inspector and patwari office and any one citizen service centre in the tehsil) in each category of document for which copy is being made available to the public (RoR, CM, registered document etc.) in the immediately preceding reporting period/s ensuring that each list contains at least 15 entries. A sample of 5 entries may be drawn, the first at random and then every third entry. Thereafter, the applicant may be contacted to verify receipt of copy and time taken. This can be compared with the time lines specified for such service in the relevant Act / Rules / Guidelines.

iii. Test check of completion of tasks at Tehsil /sub registrar level against laid down time lines.

For each category of tasks (correction of revenue entry, demarcation, partition proceeding, registration of transaction / document) take list of completed cases / tasks in immediately preceding reporting period/s ensuring that a minimum of 15 cases are listed in each category. A sample of 5 cases may be drawn, the first at random and then every third case in the list. The completion period in each case to be compared with time line laid down in Act / Rules / Manuals / Guidelines.

iv. Selection of 50 land parcels in each Tehsil.

a) It is proposed that 5 REs / Villages may be selected in each Tehsil through systematic random sampling.
b) The total number of parcels in all 5 selected REs / Villages to be added and percentage of each RE / Village in the total ascertained. The number of parcels in each RE / village to be subjected to detailed enquiry will bear the same proportion to 50 as the proportion of parcels in a RE / Village to the total in all five REs / Villages together.
c) In each RE / village, the sample parcels to be selected through systematic random sampling. (The first at random and then every third number).
d) Twice the number arrived at in b) above be selected initially to ensure they are not subject to the disqualifications specified (abadi area, industrial area, no transaction since last updation, etc. not to be included).

DI-LRMP Impact Assessment Study

QUESTIONNAIRE : STATE

December, 2016
National Council of Applied Economic Research
Parisila Bhawan, 11, Indraprastha Estate
New Delhi–110002

Identification

S.No.	Particular	Details
1.	Name of the State	
2.	Name of the Respondent(s), if any	
3.	Name of the Department (s)	
4.	Contact Details:	
	Designation	
	Telephone	
	E-mail	
	Website (if any)	
5.	Date of Interview	

1. Status of Computerization of Record of Rights (RoR)

S.No.	Question	Number of Tehsils	Number of Revenue Estates/ Villages
1.	In the State, for how many Tehsils/Revenue Estates/ Villages, RoR is available only in paper form and copy is made available only from relevant office maintaining the record?		
2.	In the State, for how many Tehsils/Revenue Estates/ Villages, Computerized RoR is available on standalone computer and copy made available only from relevant office?		
3.	In the State, for how many Tehsils/Revenue Estates/ Villages, Computerized RoR is available on networked servers kept at different locations (real time availability could be disrupted by shutdowns, power supply breakdowns etc.)?		
4.	In the State, for how many Tehsils/Revenue Estates /Villages, record available 24/7 on state level servers housed in a secure facility not susceptible to shutdown/breakdown?		
5.	Specify at which level Computerized RoR is available as a copy?		
i)	*Only from designated offices*		
ii)	*From a network of service centres*		
iii)	*On the web but not in a legal usable form*		
iv)	*On the web with a digitized signature of the relevant authority*		
v)	*Any other manner (Specify)*		

2. Status of Digitization of Cadastral Maps (CM)

S.No.	Question	Number of Tehsils	Number of Revenue Estates / Villages
1.	No. of Tehsils/Revenue Estates with Cadastral Maps drawn up on the basis of traditional survey techniques but now not usable (torn, disfigured, mutilated, etc.)		
2.	No. of Tehsils / Revenue estates with Cadastral maps drawn up on the basis of traditional survey techniques and still in use. (Hand drawn copies made available from designated offices).		
3.	No. of Tehsils/Revenue Estates with Cadastral maps drawn up on the basis of traditional survey techniques and now scanned, digitized and hosted on:		
i)	*Standalone servers for supply of copies from designated offices*		
ii)	*On networked servers at different locations with copies available from:*		
A	*Designated offices*		
B	*Service centers*		
C	*On the web but without authentication*		
D	*On the web with authorized digital signature*		
iii)	*On state level servers with copies available from:*		
A	*Designated offices*		
B	*Service centers*		
C	*On the web but without authentication*		
D	*On the web with authorized digital signature*		
4.	No. of Tehsils / Revenue estates with Cadastral maps drawn up on the basis of modern survey techniques, geo referenced and digitized and available on:		
i)	*Standalone servers for supply of copies from designated offices*		
ii)	*On networked servers at different locations with copies available from:*		
A	*Designated offices*		
B	*Service centers*		
C	*On the web but without authentication*		
D	*On the web with authorized digital signature*		
iii)	*On state level servers with copies available from:*		
A	*Designated offices*		
B	*Service centers*		
C	*On the web but without authentication*		
D	*On the web with authorized digital signature*		

3. Status of Computerization of Registration

S.No.	Question	Response	Code
1.	Total Sub-registrar offices (SROs) in the State in 2015-16		
2.	Total number of transactions handled by all SROs		
3.	Number of SROs in the State operated manually without any computerized support and transactions handled by them in 2015-16.		
4.	Number of SROs with standalone computerized registration and transactions handled by them in 2015-16.		
5.	Number of SRO offices that accept on line applications and (transactions handled by them in 2015-16 to be noted in each case)		
i)	*Carry out all further processing manually*		
ii)	*Check/verify accuracy of stamp duty fee payment electronically*		
iii)	*Check/verify some/all other documentation electronically but not stamp duty / fee payment*		
iv)	*Verify all required documentation electronically including stamp duty / fee payment*		
6.	Number of SRO offices where circle rates available on line with open access provided to the public at large and (transactions handled by them in 2015-16 in each case)		
i)	*Annual updating undertaken on fixed date*		
ii)	*Annual updating but variable dates*		
iii)	*No fixed updating schedule*		
7.	Number of SRO offices with legacy record available on line to the public at large and number of preceding years for which record available (transactions handled by them in the last financial year in each case)		
i)	*One year*		
ii)	*Between one to five years*		
iii)	*Between five to ten years*		
iv)	*More than ten years*		
v)	*Entire record since first registration in the area.*		

4. Status of Integration of RoR, CM, and Registration

S.No.	Question	Number of Tehsils	Number of Revenue Estates / Villages
1.	Number of Tehsils/Talukas or revenue estates in which the process of registration checks the revenue records data base for details of ownership, parcel size, etc.		
2.	Number of Tehsils / talukas or revenue estates in which the process of registration automatically alerts the revenue records database by:		
i)	*Noting the fact of registration in some form*		
ii)	*Initiating the mutation process which then is completed after a certain period of time*		
iii)	*Initiates a mutation process that is completed instantly (auto mutation)*		
3.	Number of Tehsils / talukas or revenue estates in which digitized record of CM is integrated with RoR and copies of CM can be made available along with corresponding RoR details		

S.No.	Question	Number of Tehsils	Number of Revenue Estates / Villages
4.	Number of Tehsils / talukas or revenue estates in which digitized record of CM is integrated with RoR and registration process and this also enables updating CM with any parcel sub division or amalgamation when mutation is affected		

5. Status of wider delivery of Land Record Related Services

S.No.	Question	Response	Code
1.	Is a Right to Public Services Act applicable in the state? (Please write a brief note-,attach Act / Rules).	Yes-1; No-2	
2.	If yes, since when it is applicable?	Give Year	
3.	If there is no Right to Public Services Act, are there administrative guidelines in relation to provision of services?	Yes -1, No - 2	
4.	What type of services related to land records and registration are covered by the Act/guidelines? For specified services, tick number and for any other also give details in a note.	RoR copy/attested mutation copy-1 Spatial record copy-2 Registration document copy-3 Registration legacy record check-4 Any other – 5.	
5.	Which services are not included in the Act/Guidelines?	Attach a note.	
6.	What are the time lines for delivery of land related services in the Act/guidelines? (*Number of Days)*	Attach a note	
7.	Is there a system for monitoring performance with regard to delivery of services? (Give a note).	Yes-1; No-2	
8.	Is there a state level data base of applications and delivery of services or is it available only at lower levels (for different services, applications, delivery time, complaints, etc.)?	State level data base-1 Data base only at lower levels-2	
10.	Total No. of Citizen Service Centers (CSCs) in the State.		
11.	What type of services CSCs offer?	Land Records-1 Registration related services-2 Any Other Service (specify)-3	
12.	How many CSCs offer the following services?	RoR copy/attested mutation copy: Spatial record copy: Registration document copy: Registration legacy record check: Any Other Service (specify):	
13.	Total number of copies of various parts of the land record/last registration related record obtained in the state in one year. Of these:		
i)	*Number obtained manually*		

S.No.	Question	Response	Code
ii)	*Number obtained from computerized record*		
iii)	*Number obtained from government offices*		
iv)	*Number obtained from CSCs*		
v)	*How many applications (under the above) received under the Public Services Act?*		

6. Details of Physical and Financial progress under NLRMP and DI-LRMP: 2008-2016

S.No.	Question	Physical Progress	Financial Progress			
		No. of Tehsils/revenue estates or SROs covered (absolute number and as as proportion of the whole)	Funds Sanctioned by Centre	Funds Released by Centre	Expenditure (as entered by State)	Unspent Balance
1.	**Computerization of land record**					
i)	*Fresh Survey Work done*					
ii)	*Digitized Cadastral Maps produced*					
iii)	*RoRs Completed in digital form*					
iv)	*Placed RoR data on website*					
v)	*Stopped issue of manual copy of RoRs*					
vi)	*Accorded legal sanctity to computerized copy of RoR*					
vii)	*Issuance of Digitally Signed copy of RoRs*					
viii)	*Issuance of RoR copy through Kiosks/Common Service*					
ix)	*No. of Centres at Town/Village level*					
x)	*Started mutation process using computers*					
xi)	*Automatic Mutation on registration*					
xii)	*Computer Centre set up*					
xiii)	*Computerization of Registration*					
xiv)	*E-Stamps accepted*					
xv)	*Modern Record Rooms constructed*					
xvi)	*Integration of Registration with Land Records exists*					
xvii)	*Formation of Project Management Unit at state level*					
xviii)	*Training at NLRMP Cell (no. of man-days)*					
2.	The geographical spread of program intervention in terms of allocation / expenditure	Attach table with names of districts and tehsils.				

7. Revenue Administration Structure

S.No.	Question	Response	Code
1.	Which Department/s are responsible for maintaining land/property records?		
i)	*In rural areas*	1. 2. 3.	
ii)	*In urban areas*	1. 2. 3.	
2.	Specify hierarchical structure of the relevant departments (**along with their functions**) from the lowest level of public interface to the Minister level.	Attach sheet.	
3.	Is land record maintenance, survey and registration handled by different departments?	Yes-1; No-2 (specify details if partial)	
4.	Are the departmental structures entirely separate at all levels?	Yes-1; No-2 (specify details if partial)	
5.	Are the same functionaries in the field discharging duties in relation to more than one department?	Yes-1; No-2 (specify details if partial)	
6.	What is the level of formal or informal interaction between the relevant departments?	Attach a Note.	
7.	Total number of staff sanctioned in all Departments dealing with land record maintenance, survey and registration in 2015-16.	Give details in tabular form category wise along with next question.	
8.	Total number of staff in-position in all Departments dealing with land record maintenance, survey and registration in 2015-16.		
9.	Is there a Training policy in the Department?	Attach a detailed note focusing on the following issues: What kind of trainings are provided? Different training programmes for different staff? Number of staff participated in the training. Number of days training was imparted. When was last training imparted. Need for refresher training, etc.	

8. State Level Provisions relating to Real Time Mirror (RTM)

S.No.	Question	Response	Code
	Updating of record:		
A.	**Ownership details**		
1.	What are the provisions relating to updating of RoR on occurrence of events/transactions? (Give a note for each category)	On Death: (Succession by Will and Intestate) On Sale: Any Other (Specify):	
2.	What are the steps followed with respect to this updation?	1.a) Intimation to Talati / Patwari b) Intimation to Kanungo / Revenue Inspector. c) Intimation to Revenue officer 2. a) Initial entry by Talati / Patwari b) Initial entry by Kanungo / Revenue Inspector c) Initial entry by Revenue Officer. 3. a) Inviting objections by Talati / Patwari b) Inviting objections by Patwari by Kanungo / Revenue Inspector. c) Inviting objections by Revenue Officer 4. a) Presence of parties before Talati / Patwari b) Presence of parties before Kanungo / Revenue Inspector c) Presence of parties before Revenue Officer 5. a) Final attestation by Talati/Patwari b) Final attestation by Kanungo / Revenue Inspector c) Final attestation by Revenue Office 6. a) Actual incorporation in the record by Talati / Patwari b) Actual incorporation in record by Kanungo / Revenue Inspector c) Actual incorporation in record by Revenue officer	

S.No.	Question	Response	Code
		7. Any Other (specify)	
3.	What is the mode of conveying information of such event/transaction to the custodian of the record, talati / patwari, kanungo/ revenue inspector or revenue officer?	Through Application-1 Verbal communication-2 Auto intimation by software-3 Any Other (specify)-4	
4.	Is there a time period specified for various steps?	Yes-1; No-2	
5.	If yes, specify the time period (in days) for the following:	1.a) Intimation to Talati / Patwari b) Intimation to Kanungo / Revenue Inspector. c) Intimation to Revenue officer 2. a) Initial entry by Talati / Patwari b) Initial entry by Kanungo / Revenue Inspector c) Initial entry by Revenue Officer. 3. a) Inviting objections by Talati / Patwari b) Inviting objections by Patwari by Kanungo / Revenue Inspector. c) Inviting objections by Revenue Officer 4. a) Presence of parties before Talati / Patwari b) Presence of parties before Kanungo / Revenue Inspector c) Presence of parties before Revenue Officer 5. a) Final attestation by Talati/Patwari b) Final attestation by Kanungo / Revenue Inspector c) Final attestation by Revenue Office 6. a) Actual incorporation in the record by Talati / Patwari b) Actual incorporation in record by Kanungo / Revenue Inspector c) Actual incorporation in record by Revenue officer 7. Any Other (specify)	
B.	**Possession details**		
1.	What are the provisions regarding transfer of share of a joint holding through sale/gift, etc.?	1. Transfer of share and introduction of new owner as another joint holder	

S.No.	Question	Response	Code
		allowed in ownership column of RoR-1 2. Registration allowed only of a specific parcel / plot / built up property after: (a) partition or (b) sub division of plot / parcel / built up property on securing consent of all joint holders	
2.	Are the provisions different for different types of events / transactions?	Attach a Note.	
3.	Are there any instructions to expedite partitions and reduce joint holdings?	Attach a Note	
4.	What are the provisions on reflection of actual possession by tenants, share croppers, part owners of built up property and the land on which such property is located?	. Attach a Note	
C.	**Extent / boundary / built up area details**	Attach a note focusing on provision of updating details; frequency of updation for changes in land area, boundaries, and area of built up property; process and frequency of updating for changes in CM; policy on methods for updating.	
D.	**Land use / classification details**	Attach a Note focusing on: Frequency of updation; details recorded in crop season, girdwari, etc.	
E.	**Encumbrance details**		
1.	What are the encumbrances that are entered in the RoR? Mortgage-1 Ongoing acquisition proceedings-2 Land use restrictions through statute-3 Disputes pending in revenue courts - 4 Disputes pending in civil courts-5 Any other (specify)	 Yes-1; No-2 Yes-1; No-2 Yes-1; No-2 Yes-1; No-2 Yes-1; No-2 Yes-1; No-2	
	Attach a Note focusing on the following: process of entering various encumbrances; intimation of various encumbrances; frequency of their updation, and who can make the entries?		
F.	**Correction of error in the record:**		
1.	What are the types of errors (specified in Acts/Rules) categorized as technical and not open to dispute?	Spelling mistakes in various columns-1 Totaling errors in the extent/ area of parcel column-2 Any Other error (specify)-3	
	Attach a Note focusing on the following; Type of errors; process of correcting these errors; frequency of correction; level of backlog, etc.		
2.	What are the number of transactions requiring mutations registered in last three financial years (year wise)?		
3.	What are the number of mutations in relation to registered documents attested in last three financial years (year wise)?		

DI-LRMP Impact Assessment Study

QUESTIONNAIRE : TEHSIL/TALUKA

December, 2016
National Council of Applied Economic Research
Parisila Bhawan, 11, Indraprastha Estate
New Delhi–110002

Identification

S. No.	Particular	Details
1.	Name of the State	
2.	Name of the District	
3.	Name of the Tehsil/Taluka	
4.	Name of the Respondent(s)	
5.	Name of the Department (s)	
6.	Contact Details:	
	Designation	
	Telephone	
	E-mail	
	Website (if any)	
7.	Date of Interview	

1. Status of Computerization of Record of Rights (RoR)

S. No.	Question	Number of Revenue Estates/ Villages
1.	For how many Revenue Estates/ Villages, RoR is available only in paper form and copy is made available only from relevant office maintaining the record?	
2.	For how many Revenue Estates/ Villages, Computerized RoR is available on standalone computer and copy made available only from relevant office?	
3.	For how many Revenue Estates/ Villages, Computerized RoR is available on networked servers kept at different locations (real time availability could be disrupted by shutdowns, power supply breakdowns etc.)?	
4.	In the Tehsil, for how many Revenue Estates /Villages, record available 24/7 on state level servers housed in a secure facility not susceptible to shutdown/breakdown?. Copy available:	
5.	Specify at which level the copy of Computerized RoR is available?	
i)	*Only from designated offices*	
ii)	*From a network of service centres*	
iii)	*On the web but not in a legal usable form*	
iv)	*On the web with a digitized signature of the relevant authority*	
v)	*Any other manner (Specify)*	

2. Status of Digitization of Cadastral Maps (CM)

S.No.	Question	Number of Revenue Estates/ Villages
1.	No. of Revenue Estates/villages with Cadastral Maps drawn up on the basis of traditional survey techniques but now not usable (torn, disfigured, mutilated, etc.)	
2.	No. of Revenue Estates/villages with Cadastral maps drawn up on the basis of traditional survey techniques and still in use. (Hand drawn copies made available from designated offices).	
3..	No. of Revenue Estates/villages with Cadastral maps drawn up on the basis of traditional survey techniques and now scanned, digitized and hosted on:	
i)	*Standalone servers for supply of copies from designated offices*	
ii)	*On networked servers at different locations with copies available from:*	
a.	*Designated offices*	
b.	*Service centers*	
c.	*On the web but without authentication*	
d.	*On the web with authorized digital signature*	
iii)	*On state level servers with copies available from:*	
a.	*Designated offices*	
b.	*Service centers*	
c.	*On the web but without authentication*	
d.	*On the web with authorized digital signature*	
4.	No. of Revenue estates/Villages with Cadastral maps drawn up on the basis of modern survey techniques, geo referenced and digitized and available on:	
i)	*Standalone servers for supply of copies from designated offices*	
ii)	*On networked servers at different locations with copies available from:*	
a.	*Designated offices*	
b.	*Service centers*	
c.	*On the web but without authentication*	
d.	*On the web with authorized digital signature*	
iii)	*On state level servers with copies available from:*	
a)	*Designated offices*	
b)	*Service centers*	
c)	*On the web but without authentication*	
d)	*On the web with authorized digital signature*	

3. Status of Computerisation of Registration

S.No.	Question	Response	Code
1.	Total Sub-registrar offices (SROs) in Tehsil/Taluka in 2015-16		
2.	Total number of transactions handled by all these SROs		
3.	Number of SROs in Tehsil/Taluka operated manually without any computerized support and transactions handled by them in 2015-16.		
4.	Number of SROs with standalone computerized registration and transactions handled by them in 2015-16.		
5.	Number of SRO offices that accept on line applications and (transactions handled by them in 2015-16 to be noted in each case)		
i)	*carry out all further processing manually*		
ii)	*check / verify accuracy of stamp duty / fee payment electronically*		
iii)	*check / verify some / all other documentation electronically but not stamp duty / fee payment*		
iv)	*verify all required documentation electronically including stamp duty / fee payment*		
6.	Number of SRO offices where circle rates available on line with open access provided to the public at large and (transactions handled by them in 2015-16 in each case)		
i)	*annual updating undertaken on fixed date*		
ii)	*annual updating but variable dates*		
iii)	*no fixed updating schedule*		
7.	Number of SRO offices with legacy record available on line to the public at large and number of preceding years for which record available. (transactions handled by them in the last financial year in each case)		
i)	*one year*		
ii)	*between one to five years*		
iii)	*between five to ten years*		
iv)	*more than ten years*		
v)	*entire record since first registration in the area.*		

4. Status of Integration of RoR, CM, and Registration

S.No.	Question	Number of Revenue Estates/Villages
1.	Number of revenue estates / villages in which the process of registration checks the revenue records data base for details of ownership, parcel size, etc.	
2.	Number of revenue estates in which the process of registration automatically alerts the revenue records database by:	
i)	*noting the fact of registration in some form*	
ii)	*initiating the mutation process which then is completed after a certain period of time*	
iii)	*initiates a mutation process that is completed instantly (auto mutation)*	
3.	Number of revenue estates in which digitized record of CM is integrated with RoR and copies of CM can be made available along with corresponding RoR details	
4.	Number of revenue estates in which digitized record of CM is integrated with RoR and registration process enabling updating CM also with any parcel sub division or amalgamation when mutation is affected	

5. Status of wider delivery of Land Record Related Services

S.No.	Question	Response	Code
1.	Is there a tehsil level system for monitoring performance with regard to delivery of services?	Yes-1; No-2	
2.	What does it reveal?	Give note	
3.	Total No. of Citizen Service Centers (CSCs) in the Tehsil		
4.	What type of services CSCs offer?	Land Records-1 Registration related services-2 Any Other Service (specify)-3	
5.	How many CSCs offer the following services?	RoR copy/attested mutation copy: Spatial record copy: Registration document copy: Registration legacy record check: Any Other Service (specify):	
6.	Total number of copies of various parts of the land record/registration related record obtained in the Tehsil in one year. Of these:		

S.No.	Question	Response	Code
i)	*number obtained manually*		
ii)	*number obtained from computerized record,*		
iii)	*number obtained from government offices*		
iv)	*number obtained from CSCs*		

6. Details of Physical and Financial progress under NLRMP and DI-LRMP: 2008-2016 in the Tehsil

S.No.	Item	Physical Progress	Financial Progress	
		No. of revenue estates /villages covered (absolute number and as proportion of the whole)	***Expenditure***	***Unspent Balance***
1.	**Computerization of land record**			
i)	*Survey Work*			
ii)	*Digitized Cadastral Maps*			
iii)	*RoRs Completed (computerized)*			
iii)	*Computer Centre at Tehsil*			
iv)	*Computerization of Registration*			
v)	*Modern Record Room constructed*			
vi)	*Integration of Registration with Land Records*			

7. Understanding of Revenue Staff at tehsil level or below about Provisions relating for Real Time Mirror (RTM)

S.No.	Question	Response	Code
	Updating of record:		
A.	**Ownership details**		
1.	What are the provisions relating to updating of RoR on occurrence of events/transactions?	Death: Succession (Will and Intestate) Sale: Any Other (Specify):	
2.	What are the steps followed with respect to this updation?	1.a) Intimation to Talati / Patwari b) Intimation to Kanungo / Revenue Inspector. c) Intimation to Revenue officer	

S.No.	Question	Response	Code
		2. a) Initial entry by Talati / Patwari b) Initial entry by Kanungo / Revenue Inspector c) Initial entry by Revenue Officer. 3. a) Inviting objections by Talati / Patwari b) Inviting objections by Patwari by Kanungo / Revenue Inspector. c) Inviting objections by Revenue Officer 4. a) Presence of parties before Talati / Patwari b) Presence of parties before Kanungo / Revenue Inspector c) Presence of parties before Revenue Officer 5. a) Final attestation by Talati/Patwari b) Final attestation by Kanungo / Revenue Inspector c) Final attestation by Revenue Office 6. a) Actual incorporation in the record by Talati / Patwari b) Actual incorporation in record by Kanungo / Revenue Inspector c) Actual incorporation in record by Revenue officer 7. Any Other (specify)	
3.	What is the mode of conveying information of such event/transaction to the custodian of the record?	Through Application-1 Verbal communication-2 Auto intimation by software-3 Any Other (specify)-4	
4.	Is there a time period specified for various steps?	Yes-1; No-2	
5.	If yes, specify the time period (in days) for the following:	1.a) Intimation to Talati / Patwari b) Intimation to Kanungo / Revenue Inspector. c) Intimation to Revenue officer 2. a) Initial entry by Talati / Patwari b) Initial entry by Kanungo / Revenue Inspector	

S.No.	Question	Response	Code
		c) Initial entry by Revenue Officer. 3. a) Inviting objections by Talati / Patwari b) Inviting objections by Patwari by Kanungo / Revenue Inspector. c) Inviting objections by Revenue Officer 4. a) Presence of parties before Talati / Patwari b) Presence of parties before Kanungo / Revenue Inspector c) Presence of parties before Revenue Officer 5. a) Final attestation by Talati/Patwari b) Final attestation by Kanungo / Revenue Inspector c) Final attestation by Revenue Office 6. a) Actual incorporation in the record by Talati / Patwari b) Actual incorporation in record by Kanungo / Revenue Inspector c) Actual incorporation in record by Revenue officer 7. Any Other (specify)	
B.	**Possession details**		
1.	What are the provisions regarding transfer of share of holding through sale/gift, etc.?	Transfer of share and introduction of new owner as another joint holder allowed in ownership column of RoR-1 Registration allowed only of a specific parcel / plot / built up property after partition / sub division on securing consent of all joint holders-2	
2.	Are the provisions different for different types of events / transactions?	Attach a Note.	
3.	Are there any instructions to expedite partitions and reduce joint holdings?	Attach a Note	
4.	What are the provisions on reflection of actual possession by tenants, share croppers, part owners of built up property and the land on which such property is located?	. Attach a Note	

S.No.	Question	Response	Code
C.	**Extent / boundary / built up area details**	Attach a note focusing on provision of updating details; frequency of updation for changes in land area, boundaries, and area of built up property; process and frequency of updating for changes in CM; policy on methods for updating.	
D.	**Land use / classification details**	Attach a Note focusing on: frequency of updation; details recorded in crop season, girdwari (what is the frequency and schedule?)	
E.	**Encumbrance details**		
1.	What are the encumbrances that are entered in the RoR? Mortgage-1 Ongoing acquisition proceedings-2 Land use restrictions through statute-3 Disputes pending in revenue or civil courts-4 Disputes pending in civil courts -5 Any Other (Specify)- 6	 Yes-1; No-2 Yes-1; No-2 Yes-1; No-2 Yes-1; No-2 Yes-1; No-2 Yes-1; No-2	
	Attach a Note focusing on the following: process of entering various encumbrances; intimation of various encumbrances; frequency of their updation, and who can make the entries? Include observation on level of understanding of instructions at the level of talati / patwari, etc.)		
F.	**Correction of error in the record:**		
1.	What are the types of errors (specified in Acts/Rules)categorized as technical and not open to dispute?	Spelling mistakes in various columns-1 Totaling errors in the extent/ area of parcel column-2 Any Other error (specify)-3	
	Attach a Note focusing on the following; Type of errors; process of correcting these errors; frequency of correction; level of backlog, etc.		
2.	What are the number of transactions requiring mutations registered in last three financial years (year wise) ?		
3.	What is the number of mutations in relation to registered documents attested in last three financial years (year wise)?		
4.	What is the difference between the number of mutations and the number of record updated at tehsil level in the last three financial years (year wise)?		

***

DI-LRMP Impact Assessment Study

TEST CHECKS OF RECORDS

December, 2016

National Council of Applied Economic Research
Parisila Bhawan, 11, Indraprastha Estate
New Delhi–110002

1. Identification

S. No.	Particular	Details
1.	Name of the State	
2.	Name of the District	
3.	Name of Tehsil	
4.	Name of Revenue Estate	
6.	Name of the Department (s)	
7.	Contact Details:	
	Designation	
	Telephone	
	E-mail	
	Website (if any)	
8.	Date of Interview	

1. Test check of Status of Computerization of RoR, digitization of CM, Registration process, integration of all three (State level).

a. For RoR and CM

a) For every tehsil / taluka in the state reported to have computerized RoR available through networked servers or on state level servers to the public, sample revenue estate / village to be selected and relevant field (serial number of ownership, plot number, etc.) to be entered to see whether RoR details become available on the web.

b) For every tehsil / taluka in the state reported to have digitized cadastral map available through networked servers or state level servers to the public, sample revenue estate / village to be selected and random plot number to be entered to see if plot map is available on the web.

1.2 For computerization of registration process by SRO

For every SRO office in the State which is computerized and offers on line access to the public, test check to see level of service / information available on the web:

S. No.	Stage of registration	Status of Computerisation Yes-1; No-2
1.	Checking for encumbrances/ title search	
2.	Collecting requisite documents	
3.	Finding out applicable stamp duty and fee payable	
4.	Getting the conveyance document prepared	
5.	Making the payment (purchasing the paper, depositing the fees)	
6.	Applying for registration	
7.	Getting documents verified/ checked / establishing identity	
8.	Getting photographed	
9.	Getting a copy of registered document	

1.3 For integration of RoR, CM and registration process

a) For every tehsil / taluka in the state reported to have integration of RoR and CM and available on line to the public, sample revenue estate / village to be selected and random check by feeding plot number / khasra number to see if RoR and map available on the web.

b) For every tehsil / taluka in the state reported to have integration of RoR and registration process, sample revenue estate / village to be selected and random check to see if on seeking registration of property-

i. data base of RoR is checked for ownership details and
ii. on actual registration if this fact is reflected immediately in RoR in any form (note in remarks column or draft mutation or attested mutation)

2. Test checks at tehsil level

2.1 For delivery of services

Applications to be checked with reference to sample offices **(tehsil or SRO or revenue inspector or patwari/talati)** for services stated to be available from those offices to verify availability and time lines for delivery.

S.No.	Type of Document	Applicant (name)	Time Elapsed between Application and Delivery	Date / Time of Presentation of Document (SRO)	Date / Time of Delivery of Registered Document (SRO)
	RoR copy				
1.					
2.					
3.					
4.					
5.					
	Cadastral Map Copy				
1.					
2.					
3.					
4.					
5.					
	Registered Document				
1.					
2.					
3.					
4.					
5.					

2.2 Applications made to sample CSCs for services stated to be available from those CSCs to verify availability and time lines for delivery (To be Performed at Tehsil Level)

S.No.	Type of Document	Applicant (name)	Did you receive a copy? Yes-1; No-2	If yes, Time taken in Days.
	RoR copy			
1.				
2.				
3.				
4.				
5.				
	Cadastral Map copy			
1.				
2.				
3.				
4.				
5.				
	Registered Document copy			
1.				
2.				
3.				
4.				
5.				

2.3. Test Checks: Tehsil/SRO Office

S. No.	Category of Tasks	Applicant	Time Elapsed between Institution of case and Final order of Revenue	Date of Institution / application	Date of Final order / Delivery of Document
	Correction of Revenue Entry				
1.					
2.					
3.					
4.					
5.					
	Demarcation				
1.					
2.					
3.					
4.					
5.					
	Partition Proceedings				
1.					
2.					
3.					
4.					
5.					

3. Test Checks of 50 Land Parcels; 5 Revenue estates/Villages: number of parcels in each village as per sampling note. 10 numbers here is only illustrative.
(*The format is for one village and may be replicated for another four villages)*

Name of Tehsil:_____; Name of RE:_____; Name of Village:_____

S.No.	Name	Land Parcel ID	Ownership rights as per RoR (Single owner)	Number of Owners in case of Multiple owners	Actual Ownership Rights on ground (details)	Possession Rights in RoR	Possession on ground as per local enquiry (detail)	Extent of area as per RoR	Extent of area as per CM	Actual area on ground (built up plinth area to be given separately)	Classification as per RoR	Actual Land Use on ground	Separately give details of built up area extent as well as ownership and possession as per local enquiry	Encumbrances as per RoR	Encumbrances as per Actual Observations/ local enquiry
1.															
2.															
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															

Encumbrances Code: Liens/Mortgages-1, Litigations-2, Revenue Court Orders-3, Civil Court Orders-4, Land use restrictions-5, Acquisition proceedings-6, Others-7.

8. Random selection of RoR related applications/events to verify adherence to specified time lines for completion/resolution with respect to:

S.No.	Question	Sample coverage	Response	Code
1. a	Mutation (each stage in case of death and sale)	Revenue Estate Level		
i.	*What are the steps involved from occurrence of event/transaction to attestation of mutation and its further incorporation in the manual/computerized land record?*			
ii.	*How much is the average time taken from occurrence of event / transaction to attestation of mutation and its further incorporation in the manual / computerized land record (test check 5 randomly selected mutations of death and sale for time taken at each stage)?*			
iii.	*On the basis of sample check, what percentage of mutation requests are completed in stipulated time (as per RTPS, where applicable, or relevant guidelines)?*			
1(b)		Tehsil Level		
i.	What is the annual percentage reduction in mutations pending since one year at the tehsil level?			
ii.	What is the average number of days to complete mutation in succession proceedings and sale event (from information at tehsil level, for past one year)?			
2.	Partition			
i.	What is the average time taken from institution to incorporation in the record of a partition proceeding by mutual agreement?	Tehsil Level		
ii.	What is the average time taken from institution to incorporation in the record of a partition proceedings begun on the basis of application to Revenue Officer			
3.	Demarcation of boundaries	Tehsil Level		
	What are the steps involved in and the time taken from institution to completion of demarcation proceedings?			
4.	Crop inspection (girdawari)			
	To examine whether any changes are recorded in Girdawari. (No. of parcel numbers on which changes are recorded in latest Girdawari available in any one of the villages in which test check of land parcels being carried out. Type of changes to be listed.(These parcel numbers as a percentage of total parcel numbers in the revenue estate).	Revenue Estate Level		
5.	Correction of Revenue Entry			
	What is the average time taken from institution till incorporation in record in case of correction of revenue entry (disputed) ?	Tehsil Level		

Note: For the revenue Estate level of survey, take the same sample as that of land parcels for test check. Consider last 15 entries in the register and select five out of it, based on an alternate count.

9. Physical Verification of claims relating to access to data bases to other institutions and Aadhaar seeding:

S.No.	Question	Response	Code
1.	Check with relevant persons in concerned offices (banks or other government departments, local bodies, etc.) about availability of access.		
2.	Check randomly selected sample records to verify Aadhaar seeding		

DI-LRMP Impact Assessment Study

FOCUS GROUP DISCUSSION

December 2016

National Council of Applied Economic Research
Parisila Bhawan, 11, Indraprastha Estate
New Delhi – 110 002

1. Issues for Focus Group Discussions (FGDs)

A consultation may be held separately with revenue officials in the field to elicit responses to questions below and in addition they may be asked for views on the NLRMP/DILRMP performance component wise. In what way can these programs be improved to deliver better on their objectives?

With regard to information in RoR, following questions may be asked:

1.1 Ownership:

1. What is the frequency of updation of records (immediate on attestation of mutation or is there a time lag)?
2. Reasons for non-updation of records/immediately on attestation of mutation.
3. Is RoR able to capture the following; Built-up areas-1, Ownership of flats-2, Individual floors-3

1.2 Possession:

1. What are the various type of possessions on the ground and their relative importance in current context? (tenancy, sharecropping, short or long term lease, contract farming, etc.?)
2. Are there any incentives and disincentives for recording these various forms of possession?
3. With respect to shared ownership, is possession of different specific areas reflected in RoR?

1.3 Classification:

1. Is land use different in RoR and on ground?
2. What is the reason for difference?
3. Frequency of updation?

1.4 Boundaries and extent:

Why do difference arise, with what frequency are record and on ground position reconciled?

1.5 Encumbrances:

1. What encumbrances are not recorded despite instructions?
2. What is the reason for failure to record?
3. What initiatives have been taken for resolution of errors in computerized textual records?

2. With regard to errors in computerized RoR (textual record):

1. What kind of errors arise?
2. How are these being dealt with?

3. With regard to Issues that arise on survey / resurvey:

S.No.	Question	Response	Code
1.	In case of differences with legacy record, what is the system / procedure for sorting out these differences?	**1.** **2.** **3.**	
2.	What is the level of success achieved in sorting out the differences?.	**%**	
3.	In which year was the last survey/resurvey undertaken?		
4.	What is the method used in last survey/resurvey?	Traditional survey instruments-1 Modern methods of measurement with geo referenced ETS-2 Any other method (specify)-3	
5.	What is the extent to which reconciliation has been completed with legacy record and final position of RoR and spatial record (position of notified record in the case of recent resurvey)?	**Number of Revenue Estates**	
6.	Has resurvey resulted in reduction or increase in litigation with regard to the following:		
a)	ownership,	Reduction-1 Enhancement-2 No Change-3	
b)	possession,	Reduction-1 Enhancement-2 No Change-3	
c)	extent / boundaries	Reduction-1 Enhancement-2 No Change-3	
d)	classification related cases?	Reduction-1 Enhancement-2 No Change-3	

4. Time taken in the process of shifting from manual record to a computerized system:

S.No.	Question	Response	Code
1.	Which systems/procedure are adopted to update the record with respect to the transactions that have occurred during the transition period?		
2.	What steps have been taken to integrate information of transactions undertaken during the period of transition to new technology platforms?		
i.	*During digitization*		
ii.	*During resurvey*		
iii.	*During linking of spatial and textual data*		
iv.	*Computerized platforms*		

5. Accuracy and real time nature of the record and the services available to the public have improved with the intervention of the NLRMP / DILRMP.

Information to be gathered from Members of the public who have come to avail of various land record/ property related services at a tehsil/ taluka office or a revenue inspector office or a patwari /talati office and other stakeholders.

S.No.	Question	Members of the public who have come to avail of various services at an SRO office.	Members of the public who have come to avail of various services at a CSC (service center).	Lawyers, document writers, stamp vendors or other persons who assist in the process of securing services from land record and
1.	**Responses could be sought from a group or individuals to questions about:**			
i.	*Availing services like securing a copy of the record*	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):
ii.	*Getting a certificate relating to entries in the record*	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):
iii.	*Getting the record updated on succession or sale,*	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):
iv.	*Partition proceeding*	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):
v.	*Exchange, tenancy*	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):
vi.	*Getting the record updated in any other context*	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):
vii.	*Securing a correction in the record*	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):
viii.	*Securing a boundary demarcation, or any other matter related to the record*	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):	Time taken: Cost (Rs.):
2.	What kind of improvements would bring about better delivery of services?	1. 2. 3.	1. 2. 3.	1. 2. 3.
3.	What are the reasons for land /property record failing to reflect ground level reality?	NA	NA	
4.	What is the extent of litigation /dispute caused by the failure of the record to accurately reflect on ground situation?	NA	NA	
5.	In what way can processes / systems be modified to improve the situation?	NA	NA	

6. Possible stages in registration process:

Interviewing persons who are at an SRO office or who have recently had a document/ sale or purchase registered.

S.No.	Question	Average time taken	Expenditure (absolute amount / % age of property value)
1.	Checking for encumbrances / title search		
2.	Collecting requisite documents		
3.	Finding out applicable stamp duty and fee payable		
4.	Getting the conveyance document prepared		
5.	Making the payment (purchasing the paper, depositing the fees)		
6.	Applying for registration		
7.	Getting documents verified/ checked / establishing identity		
8.	Getting photographed		
9.	Getting a copy of registered document		

NCAER 1956 2017 QUALITY RELEVANCE IMPACT

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