



EVALUATION OF QUALITY OF LAND RECORDS

ANDHRA PRADESH, CHHATTISGARH, KERALA & LAKSHADWEEP

Evaluation Study
QUALITY OF LAND RECORDS:
Andhra Pradesh, Chhattisgarh, Kerala & Lakshadweep

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Abbreviations	
AP S & B Act	Andhra Pradesh Survey and Boundaries Act
BDO	Block Divisional Officer
BTR	Basic Tax Register
CARD	Computer-aided Administration of Registration Department
CGLRC	Chhattisgarh Land Revenue Code
CLU	Change of Land Use
CORS	Continuously Operating Reference Station
DGPS	Differential Global Positioning System
DOLR	Department of Land Resources
DILRMP	Digital India Land Records Modernisation Programme
EDM	Electronic Distance Meter
EFL	Ecologically Fragile Lands
EMR	Electronic Mortgage Recorder
ETS	Electronic Total Station
FLR	Fair Land Register
FMB	Field Measurement Books
FRA	Forest Rights Act
GIS	Geographic Information System
GNSS	Global Navigation Satellite System
GSD	Ground Sampling Distance
IGR	Inspector General of Registration and Stamps
ILIMS	Integrated Land Information and Management System
LP	Land Parcels
LPM/LPN	Land Parcel Maps/Land Parcel Number
MAUD	Municipal Administration and Urban Department
MoRD	Ministry of Rural Development
MoU	Memorandum of Understanding
NIC	National Informatics Centre
NLRMP	National Land Records Modernisation Programme
NRTK	Network Real Time Kinematic
ORI	Ortho Rectified Image
PC	Possession Certificate
PSU	Public Sector Undertaking
RCMS	Revenue Court Management System
RFCTLARR Act	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act
RI	Revenue Inspector
RoFR	Recognition of Forest Rights
ROR	Record of Rights
RSR	Resurvey Settlement Register
RTK	Real Time Kinematics
RTM	Real Time Mirror
SDO	Sub Divisional Office
SLBC	State Level Bankers' Committee
SoI	Survey of India
SRO	Sub-Registrar Office
TP	Thandapper
ULB	Urban Local Body
UT	Union Territory
VS	Village Surveyor
VO	Village Officer
VRO	Village Revenue Officer

Executive Summary

Introduction

The criticality of an efficient land records system for the effective functioning of land markets, taxation systems, infrastructural improvements and the economy as a whole is widely recognised. Efforts to computerise and modernise the land records system were initiated by the Government of India since the 1980s, culminating in the DLIRMP as a Central Sector scheme in 2016. The DoLR sponsored Study on Quality of Land Records in Andhra Pradesh, Chhattisgarh, Kerala and Lakshadweep aims at understanding the progress in the implementation of the programme i.e. good practices as well as the gaps in the computerisation/digitisation of textual/spatial records, computerisation of registration/mutation process and the integration of these components for maintaining an updated land records system. The Study, through a comprehensive assessment of the data from both primary and secondary sources presents the status of land records and the systems in place for its continuous maintenance and updation in the four Study States/UT. The Study findings is summarised below in five parts; first, the general progress in the important parameters relating to quality of land records; second, the challenges in land record updation; third, the reflections from the RTM assessment; fourth, the unique/state-wide good practices; and fifth, the suggestions/recommendations of the Study.

Progress in DLIRMP

Textual Records: Among the various parameters, computerisation of textual records has made remarkable progress, with all the study States/UTs sharing cent percent achievement. A digitally signed RoR is a legally valid document that can be downloaded by the citizens in the States of Kerala, Chhattisgarh and Andhra Pradesh. The updation of manual land records is no longer mandated in Chhattisgarh and resurvey completed villages of Andhra Pradesh, wherein the digital Record of rights (RoR) copy remains the only legal document. In Chhattisgarh and Kerala, there is no distinction between rural and urban and the revenue department maintains the RoR for both areas. The Aadhaar and mobile linkage have varied progress in the three states. About 77/53 percent RoRs are seeded with Aadhaar / mobile numbers in Chhattisgarh and 82 percent in Andhra Pradesh. Kerala is moving gradually with a consent-based linkage of Aadhaar and RoR. The progress on flagging of encumbrances (lease agreements, mortgages, court cases, land acquisition proceedings etc.) on the RoR, vital to prevent fraud, is varied. In both Andhra Pradesh and Kerala, the bankers have been facilitated with a module for marking mortgages on the respective survey number, the viewing interface on the RoR is a work in progress. Chhattisgarh has remarkably integrated not only the pending mortgages but also pending mutation and court proceedings. None of the states presently have a system for flagging land acquisition proceedings.

Spatial Records: The progress with regard to digitisation of spatial land records is mixed with encouraging progress in states where the resurvey is under progress while others requiring focused attention and efforts (Chhattisgarh and Lakshadweep). In Andhra Pradesh, considerable progress has been made with the completion of resurvey and geo-referencing of all land parcels in 38 percent of villages (6688 villages), where textual and spatial records converge. In Kerala, digital survey has been completed in about 11.9 percent of the total state area (0.46 million hectares of land). Despite appreciable progress in all other parameters of land records modernization, digitisation of maps is a major part of the unfinished agenda in Chhattisgarh. In Chhattisgarh, only 1 block with 927 land parcels has been geo-referenced. In Lakshadweep too, geo-referencing is confined to only 0.07 percent of the total area. Since sub-divisions are not effected in the non-resurveyed villages in both Andhra Pradesh and Kerala, the problem will compound in the future. In Chhattisgarh, though sub-divisions are being carried out in the vectorized maps, as they are not geo-referenced, the location and extent will vary with the textual records. In Lakshadweep too, the maps are neither digitised/vectorised nor updated with sub-divisions.

Registration: All the Sub Registrar Offices (SRO) are all computerised and the entire registration process completed online in the four study states/UT. Appreciably, the registration-land records link has also been established in Andhra Pradesh, Chhattisgarh and Kerala, with the registration software integrated with revenue offices and the land record database. In Andhra Pradesh, Chhattisgarh, Kerala

and Lakshadweep, online legacy data is available from 1983, 2017, 1986 and 2000 respectively. In both Andhra Pradesh and Chhattisgarh, bio-metric identification of the parties is enabled; signature of parties captured digitally, identification documents uploaded; circle rates integrated, auto-calculation of stamp duty/registration charges and online payment enabled in the system. In Kerala, while the bio-metric is not enabled, the entire registration process is completed online and approval of registration triggers the village office for the mutation process. In Andhra Pradesh, survey number-wise details of prohibited lands are integrated with the System to provide an additional layer of protection and prevent transfer of such lands. In Lakshadweep, though the SROs are computerised, the above features of revenue office integration; biometric enablement, uploading of circle rates verification of the parties are done; circle rates are not uploaded in the system and online payment is not enabled.

Mutation: In Andhra Pradesh, auto-mutation has been provided legal sanctity by amendment in Section 5 of the RoR Act, 1971. Once a registration is approved, the name of the registered purchaser is automatically mutated on real time basis. In Chhattisgarh, mutation requests from all sources (SRO, citizens, patwari as well as the revenue courts) are enabled online with time-bound monitoring. The registered sales are auto-triggered and time bound mutation process follows the registration. In Kerala too, after the online registration of deeds at SRO, the data regarding the mutation of the property (Form No.1 B) is automatically transferred to the concerned village office. The pushing of the digitally signed documents from the SRO to the village for mutation is a seamless process in Chhattisgarh (with digitally scanned documents), while the documents have to be manually scanned and uploaded in Kerala (with scope of some delay).

Challenges in Land Record Updation

The system on textual record updation is working remarkably well in three states with auto-mutation of textual records on a real time basis in Andhra Pradesh and auto-trigger mutation (with integration of registration and revenue software systems) in Chhattisgarh and Kerala. A critical gap is the lack of updation of maps (spatial records) in all the study areas except the re-surveyed villages. In Chhattisgarh, while sub-divisions are presently carried out in the vectorised maps, deficiencies associated with lack of geo-referencing persist, also posing insurmountable challenges in the urban areas (constituting about one-third of the total extent), where each khasra has been sub-divided into innumerable units and updation in the present scale without geo-referencing not possible. In Andhra Pradesh, the lands registered for non-agricultural/residential use that do not get mutated/reflected in the RoR is a concern area. The mutation of registries effected prior to the integration of the registration and land records system in all the States present an inherent challenge for land records updation as there is no compulsion on the part of the buyer to get his registered land mutated. The case of legal heirs of expired landowners is another uniform issue in all the study areas, the extent of the problem much higher in tribal belt as revealed from the sample villages. The mutation of undivided land shares of flat owners is a common issue across study areas though Kerala has recently decided to mutate the shares of the flat owners. Unlike Andhra Pradesh and Chhattisgarh, the succession related mutations in Kerala do not have an end-to-end online enablement. Lakshadweep has a long and difficult way to go in integrating the registration and revenue offices and non-updation of records, both registered lands and succession cases are extensive and requires special effort and dedicated resource support.

Reflections from RTM Assessment in Sample Villages

The Study assessed the land records vis-à-vis the on-ground situation with regard to ownership and possession; land nature/classification/extent/land-use and recording of encumbrances on the land records in ten sample villages across eight districts. With regard to ownership and possession, the primary issue of non-updation of land records relates to the succession cases (except Lakshadweep, where both causes exist). In Chhattisgarh, 37 percent and 11 percent are non-updated records in the two villages, and caused by the death of the recorded owners; similarly, in Kerala, 15 percent of the 18 percent non-updated records in village 1, 4 percent and 30 percent non-updated records in village 2 and 3 are owing to the non-updation of records after the death of the recorded owner. In Andhra Pradesh, out of the 17 percent non-updated records in village 1, half is accounted by succession (expired landowners). In Lakshadweep, 96 and 100 percent of the land parcels surveyed were not updated in the sample villages. In these villages, 92 and 33 percent are cases of succession.

Out of the 10 study villages, only 1 village, P M Kandrika has digitised cadastral maps. Within the textual records, there is a substantial mismatch between separate land shares shown in the RoR and the survey sub-divisions in some cases. Only 51 percent of the land shares in the RoR have a survey sub-division number in Sulthanapuram village. Though the spatial and textual records converge in the resurveyed village, the need for mandatory application for partition still leaves a gap with only 88 percent of land shares represented by the LPMs. In Chhattisgarh villages, the divisions in map largely reflects the shares in RoR i.e. to the extent of 96.3 percent and 88.6 percent of the land parcels in Tuma Bahra and Birkona villages. The broad land classification and nature largely matches with the ground in all study villages. However, the actual use of land is not reflected in the RoR (except in Chhattisgarh). In Birkona village (Chhattisgarh), 71 percent of land parcels conformed to the records while 29 percent is either vacant or in residential use. Paddy and pulses are the primary crops cultivated as per the records as well as the landowners. In Tuma Bahra (Chhattisgarh), the broad land use (agricultural/non-agricultural) conforms to the records in 91.6 percent land parcels, while 8.4 percent is either vacant or in residential use.

Good Practices in Study States/UT

Chhattisgarh has made considerable progress in the DILRMP. The State is a leader in terms of its success in computerisation of land records, registration, mutation and revenue court management and the integration of the processes in a time bound manner. A comprehensive RoR covering not just details of lands/landowner but also the updated land use (updated after the bi-annual girdawri) as well as the encumbrances (mortgage, pending mutation proceedings and revenue court case) is unique among all the states. The mandatory preparation of sketch by the patwari for partitioning of lands before registration, auto-trigger after mutation and a time bound mutation with a mandatory objection period merit appreciation. Andhra Pradesh is leading the country in terms of a massive resurvey exercise that will eventually align the textual and spatial records. The technology enabled resurvey and digital land records coupled with computerised registration system and auto--mutation enables real time updation of land records, a feat that is presumably unique in the country. Critical amendments to the RoR Act to incorporate new definitions; hassle free registration system that facilitates registration upon data entry; prohibited survey numbers integrated with the system to restrict fraudulent transactions; market value of land (circle rates) integrated into the system, provision of e-signature by registrar on all documents are all good practices saving valuable time and cost. Kerala, that has initiated a state-wide resurvey exercise that shows much promise. The conduct of the technology aided resurvey (completed in 200 villages) will eventually pave way for alignment and integration of the textual and spatial records. The good practices worth emulation include the RoR linkage with legacy records (the Thandappers mention the resurvey number and permanent registers have been made online); enabling the tracking of ownership history of all land transactions in the online land records system; consent-based linkage of Aadhaar with RoR with options to landowners for self-linking through the online web portal or linking through the Village Office and the soon to be initiated mutation of land records for flat owners.

Suggestions and Recommendations

The areas of proactive action by the to achieve the objectives of the DILRMP is summarised below:

First, Lack of mandatory sub-division in the maps and non-updation of spatial records is among the most significant challenge in the achievement of the objectives of the DILRMP. The transition to digital maps with geo-coordinated land parcels and systems that mandate updation of spatial records along with the textual records is a critical component of DILRMP that has lagged behind and requires to be prioritised. Digital land parcels with geo-coordinates are a critical requirement to improve the quality of land records. This may mandate resurvey of lands with concomitant settlement operations. The resurvey exercise itself shall require critical planning and finalisation of technology that not only brings in acceptance and confidence of all stakeholders but also economises cost. Mass contact programmes to spread awareness, as is being done in Kerala is critically important. Based on a technical assessment of the resurvey exercises in Kerala and Andhra Pradesh and the pros and cons, the use of CORS and RTK for re-survey is seen to be optimising time/cost while ensuring an accurate GIS cadastral map.

Second, the pending updation of records prior to the integration of registration and revenue systems in all the three states may have to be taken up on priority by identifying them from the online legacy records. While auto-mutation (Andhra Pradesh) or auto-trigger mutation (Chhattisgarh and Kerala) will take care of the updation of records, the legacy issues need to be proactively addressed. For records to mirror the ground reality, this exercise may be unavoidable. Lakshadweep requires special care/attention because of the enormity of the issues associated with non-updated records, the considerable backlog, limited resources as well as the ongoing conflicts associated with the ‘pandaram lands.’ A related issue is the joint ownership that has reached humungous proportion in Lakshadweep and high in Chhattisgarh as well. .

Third, steps may be taken to record the death of the owner on the RoR and/or a proactive mechanism to at least flag the records with expired landowners (Aadhaar linked issuance of death certificate, Girdwari etc.) and incentivise landowners to come forward for record updation. This source of non-updation and will continue to be a concern even with successful breakthrough achieved with technological integration of the revenue and registration departments with auto-mutation/auto-trigger in the three states. To reflect the ground situation, it is important that the joint owners come forward to partition their lands.

Fourth, special efforts to create records in the un-surveyed villages of Andhra Pradesh (35) and Chhattisgarh (1000) and address ‘gap areas’ viz. urban lands, lands diverted to non-agricultural uses, records of built-up properties, flats etc. Special attention is required to initiate steps to address the legacy issues (boundary demarcation of forest and revenue lands) in the tribal/forest villages of Mlappara and Nelliampathy. While these are difficult issues that will also be time-consuming, delaying the process will contribute to compounding the challenges imposed by the legacy issues.

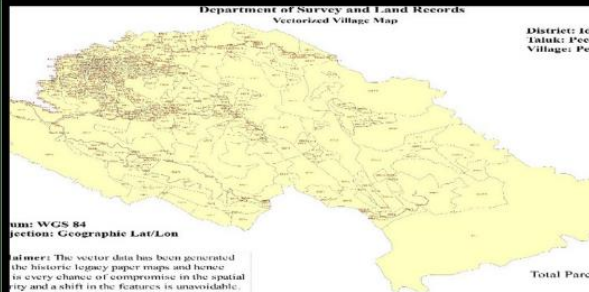
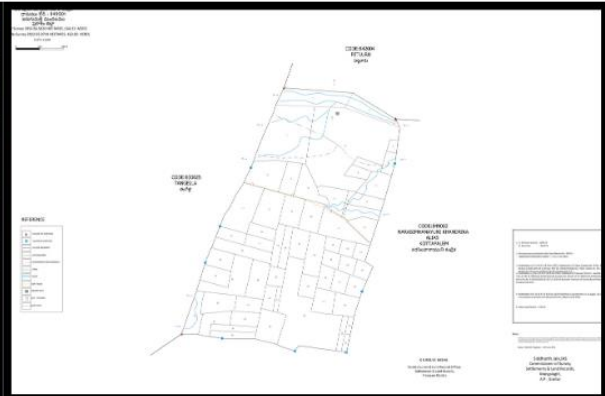
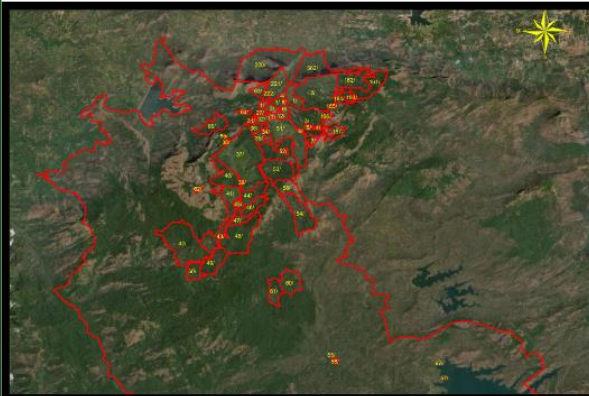
Fifth, formalisation of tenancy is an issue that has now been recognised and accurate reflection of possession on ground would require their inclusion in the RoR. Also, a comprehensive RoR reflecting the actual land use (through the bi-annual Girdwari and/or satellite imagery) is important. The requisite columns in RoR already exist in Andhra Pradesh and Kerala but is left blank. The practice in Andhra Pradesh to include the 0.41 million forest rights holders into the online webland/RoR is a welcome move that may be encouraged for replication in other states

Sixth, institutionalising due diligence measures to fool proof manual entry errors, ensure that prohibited lands (objectionable government lands, assigned lands transfer before the lock in period) are effectively blocked from transactions is important as we make the online RoR the sole land record (already a reality in Andhra Pradesh and Chhattisgarh). The linkage to legacy records by including the resurvey number in the RoR and making the legacy records available online is a good practice in Kerala worth emulation.

Seventh, while steps have been taken to flag the mortgage encumbrances in the RoR in Chhattisgarh, Andhra Pradesh and Kerala have to develop the viewing interface for the encumbrance to be reflected on the RoR. Flagging of pending revenue court cases as well as mutation proceedings in Chhattisgarh is a good practice that should be adopted by other states. A critical gap in all the Study States/UT is the flagging of land acquisition related encumbrances, lack of information of which paves way to manifold malpractices. Land is acquired for various infrastructure projects under both the central and state legislations. Often, challenges with time/cost implications arise when encumbrances are created after the legally permitted cut off dates (preliminary notification under the RFCTLARR Act, 2013) or vesting of land under the various other central legislations. Flagging the RoR with details of pending acquisition process is important and will yield benefits.

Chapter I

INTRODUCTION



1.1 Land Records in India

In a developing economy striving for economic and social transformation, land occupies a very central place. Meaningful reforms on addressing the issues on the land front cannot become a reality unless there is remarkable improvement in addressing the quality of India's land records and in providing for accurate and accessible land records.

Land records in India is known to suffer from several deficiencies. There are differences in textual and spatial records, the spatial records often not updated with changes and with high error margins. Land is recorded in the name of the person who may have died long ago and whose legal successors names are not entered in the records. Mutation is not effected in the land records after registration of the land/property and often lands go on being transferred without consequential mutation in the records. Records, as they exist do not reflect the ownership and/or the actual possession on the ground. Several transactions that are vital to reflect encumbrances and prevent fraud such as lease agreements, mortgages etc. are not captured in the records. Pending legal cases, both in the revenue and civil courts do not get tagged to the records system. Eminent domain acquisitions are sometimes not updated in records and continue to be under possession of the landowners. Lands in the name of government entities are encroached upon and these bodies are not in actual possession. Land ownership is often recorded as 'shares' in the textual records, without creation of sub-divisions or physical demarcation on the ground. The actual land use is not reflected in the records, both textual and spatial. Record of lands that are diverted to non-agricultural uses, in some states are no longer maintained by the revenue department and do not get reflected in any records till formal diversion orders/building approvals are issued. Lands that are assigned by the government to the landless/houseless with non-alienation clauses or 'transfer after lock-in periods' are not appropriately reflected in the records. Above all, there are several villages where the survey or settlement operations have never been carried out during the colonial times or post-independence period. All these cases relating to non-updated land records impose huge legal and social costs¹, inflating the real cost of land and imposing huge welfare costs to the country. The widely quoted McKinsey Report (2001)², pointed out that unclear property rights/land market distortions account for close to 1.3 per cent of lost national income growth a year.

It would be useful to briefly trace the origin of survey and settlement operations in the country before outlining Government of India's initiatives in land records modernisation and the objectives of the present Study commissioned by the Department of Land Resources (DoLR), Government of India.

1.2 Historical Background of Land Records and Land Tenure System

The legacy of land issues in India is generally attributed to the handling of the land matters by the colonial regime. However, the agrarian structure during British administration too emerged with a historical background. The pre-colonial period (dominated by the Mughals, particularly in the North India) and the state-peasant land relationship continued in the colonial regime. Though systematic efforts to manage the land are considered to have been initiated by Todar Mal during Akbar's regime in terms of measurement, classification and fixation of rent, these were also not the earliest practices. The Hindu kings drew from their subjects, contributions called bali, originally made as voluntary gifts, which in the course of time became compulsory and became an important characteristic of the ruler-

¹ Wadhwa (2002); Guaranteeing Title to Land, Economic and Politically Weekly, November states that land litigation is not confined only to two wings of the same government but is widespread between the state and the citizens, between the citizens and the public bodies as well as between the citizens themselves. At this very moment, there must be millions of cases of all kinds and at all levels, both revenue and civil and even criminal, each one of them arising out of an entry in the record of-rights in land. Every working day of the court hundreds of thousands of persons, many with empty stomachs, wait in different courts of the country from morning till evening for seeking redressal of their land disputes. The social cost of this litigation is mindboggling. The number of man-days lost in agriculture alone would be staggering. We have more lawyers than doctors in the country.

² On September 6, 2001, McKinsey and Company, an American Consultancy firm, submitted to the Prime Minister of India a three-volume report entitled "India: The Growth Imperative – Understanding the Barriers to Rapid Growth and Employment Creation". The study was conducted by the McKinsey Global Institute in collaboration with McKinsey's India Office

subject relation. This share of the king, collected as revenue, was one sixth of the produce in the normal times. The Arthashastra of Kautilya, compiled around 323 BC, gives the most comprehensive and detailed account of ancient Indian land system including a regular system of survey, settlement and assessment. A remarkable division of work and responsibility and a graded system of hierarchy is known to have existed in the ancient India with the *Gopa* (village accountant/tehsildar to ascertain the total area of village lands by numbering the cultivated and uncultivated lands, soil classification and land uses-gardens, village pasture, jungles, homestead lands, cremation grounds, religious places and roads) and headed by a *Sthanika* (similar to the Circle Officer in the Settlement and Revenue Department). The Arthashastra enunciates special provisions for enhancement of land revenue to one-fourth of the produce during the emergencies (Ghosal, 1973). On the issue of land ownership during ancient India, it is interesting to note the views of the Indian Taxation Enquiry Committee of 1925³. “The evidence of Rig Veda Samhita shows that among the Indo-Aryans, the arable land was held in individual ownership or in family ownership, the communal ownership having been confined only to the grass lands”

The private ownership of land was an established institution among the Indo-Aryans in the most ancient times to which their history can be traced. According to Manu, the land belonged to the persons who cleared the jungle and brought it under cultivation. “He could sell, bequeath or alienate it at his individual discretion. The King (or the State), on an analysis of the essential criterion of sovereignty, had the supreme power to levy taxes as the price of protection but not for ownership” (Ghosal, 1973). The principle of assessment of land revenue was sharing of the produce; between one-sixth and one-fourth of the produce in the pre-Mughal Hindu period to between one-third and one-half during the Mughal period⁴. The institutional set up for collection of land revenue by the Mughals, led by the numerically small Jagirdars and Mansabdars/ Zamindars, had a univocal objective of revenue maximization. The principal unit of land settlement in India was “village” during the pre-Mughal and Mughal period. Land was never considered to be the property of the King but was the property of the village, the king being entitled to a share of usufruct for the protection he provided. The village became the agency of collection and the unit of revenue assessment, the village chief being entrusted with the responsibility of collecting land revenue. The Mughal revenue administration continued with the system with certain modifications and improvements. Though the aim was to achieve the purpose of realizing as much revenue as possible, it was recognized that the peasants should be content so as to prosper and bring more land under the plough. Akbar’s reign introduced the system of revenue farming, a class of tax collectors as the functionaries of the administration and also a transition from tax in kind to cash. Even during the pre-colonial regime and in particular during the Muslim rule, the general practice was to delegate the work of revenue collection to intermediaries (chiefs, village headman etc).

The British administration was primarily concerned with the collection of land revenue. To standardise land revenue, they introduced the Permanent Settlement System in Bengal, parts of Eastern United Provinces and North Western provinces in the 1770s. The Zamindars, who had existed, were bestowed with hereditary position. The standardisation of the land revenue settlement however could not be followed everywhere as Zamindari system was resisted in many parts of the country. The Ryotwari system of revenue collection emerged in the southern parts of the country, whereby land was held directly by the tenant and there were no intermediaries between the tiller and the state for revenue collection. This system eventually spread to Bombay presidency, parts of Madras presidency and parts of Madhya Pradesh and Assam. In the Western United provinces, Oudh, parts of Eastern United

³ Sarkar, Bikram (1989), Land Reforms in India, Theory and Practice (A Study of Legal Aspects of Land Reforms Measures in West Bengal)

⁴ The Cambridge History of India IV, W. H. Moreland (1942) states, “The texts are not absolutely in accordance regarding the share of produce which a Hindu King might claim from the peasants, but the common figure is one sixth which might be increased in emergencies to one fourth or one-third. How far the practice conformed to the theory is doubtful; some cases which have been studied in detail indicate that the share actually taken in particular Hindu kingdoms was nearer one fourth, but they are too few to form the basis of a confident generalisation. In Muslim India, it may be said in a general way that the claim usually varied from one third to one half.

Provinces, Bihar, Punjab and parts of Madhya Pradesh, the Mahalwari system of revenue collection was in operation. Under the Mahalwari system, a variant of Ryotwari system, the settlement was not done directly with the individual tenant, but on a village basis. In Andhra Pradesh and Rajasthan, the jagirdari system of land revenue system existed, whereby the land was owned by princely rulers who in their turn would pass the revenue collection rights to jagirdars in return of military and administrative services. Table 1.1 reflects the coverage of the states under various land tenure systems.

Table 1.1 States Covered Under Various Land Tenure Systems	
Land Tenure System	States Covered
Zamindari System 57% of Cultivated Area	Uttar Pradesh (except Avadh & Agra), Bihar, Orissa, West Bengal, Rajasthan, and Telangana
Ryotwari System 38% of Cultivated Area	Karnataka, Gujarat, Tamil Nadu, Kerala, Maharashtra, Madhya Pradesh (60% area), Andhra Pradesh, Assam, Rajasthan (Jaipur & Jodhpur)
Mahalwari System 5% of Cultivated Area	Punjab, Haryana, Madhya Pradesh (40% area), Orissa (9% area), Uttar Pradesh (Avadh & Agra)

1.3 Survey of Lands & Maintenance of Land Records

Land survey is the determination of the boundaries and the relative position of the objects on any portion of the Earth's surface in order to produce pictorial representation of the land on paper with all distinguishing features. Land surveys are sub-divided into topographic surveys (for depicting the physical features such as hills, valleys, mountains, rivers, etc. and manmade features such as roads, houses, settlements on the surface of the earth) and cadastral surveys (for determining property boundaries including those of fields, houses, plots of land, etc.). The topographical surveys in the country are carried by the Survey of India (SoI) and the cadastral surveys by the state survey department. The word *Cadastré* is derived from the Latin word *Capitastrum*. *Capitastrum* was a register providing details of units of holdings for the Roman land tax as also the poll tax. The three essential elements of an efficient cadastral survey are a clear demarcation of boundaries of each parcel of land, related descriptive records and continuous updation of maps and land records.

Time-travel through the historical reasons behind the evolution of survey informs that surveying the lands appears to be rooted either in the need for the State to secure its lands, or its revenue obtained through lands. An individual's temptations to expand his holdings has often tested the extent of land that the State held and the boundaries separating Government lands and private lands have always been contentious. This had been so even in ancient Roman Empire. In Livy's History of Rome, Chapter 42, it is recorded that Lucius Postumius Albinus, a consul in 173 BC was mandated by the Senate to go over to Campania to fix the boundaries between State land and the land in private occupation. Indeed, early Romans even had created a God, known by the name as 'Terminus', to guard and protect the boundary markers. His statue was merely a stone or post stuck in the ground to distinguish different properties. On the 22nd of February every year, the Romans used to celebrate the festival of *Terminalia* to confirm that the boundaries remained intact. Even in the Bible, there are references to fixing the boundaries of Israel⁵.

Following the biblical example, the English started the custom of "beating the bounds", by which prominent citizens of the community undertook a triennial exercise of perambulating along the bounds, or they beat the bound to know and ascertain the precise boundary of every parish. The boundary of a parish was important because the right to attend a particular parish, the right to contribute to a particular parish and the right to be buried in a parish were considered very essential. The phrase, 'metes and bounds' had originated from this practice. In the Indian context, prior to the arrival of the East India Company, the Mughals had devised its own method of dividing the land, chiefly for collecting the tax. Before the advent of the Mughals, the Cholas had developed their own method of dividing the land for collection of tax. When the East India Company expanded its commercial ambition to have control over

⁵ Ref: Genesis 15, Exodus 23; Numbers 34; and Ezekiel 47

land, it found that the boundaries of land were uncertain and the Company could not recover the dues from the landowners. An instance of this can be found in the firm and given by King Shah Aalum granting Dewanny of Bengal, Behar and Orissa to the East India Company, the boundaries of the areas so granted was not shown, and this had posed some difficulties to the East India Company in identifying the territories it received. In a communication by the Military Secretary to the Court of Directors in London⁶, he wrote,

"The Court of directors have formerly had the occasion to point out that the Governments in India the expediency of ascertaining with precision the true boundaries of our dominions. Next in importance, I conceive, is the obligation of gaining the best possible information respecting the frontiers of those states whose dominions we are bound by treaty to protect against foreign aggression. I am aware, that from the lax habits of the native governments, the frequent intermixture of their respective territories, and indeed, the intentional indefiniteness which prevails among them in respect to boundaries, this is a branch of Indian Geography which cannot be acquired without considerable difficulty." Thus began the Great Trigonometrical survey as part of the Survey of India's project, which was built on a system called the *cadastral system*. Turning to the legislative history of survey in India, the first legislation in Madras Presidency was Act XVIII of 1860 that came into force on 29th of June, 1860. The purpose of this Act was the establishment and maintenance of boundary marks and for facilitating the settlement of boundary disputes in the Presidency. The Act of 1860 was replaced by the Act of 1897 and subsequently by the Madras and later on the Andhra Pradesh Survey and Boundaries Act, 1923.

The cadastral resurvey recording boundaries however cannot attain finality. A survey is only a record of what a surveyor found on the ground at the time of the survey and the maps are a pictorial representation of land. The boundaries of holdings change on a continuous basis owing to sales, gifts as well various administrative orders relating to acquisition and assignment. The changes that arise in respect of ownership of holdings can be broadly categorised into four categories as given below:

- ❖ Transfer of patta lands from one registered holder to another due to sales, partition of joint holdings, succession of title, gifts etc.
- ❖ Assignment of government waste/poramboke lands to weaker sections of the society/institutions.
- ❖ Relinquishment of patta lands by the land holders due to several reasons such as erosion on the sides of the river beds, land becoming unfit for cultivation etc.
- ❖ Change of classification of land, for e.g. from wet to dry or vice-versa

Thus, the survey records can hold good for the time it was prepared and has to be corrected/amended on a continual basis. This is called the maintenance of land records. A critical responsibility of the revenue administration is to have an up-to-date registry and maintenance of land records. The record in any form shall have two parts—a detailed account of the attributes of all parcels of land and the name of the owner and secondly, the record of measurement, which is a survey part of the record. Prompt action is required at all levels to carry out these changes in the records so that the land records are kept up to date.

1.4 Government's Organised Effort to Address Land Record Issues

The National Land Records Modernisation Programme (NLRMP), launched by the Ministry of Rural Development (MoRD), Government of India (GoI) in 2008, is an effort in addressing the above issues. The programme calls for updating the survey and settlement records, computerizing land records and registration, modernizing record keeping practices and to set the stage for a title registration. The Programme was launched merging the two of the then existing land record computerization schemes. Revamped as the Digital India-Land Records Modernization Programme (DILRMP), this was a centrally sponsored Scheme converted to a Central Sector scheme in 2016 with 100 percent funding from the Centre. The scheme has further been extended up to 2025-26. The computerization of RoR; digitisation of cadastral maps; geo-referencing of cadastral maps; integration

⁶ Letter (No. 8) of Lt. Col James Salmond to Chairman, Court of Director, dated 7th April, 1818, Political and Secret Department Records (Miscellaneous) British Library, Asia, Pacific Africa Collection, India Office

of textual and spatial data; survey/resurvey etc are the key components of the central government initiative. The objectives of DILRMP are to develop a modern, comprehensive and transparent land record management system which inter alia includes: improve real-time information on land; optimise use of land resources; bestow benefit to both the land owners and sharecroppers; assist in policy and planning; reduce land disputes; check fraudulent/benami transactions; obviate need of physical visits to revenue/registration offices and enable sharing of information with various organisations/agencies.

1.5 Study Objectives

The present Study has been commissioned by the Department of Land Resources (DoLR), MoRD, GoI to assess the quality of land records in four States/UT viz. Andhra Pradesh, Chhattisgarh, Kerala and Lakshadweep. The Study aims at assessing the following:

1. Assessing the computerisation of land records in terms of progress across digitisation of textual records, digitisation of spatial records, computerisation of registration process, integration between these three components and web-enabled land records. The quality of computerisation/digitisation of land records in terms of:
 - ❖ Computerisation of textual Land Records
 - ❖ Digitisation of Cadastral Maps
 - ❖ Computerisation of Registration
 - ❖ Process of Mutation
 - ❖ Revenue Court Management System
 - ❖ State-wise gap analysis
2. Assessing the status of Real Time Mirror (RTM) in select villages to test the efficacy of real time integrated updation of textual and spatial records and the registration process, so that on-ground situation is mirrored in the records.

1.6 Study Methodology

To achieve the study objectives, the Study made use of the following methodology:

1. **Desk Research:** The land record system in each of the Study States/UT-Andhra Pradesh, Chhattisgarh, Kerala and Lakshadweep were comprehensively reviewed with the help of legacy documents and present records. The legislative enactments for preparation of land records were also studied along with the amendments carried out to facilitate the DILRMP.

2. **Assessment of secondary data on selected parameters for Study States/Selected Villages**

The Study carries out a comprehensive assessment of secondary data pertaining to land records as spelt out in the Terms of Reference. This included an assessment of the statistics reported on the DoLR website (State/District) level; Part I of the Questionnaire shared by DoLR, duly filled in by the States/UT; data on registration of land during the last one year (from the SRO Office), mutation requests received; orders passed with source and pending (with reasons) during 2023-24; rectification requests received; orders passed during 2023-24 etc.

3. **Meeting with State/UT government officers (online and Offline) and visit to sample villages for Practical Demonstration:**

The Study team held several meetings both online and offline in each of the three States. Besides the two villages selected for RTM in each of the Study States/UT, the Study team visited few other villages and held extensive meetings with the village revenue/survey team, the Sub-Registrar Officer to understand the procedural steps, review the online and manual land records, process of integration and understand good practices/challenges in the land records modernisation process. The villages visited in each of the three states included:

- ❖ Andhra Pradesh: Chinnapalem village
- ❖ Chhattisgarh: Patan village in Durg District and Rajim village in Raipur district
- ❖ Kerala: Vanchiyoor and Shasthamangam villages in Thiruvananthapuram district and Meenachil village and Kottayam village (Torrens System) in Kottayam district.

Given the Study timelines and the longer duration required for visit to Lakshadweep, meetings were organised with the officials online for the UT.

- 4. Primary Survey of Land Parcels in Selected Villages:** A key objective of the Study was to assess the RTM (ownership, possession, land extent/nature/classification/use and encumbrances). The villages were selected to reflect the land record issues in the respective states. Table 1.2 shows the list of selected villages. The methodology adopted for the selection of Study village is given below. In two of the Study States, Andhra Pradesh and Kerala, resurvey is under progress and it was considered important to cover a mix of both resurveyed and non-resurveyed villages. Accordingly, in Andhra Pradesh, a resurvey completed village, Peerapuram Mamidalavari Kandrika (PM Kandrika henceforth), Zarugumilli Mandal from Prakasam District was selected along with a non-resurveyed village i.e. Sulthanapuram from Adoni Mandal, Kurnool District.

Recognising that the resurvey process is not completed in any of the village in Kerala (though survey has been completed in over 200 villages, settlement is pending), the original plan that was similar to selection of villages in Andhra Pradesh was dropped and a more meaningful criteria was adopted. The lack of updation of records after registration does not seem to be a major concern in Kerala given the largely vigilant citizens and the general tendency to effect mutation/*pokkuvaravu* (in local parlance). The RoR record in Kerala is a document reflecting the tax receipts. Throughout the state, there is no sub-division initiated in the maps (except the land acquisition cases). The Study therefore thought it important to carefully plan the selected districts and villages so that more inclusive issues relating to land records could also be brought out. The Study therefore considered it important to assess the situation in the tribal belts including non-mainstream areas, where updation of records may be imposing challenges. It is with this regard that a hilly tribal dominated district and an agriculturally prominent Palakkad district in Kerala were selected. To make the selected land parcels representative, two villages with high transactions were also shortlisted in each of the districts. The four selected villages are Mlappara and Peruvanthanam in Idukki district and Neliampathy and Kollengode in Palakkad district. The Study covered all land parcels in Mlappara and Neliampathy, while it covered 35 and 132 land parcels in Peruvanthanam and Kollengode, the sample selected randomly from different blocks of the village.

In Chhattisgarh, the criteria was to select one village closer to the capital district and another in a scheduled area so that adequate representation is given to issues of timely mutation as well non-updation due to succession/inheritance. Finally, in Lakshadweep, the suggestion of the district administration was taken considering the limited number of inhabited lands, representativeness of the sample villages and accessibility (for the timely completion of the Study). Table 1.2 shows the sample villages selected for the purpose of assessment of RTM:

S.No	States/UT	Villages
I	Andhra Pradesh	1. Sulthanapuram, Adoni Mandal, Kurnool District (All Land Parcels) 2. Peerapuram Mamidalavari Kandrika, Zarugumilli Mandal, Prakasam District (All Land Parcels)
II	Chhattisgarh	3. Tuma Bahra, Dhamtari Tehsil, Dhamtari district (All Land Parcels) 4. Birkona Village, Katghora Tehsil, Korba District (All Land Parcels)
III	Kerala	5. Mlappara, Idukki District (All Land Parcels) 6. Neliampathy, Palakkad District (All Land Parcels) 7. Peruvanthanam, Idukki District (35 Land Parcels) 8. Kollengode, Palakkad District (132 Land Parcels)
IV	Lakshadweep	1. Agatti (51 Land Parcels) 2. Kavaratti (51 Land Parcels)

The RTM assessment covered the land possession and ownership; land extent/classification/use; and encumbrances on land from the sample villages. All land parcels were selected from the sample villages except in Lakshadweep, where given the prevailing circumstances of agitation and non-cooperation of landowners, not more than 51 land parcels could be covered. In the additional

villages selected in Kerala, 35 land parcels (Peruvanthanam) and 132 land parcels (Kollengode) were covered.

5. **Assessment of Resurvey in States of Andhra Pradesh and Kerala:** The Study made a special effort to technically review the resurvey exercise in Kerala and Andhra Pradesh and draw important conclusions/lessons. For this, the spatial maps in sample villages in Kerala (Idukki Village, Idukki District and Padiyam Village, Thrissur District) and Andhra Pradesh (Chinnapalem) were carried out. While the Study received the soft/hard copies of the maps of Chinnapalem, online access was given to assess the maps in Kerala.
6. **Use of Geospatial Technology (Satellite Imagery) to understand Land Use:** The RoR does not have actual land use details (except in Chhattisgarh). To understand the land use, satellite imagery was made use of along with the information shared by the landowners during survey of land parcels.

1.7 Study Report Organisation

The introductory Chapter (Chapter I) covers the brief background to the survey/settlement exercise and land tenurial system in India; the study objectives; methodology; report organisation and limitations of the Study. Chapter II to V covers the assessment of land records in Andhra Pradesh, Chhattisgarh, Kerala and Lakshadweep from both the primary and secondary sources. Chapter VI presents the summary and conclusions of the Report. The Annexure of the Report covers the consolidated filled in Questionnaire by all the Study States/UT, the district level performance data on important parameters of DILRMP (available in the DoLR website) and land records data of the sample villages.

1.8 Study Limitations

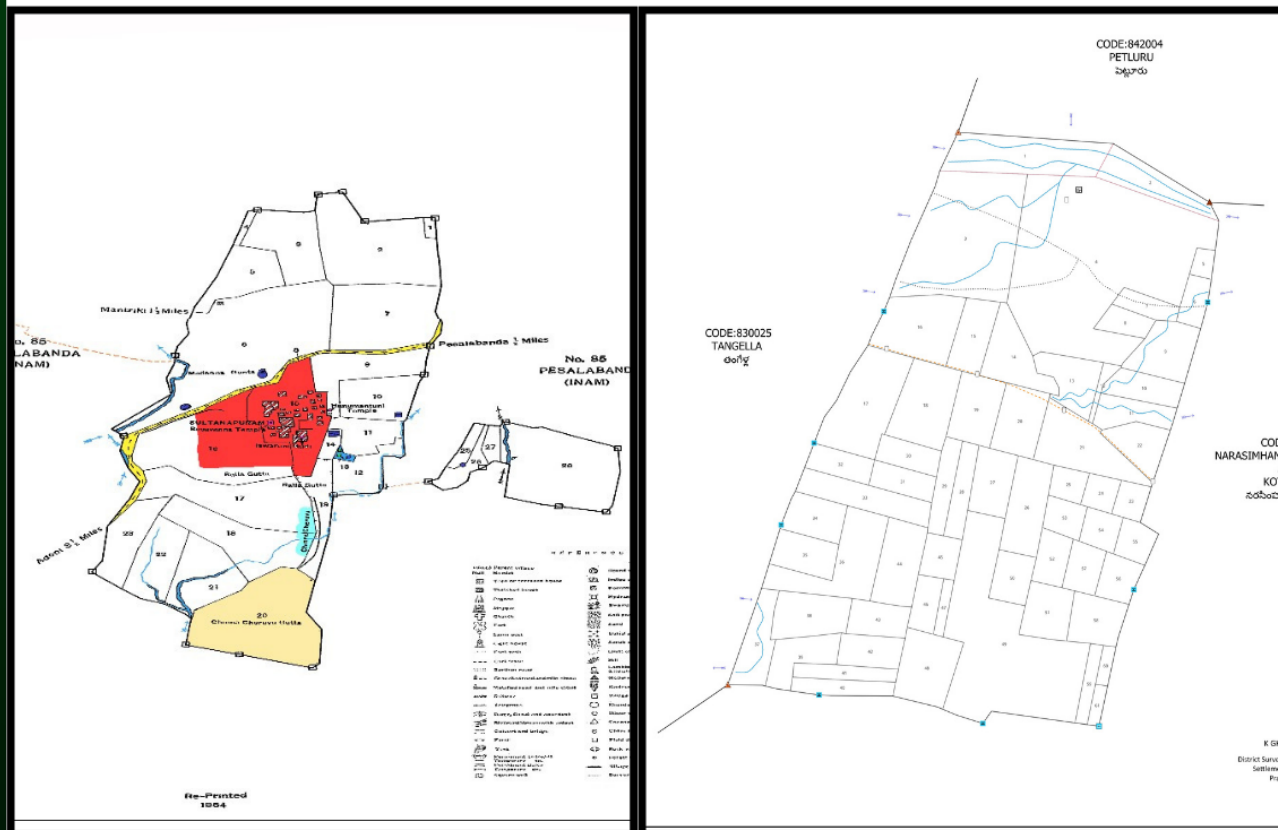
Considering the importance of the Study commissioned by DoLR, the Study team was of the view that an assessment of the legacy land record documents and detailed assessment of the technical and managerial aspects of the ongoing resurvey exercise in Andhra Pradesh and Kerala would offer valuable lessons for the other states. While the collection of primary and secondary data was completed in the timeline planned with the excellent support of the State/UT Administration, more coverage of sample villages/data could not be planned within the study timelines.

The Study teams visit to Lakshadweep coincided with the ongoing agitation for ‘pandaram lands.’ A Study on land records, irrespective of the objective created considerable apprehensions among the landowners of both Agatti and Kavaratti villages in Lakshadweep. The Team’s repeated assurances of the Study having no association with the ongoing issue did not find many takers. With the support of the district administration, the Study team managed to cover 51 land parcels in each of the two sample villages in Lakshadweep.

The coverage of all land parcels in the Study villages in the short duration study coupled with a widely different background/land record challenges in the Study States/UT imposed challenges for the Study team. This made it practically difficult and challenging to adopt a uniform methodology (as envisaged initially) for sample village selection for assessment of RTM. The selection of sample villages became a time-consuming affair. Some of the land parcel owners not staying in the village also imposed challenges. Multiple visits were necessitated along with extensive time-consuming local enquiry. While the ASCI team tried best to capture the nuances of land records assessment and practices in each state, an extended duration may have done more justice to the important Study.

Chapter II

ANDHRA PRADESH



2.1. Background

The existing survey records in Andhra Pradesh were prepared from the surveys conducted more than hundred years ago by the British, during which time the survey and settlement operations were basically carried out with an objective of accurately assessing the land revenue to be collected. The mechanism to update cadastral maps was through periodic re-surveys that were to be undertaken once in a generation, that is, every 30 years. For a variety of reasons that include insignificance of land revenue as a source of revenue to the government, resource constraints etc, the revisional surveys that were intended to provide the basis for regular updating of the textual and spatial records in the original system were never carried out. This also meant limited systematic efforts to expand the textual and spatial database to the hitherto unsettled areas. In Andhra Pradesh, there are still 35 non-surveyed/unsettled villages. It was recognised that the spatial coverage of the land administration system has considerable gaps in both urban and rural areas of the State with the maps of those urban areas that were previously part of a village bearing little relation to the current settlement patterns. A prominent World Bank Study⁷, way back in 2007 revealed that more than one-third of parcel maps in the then united State of Andhra Pradesh were brittle/torn/faded or completely missing. The physical condition of the Field Measurement Books (FMB) and village maps was reported to be precarious, with many of them being torn or already having completely disintegrated. Even where records existed, there are wide divergences between revenue records and ground situation. There are thousands of field sketches of sub-divisions that are not incorporated in the revenue records; holdings that are not given regular khata numbers; mother records that are missing/torn/illegible; land transfers that are not incorporated in the records etc. The location and measurement of revenue fields is extremely essential to maintain the spatial data in consonance with the RoR. A well-defined spatial framework was recognised as critical to eliminate ambiguity in the system and providing a citizen centric integrated land administration system.

Cadastral survey of village which was once before surveyed is called resurvey. As given above, the need for resurvey arises when the boundaries shown in the records diverge from the actual state on the ground and is undertaken when changes in the occupation and in the boundaries of fields are too numerous to be dealt with by the revenue staff. Given the above deficiencies, Andhra Pradesh initiated a comprehensive resurvey of land and properties in the state. The exercise, initiated with a budget of 1000 crores aimed at covering all the 17564 villages and involving about 1.26 crore acres of agricultural land, 85 lakh acres of non-agriculture lands and about 40 lakh properties. About 14000 surveyors were appointed by the government for the humungous exercise. The State Government signed a Memorandum of Understanding (MoU) with the Survey of India (SoI). The pilot survey was initiated in Takkellapadu village of Jaggayyapet Mandal of Krishna district on December 21, 2020. This was followed by a division level pilot in each of the 51 revenue divisions spread across the 13 districts (one village per division). There were 6405 survey numbers and 17771 sub-divisions in the 51 pilot villages. After the resurvey, 21374 land parcels were identified/created. Andhra Pradesh has completed the resurvey in 6688 out of 17564 villages. The new government has taken a decision to have a grievance redressal programme called “revenue sadasyulu” in each village to allow time for the aggrieved people to record their grievances regarding resurvey, address these issues comprehensively before restarting the process.

2.2 Legal Backing and Amendments

The resurvey has to have statutory backing as it involves the determination of boundaries which is essentially a legal process. The important laws and the recent amendments carried out are given below:

A.P. Survey and Boundaries Act, 1923: The law governing survey of lands and settlement of boundary disputes is the Andhra Pradesh Survey and Boundaries Act, 1923 (Act 8 of 1923) and the rules issued there under. The resurvey should be sanctioned by Government or by the Competent

⁷ World Bank (2007), India Land Policies for Growth & Poverty Reduction, Oxford University Press

Authority under the powers delegated to it by the said Act and published in the State Gazette under Section (5) of the 1923 Act. Following this, notification is to be published in two successive District Gazettes inviting landholders to point out boundaries and provide related information. After a survey is carried out under Section 7, the Survey officer has to record a decision with regard to all the undisputed boundaries under Section 9(1) and disputed boundaries under Section 10(1) of the Act. The affected persons can appeal against the decisions of the Survey Officer under Section of the Act within 30 days. After, the survey is completed, a final notification has to be issued under Section 13 of the Act. Unless the survey so notified is modified by a decree of the civil court under Section 14, the record of the survey is recognised as conclusive.

The Andhra Pradesh Records of Rights in Land & Pattadar Passbook Act, 1971/Rules, 1989

In 1971, the Government of Andhra Pradesh enacted the Rights in Land and Pattadar Passbook Act (RoR Act, 1971 henceforth), to fill in the gap of lack of an enactment providing for preparation and maintenance of RoR in the State. The Act also provides for issuance of passbooks to the owner, mortgagees, occupant or tenant of land to enable them to secure loans on the basis of entries in the passbook without requiring to approach the village authorities. The entries in the passbook are prepared based on the entries in the 1971 Act and is presumed to be true until the contrary is proved. There have been important amendments to the legislation in 1989, 1994, 2001, 2011, 2016, 2018, 2019 and 2021. There have been several amendments carried out in the parent Act from time to time. Box 2.1 sums the objectives of important amendments to the 1971 Act.

Box 2.1 Amendments to AP RoR in Land & Pattadar Passbook Act, 1971
Amendment Act 10 of 2016
<ul style="list-style-type: none"> ❖ RoR means records prepared and maintained under the provisions, or for the purpose of this Act manually or electronically maintained ❖ Registration Officers can affect the registration of property on the basis of revenue records maintained electronically in web land without insisting on physical revenue record. ❖ Data can be transferred data to electronically maintained RoR by the Tehsildar. ❖ Validation of electronically maintained revenue records in and Meeseva websites and make it optional for landowners to obtain physical copy of the land record. ❖ No compulsion for title deed cum pass book holder to have entries of alienation etc., recorded in title deed cum pass book ❖ Recording of grant of loans and encumbrances, etc., in electronically maintained RoR
Amendment Act 30 of 2018
<ul style="list-style-type: none"> ❖ After approval by Registration Officer, name of the claimant to be mutated provisionally. ❖ Title enquiry will be conducted by the Tehsildar within 30 days ❖ To introduce auto-mutation policy as a part of revenue reforms in the State.
Amendment Act 8 of 2019
<ul style="list-style-type: none"> ❖ Bhudhaar is a 11-digit unique number that will be assigned to each parcel of land and every property and is proposed to be used in all land-related transactions ❖ Legal status to Bhudhaar and to keep pace with the advancements in technology and make the legislations efficient, transparent and citizen friendly
Amendment Act of 2021
<ul style="list-style-type: none"> ❖ Definition of land to include “all lands, irrespective of its usage, falling within a village, including agricultural lands, non-agricultural lands, Grama Kantam” etc. ❖ Certificate of ownership” means Certificate of ownership issued under section6-A for the lands located in the Gramakantam and non-agricultural lands in the village ❖ Post resurvey/survey, the RoR to be updated as per the resurvey/survey records prepared under the Andhra Pradesh Survey and Boundaries Act, 1923.


The Andhra Pradesh Splitting Up of Joint Pattas Act, 1965 (Act No.2 Of 1965)

The Andhra Pradesh Splitting up of Joint Pattas Act, 1965(A.P. Act II of 1965) was enacted with the objective of issuing a separate patta for the share of an individual in a joint Patta (except those of Hindus Joint family). According to the provisions of this Act, the splitting up of joint pattas and the

consequent survey of new sub-divisions can be taken up suo moto i.e. without the applications from the concerned pattadars and the sub-divisions fee is recovered as arrears of land revenue.

2.3 Formation of Land Parcels to Mirror Ground Reality in AP Resurvey Programme

As discussed above, the need for resurvey arises because of the wide divergences between revenue records and ground situation; field sketches of sub-divisions not being incorporated in the revenue records etc. Hence, the formation of new land parcels as a part of the resurvey is an existential reality. As a general rule, any field with boundaries, as captured in the Ortho-Rectified Image (ORI) shall be a Land Parcel (LP) following the ‘mirror principle’. Box 2.2 reflects some exceptions to the above rules as followed in the Resurvey.

Box 2.2 Land Parcels-The Mirror Principle	
<p>Cadastral records should mirror the ground reality. In other words, the register of title is intended to operate as a mirror reflecting accurately and incontrovertibly the totality of rights and liabilities which at any given time affect the land within its coverage.</p>	
<p>Exceptions to “General Rule” in the Formation of LPs in Andhra Pradesh</p> <ul style="list-style-type: none"> ❖ Government lands were to be refixed as per existing records and no encroachment is recorded as a separate LP. ❖ When a farmer having two contiguous LPs, puts an application that the boundary is temporary and request the two fields to be treated as one LP. ❖ Where the map shows one LP (like a mango plantation) but is owned by different owners, applications are taken from each owner showing the boundary to create separate LPs. ❖ One LP shall have only one ‘Land Nature’ and one ‘Land Classification’. ❖ Separate LPs were to be formed for different land uses; i.e. agriculture & non-agriculture. 	

2.4 Computerisation of Land Records

In Andhra Pradesh, RoR is issued under the RoR Act, 1971 and Rules, 1989 (Box 2.3).

Box 2.3 Legal Basis for Record of Rights in Andhra Pradesh
<p>Section 2(9): Record of Rights’ means records prepared and maintained under the provisions, or for the purpose of this Act manually or electronically maintained (Amendment Act 10 of 2016). Provided that whenever a resurvey/survey is conducted in a village under the Andhra Pradesh S&B Act, 1923, the Record of Rights in all lands in that Village shall be updated as per the resurvey/survey records prepared under the Andhra Pradesh S&B Act, 1923 (Amendment Act 33 of 2021)</p>
<p>Section 3: Preparation and maintenance of record of rights in all lands - (1) As soon as may be after the commencement of this Act in any area, there shall be 35 [prepared and brought up-to-date, from time to time, by the Recording Authority] in such manner, and thereafter maintained in such form, as may be prescribed, a record of rights in all lands in every village in that area and such record of rights shall contain the following particulars, namely:</p> <ol style="list-style-type: none"> (a) Names of all persons who are owners, pattadars, mortgagees, occupants or tenants of the lands; (b) Nature and extent of the respective rights or interests of such persons and the conditions or liabilities, if any, attaching thereto; (c) Rent, revenue or other amount, if any payable by, or to any of such persons; (d) Such other particulars as may be prescribed.
<p>The Andhra Pradesh Records of Rights in Land & Pattadar Passbook Act, 1971</p>

Andhra Pradesh has 25 million LPs or survey numbers and 10.9 million khata numbers⁸ (Table 2.1). All RoRs have been computerised in the State. There are however about 35 villages in Andhra Pradesh that are yet to be ever surveyed. The RoRs are completely computerised. The land records maintained by the revenue authorities include the settlement registers (initial survey records) Resurvey Settlement Register (RSR), Fair Land Registers (Inam/Estate Villages), Adangal and IB Registers, Village Maps and Field Measurement Books (FMBs). The digitally signed RoR, verifiable through a QR Code is available for download by any citizen including the RoRs for the whole village. It is considered a legally valid document for registration of lands. All the 15 columns in the Adangal are captured in the online RoR. The digital records are the sole record in the state and the village revenue officer is presently not mandated to update the manual records.

The records of lands that are diverted for non-agricultural uses and habitations are not within the purview of the revenue department. The Panchayati Raj department is the repository of property in both the Gramakantham (village habitation)/extended Gramkantham. Similarly, properties on urban lands are within the domain of the Municipal Administration and Urban Department (MAUD). Andhra Pradesh has notably also included the details of all the holders of forest lands, those whose rights are recognised under the Scheduled Tribes and Other Forest Dwellers Recognition of Forest Rights Act, 2006. There are 0.41 million FRA titleholders in the database presently. The unit of land measurement in RoR is acres. Presently, the online system does not have a transliteration facility. Out of 10.9 million RoRs, about 8.9 million RoRs are seeded with Aadhaar and mobile numbers (81.65 percent). The seeding takes place when a new landowner is included in the RoR for the first time. The citizens are provided the facility to apply for correction of their land records and an alert message is sent to the registered mobile in case of change in RoR.

Table 2.1 Computerisation of RoR in Andhra Pradesh-A Quantitative Snapshot

Sl No	Parameter/Indicator*	
1	No. of Land Parcels (Survey Numbers in million)	25
2	No of RORs/Khata Numbers (in million)	10.9
3	RORs computerized (%)	100
4	Total Khata numbers (in million)	10.9
5	Average number of land holders in each RoR	-
6	Districts where ROR database is linked to banks (Nos/%)	26/100
7	Banks/bank branches linked to ROR database (Nos)	66/11847
8	Number of RoRs with red-flag of mortgage	4.94

In Andhra Pradesh, the mortgages are flagged through a loan charge module created by the NIC for the banks. The module integrates the Webland/RoR data base with the banking system. The charge can be created by the banks for crop hypothecation and land mortgages. This enables all the banks operating under the umbrella of the State Level Bankers Committee (SLBC) to be informed about the land mortgages against particular survey numbers/LPM. The module is made use by the bankers in all the 26 districts in the state (66 banks and 11847 branches). During 2023-24, 2,75, 029 charge was created. This database with the loan charge is not accessible to the revenue department or the sub-registrar. However, for all land mortgages registered, the SRO maintains a separate flagging system. Thus, the existing mortgage flagging system is only for the use of the bankers and SRO and the Webland (RoR record) is not flagged for external viewing. AP has made necessary amendment in the RoR Act to facilitate the flagging of mortgages (Box 2.4).

⁸ One khata number is allotted to the land owner/ pattadar for all lands owned by him in the village; With the help of the khata number, we can find the total extent of land owned by the landowner in different survey numbers in the village

Box 2.4 Recording of Loans and Encumbrances in Electronic RoR

Every loan guaranteed by any credit agency, every encumbrance of land for the grant of a loan and every repayment of such loan, shall be recorded in electronically maintained record of rights by the concerned officer or authority under attestation by a competent officer of the credit agency, and also made an entry of the discharge after the repayment of the loan

RoR Amendment Act 10 of 2016

The reflection of the webland (RoR) in Andhra Pradesh along with important revenue terminologies in the State (including the RoR) are given in Table 2.2.

Table 2.2 Revenue Terminologies in RoR

S.No	Terms	Meaning
1	Mandalamu	Mandal
2	Jilla	District
3	Graamamu Peru	Name of the village
4	Visteernam Unitlu	Extent in units
5	Varusa Sankhya	Serial no.
6	Pattadaaru Peru	Name of the Pattadar
7	Thandri/Bhartha Peru	Name of Father/Husband
8	Khata Nembaru	Khata Number
9	Bhoomi Vivarani	Land Classification
10	Visteerna	Extent
11	Sisthu (ru.)	Tax (In Rs.)
12	Pattadaruku Ae Vidhamga Sankraminchindi/Saagu Chesaru	Nature of Acquisition/Cultivated by Pattadar
13	Yajamaani/ Kouludaaru/ Takattu Pettukunna Vyakthi Peru/Khata no.	Name of the Pattadar/Tenant /Mortgagee/Khata no.
14	Register Kaani Runaadi Bharaala Vivaramulu	Details of Unregistered Encumbrances
15	Moulika viluva	Fundamental value
16	Remarkulu	Remarks

2.5 Computerisation of Cadastral Maps

Andhra Pradesh has three types of maps for pre-resurvey villages; village maps and FMBs that are in hard copy and not scanned (4.6 and 2.2 percent respectively); scanned village maps and FMBs (95.4 and 97.8 percent respectively); and vectorised village maps and FMBs (95.3 and 91.8 percent respectively). The 6688 villages resurveyed villages have geo-referenced village maps and LPM. Table 2.3 shows the status of computerisation of cadastral maps in AP.


Table 2.3 Computerisation of Cadastral Maps-A Quantitative Snapshot






S.N	Parameter/Indicator	Andhra Pradesh	
		1975	2024
1	Year of last Survey	1975	2024
2	Scale of available Cadastral maps	Village Maps - 1:7920, 1:3960 FMBs- 1:1000, 1:2000, 1:5000	Village – 1:5000 FMB/LPMs-11:1000, 1:2000
	Cadastral Maps (Nos)	Village Maps – 17,564 FMB/LPMs:48,84,661	Village – 6,688 FMB/LPMs- 81,05,878
4	Scanned maps (%)	Village Maps - 95.4 FMB/LMP- 97.8	
5	Vectorised Maps (%)	Village Maps - 95.3 FMB/LPMs - 91.87	
6	Geo-referenced Maps (%)	Village Maps - 87.4 FMB/LMPs -0	Village Maps (Resurveyed) FMB/LMPs - 100
7	LPs assigned ULPIN		81,05,878

In 2020, Andhra Pradesh initiated a comprehensive resurvey of land and properties that aims to generate accurate geo-referenced land parcel using high end geospatial technologies for computerisation of cadastral Maps. The technical component of the programme was:

- ❖ Continuous Operating Reference Station (CORS) Network utilising Global Navigation Satellite Systems (GNSS). The central server running specialised software performs geolocation calculations to further refine the GPS rover position by sending Network Real-Time Kinematic (NRTK) corrections to the rover. This is capable of providing real time geo-positioning service through RTK with an accuracy of + / - 3cm.
- ❖ Village wise ORI generated from flying drone at 5cm Ground sampling Distance (GSD)
- ❖ A GPS receiver capable of RTK (Real Time Kinematics) taking in the normal signals from the GNSS with a correction stream from CORS to achieve better than 5cm positional accuracy.

The re-survey was planned with an ORI acquired from drone with 5cm GSD and +/- 5cm geo-position accuracy. Box 2.5 shows the re-survey process in general in the state and images from the resurvey in a sample village visited by the Study team:

Box 2.5 Resurvey Process Flow in Chinnapalem	
<ul style="list-style-type: none"> ❖ Survey & fixing of Village boundary, Identification and fixation of Boundaries of Govt., lands, Gramakantham Lands, Abadi, Poramboke, Donka, Kunta etc with Geo-coordinates ❖ Identifying Ground Control Points (GCPs) within the village ❖ Drone flying for acquiring image with 5cm GSD ❖ ORI with 5cm GSD and +/- 10cm geo-position accuracy; Datum: WGS84; Projection: UTM 	
↓	
<ul style="list-style-type: none"> ❖ Village survey team conducts re-survey awareness programs/gram sabhas ❖ Land owners are provided information about the re-survey/ date of resurvey 	
↓	
Fixing Govt. Lands	
	
<p>Government Lands boundaries are fixed as per the previous record FMB Measurements In the above image, the yellow polygon burial ground boundary is fixed as per FMB measurements (though the area is encroached by neighboring private land owners)</p>	
↓	

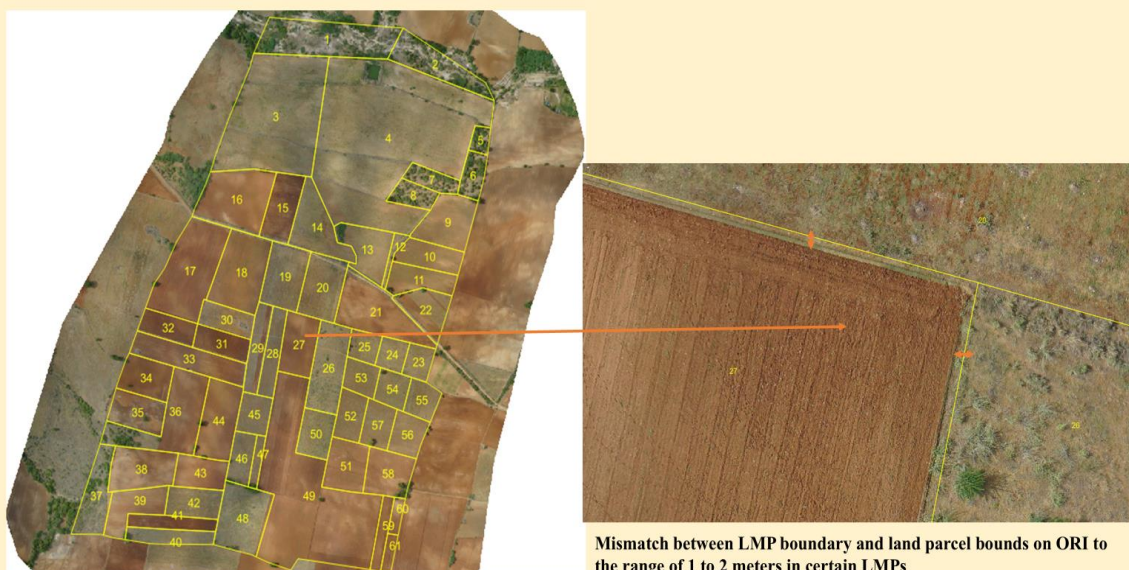
<p>Re-survey of Private land after fixing Govt. Lands</p>  <p>Private land LPMs: 245, 2457, 2962 Boundaries are fixed eliminating the encroachments into the government land</p>	
	
<p>Creation of Digital LPs</p> <ul style="list-style-type: none"> ❖ Survey team digitizes the field data of LP boundary points on digital ORI (QGIS software) ❖ Creation of digital cadastral map with geo-coordinates in Datum: WGS84 and projection: UTM; each LP is given Unique Land Parcel Number (LPN) ❖ Starting with the number '1' from right corner of the village cadastral map; LPs of the same nature, classification and owner are made into one parcel and given one LPN ❖ If the multiple owners formally request division, different LP are given for each sub-division, even though they may not be physically divided on the ground. 	
<p>Sub-Division during Re-Survey: Sub-division is carried out during re -survey if the joint legal owners parties of land aggress, even if there are no physical bounds on ground. Each sub -division is given separate LPM.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Drone ORI</p> </div> <div style="text-align: center;">  <p>Resurvey data overlaid on Drone ORI</p> </div> </div>	
<ul style="list-style-type: none"> ❖ Area differences between previous record and re-survey LPNs is allowed up to five percent and new record is created linked to digital GIS based cadastral map ❖ After quality check, Statutory Notices Section 9 (2) of S&B Act 1923 are generated ❖ Objections and disputes / appeals within 30 days are accepted ❖ Statutory Notification/Publication under Section 13 of S&B Act, 1923 is published. 	
	
<p>BhuNaksha web application developed by NIC for computerisation of geospatial Land Records and cater to all basic requirements of parcel map management.</p>	
<p style="text-align: center;">Webland</p> <p>Centralized repository for digitally signed land records - citizens can get access to their land records/submit application for mutation.</p>	<p style="text-align: center;">CARD Computer Aided Administration of Registration Department)</p> <p>CARD facilitates access of all digitally signed data required by SRO for registration</p>

Challenges in Survey with ORI: During the resurvey programme, the process involved the village survey team carrying the ORI to the field, identifying the individual LP boundaries/bounds intersections, masking the ORI image in concurrence with land owner/ neighbouring landowners and issuing a temporary LP Challta Number. If the land parcel bounds or bund interactions are not visible, these are surveyed with RTK rover. The Study team observed that geo-coordinates from QC passed drone ORI images had position error in the order of 2 metres or more in many cases (sample image shown in Box 2,6). In all such cases, the geo-coordinates of the LP boundaries and bund intersection were measured using RTK rovers that give geo-coordinates location with 5 cm accuracy. However, this increased the effort of the re-survey team as surveyors had to visit and measure the geo-coordinates of each corner of the LP.

Box 2.6 Processes and Challenges in Survey with ORI

Re-surveyed PM Kandrika Village, Prakasam Dt.- Overlay PLPMs over drone ORI

Total no. of LPMs = 61



2.6 Computerisation of Registration

In Andhra Pradesh, all the 294 SROs have been computerised. The SROs have been integrated with the revenue and land record database since 2016. About 2.19 million landed properties were registered in 2023-24 (Table 2.4). Registration is allowed all over the state and online facility is provided for booking appointment. However, in cases of registrations carried outside, the SRO, where the land is situated is required to give his consent. The property mortgage details are also transferred at this stage by the local SRO. The mandatory documents that the SRO verifies prior to registration include the web land (online RoR) record and at least one linked document (transaction history) of the seller. The biometric verification of the seller is a part of the registration process in the State.

Table 2.4 Computerisation of Registration-A Quantitative Snapshot

Sl No	Parameter/Indicator	Andhra Pradesh
1	Number of SROs in the State	294
2	SROs computerized (%)	100
3	Month and Year of Computerisation of 1st SRO	02/1999
4	Month and Year of computerisation of latest SRO	02/1999
5	SROs integrated with Land Record database (%)	100
6	Landed properties registered in FY 2023-24 (Million)	2.19 million

A good practice followed in Andhra Pradesh is the integration of the prohibited lands in the registration online system. The list of prohibited lands is shared by the district revenue department to the SRO and includes those survey numbers/LPNs that are to be blocked from transaction/registration. Section 22-A (1)(e) of Registration Act, 1908 reads that “any documents or class of documents pertaining to the properties of the State Government may, by notification prohibit the registration in which accrued interests of Central and State Governments, Local Bodies, Educational, Cultural, Religious and Charitable Institutions, those attached by Civil, Criminal, Revenue Courts and Direct and Indirect Tax Laws and others which are likely to adversely affect these interests”. The Andhra Pradesh High Court⁹ had held that the properties covered under clause (e) of Section 22-A shall be notified in the official gazette of the state governments and shall be forwarded, along with the list of properties, and a copy of the relevant notification/ gazette, to the concerned registering authorities under the provisions of Registration Act and shall also place the said Notification/ Gazette on the websites. The documents requiring registration in the State is given in Table 2.5.

Table 2.5 Documents requiring Registration/Not requiring Registration

Documents Requiring Registration	Documents not Requiring Registration
Gift Deed	Will
Transfer of Right in Land	Succession by heirship
Lease of Immovable Property	Partition Deed
Transfer on account of a decree of court/award	D Form Patta

The system facilitates the generation of encumbrance certificate online for the SRO. The circle rates of various categories of rural/urban lands are uploaded on the registration software and the system provides for online payment facility of stamp duty and registration charges (auto calculation mode). The legacy data of transactions is available from 1983 onwards. However, the system does not enable the SRO to check litigations online for a property scheduled for registration. The entire registration process is completed by the SRO online. This process has been provided legal sanctity through amendment of Section 4 of the RoR Act, 1971 (Box 2.7).

Box 2.7 Amendment in RoR Act-- Online Registration & Electronic Transfer of Data

Registering authority to effect registration based on electronically maintained RoRs:- (1) The Registering authority appointed under the Registration Act, 1908, shall effect the registrations on the basis of entries made in the RoR maintained electronically and shall not insist on production of title deed cum pass book.

Section 4(2): (2) Notwithstanding anything contained in the Registration Act, 1908, every registering Officer appointed under the Act and registering a document relating to a transaction in land, such as sale, mortgage, gift, lease or otherwise shall intimate the Mandal Revenue Officer of the Mandal in which the property situated of such transaction [electronically by transferring the data to electronically maintained RoR by the Tehsildar.]

The masking of personal information of PAN, Aadhaar number and fingerprint impressions on registered pdf deeds (to prevent malpractices) has been developed and is under trial according to the information shared by the government. The SRO can also push pending data of mutation in case of any network failure. A mobile app is being developed for land registration related services. The dynamic deeds system on the registration portal (registration.ap.gov.in/igrs) enables the generation of the document after the entry of relevant data. The Study team found some teething troubles in the resurvey village (PM Kandrika), with some LPMs not reflecting in the land record database for registration, the mortgages and their release not reflecting in the LPM and rectification in registration not getting reflected in the records.

Andhra Pradesh is unique among the states in having an online grievance redressal system for filing of complaints related to property registration. According to the information received from the state

⁹ W.A. Nos.232/2012, 352/2013 and 343/2015

government, 2069 grievances were filed during 2023-24. The grievances are primarily of two types, the grievances related to financial implications (over valuation/undervaluation of property) and grievances related to infringement of rights related to immovable property (non-adherence to rules, cancellation of irregular documents and commissions/omissions in the registration process).

2.7 Process of Mutation

In Andhra Pradesh, there are two distinct processes of updation of records. First, the cases of registered sale, mortgage, gift, lease deeds registered at the SRO. In case of registered transactions (Type I), the auto-mutation has been facilitated by necessary amendment in Section 5 of the RoR Act, 1971 (Box 2.8). In such cases, the name of the registered purchaser is automatically mutated in the land records on real time basis (law provides for confirmation by the Tehsildar within 30 days of registration).

Box 2.8 Amendment in RoR-Auto-mutation

Section 5. Amendment and up-dating of RoR

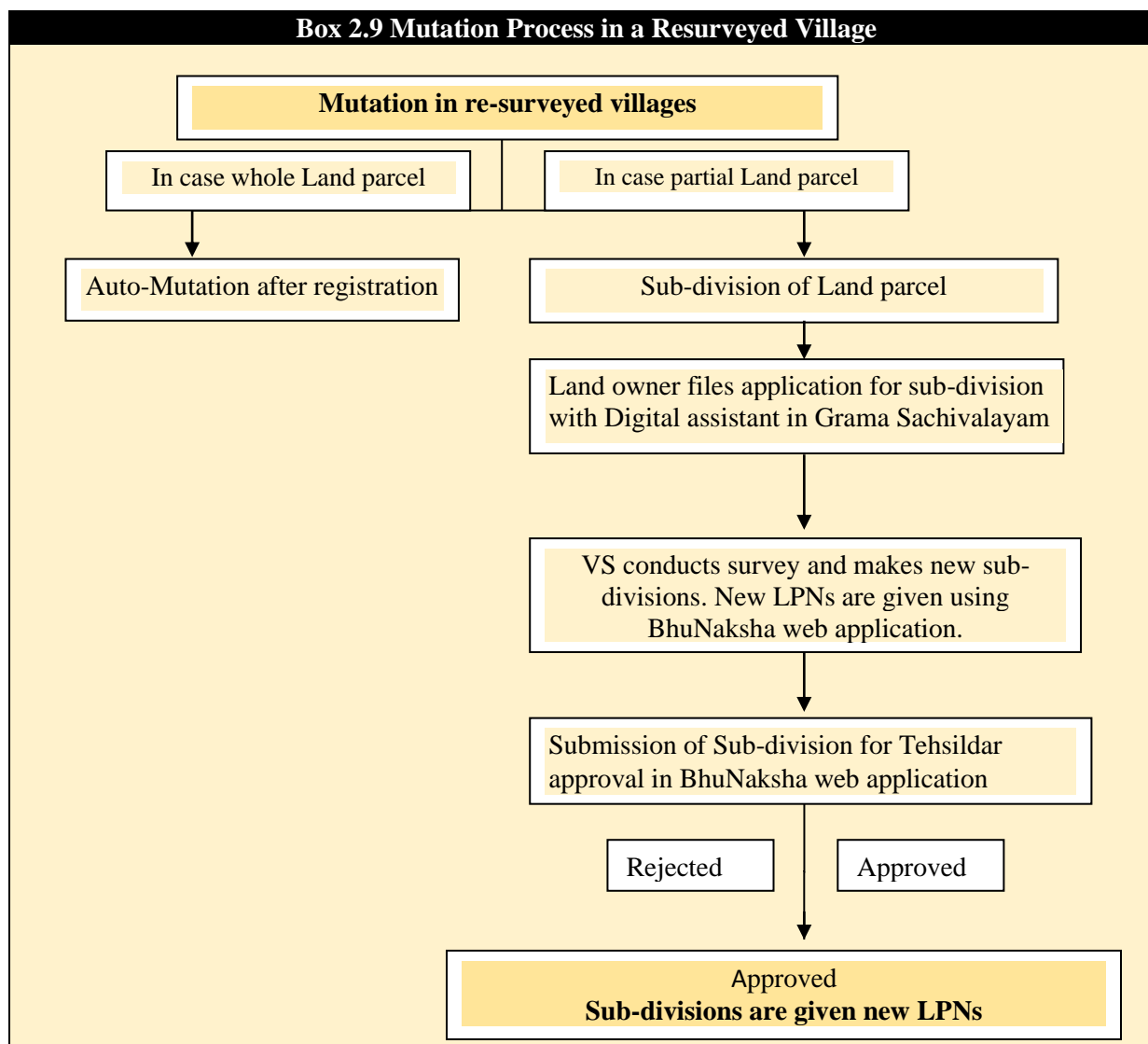
...When the registration is approved by the Registering Officer, the name of the claimant shall be mutated in lieu of name of the executants on real time basis provisional in electronically maintained data duly assigning notional subdivision number as may be prescribed pending enquiry by the Tehsildar:

Provided also that the provisional mutation shall be confirmed by the Tehsildar electronically by following due procedure under sub-section (3) within thirty days of the registration. The aggrieved person may file an appeal to the Revenue Division Officer within a period of fifteen days from the date of order of the Tehsildar and decision of the appellate authority thereon shall subject to the provisions of section 9 be, final.

In practice, since October 2023, the Tehsildar or revenue department plays little or no role in the mutation and all registrations get automatically mutated. The auto-mutation is being carried out in all villages, both resurveyed and non-resurveyed. The exception relates to mutation relating to succession and registered wills. The pre-registration requirements vary in the resurveyed and non-resurveyed villages of the State (Box 2.9). The process for online patta sub-division is a mandatory process before a part land can be registered in the resurvey villages whereas such a requirement does not exist in the other villages. On receipt of an application, the Digital Assistant moves an application for online sub-division through the Gram Sachivalayam. The application becomes visible on the VS login in Meeseva and in Bhu Naksha login. The VS gives notice to applicant and adjacent landowners though there are no mandatory timelines. There is a mandatory time period of 15 working days for the entire process. The VS goes to the field and splits the field in the required position. The shares as required by the sellers and buyers are divided and new LPMs are given to each; the old LPMs will no longer exist as each LPM has a unique number with a given land extent; The sketch is to be prepared on the ground and coordinates are to be fixed in office by VS through the Bhu Naksha login. After completing the work, the VRO forwards the proceedings for the verification of the area online and Tehsildar saves the application in Bhu Naksha login which will automatically reflect in the Webland. Once the Tehsildar gives digital signature in Webland, this gets reflected in the Bhu Naksha login. After this process, the additional LPMs in the name of the same landowner is automatically displayed in the online Webland. When SRO registers, the records are automatically corrected/mutated with the names of the new landowners.

In case of non-resurveyed villages, the SRO on being approached by an applicant for registration for part extent sends an input goes to the revenue department server. The revenue department on receiving the input from the SRO creates notional sub-division and the process is then carried out in a similar manner. The important point is that the survey certificate with physical survey of the total land extent and the extent proposed for registry is not insisted upon and the registration is carried out with the same checklists largely confined to RoR record verification¹⁰.

¹⁰ Though the transfer in violation of the Andhra Pradesh Land Reforms (Ceiling on Agricultural Holdings) Act, 1973, the Urban Land (Ceiling and Regulation) Act, 1976 the Andhra Pradesh Scheduled Areas Land Transfer

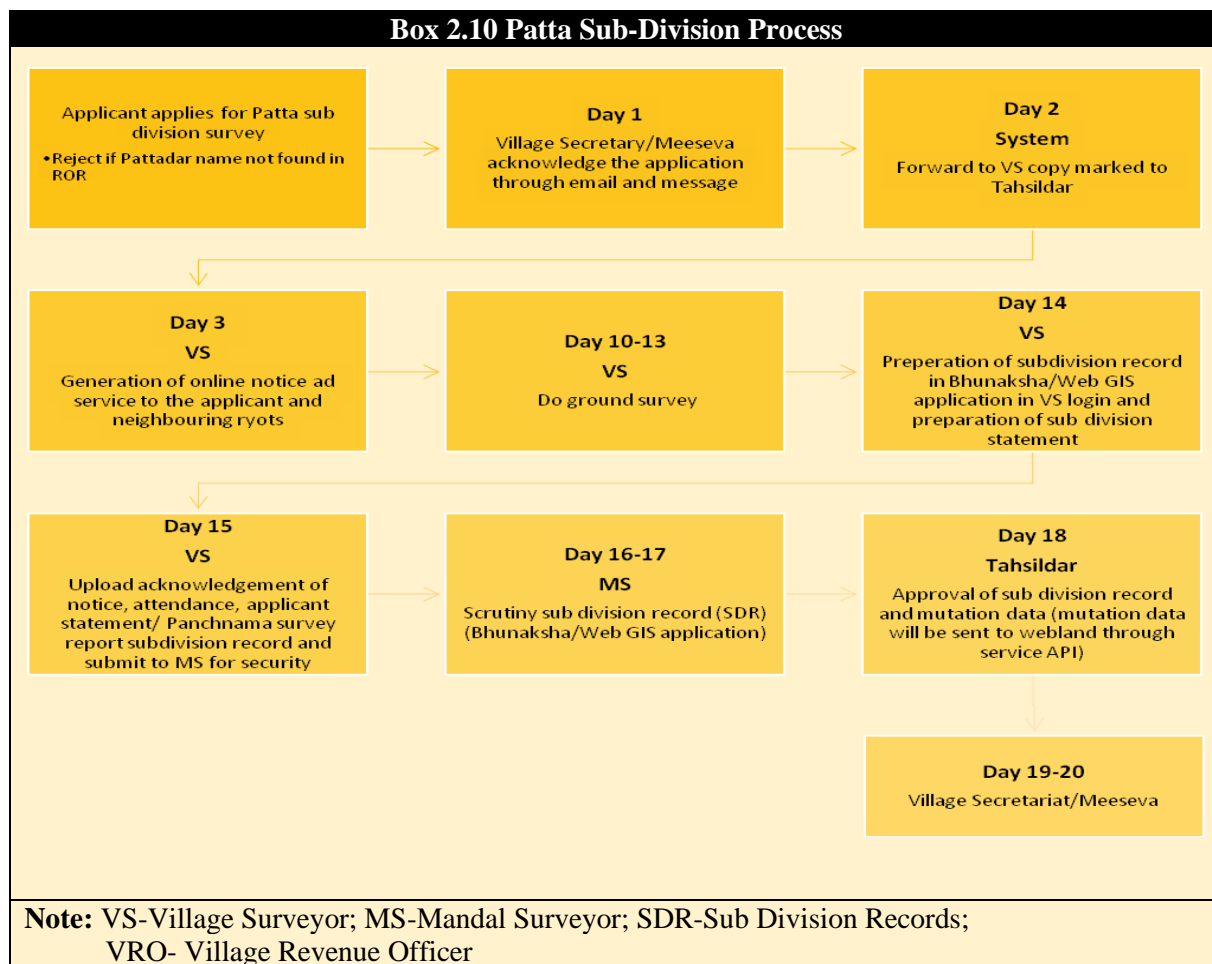


The patta sub-division application is to be submitted through the sachivalaya login with payment of Rs. 550 in both the non-resurvey villages and resurvey villages (Box 2.10). The new LPMs are not generated unless they apply for partition by application online. During resurvey, if all the legal heirs had agreed with shares, separate LPMs would have been generated. However, if not, names of all legal heirs appear in the same LPM, with the joint LPM splitting made free for two years. In non-resurvey villages, land registered for non-agricultural use/residential use do not get mutated/ reflected in RoR.

The mutation involving succession, survivorship, inheritance, partition, Government patta, decree of a court etc. has a different process. According to the RoR Act, a person acquiring any of such right has to intimate in writing his acquisition of such right, to the Tehsildar within 30 days and the Tehsildar has to give a written acknowledgement. The VRO can also suo moto intimate the Tehsildar the acquisition of rights by any person within 15 days from the date of knowledge. For processing the mutation requests, the mandatory documents include the Death Certificate, affidavit of consent and share of the legal heirs attested by the notary if the landowner and his wife have both expired. In case the wife is alive, the consent of the adult children is taken before mutating the wife's name in the

Regulation, 1959 and the Andhra Pradesh Assigned Lands (Prohibition of Transfers) Act, 1977 cannot be validated, the only checkpoint for all of this is the prohibited list prepared by the revenue department and integrated with the online system at the Registration department (SROs).

RoR. The mutation request for succession is also an online process. The details are entered through the Digital Assistant Login in the Gram Sachivalaya. Once the Tehsildar verifies with the digital sign, the web land is updated. During the mutation process, an SMS alert is sent to the applicant; both at the time of his application as well to for conveying the final decision (if the application is approved or rejected).

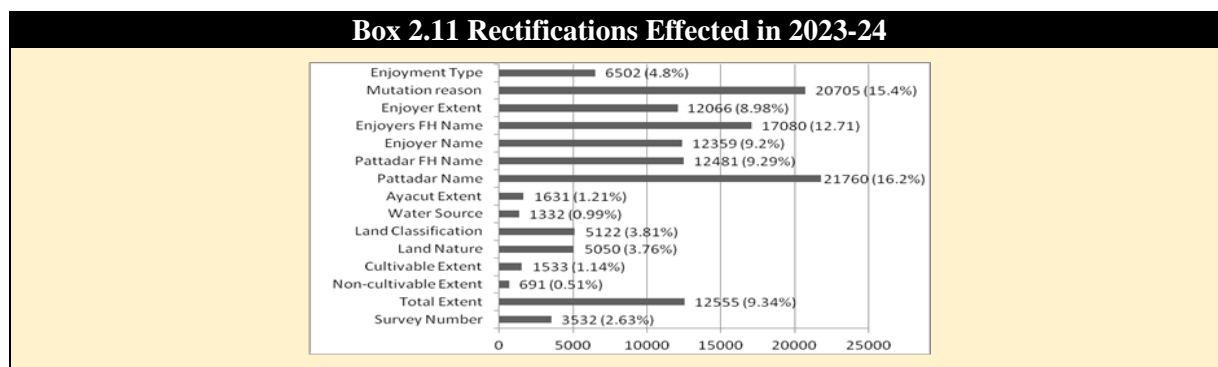


The number of mutations, approved and pending during 2023-24 is given in Table 2.6. Succession, Partition and Sale comprises 45.3 percent, 34.8 percent and 32.5 percent respectively. The pending mutation consists of just 2.3 percent of the total mutation applications received. In case of registered transactions (sales, gift, partition, exchange etc), there is auto mutation of records. In all these categories, the pending mutation includes the earlier registrations.

Table 2.6 Mutations Approved & Pending in 2023-24 (million)

S.N	Mutations	Sale	Gift	Succession	Partition	Will	Exchange	Total
1	Approved	0.28	0.14	0.39	0.31	0.005	0.001	0.86
2	Pending (%)	2.42	2.06	1.87	6.01	7.77	0.21	2.26

The State provides for online application for rectification of land records. During 2023-24, 1,34,399 rectifications were carried out (Box 2.11), the maximum corrections being for the pattadar name.



2.8 Reflection on Real Time Mirror RTM) from Sample Villages

Resurvey has been completed in about 38 percent of the villages in the state (6688 villages of 17564 village). The sample villages selected for RTM assessment included PM Kandrika in Zarugumilli Mandal of Prakasham District (resurveyed villages) and Sulthanapuram in Adoni Mandal, Kurnool District (non-resurveyed village). The Study team’s observations regarding quality of land records in both the villages are given below:

1. Sulthanapuram Village, Adoni Mandal, Kurnool District

Land Description: The mother land record of the village is the RSR prepared in 1924. As per the RSR, Sulthanapuram village contained 28 survey numbers, with 4 survey numbers having one sub-division each. The total area of the village as per the RSR is 114 acre and 30 cents, with patta land being 93 acres and 32 cents and government land being 20 acres and 98 cents (Table 2.7). The land extent of the village as per present records matches with the RSR. Each Khata number consolidates the land holdings of the pattadar in the village. In case of new purchases, new Khata numbers are added and old ones removed. For example, while there are 50 khata numbers in the village, 8 have been removed or non-existent. During the year, there were only 7 registrations and no rectifications.

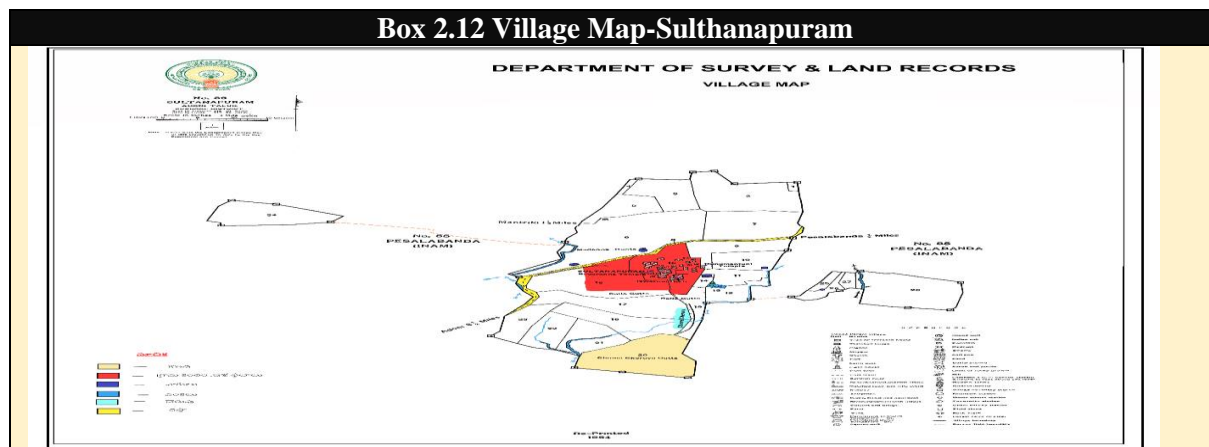


Table 2.7 Sulthanapuram Village-Land Statistics at a Glance (in Acres)

Heads	Government	Private*	Total
Land Extent	20.98	93.32	114.30
Land Parcels	8	87	95
Khata Numbers		50	50
Non-Existent Khatas (Removed)		8	8

* Including one Assigned Land and 4 Gramakantham survey sub-divisions

Legacy Data Preliminary Check: The legacy data check is with a view to assess the present extent of the objectionable government lands (that cannot be assigned). Table 2.8 shows the comparison between RSR and Webland Adangal. The land extent falling under the objectionable land category remains the same in the legacy records and the present records. However, the land nature is shown as

‘Poramboke’ and land classification as ‘government land’ in the webland and ROR. The land records do not tag the RSR classification and the present classification of the land in a generic manner as ‘govt. land’ does not exclude the lands from the “assignable category”. The Study however verified that the particular survey number is included in the ‘prohibited category list with the SRO and hence will be prevented from assignment/transactions.

Table 2.8 Objectionable Government Lands-Webland & RSR (Mother Records)

S.No	RSR			Present (Webland Adangal)		
	SY/SD No	Nature	Extent	SY/SD No	Nature	Extent
1	6B	Stream	0.89	6/3b	Poramboke	0.89
2	8	Road	1.56	8	Rastha	1.56
3	10B	Well	0.33	10b	Bhavi	0.33
4	13	Well	0.16	13	Govt. land	0.16
5	14B	Hillock	0.15	14 a	Ralla Gutta	0.15
			3.09			3.09

RTM of Sulthanapuram Land Records

The RTM reflects the difference between records and ground situation with regard to the ownership, possession, land extent, land use and encumbrances. Table 2.9 reflects the RTM of Sulthanapuram Village. The village has 95 land parcels with 87 parcels owned by 40 Khatadars. There are 8 khatas holding government land. All private khatas in the village are single owner khatas.

Table 2.9 RTM of Sulthanapuram village

S.No	Heads	Number
I	General	
(i)	Total Land Parcels	95
(ii)	Land Parcels (Private) in RoR	82 (87*)
(iii)	Khatas-Recorded Landowners	40 (100)
(iv)	Single owner Land Parcels	40 (100)
(v)	Joint Owner Land Parcels	0
II	Land Records & On Ground Status-Ownership and Possession	
(i)	Land Records and On-ground Ownership	83%
(ii)	Land Parcels with Non-updated Land Records	17%
a	Registered Sale**	8.5%
b	Succession (Death of Recorded Landowner)	7.3%
(iii)	Land Records & Possession	100%
III	Spatial Records and Textual records	
(i)	Spatial records and textual records	NA
(ii)	Updation of Partition & Demarcation	
a	Land Parcels (Shares) in RoR	82
b	Survey Sub Divisions in RoR (Partitions)/Percentage of LPs	42 (51.2%)
IV	Land Records and On-ground status: Location, Extent & Land Use	
(i)	Location and Land Extent	NA
(ii)	Land Classification (as in records)	100%
(iii)	Actual Land Use: Agricultural crops (87.9%); Vacant (12.1%)	
V	Land Records & On-Ground Status-Encumbrances on Land	
(i)	Land lease, Land Acquisition & Court Case (on record and ground)	Nil
(ii)	Number of Mortgages/Reflected in Records	4/Nil

NA-Not Applicable as no digitised spatial records are available for the village

* Including one assigned land parcel and 4 parcels of Gramakantham;

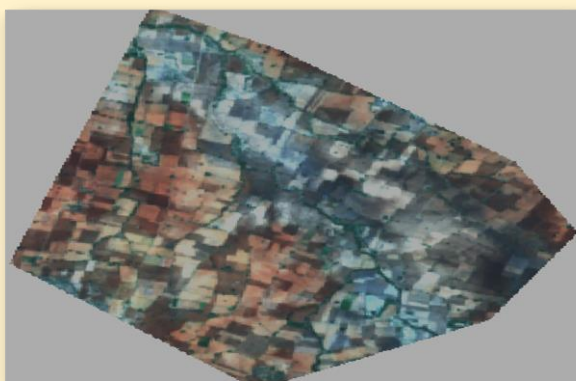
** 7 registered deeds are sales of small extent for residential use; not presently included in the RoR;

Source: Primary Survey of Land Owners; Mutation and Registration Records (2023-24) from Village Office and Sub-Registrar Office

Land Records and On-ground Status-Ownership & Possession: As per the primary survey, 83 percent of the landowners appearing on the RoR own and possess the land on ground. Out of the non-updated 16 percent records, half is accounted by registered sales of small extents of land for residential use and the remaining are cases of succession (expired landowners). These registrations have all been in square yards or for residential purposes. These have not been effected in the RoR (Adangal and 1B), in both the records (textual as well as maps). The Panchayati Department has a record of property and hence the records of these lands will not reflect in any records. However, if the landowner chooses to apply for change in land use under Non-Agricultural Land Assessment Act, these will come in the Panchayati Raj Department. Till then, such registrations will not be part of any records. All the landowners surveyed had the actual possession on ground.

Spatial Records and Textual Records: Though village maps and FMB exists for Sulthanapuram village, the maps are not digitised and hence the land extent difference between textual and spatial records cannot be ascertained. The RoR (Adangal) reflects the cultivable land extent, land nature (patta, poramboke and govt. land) and land classification (dry, govt. land, gramakantam and assessed waste). The actual use of land is not reflected in the RoR. As per the satellite image acquired on 30th May 2024 (Box 2.13), the land use of Sulthanapuram is dry agriculture (98%) and Nalla/Streams (2%), which corresponds with the broad classification in the land records.

Box 2.13 Land Use in Sultanapuram-Land Records and On-ground Status



In the absence of spatially relevant records, the location and extent of land parcels in the village cannot be meaningfully assessed.

Out of total land parcels, the actual land use as reported by the landowners included agricultural crops (87.9%) and Vacant (12.1%). Satellite images also show the total area of the village broadly classified into dry agriculture (98%) and streams (2%)

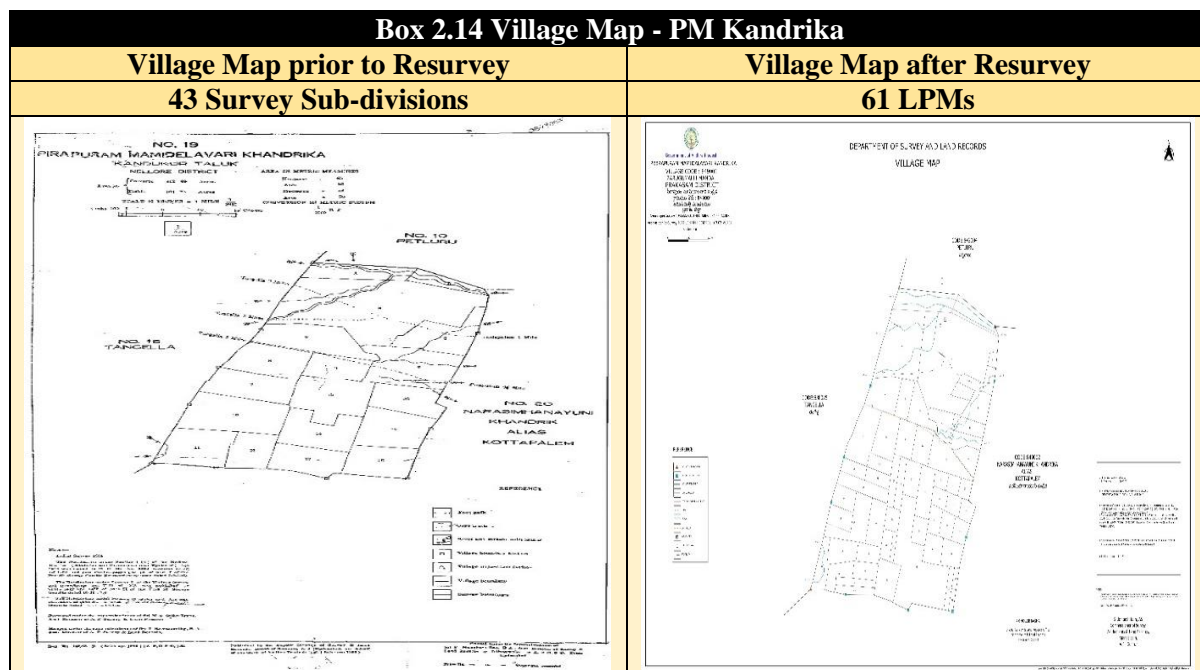
Land Records and Encumbrances on Land: The primary survey probed the encumbrances on the land in terms of land lease, mortgage of property, pending court cases or ongoing land acquisition proceedings. The Khatadars revealed no encumbrances except mortgages with the bank in four cases. However, in all these cases, the land records are not flagged in the RoR. As shared above, the loan chargeable module is for internal use of the banks and the RoRs are not flagged.

Peerapuram Mamidalavari Kandrika Village, Zarugumilli Mandal, Prakasam District

Land Description: PM Kandrika was an estate village. Fair Land Register (FLR), prepared in 1956 is the mother record in Estate villages. As per the FLR, PM Kandrika village has a total land extent of 158.47 acres. The land extent of the village as per the resurvey is 163.02 acres (Table 2.10). There were 43 survey sub-divisions prior to resurvey including 2 govt. lands. After the resurvey, there are 61 land parcels including two government land parcels.

Table 2.10 P M Kandrika Village-Land Statistics at a Glance

	Pre-Resurvey	Post Resurvey
Land Extent	FLR	Webland
Patta dry (Private)	150.61	155.41
Poramboke (Govt)	7.86	7.61
Total	158.47	163.02
Survey Sub-Division		
Patta dry	41	59
Poramboke (Govt)	2	21
Total	43	61



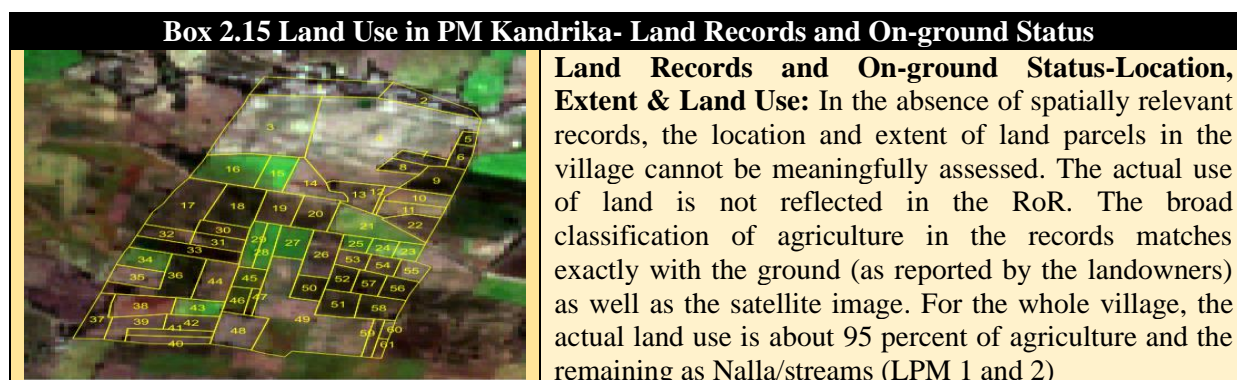
Land Records & On Ground Status-Ownership and Possession: PM Kandrika village has completed resurvey in 2023; All the 67 land parcels are single owner land parcels and land owner name in the RoR completely matches with the ground. All the recorded owners continue to own the land. However, 8.5 percent of the owners do not enjoy possession of land as they have exchanged their plots or have leased it (Table 2.11).

Spatial & Textual Records: PM Kandrika has a completely updated map following the resurvey of lands. The land parcel numbers in the RoR are exactly matching with the Webland Adangal. However, the need for mandatory application for partition leaves a gap even where shares are defined in the RoR. While the village has 69 private land parcels in terms of separate shares, there are only 61 LPMs.

Land Records and Encumbrances on Land: The primary survey probed the encumbrances on the land in terms of land lease, mortgage of property, pending court cases or ongoing land acquisition proceedings. The pattadars however revealed no encumbrances

Table 2.11 RTM of P M Kandrika Village

S.N	Heads	Number
1	General	
(i)	Land Parcels (Private) in RoR	67
(ii)	Khatas-Recorded Landowners	47
(iii)	Government Khatas	2
(iv)	Single owner Land Parcels	100%
II	Land Records & On Ground Status-Ownership and Possession	
(i)	Land Records and On Ground Ownership	100%
(ii)	Land Records and Possession	91.5%
(iii)	Possession Other than Recorded Owner	8.5%
a	Leased	4.25%
b	Exchanged	4.25%
III	Spatial & Textual Records:Updation of Partition/Demarcation	
(i)	Spatial and textual records (LPMs/LPNs)	100%
a	Land Shares in RoR	69
b	Land Parcel Numbers/Maps	61 (88.4%)
IV	Land Records & On Ground Status: Location, Extent & Land Use	
(i)	Location and Land Extent	NA
(ii)	Land Classification	100%
(iii)	Land Use (Agricultural)	100%
(iv)	Actual Land Use	Farm Crops (single crop)-95.75% Farm Crops (Double crop)-4.25%
V	Land Records & On Ground Status-Encumbrances on Land	
	Land Lease, Mortgage, Court Case, Land Acquisition etc: Nil	



Legacy Data Preliminary Check: The legacy data check is with a view to assess the present state of the objectionable government lands that cannot be assigned. Table 2.12 shows the comparison between FLR and Webland Adangal.

Table 2.12 Objectionable Government Lands-Webland &FLR (Acres)

FLR		Present (Webland Adangal)				
S.No	SY/SD No	Nature	Extent	LPN	Nature/ Sub Classification	Extent
1	1	Stream	5.04	1	Govt. Land/Water body,	4.95(-1.78%)
2	2	Stream	2.82	2	Vagu, Vanka, Yeru	2.66 (-5.67%)

While there has been an increase in private lands from 150.61 to 155.41, there has been a decrease in the extent of government lands. The government lands in Survey No. 1, classified as ‘stream’ saw a decrease in extent from 5.04 to 4.95 acres. Similarly, the government lands in Survey No. 2, also classified as ‘stream’ saw a decrease in extent from 2.82 to 2.66 acres. The decrease in government land extent is by 5.67 percent in Survey No. 2.

2.9 Summary & Suggestions

There are several good practices in the land records maintenance and updation in Andhra Pradesh. Andhra Pradesh is leading the country in terms of the massive resurvey exercise undertaken in which 6688 villages of the 17564 villages have been completed. The technology enabled resurvey and digital land records coupled with computerised registration system and end to end online facilitation and auto-mutation enables real time updation of land records in resurvey villages, a feat that is presumably unique in the country. Critical amendments to the RoR Act to incorporate new definitions, digital tools and procedures in computerisation/digitation of land records, registration and mutation has provided the legal sanctity for this pathbreaking initiative. Record keeping and updation is simpler and real time/faster. Citizens have easy access to RoRs, digitised records and visiting of multiple authorities for registration and mutation is done away with. The hassle-free registration system that facilitates registration upon data entry through dynamic deeds; prohibited survey numbers integrated with the system to restrict fraudulent transactions; market value of land integrated into the system, provision of e-signature by registrar on all documents are all good practices saving valuable time and cost. The few areas for proactive efforts are suggested below:

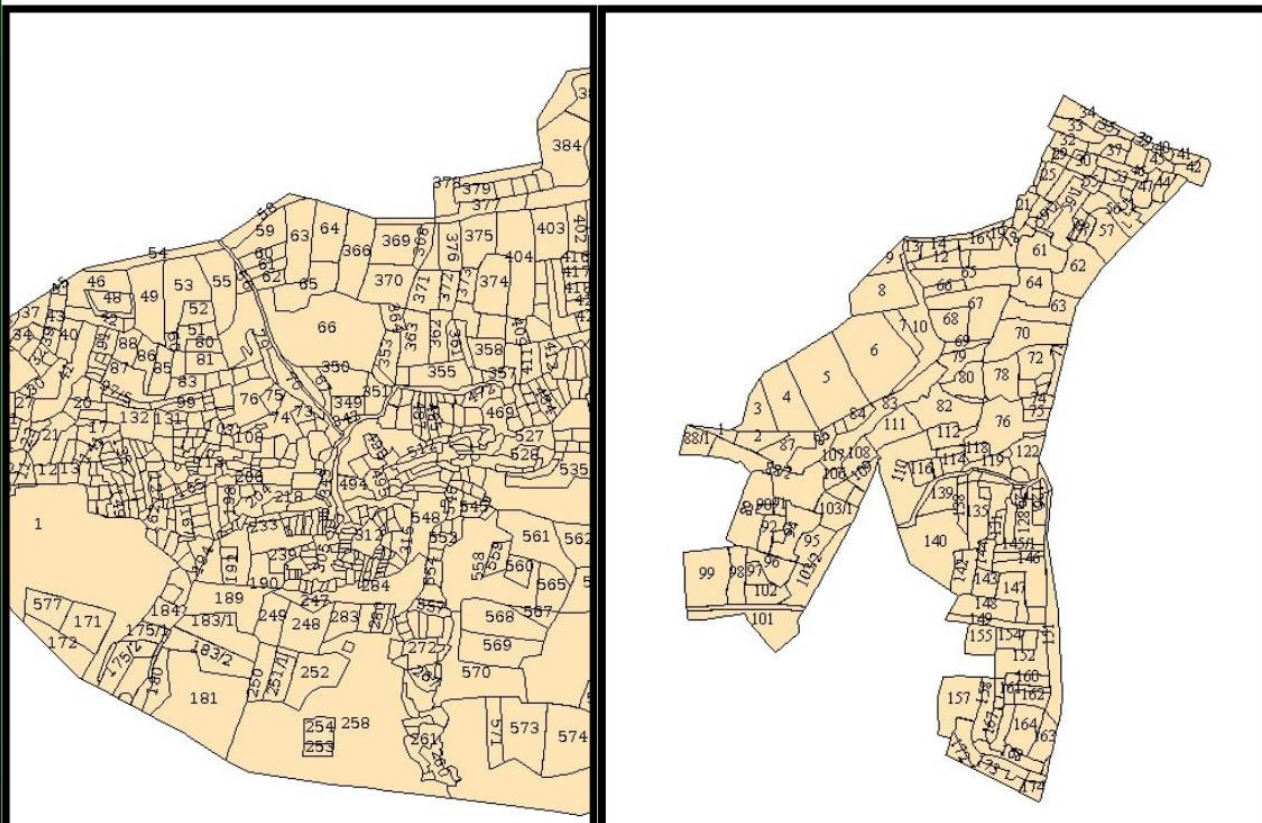
The following are some general suggestions that applies in case of both resurveyed and non-resurveyed villages. For the non-resurveyed villages, the differences in the textual and spatial records will continue to be a major concern.

- ❖ **Partition of Lands in Textual & Spatial Records:** Mandatory application through e-seva for partition, including the successors who agree with their respective shares after the death of the recorded landowner and spouse is one area requiring attention. It is important to ensure that shares in the RoR are only created after a technical sub-division of the plot. The actual ownership and possession of different land parcels are not recorded in such cases and transactions is also allowed in terms of shares, without delineating the location and extent of property sold. Possession of lands may also vary on the ground as landowners exchange lands. The actual possession does not get reflected despite a column existing for enjoyer in both resurveyed and non-resurveyed villages.
- ❖ **Mandatory physical survey prior to auto-mutation:** In the non-resurveyed villages, though auto-mutation has been operationalised, the survey certificate with physical survey of the total land extent prior to registration is not mandatory. This will compound the legacy issues by the time these villages go for resurvey.
- ❖ **Pending mutation of records prior to auto-mutation:** A special drive for mutation of records for lands registered prior to the auto-mutation may be important to ensure updation of textual records.
- ❖ **Purification of Land Records:** It may be ideal to have a verification of the purification of land records that may have been compromised with the focus on expeditious completion of the resurvey programme. This is further strengthened by the change in the nomenclature of the objectionable government lands to just “government poremboke” and the reduction of extent by slightly more than 5 percent in the sample villages. It is all the more important because the only checkpoint for protection of government land and its extent is the list of prohibited properties provided by the district administration to the SRO to prevent the registration of such lands. Auto-mutation, while ensuring real time updation of records has completely done away with the role of the revenue department in the updation of records and hence calls for adequate in-built safeguards with strict accountability/audit mechanisms.

- ❖ **Records of Diverted Lands/Non-agricultural Use:** Similar to some other states, the revenue department in Andhra Pradesh is only the custodian of agricultural lands. When an agricultural land is sold for non-agricultural use, they no longer enter the revenue records. Urban land uses, or CLU permissions remain outside the gambit of the revenue records. However, for both the urban and panchayati department that is the custodian of property records in the urban areas and village habitations respectively, a repository of land extent and land records are not maintained. These issues would be pertinent in all villages that are getting transformed from being rural areas to urban whereby the states revenue department ceases to maintain land records and the gap is not filled by alternate departments as far as lands are concerned.
- ❖ **Flagging of Encumbrances:** Encumbrances flagging happens only at the bankers' level and SRO level and it is not flagged on the RoR. This will not be difficult as the loan charge module is a good application facilitating creation of a charge on the lands/property mortgaged. Flagging the LR database is also provided in the amendment to the AP RoR Act. It is also important given the transition to auto-mutation. RoRs do not also flag land acquisition details, lease, mortgages, court orders, tenancy rights, etc. The precise land use in terms of crops sown/use of land for other purposes is also not reflected in the RoR. There is no provision to update land use through bi-annual girdawari as it exists in some of the states of the country

Chapter III

CHHATTISGARH



Chapter 3**Land Records in Chhattisgarh****3.1 Background**

The State of Madhya Pradesh launched the land records modernisation programme during 1988-89 and the scheme was re-launched in November, 2002 in Chhattisgarh with the *Bhuiyan*, a software developed for computerisation of land records by the National Informatics Center (NIC) under the guidance of Revenue and Disaster Management Department, Chhattisgarh. "Bhuiyan" in Chhattisgarhi means "land". The project was operating offline since 2005. It is being conducted through online medium since 2015. On an average, about 20,000 citizens use the Bhuiyan portal every day. Bhuiyan is linked to all related servers, Bhu-Naksha, Bank, Revenue Court, Registration Office and Mobile Court.

The portal provides the interested citizens with *Khasra (P-II) and Khatauni (B-I)* details; *bhu-naksha* or village maps and details of land based on *Khasra* Number. The users can retrieve specific information about a land parcel using the *Khasra* number (plot size, ownership history etc.); land conversion details and mutation records (record of changes in land ownership due to sale, inheritance, or gift). The software has a provision to make the entry of crop girdawari every year for Kharif, Rabi and Zaid crops. The facility of listing the land use details and irrigation means has been provided khasra-wise, so that information about the total irrigation resources available in the state can be obtained. The information about crop girdawari/area cover and various types of reports related to it can be obtained at the tehsil, district and state level from Bhuiyan. The software provides login options at the village patwari, gram panchayat, tehsil, district and state level. The major functions of Bhuiyan are given in Box 3.1

Box 3.1 Major Functions of Users on Bhuiyan

❖ Girdawari and Commodities Entry & Amendment	❖ Approval of various amendments at Tehsil level	❖ District / Monitoring of various state level reports
❖ Correction of records	❖ Lightening of tehsil villages	❖ Change of charge of Presiding Officer
❖ Verification of Khasra and B-1 with Digital Signature	❖ Issue of notice/poster, pass order under mutation process	❖ Resetting the Presiding Officer's Password
❖ Aadhaar, mobile & Kisan book	❖ Managing Tehsil Level User	
❖ Filing Application for Mutation	❖ Correction of records	

3.2 Computerisation of Record of Rights

The RoRs in Chhattisgarh are issued under the Chhattisgarh Land Revenue Code (CGLRC), 1959. Section 108 of the CGLRC provides that a RoR shall be prepared and maintained for every village including the urban areas. The RoR, according to the Code shall be either prepared during a land survey, or through any notification issued by the state government. The list of particulars to be specified in the RoR is given in Box 3.2.

Box 3.2 Land Particulars in the RoR in Chhattisgarh

❖ Names of Bhumiswamis with survey numbers and area, irrigated or unirrigated
❖ Names of government lessees together with survey numbers and area, irrigated or unirrigated.
❖ Nature & extent of the respective interests of persons & conditions/ liabilities, if any attached
❖ Rent or land revenue, if any payable by such persons

Section 108, CGLRC, 1959

Chhattisgarh has 24.7 million land parcels including 1.91 million urban RoRs (or survey numbers) and 9.32 million khata numbers¹¹ (consolidated land holdings of a person for one category of land). There are about 1000 villages in Chhattisgarh where survey and settlement has never taken place. Out of this,

¹¹ One khata number is allotted to the land owner/ pattadar for all lands of similar type owned by him in the village; With the help of the khata number, we can find the total extent of land owned by the landowner in different survey numbers in the village

survey has been conducted for about 300 villages have been conducted according to state government (Table 3.1).

Table 3.1 Computerisation of RoR in Chhattisgarh-Quantitative Snapshot

SI No	Parameter/Indicator*	Chhattisgarh
1	No. of Land Parcels/Survey Numbers (in millions)	24.68
2	Proportion of RORs computerized (%)	100
3	Single Owner RoRs (in millions)	13.5
4	Total Khata numbers (in millions)	9.32
5	Number of un-surveyed villages	1000 (Survey completed in 300)

The RoRs, including those of government lands are completely computerised. The unit of land measurement in RoR is ‘hectare’ for agricultural lands and ‘square feet’ for diverted lands. The RoRs in both the rural and urban areas are maintained by the revenue department. However, lands diverted prior to 1972 (comprising about 2 percent of total extent), when records were maintained separately is yet to be integrated into the RoR. About 13.5 million RoRs (56 percent of total) are held by a single person and the remaining are joint owner RoRs. The RoR, digitally signed by the Patwari is verifiable through a QR code. The QR code can be scanned through the Bhuiyan mobile application to verify for forgery (any unauthorised amendment in RoR). The RoR is available for download by any citizen. Remarkably, the citizens can download the RoRs of the entire village (khasra number-wise). The digitally signed RoR is considered as a true copy. For registration purposes, a digitally signed RoR suffices and no additional land record documents are mandated from the sellers’ side. The RoRs in Chhattisgarh have an online transliteration facility available.

Table 3.2 -Land Records in Chhattisgarh-Manual and Online Records

Basic Manual Documents maintained in Chhattisgarh	
<ul style="list-style-type: none"> ❖ Legacy Records (Mitchel Survey, 1901-30; Adhikar Abhilekh, 1954) ❖ Basic Land Records: Naksha (Map); Khasra & B1 (updated online) ❖ Sub-Division Register & Encroachment Register (manually updated) 	
Khasra Panch Sala (Columns)	B1-Jamabandi (Columns)
1. Survey Number 2. Total Area in Hectares 3. Owner’s Name and address 4. Crop 5. Crop extent 6. Second crop 7. Vacant: Current year; 2-5 year vacant; More than 5 year vacant 8. Remarks	1. Khata number 2. Landowner’s name 3. Survey Number 4. Survey wise area 5. Land revenue/Tax 6. Tax payment 7. Challan Number 8. Tax revenue notice
Details in Khasra-Part 1	
--- सामान्य जानकारी ---	
खसरा आई डी :	112178498
चयनित खसरा क्रमांक व रकबा (हेक्टर में) :	2874 (0.0800 हे*)
भूमि सिंचित(क्षेत्रफल) :	0.0000 हे*
भूमि असिंचित(क्षेत्रफल) :	0.0800 हे*
बसरा क्रमांक :	2874
खाते में धारित अन्य खसरे व रकबा (हेक्टर में) :	
रकबा (Sq.Ft.) :	0.0000
धारणाधिकार :	भूमिस्वामी - कृषि भूमि
उड़ान खसरा :	✗
नक्सा देखें :	देखें
खसरे में शामिल संपत्ति कर विवरण :	देखें
खसरे में मौजूद बिजली कनेक्शन के ब्योरे :	देखें
खसरे से संबंधित CERSAI ब्योरे :	देखें
--- रिपोर्ट ---	
डिजिटल हस्ताक्षरित खतौनी-B1 :	20211217530300029
डिजिटल हस्ताक्षरित खसरा-P11(खण्ड-1) :	20211217530300030
खसरा-P11 खण्ड-2 (फसल विवरण) :	रिपोर्ट का pdf फाइल डाउनलोड करें
खसरा-P11 खण्ड-2 (पूर्व वर्ष फसल विवरण) :	रिपोर्ट का pdf फाइल डाउनलोड करें
--- भूस्वामी की जानकारी ---	
भूस्वामी :	(1) बेलासिया, पिता - हुबलाल जीत का प्रकार - अकेला
नामांतरण के पूर्व का भूमिस्वामी विवरण :	(1)नाम - जैमनिया वेवा हुबलाल 0 स्वामित्व -जैमनिया वेवा हुबलालजैमनिया वेवा हुबलाल

The basic land records in the state are Naksha (Map), Khasra and B1. The RoR or Khasra is a detailed document covering the land details on Part I and Encumbrances and Crop Statistics in Part II. Remarkably, the RoR specifies the pending mutation proceeding, court cases pending on the land, mortgages besides the updated crop cultivation on the land. The details available for citizens for viewing (map, property on land, electricity connection and CERSAI¹²) and downloading (digitally signed Khasra and Khatauni as well as crop statistics of present/earlier years) is separately marked. The manual version of these records is no longer required to be updated and updations are required to be done only on the online records. The patwari is known to alert the landowners on non-updated records during the bi-annual Girdwari. Also, for availing the benefit of the central schemes, updation of land records in their names is a mandatory requirement.

Table 3.3. Mortgage Flagging in RoR

1	Number/% districts where ROR database is linked to banks	33/100%
2	Number of banks linked to ROR database	4743
3	Number of RoRs with mention/ red-flag of mortgage (million)	5.17

Box 3.3 Details of Khasra-Part II-Encumbrance and Crop Statistics

--- ऋणित खसरे की जानकारी ---					
स.क.	बैंक का नाम	बैंक में बंधक ?	ऋण समाप्त ?	ऋण देने के पश्चात पटवारी ने कैफियत में संशोधन किया है?	कैफियत संशोधन पश्चात डिजिटल हस्ताक्षर हुआ है?
1	IDBI BANK	YES	X	X	X
2	IDBI BANK	YES	X	X	X

--- नामांतरण हेतु लंबित पंजीयन ---

पंजीयन विवरण: इस खसरे का रकबा 0.1863 हे०, पंजीयन क्रमांक CG-2023-24-166-1-2599, दिनांक 31-Mar-2024 के वजह से नामांतरण की कार्यवाही लंबित है।

--- फसल हेतु जानकारी ---

सिंचित (क्षेत्र*) :	0.0000
असिंचित (क्षेत्र*) :	खरीफ धान(0.0200 हे०) - गिरदावरी तिथि - 11/09/2023
दु-फसली :	0.0000
पड़ती (क्षेत्र*) :	0.0000
पड़ती 2 से 5 (क्षेत्र*) :	0.0000
अन्य पड़ती (क्षेत्र*) :	0.0000

About 77 percent and 53 percent RoRs are seeded with Aadhaar and mobile numbers respectively, the balance are those where the landowners are settled outside the village or those who would not like to share. The Aadhaar and mobile number updation is a continuous process with the patwari updating the same suo moto. Some of the important revenue terms including the RoR entries are given in Table 3.4. *Khasra* is village-wise record of all the survey numbers of that village. *Khata number* is a number held by an individual *bhoomiswami* that consolidates all the lands held by him in different survey numbers, *Basra* being the lowest of such survey numbers. The Khata number however consolidates all survey numbers in a particular type of land. There are nine land subtypes divided into four broad categories; Type I, comprising five subtypes of Khata land including *Bhoomiswami Krishi Bhoomi* (Private agricultural land), *Gram Noukar* (village servant), *Bhu-Dandharak* (Land grant holder), *Mourushi Kasthkar* (Occupancy tenant) and *Bhoomiswami Vyapavartit* (Owner of diverted land). Type II category comprises *Shaskiya Bhoomi* or government land. Type III includes *Patte Par Prapth Bhoomi*, divided further into agricultural and non-agricultural holdings. Type IV includes the *Aabadi lands*.

¹² CERSAI is Central Registry of Securitisation Asset Reconstruction and Security Interest of India (CERSAI). This is set up under section 20 of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act).

Table 3.4 Important Revenue Terminologies in Chhattisgarh

Important Revenue Terms	
Hindi	English
Rakhba	Area of any land parcel
Bhu Rajasv	Land revenue
Namantran	Mutation
Seemankan	Demarcation
Batwara	Partition
Bainama	Sale-deed
Shamilat charagan	Community Grass land
Tarmim	Rectification
Maurusi Krishak	Occupancy Tenant
Bakayadar	Defaulter
Abadiya	Area reserved from time to time in a village/in a non-urban area for the residence of its inhabitants or for purposes incidental thereto
Kishtbandi Khatauni (B1)	Details of all the lands of a persons in that village. Record prepared every year for the collection of land revenue. It consists of the total area held by a person in that village and land revenue and other taxes imposed upon the same. B1 is maintained alphabetically according to the names of landowners.
Sarkari Pattedar	Government Lessee; Every person to whom a right to occupy land is granted by the state government or who is not entitled to hold land as a bhumiswami
Seva Bhoomi	Service Land; Any person holding land on the condition of rendering service as village servant
Bakaya	Arrears; Any land revenue due and not paid on or before the prescribed date becomes there from an arrear and the persons responsible for it whether under the provisions of section 138 or section 139 become defaulters
Bandobast	Settlement is an operation in continuation of survey to determine or revise the land revenue payable on the lands; the tenure of settlement is normally 30 years. The Settlement operations were carried in the year 1928-29 and the land revenue was fixed on the basis of type of soil.
Misal Bandobast	Record prepared at the time of settlement showing area and type of soil of every survey number and also the land revenue fixed upon.
Adhikar Abhilekh	First RoR prepared after the survey of lands, in 1955-56 for every village. It includes the name of all persons who are holders of land, the nature and extent of respective interests and the rent or land revenue payable by holder.
Nistar Patrak	Prepared for every village in the year 1955-56, setting apart unoccupied land for the following purposes: (a) for timber or fuel reserve; (b) for pasture, grassland cremation ground (c) for burial ground and cremation ground (d) for gaathan € (e) for camping ground (f) for threshing floor (g) for bazaar (h) for skinning ground (i) for manure pits & public purposes such as schools playgrounds, parks, roads, lanes, drains and the like; (k) any other purposes which may be prescribed for the exercise of the rights of Nistar.
Khasra	Village-wise record of all the survey numbers of that village. Khasra shows the actual position of land on spot. It consists of area, name of holder, land revenue and the crop actually cultivated. Khasra is a yearly record which is prepared for 5 years.
Goswara	Summary of the total extent of the village land including the non-transferable lands given at the end of the Khasra. Includes Khata ki Bhoomi (Private land, government lease, village servant land [Kotwar], Bhudan land, Maurishi Krishak, Diverted land etc) & Gair khata ki Bhoomi (Government land, Abadi, Mountains, Rivers, Crematorium, Revenue forest, Nalas).

Important Revenue Terms	
Hindi	English
Kisan Kitab	Every holder of land is issued a Kisan Kitab containing (a) entries of Khasra pertaining to the land of Bhoomi Swami (b) particulars in respect of recovery of land revenue and other loans
Khata number	One number held by individual. A parcel of land separately assessed to land revenue and held under one tenure. Khatas are separately allotted for different types of land
“Basra” number	Lowest survey number; it is used to identify an individual, helps to identify all the khasra numbers under 1 individual in 1 village.
Girdauri	Complete enumeration of all fields (survey numbers) made in a every village twice during the year to compile land use, irrigation and crop area statistics
Kotwar	Village servant-gets land/honorarium from government but is a private entity
Panjiyar	Registrar
Wajib ul arz	Any land or water not belonging to or controlled or managed by the state government or a local authority.
Khato ka Chakbandhi	Consolidation of holding: Redistribution of all or any of the land in village so as to allot to the bhumiswami continuous plots of land for the convenience of cultivation
Bhu dhari	Tenure holder: A person who holds land from the state government and who is or is deemed to be bhumiswami under the provision of this code
Dakhal rahit Bhumi	Unoccupied land; Means the land in a village other than the abadi or service land or the land held by a bhumiswami a tenant or a government lessee.
Nazul Bhoomi	Urban land. Land adopted for other uses except agriculture in master plan/ development policy of the urban areas

3.3 Computerisation of Cadastral Maps

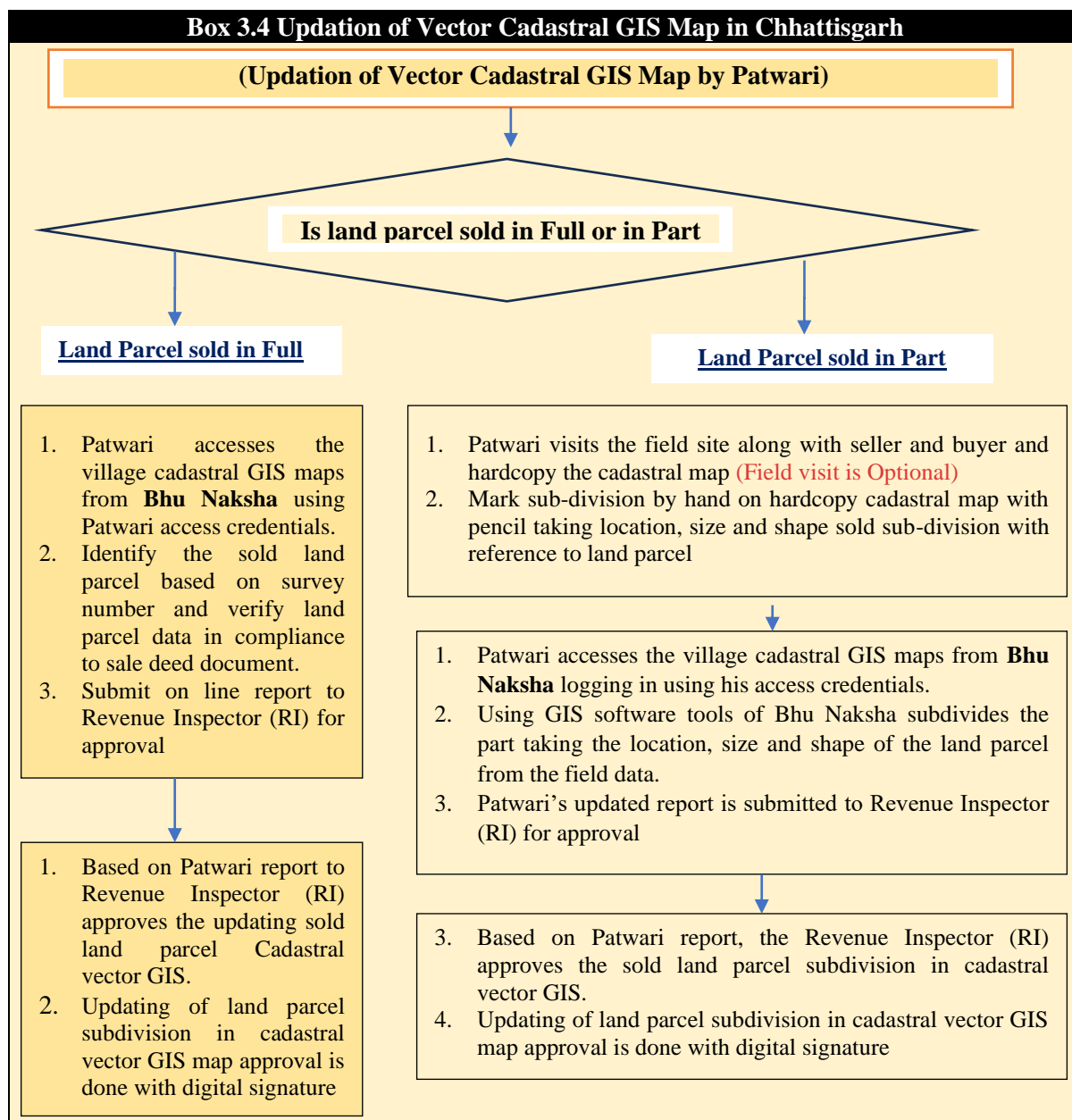
The CGLRC has laid down the procedure for the preparation of map of the village as well as the Abadi area. Section 107 (1) of the CGLRC provides for the preparation of a map showing the boundaries of survey numbers for every village except when otherwise directed by the state government. Sub section (3) and (4) provides that map shall be prepared for the abadi of each village showing the area occupied by the private holders, and that if any gram panchayat passes a resolution that a map of the village abadi should be prepared showing separately the plots occupied by the private holders and is willing to contribute to the cost of survey operations, the state government may undertake the preparation of the map. There are 47961 individual cadastral map sheets at 1:4,000 scale in hardcopy form covering all the villages of the Chhattisgarh state (Table 3.5). These maps are originally prepared based on traditional chain survey and printed on paper showing each parcel boundary as polygon with survey number and some natural geographic features like streams /rivers. The cadastral maps were re-surveyed in 1988 and the land parcels/RoR was updated. Each of the cadastral maps are digitally scanned and vectorised using Geographic Information System (GIS). The village cadastral maps are vectorised to generate seamless cadastral vector maps in GIS format. Each village cadastral vector GIS maps contain land parcel/ survey number-wise attributes that are linked to the corresponding ROR.

Table 3.5 Computerisation of Cadastral Maps-A Quantitative Snapshot

Sl No	Parameter/Indicator	
1	Year of last Survey	1998
2	Scale of available cadastral maps	1:4000
3	Total no. of Cadastral Maps	47861
4	Scanned maps (%)	100
5	Vectorised Maps (%)	100
6	Geo-referenced Maps (%)	0.002
7	Land Parcels assigned ULPIN	917

The cadastral vector maps are however only digital representation of the physical maps forming village wise GIS vector database. Since these cadastral vector maps are not geo-referenced to earth's coordinates system, they cannot be used for any survey measurements viz. location of the land/position (in terms of X= longitude; Y=Latitude in any Datum and projection), measurement of length land parcel boundaries and area of land parcel. However, these vector maps can be used as contextual reference maps representing spatial representation of village boundary and for information on the relative position, size and shape of any land parcel in the village. There is only one pilot block that is geo-referenced in Chhattisgarh, comprising 917 land parcels. ULPIN, the 14-digit identification number accorded to a land parcel based on the longitude and latitude coordinates of the land parcel is therefore only allotted to these parcels.

Online Access of Vectorised Cadastral GIS Maps: The centralised cloud-based web-based application called “*Bhu Naksha*” hosts the village-wise cadastral vectorised GIS map database. Secure User-ID and password protected access is given to state revenue officials with edit permissions. For e.g. patwari user ID has a display of the cadastral vector map with edit access permissions and Tehsildar or Revenue Inspector has access for approval of Patwari actions. The work or process flow of updating of vector cadastral map is given in Box 3.4 and 3.5.



The RoR database is linked with the cadastral maps, though at present, the linkage is confined to about 70 percent of RoRs only. The gaps between RoR data base and cadastral maps are primarily confined to two causes; first, prior to 2017, the RoRs were manually updated and the sub-divisions were not effected in the maps and these remain pending; second, the RoR-cadastral map linkage is also broken in urban areas where each khasra has been sub-divided into innumerable units without corresponding updations in the maps. Given the scale of map being 1:4000, this cannot be further divided in the maps. These two primary reasons account for the gaps in RoR and cadastral map linkages in Chhattisgarh.

Box 3.5 Process flow for Updating of Vector Cadastral Digital Map

The screenshot shows the Bhunaksha web application interface. On the left, there is a navigation menu with 'Home' selected. Below it, a 'Location' section contains dropdown menus for State (Chhattisgarh), District (57 कवठीरधाम), Tehsil (08 कुकड़ूर), RI (01 कुकड़ूर), and Village (021 अमोरा). A 'Plot Info' section is also visible. The main area displays a cadastral map with numerous numbered plots. A red triangle highlights a specific area on the map. Below the screenshot, a zoomed-in view of this area shows several plots. Three callout boxes provide details about subdivisions:

- Survey NO:97** is subdivided into two parcels 97/1 and 97/2.
- Survey NO:98** is subdivided into two parcels 98/1 and 98/2.
- Survey NO:99** is subdivided into two parcels 99/1 and 99/2.

At the bottom of the zoomed-in map, there is a footer with the following text: 'जिला : 57 कवठीरधाम, तहसील : 08 कुकड़ूर, RI : 01 कुकड़ूर, ग्राम : 5702021 अमोरा' and 'Updated on: 2024-07-31 18:02:30 849885'.

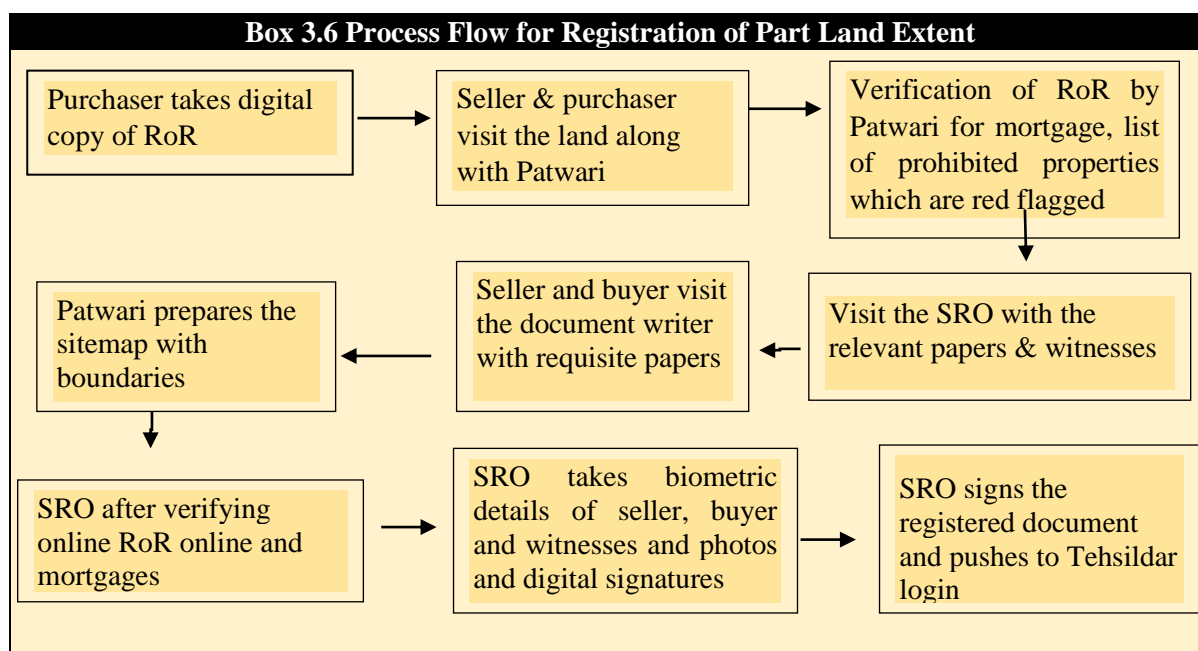
3.4 Computerisation of Registration

In Chhattisgarh, all the 102 SROs are computerised (Table 3.6). This process started in February 2017 and completed in October 2023. All the SROs in the state are integrated with the revenue offices and the LR database. Registration is allowed only in the SROs where the land is located. The online facility is provided for booking appointment. About 0.28 million landed properties were registered in the state during 2023-24. Though the sale of the government land is not blocked, the RoR mentions the ownership status of government in the given khasra number and hence effectively blocks registration of such lands. The SRO checks the RoR for the present party/owner names and area details from the online RoR before registration. However, legacy records (available since 2017) or encumbrances created by legal cases are not accessed by the SRO. The SRO does not see the past registration deeds before registration. The circle rates of various categories of rural/urban lands are uploaded on the registration software and the system provides for online payment facility of stamp duty and registration charges (auto calculation mode). The verification of eKYC of Aadhaar/ PAN during admission of parties is being integrated into the registration process.

Table 3.6 Computerisation of Registration-A Quantitative Snapshot

Sl No	Parameter/Indicator	Chhattisgarh
1	Number of SROs in the State (Nos)	102
2	SROs computerised (%)	100
3	Month and Year of Computerisation of 1st SRO	02/2017
4	Month and Year of Computerisation of latest SRO	10/2023
5	SROs integrated with Land Record database (%)	100
6	Number of land properties registered in FY 2023-24 (Million)	0.28

Every registration triggers a corresponding digital mutation process. There is a provision in the registration software to resend the data in case of any network failure. The registration of land may be of two types, for the whole land or of part land. In the latter case (where sub-division is mandated), a patwari's sketch is mandatory for registration. The Patwari measures the extent and maps the location of land being registered. The entire registration process is completed by the SRO online. The signature of the party is captured digitally and identification documents are uploaded. The State Government is presently developing a SUGAM application to capture the GPS photo of the property transacted as well as a paperless registration system. Capturing of PAN, Aadhaar number, mobile numbers are being done, though not mandatory. The online PAN verification system has been integrated for registrations involving transaction value of Rs. 10 lakhs and above.



In case of registration of part land, the landowner has to visit the VRO before online application for registration. In this case, the seller and purchaser meet the Patwari and jointly visits the land proposed to be sold/purchased is in the physical possession of the seller. The village patwari verifies the RoR for whether the land proposed is of prohibited property, measures the land and prepare sketches with boundaries of the land, certify and affixes his signature and hands over to the parties. The seller and purchaser visit the registrar document writer along with the digital copies of RoR and sketch maps issued by the Patwari. The SRO verifies the online RoR record on Bhuiyan portal and after confirmation of ownership and encumbrances (mortgage) goes ahead with the registration process (taking the photos, biometrics of sellers and purchaser, two witnesses and digital signature of seller purchaser and witnesses). The SRO finally puts the signature digitally and the registration document is pushed to the Bhuiyan portal to the Tehsildar/Patwari login. The process flow is shown in Box 3.6. The home visits are processed manually. In case of visit, the digital photo and biometric process is skipped and the system provides for uploading manual photo and signature. Chhattisgarh does not have an online grievance redressal mechanism for filing complaints related to property registration at the SRO.

3.5 Process of Mutation

The mutation process is initiated in four ways in Chhattisgarh based on origin of the request. First, is the CG series, whereby the registered deeds from the SRO get automatically triggered to the village officer's login; Second is the MD or Manual Deed series where the manual requests received by the Patwari is entered into the system; Third, the RD series or Reader Deed series, which includes the mutation requests generated from the revenue court. Fourth is the CD series where the requests for mutation are received directly from the citizens. In 2023-24, 5.5 lakh applications were received for mutation, out of which 5.46 lakhs were disposed (98.4%) and 9304 applications (1.67%) are pending for mutation (Table 3.7).

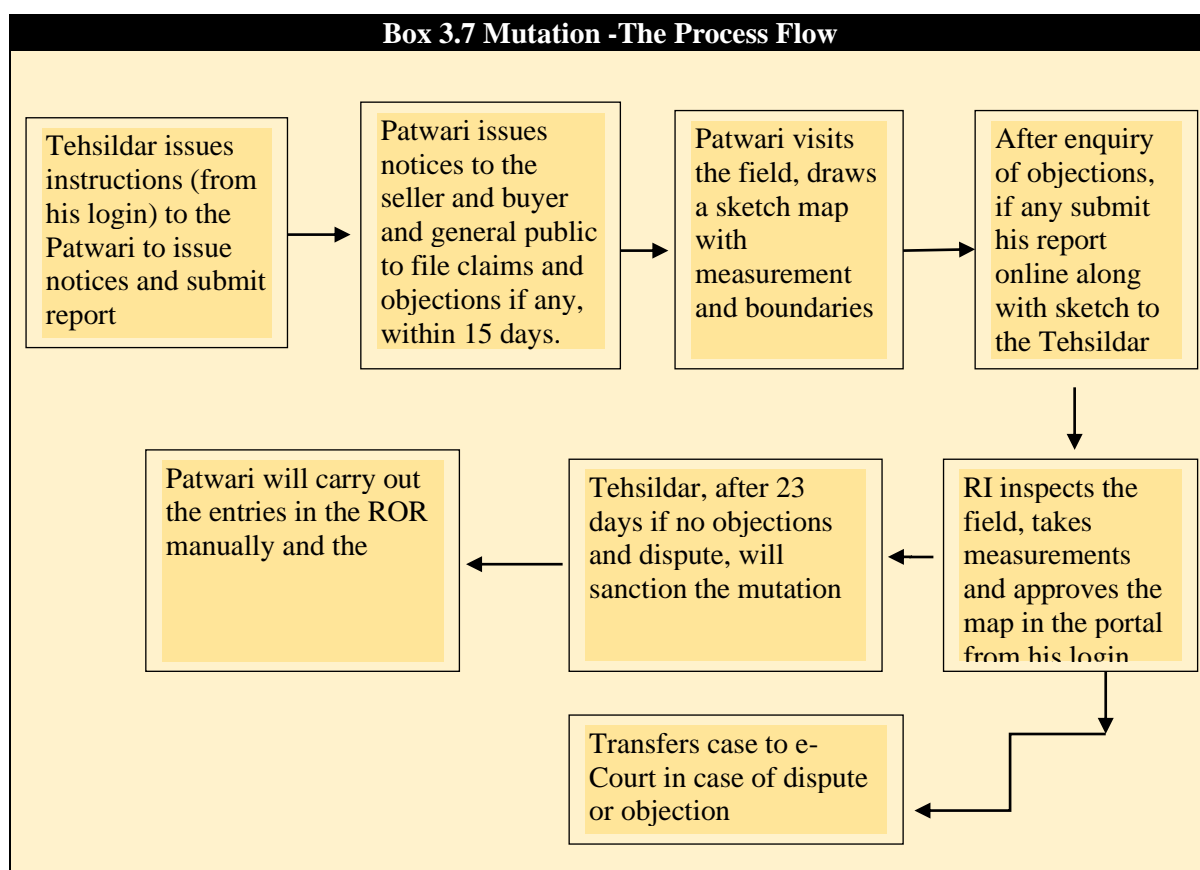
Table 3.7 Mutation Process -A Quantitative Snapshot

Sl	Parameter/Indicator	
1	Applications for mutation in FY 2023-24 (in million)	0.55
2	Applications disposed in FY 2023-24 (%)	0.54 (98.3%)
3	Applications pending for mutation FY 2023-24 (%)	9304 (1.67%)
4	Eligible for auto-mutation FY 2023-24 (in million)	0.26 (48.22%)
5	Mutations completed through Auto-trigger (in million)	0.25 (47.6%)
7	Mutations related to sub-division (in million)	2115 (0.79%)
8	Applications for mutation of land with entire Khasra	265962 (99.25%)
9	Period for issue of mutation orders from date of receipt	Undisputed/Dusputed-3/6 months
10	Average period of effecting mutation	23 days
<div style="text-align: center;"> <p>Mutation Applications Received in 2023-24</p> <ul style="list-style-type: none"> ■ CG Series (SRO) ■ CT Series (Citizens) ■ RD Series (Revenue Courts) ■ MD Series (Patwari) </div>		<p>Out of 0.55 million mutation applications received in 2023-24, 0.27 million comprising 48 percent is through the SRO; 0.17 million comprising 30 percent, received by the patwari manually from the citizens and the remaining 0.05 million each constituting 11 percent each by the citizens and revenue courts.</p>

All mutation requests transferred from the registration department (sale, gift etc) are eligible for auto-mutation. This comprised about 48 percent of the total mutation request received. Notably, less than one percent of the mutation request received from the registration was related to sub-divisions in 2023-24. In Chhattisgarh, auto-mutation essentially means auto-trigger or automatic transfer of documents to the village office soon after the registration. Auto-mutation does not imply automatic

change of names in the records. The mutations completed through auto trigger during the year are 2.68 lakhs (48 percent), the remaining applications may be relating to mutations of transactions that may have happened earlier as well as pertaining to succession. Out of the pending 9304 mutations¹³, 41 percent pertains to revenue court cases, 27 percent received from SRO and the remaining 15 percent each received from the public and the patwari.

After the SRO completes the registration, the process is auto-triggered to the Patwari ID and Tehsildar ID within 2 days (practice). The appearance date is set on the 23rd working day. The Gram Panchayat issues notices and posters and the applicants are required to be present in the Gram Panchayat on the date of appearance. With the auto-trigger, automatic notice gets generated and sent to concerned land owners through SMS and 100 random villagers. The notice is also put up in the panchayat office and published in 2 local newspapers. The signed notice by the parties (“*Paoti*”-receipt) along with the newspaper publication is also uploaded to the website. The Tehsildar issues instructions to the Patwari online along with a notice to the parties (purchaser and seller) and the general public for filing claims and objections if any. The Patwari is required to conduct a field inspection in case of a dispute and submit a report within seven days of receipt of the auto trigger mutation details on his login. The Patwari verifies the land on the ground with boundaries and submits the reports while uploading the served copies of the notices along with his report to the Tehsildar.



If there are no objections received up to 23 days, the Tehsildar is required to mutate the land in favour of the purchaser. On the 23rd day from the day of registration, the parties are to be present to the Registry office for the hearing. If any objections are received in the nature of dispute, then the case is transferred to the e-court and decisions are stayed till the judgement. If the objection is not received, the proposal of the panchayat will be uploaded for the mutation order and the Patwari will enter the report by clicking in Column 11 "Click for action" button of the Mutation Register. After the digital sign of the mutation order, the process of correction will be initiated from the record updation register

¹³ Pending as on 31st March, 2024; presently pending is only 4238

page. After the mutation is sanctioned by the Tehsildar, the Patwari makes required changes in the records manually (general practice; not mandatory). Following this, the Bhuiyan portal along with the sketch map is updated. The Revenue Inspector will inspect the land, take measurements and then approve the map at his level in the portal. After approval of the RI, the subdivisions are done in the vectorised maps. At the record correction page, the details of acreage, name of the landowner etc. reflects automatically, reducing the possibility of error. The process flow of mutation is shown in Box 3.7.

Box 3.8 Online Mutation Register in Chhattisgarh

नामांतरण क्रमांक (1)	नामांतरण दर्ज करने की तारीख (2)	खसरा नं.(अंतरित रकबा हेक्ट. में) (3)	भू राजस्व (4)	नामांतरण का पूर्ण ब्यौरा (5)	वर्तमान भूमिस्वामी (6)	प्रस्तावित भूमिस्वामी (7)	त्रुटिपूर्ण दर्ज रकबा/ भूमिस्वामी विवरण में संशोधन (8)	प्रमाणीकरण अधिकारी का संक्षिप्त आदेश एवं तिथि, यदि प्रविष्टि आदेश की तारीख का उल्लेख भी किया जाए (9)	आवेदन की वर्तमान स्थिति (10)	कार्यवाही हेतु क्लिक करें (11)	खसरा पुनः क्रमांकन के पश्चात नवीन खसरा नंबर (12)
1 RD0202324541001600001 नामांतरण कारण- विक्रय 0606_Rdr	03/Oct/2023	110/6(0.2110)	0.0000	पुराना खातेदार है, जबकि रजिस्ट्री में नया खातेदार दर्ज किया गया है. 06/Oct/2023 प्रविष्टि पट्टवारी प्रतिवेदन देखें	पंचराम माता/ पिता/पति पिता दयाराम पता -सा0 देह	ओमप्रकाश, चूडामणी, धनंजय माता/पिता/पति -पुत्रगण कृष्णा कुमार देवांगन पता -ग्राम-पोड़ीदल्हा,तहसील-अकलतरा			राजस्व न्यायालय में लंबित	क्लिक करें	
2 MD0202324541001600001 नामांतरण कारण- उत्तराधिकार PAT541000005	06/Oct/2023	1110/155(0.0120), 1037(0.0280), 1216/1(0.6360), 542/1(0.8490)	0.0000, 0.0000, 0.0000, 2.1500	खसरा नं0 1110/155 आबादी भूमि से प्राप्त है 06/Oct/2023 प्रविष्टि पट्टवारी प्रतिवेदन देखें	बिरसबाई माता/पिता/पति -धीरंजय पता - एवं अन्य	बिरस बाई माता/पिता/पति -धीरंजय राम पता -सा देह			नामांतरण की आवश्यकता नहीं	क्लिक करें	

Column 1-	Transfer Number
Column 2	Date of Application for Mutation/registration of transfer
Column 3	Khasra No/Land Extent
Column 4	Land Revenue
Column 5	Full Details of Mutation
Column 6	Present Land Owner
Column 7	Proposed Landowner
Column 8	Correction in area recorded/landowner details
Column 9	Brief order of the certified officer with date and case number and date of order if the entry is in dispute
Column 10	Current status of application
Column 11	Click here to take action
Column 12	New Khasra Number after Mutation

Partition: Similar to above, whenever a *Bhoomiswami* wishes to partition of the agricultural land among the legal heirs, he may apply to the Tehsildar. The Tehsildar may after hearing the legal heirs divide the holding, following which notices are issued to the interested parties by way of public notice or advertisement by first entering the applications received for partition in the e-Namantaran portal. If there is any dispute, the Tehsildar transfers it to the e-revenue court from the portal. The Tehsildar shall within the prescribed time-period initiate the process of mutation in the online portal, after making further enquiry, issue order relating to partition and make necessary entries in khasra and map

of the village. After the passing of mutation orders, appeal can be made to SDO within 45 days, followed by the ADO, Division Commissioner and then to the Revenue Board.

There are four sources of mutation for transfer of property, through sale, gift, succession (“*Fauti*”) and Will (“*Wasiyatnama*”). The process of mutation after a registered sale is given above. In case of succession, the process of updation can be started suo moto by government (by patwari who can ask the family to apply for mutation). However, process can be initiated only after the legal heirs come forward with the death certificate and related documents. The legal successors can also move an application to the Tehsildar along with the death certificate. Following this, the Tehsildar issues a letter to Patwari to conduct an enquiry for legal, prepare a family tree of successors and do a *Panchnama*. This process is carried out for mutation of records in the name of legal heirs after the death of the landowner. However, partition of land is a separate process online done online.

In Chhattisgarh, where more than one land holder is mentioned in RoR, the share of each holder is given only when the shareholders have partitioned their lands. The Patwari does not go to the ground to measure the extent of land if the whole land in the survey number is registered. This happens only when a portion of the survey number is transacted or there is a specific request for partition of the land extent among the land owners. In this case, the patwari measures the extent and the location of the land (vis-a-vis neighbouring lands). In case of sub-division, the Khasra records are updated with the names and shares of the landowners and the Naksha (Maps) is updated with a red line as per the report submitted by the Patwari. In case of subdivision of land, there are checks online. Since the total land extent is already there in the system, based on the number of shares and extent of each share land is divided, the divisions get subtracted from the total. “Naksha” of the village consists of survey numbers; dotted line in red ink demarcates subdivision of land based on verification on field). The inspection checklist used by the Patwari before mutation is given in Box 3.9.

Box 3.9 Inspection Checklist before Mutation (Exclusion List)

- ❖ Non-assignable land from legacy records
- ❖ “Sewabhumi” given to the Kotwar of the village (non-transferable/only to the next kotwar)
- ❖ Notified for acquisition under any law
- ❖ Road, garden, public use spaces
- ❖ Ceiling surplus land
- ❖ Mortgaged land
- ❖ Land owner’s family/successor details

3.6 Revenue Court Management System

In Chhattisgarh, all the 912 revenue courts are computerised and about 0.52 million revenue court cases are being handled in the computerised system (Table 3.10). The manual system has been discontinued. The details that are captured include the applicants’ personal detail, land details, reason for application etc. The system has provision of online appointment date and time to the applicant through both email and website. The orders by the revenue courts are typed on the Revenue Court Management System (RCMS) system directly and a separate pdf of the court order is also uploaded on the system. The court order is sent to the litigants is posted on the website. The hearings at the revenue court are posted on the website. Since 2017, all e-court orders are passed online mandatorily, though the hearing is not done virtually. In case of dispute, the Tehsildar transfers it to the e-court, which is usually disposed within 180 days. The RCMS is not linked to civil courts. Remarkably, Chhattisgarh has integrated the RCMS with the RoR and all pending revenue cases get reflected in the Part II of the Khasra.

Table 3.8 RCMS-A Quantitative Snapshot

Revenue Court Management System		
1	Total number of Revenue Courts in the State	912
2	Number of Revenue Courts computerised	912
3	Revenue court cases handled in the computerized system in FY 2023-24 (in million)	0.52
4	Number of revenue court cases red-flagged in the RoR (as on date)	78876

3.7 Reflection on Real Time Mirror from Sample Villages

The sample villages selected for RTM assessment in Chhattisgarh are Tuma Bahra village in Dhamtari district and Birkona Village in Korba district. The Study team's observations regarding quality of land records in both the villages are given below:

1. Tuma Bahra Village, Dhamtari Tehsil, Dhamtari district

Tuma Bahra village is located in Dhamtari Tehsil of Dhamtari district in Chhattisgarh, India. It is situated 17 kilometres away from Dhamtari, which is both district & sub-district headquarter of Tuma Bahra village. The village has a total land extent of 640.61 acres, 309.78 acres of government land and 330.83 acres of private land. There are 526 land private land parcels or survey sub-divisions and 55 government parcels. Out of the 269 khata numbers, 142 pertain to government lands and 127 to private landowners (Table 3.10)

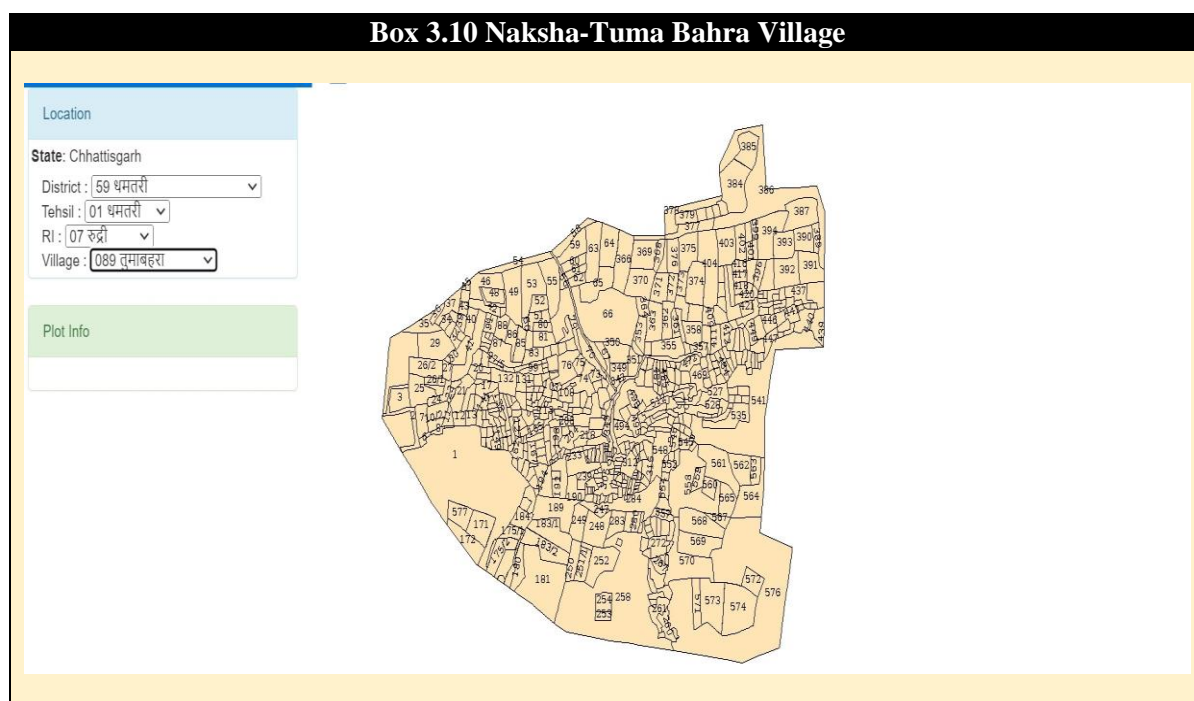


Table 3.9 Tuma Bahra Village-Land Statistics at a Glance (in Acres)

Parameters	Government	Private*	Total
Land Extent	309.78	330.83	640.61
Land Parcels (Survey Sub-Division Numbers)	55	526	581
Khata Numbers	142	127	269

* Including 10 Assigned Numbers

RTM of Tuma Bahra Village Land Records


The RTM reflects the difference between land records and on ground status with regard to ownership, possession; updation of partition/demarcation, land classification, nature and use; and the encumbrances on land parcel (mortgages, court cases and land acquisition proceedings). The comparison of the on-ground situation with the land records is with an objective to examine the accuracy of land records data. Out of the 526 land parcels and 127 khata holders, 57 percent are single owner land parcels and a significant 43 percent are joint owner land parcels. Joint ownership involves two or more individuals sharing ownership rights.

Table 3.10 Assessment of RTM of Tuma Bahra Village

S.No	Heads	Number
I	General	
(i)	Single owner Land Parcels	56.79%
(ii)	Joint Owner Land Parcels	43.21%
II	Land Records & On Ground Status-Ownership and Possession	
(i)	Land Records and On Ground Ownership	88.88%
(ii)	Land Parcels with Non-updated Land Records	11.12%
a	Succession	11.12%
(ii)	Land Records and Possession	100%
III	Spatial & Textual Records:Updation of Partition/Demarcation	
(i)	Spatial and textual records	NA
(ii)	Land Parcels (Private) in RoR	526
(iii)	Land Parcels in Naksha (Map)	466 (88.6%)
IV	Land Records & On Ground Status: Location, Extent & Land Use	
(i)	Location and Land Extent	NA
(ii)	Broad Land Use (Records and On-ground)	91.60%
(iii)	Non-Updated Use	8.40%
a	Vacant	5.96%
b	Residential	2.44%
(iv)	Crop Sown as per records (Paddy & Vegetables)	100%
V	Land Records & On-Ground Status-Encumbrances on Land	
(i)	Land lease	Nil
(ii)	Court Case (on record and ground)	4 (100% flagged)
(iii)	Mortgage (on record)	13 (100% flagged)

Land Records and On-ground Status-Ownership & Possession: As per the primary survey, 89 percent of the landowners appearing on the RoR own and possess the land on ground. The non-updated records are all cases of succession (expired landowners). The legal heirs of the expired landowners are yet to come forward with the documents for updation of RoR. Thus, in 11 percent cases, the RoR in both records remain un-updated. All the landowners surveyed conveyed that the actual possession on ground is held by them.

Spatial Records, Textual Records and On-Ground Status: The maps of Tuma Bahra village are not digitised and hence the land extent difference between textual and spatial records cannot be ascertained. The location and extent of land parcels in the village also cannot be meaningfully assessed. If we compare the land parcels in RoR and maps, we observe that that the gap between the RoR and maps in terms of land parcels is 11.4 percent (or 88.6 percent of the land parcels in the RoR are reflected in the maps). The registrations carried out during the year have all been mutated. The land use is reflected in Box 3.11.

Box 3.11 Land Use in Tuma Bahra village-Land Records and On-Ground Status	
	<p>In case of the broad land use (agricultural/non-agricultural), 91.6 percent conforms to the records while 8.4 percent is either vacant or in residential use. Paddy and vegetables are the primary crops cultivated as per the records and it perfectly resonates with the feedback of the landowners. The broad land-use as reflected from the satellite image is dry agriculture (70%); water bodies/streams (10%); Settlements (10%), forest related land use (10%)</p>

Land Records and Encumbrances on Land: The primary survey probed the encumbrances on the land in terms of land lease, mortgage of property, pending court cases or ongoing land acquisition proceedings. The Khatadars revealed mortgages with the bank in 13 cases and 4 court cases which is seen flagged in the RoR.

2. Birkona Village, Katghora Tehsil, Korba District

Birkona village is located in Katghora Tehsil of Korba District in Chhattisgarh, India. The village has a total land extent of 157.31 acres of land, 56.68 acres of government land and 99.78 acres of private land. There are 108 private land parcels or survey sub-divisions and 66 government parcels. Out of the 57 khata numbers, 45 pertain to private lands (including 10 assigned landowners) and 12 are government lands. In Birkona, 60 percent of the landowners as per RoR are joint landowners and only 40 percent are single landowners.

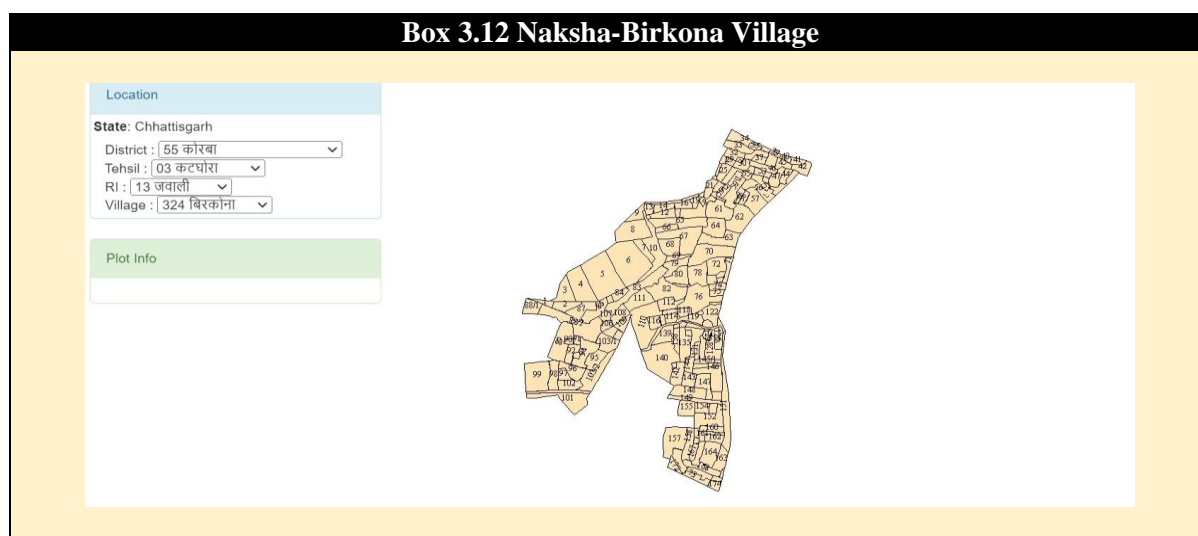


Table 3.11: Birkona Village-Land Statistics at a Glance (in Acres)

	Government	Private*	Total
Land Extent	56.68	99.78	157.31
Land Parcels (Survey Sub-Division Numbers)	73	108	181
Khata Numbers	12	45*	57

* Including 10 Assigned Numbers


Land Records and On-ground Status-Ownership & Possession: As per the primary survey, only 63 percent of the landowners appearing on the RoR own and possess the land on ground. Like Tuma Bahra village, the non-updated records in Birkona pertain is resulting from the death of the recorded owners. All the landowners who surveyed conveyed that the actual possession on ground is held by them.

Spatial Records and Textual Records: The map of Birkona village is not digitized and hence the land extent difference between textual and spatial records cannot be ascertained. The location and extent of land parcels in the village also cannot be meaningfully assessed. The divisions in map largely reflects the shares in RoR i.e. to the extent of 96.3 percent. The real issue in the village is the difference in the land extent in the records and the actual extent possessed by the legal heirs.

Table 3.12 Assessment of RTM of Birkona Village

S.N	Heads	Number
I	General	
(i)	Single owner Land Parcels	43 (39.8%)
(ii)	Joint Owner Land Parcels	65(60.1%)
II	Land Records & On Ground Status-Ownership and Possession	
(i)	Land Records and On Ground Ownership	63.16%
	Land Parcels with Non-updated Land Records (Succession)	36.84%
(ii)	Land Records and Possession	100
III	Spatial & Textual Records:Updation of Partition/Demarcation	
(i)	Spatial and textual records	NA
	Land Parcels (Private) in RoR	108
	Land Parcels in Naksha (Map)	104 (96.3%)
IV	Land Records & On Ground Status: Location, Extent & Land Use	
(i)	Location and Land Extent	NA
(ii)	Broad Land Use (Records and On-ground)	71.05%
(iii)	Non-Updated Use	28.95
	Vacant	15.79
	Residential	13.16
(iv)	Crop Sown as per records (Paddy & Pulses)	100%
V	Land Records & On ground Status-Encumbrances on Land	
	Land Lease, Mortgage, Court Case, Land Acquisition etc: Nil	

Box 3.13 Land Use in Birkona- Land Records and On-ground Status

	<p>In case of the land use (agricultural/non-agricultural), only 71 percent confirmed to the records while 22 percent is either vacant or in residential use.</p> <p>As per the satellite images of the village, dry agriculture (80%); streams & nalla (10%) and settlements (10%) comprise the major land use in the village</p>
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Land Records and Encumbrances on Land: The primary survey probed the encumbrances on the land in terms of land lease, mortgage of property, pending court cases or ongoing land acquisition proceedings. The Khatadars revealed no encumbrances on land.

3.8 Summary and Suggestions

Chhattisgarh has made considerable progress in the DILRMP. The computerisation of records, registration, mutation and revenue court management system and the integration of the processes in a time bound manner have several good practices for other states to replicate. Some of the notable good practices are summarised below:

- ❖ **Comprehensive RoR:** The RoR maintained in Chhattisgarh is comprehensive covering not just details of land and landowner but also the updated land use in terms of crop statistics (updated after the bi-annual girdawri) as well as the encumbrances (mortgage and revenue court case). If the mutation process is in progress, this is also reflected in the RoR. The digitally signed RoR is a true copy that can also be checked for forgery.
- ❖ **Complete integration of processes online:** In Chhattisgarh, there is complete computerisation of land records, registration, mutation and revenue court management system. After the SRO completes the registration, the process is auto-triggered. A time bound mutation process follows

the registration (sale, gift etc) and updation of data following registration is near complete. It is seen that 98.3 percent of the mutation applications received were disposed in the FY 2023-24 itself even when auto-trigger cases (through registrations) only comprised 47 percent of the total mutation applications received during the year. After the completion of registration, the online process of pushing through the digitally signed record documents to the village office too is a seamless process and working well on the ground. It is also appreciable that the online system of mutation is not only confined to the registered transactions but also others succession, partition, court decree etc. All such requests enter the online system through the four series-those received from the registration (RD); revenue court (RD); citizens (CD) and manually by Patwari (MD series). Tracking of all cases, irrespective of origin becomes possible because of the integration in the online system.

- ❖ **Mandatory sketch for partitioning of share or part extent of land:** Partition of land among legal heirs or during sale is only done after field verification of location and extent by the patwari. In case of sub-division, the Khasra records are updated with the names and shares of the landowners and the Naksha (Maps) is updated with a red line as per the patwari's report submitted by the Patwari.
- ❖ **Encumbrances on Land:** The pending mutation status, mortgage and court cases get reflected on the RoR providing valuable information to all stakeholders. This is an exceptional good practice
- ❖ **Mutation-Timebound but with due Diligences:** Auto-mutation in Chhattisgarh is not interpreted to mean immediate change in the names of landholders on completion of registration. Though mutation is carried out online, it follows a due diligence process with a mandatory approval by the patwari after ensuring exclusion of non-transferable lands (objectionable government land from legacy records; not part of non-transferable "Sewabhumi" given to the Kotwar of the village (non-transferable/only to the next kotwar; part of acquisition proceedings; mortgaged; part of ceiling surplus land etc.

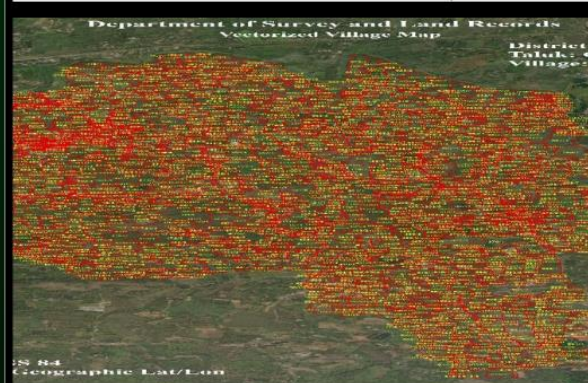
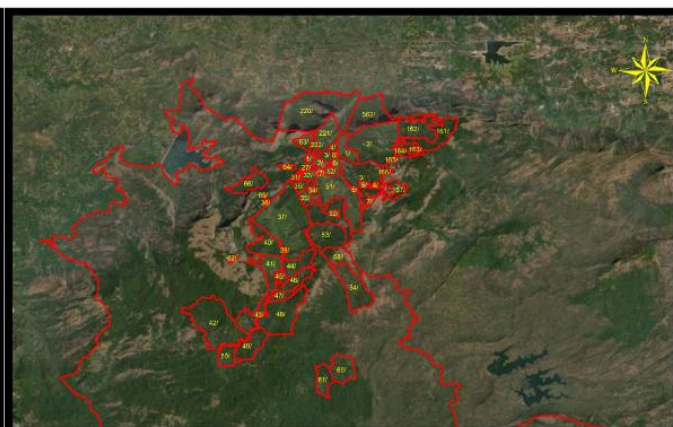
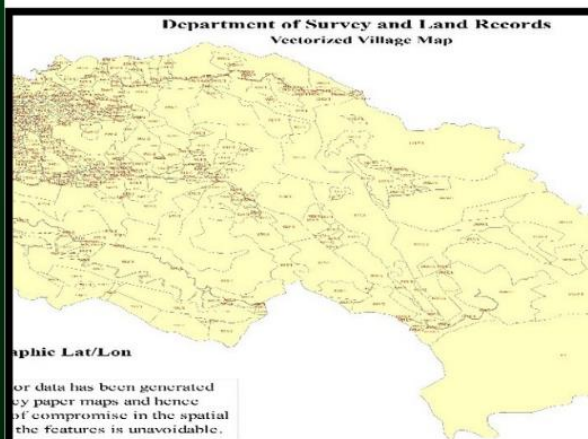
Gaps and Challenges

- ❖ **Integration with Legacy Records:** In Chhattisgarh, the first RoR was prepared after the survey of lands in the year 1955-56 for every village. It is important as the first step of purification of land records to ensure that all the manual entries in the RoR are verified at multiple levels and the linkage between the present survey numbers with the legacy records is firmly established. Making the legacy records available online is also a requirement.
- ❖ **Transition to Digital Maps with Geo-coordinated Land Parcels:** In Chhattisgarh, the land has fragmented to such small fragments in the urban/peri-urban areas that updation of such records in spatial form only seems possible by moving on to a digital plane. A digital survey with geo-coordinates of all land parcels is critically important to enable sub-divisions of land and keeping land records updated in both spatial and textual form and their seamless integration/updation.
- ❖ **Suo moto initiation of Succession Proceedings:** In both the selected villages i.e. Tuma Bahra and Birkona, the only cases of non-updation of textual records were related to succession i.e. 8.4 percent of land records in Tuma Bahra (Dhamtari District) and 37 percent in Birkona (Korba district). Incentives for people proactively coming forward for mutation with consent of all legal heirs may be a welcome move. It is important to address this issue pro-actively for the land records to mirror the actual situation on the ground.
- ❖ **Land acquisition related encumbrances:** Chhattisgarh is a state where land acquisition is being carried out under various legislations including central legislations of RFCTLARR Act, 2013; Coal Bearing Areas (Acquisition & Development) Act, 2013; National Highways Act (NHA), 1956, Petroleum and Mineral Pipeline (Right of User) Act, 1962 etc. The restrictions on registering land after preliminary notification as well as vesting of land with central/state government is an area requiring updation on the records. Given that various encumbrances are already reflecting in the LR, it may be useful to also ensure that land acquisition related encumbrances are also adequately reflected in the records.
- ❖ **Ownership in flats:** The RoR, in case of flat owners is not updated and in the name of the owner. The undivided shares of the flat owners continue to remain with the landowner and land records do not get updated to reflect the ground reality. This becomes important if the land records have to mirror the ground reality. It will also enormously benefit the flat owners

- ❖ **RoFR Rights:** The forest titles transferred after recognition of rights under the Scheduled Tribe and Other Forest Dwellers Recognition of Forest Rights Act, 2006 presently do not reflect in the online records. Although these rights are not alienable, these are heritable to the rightsholders and may be reflected in the land records.

Chapter IV

KERALA



Chapter 4

Land Records in Kerala

4.1 Background

The Kerala State consists of old Travancore State, Malabar and Kasargod areas of old Madras State and old Cochin State¹⁴. The original survey of former Travancore State was conducted during the period 1883-1912 and that of Cochin area during the period 1899-1909. After the initial survey, no resurvey was conducted in these areas. Land records maintenance was neglected largely in the years following independence. A relatively successful land reforms programme in Kerala mandated insertions of numerous sub divisions in the original measurement sketches. However, these changes were never incorporated in the survey records. Therefore, a resurvey of lands attained critical importance. In 1966, the State Government ordered the re-survey of lands in the entire state¹⁵. Carried out through traditional survey techniques, the resurvey has been a cumbersome process and only 49.1 percentage of the total area could be completed in more than half a decade (since 1966 till date).

In November 2022, Kerala started a digital survey programme with an aim of completing the entire state and 1666 villages in four years. Under the digital resurvey programme, the survey has been completed in 201 villages. Through the digital resurvey, the government aims to create an Integrated Land Information and Management System (ILIMS); its public interface being the “*Ente Bhoomi*” single-window portal providing all land-related services (from the revenue, registration and survey departments). Common deed format, including pre-mutation sketch, real time information on ownership change from revenue and survey departments etc are expected deliverables from the digital resurvey programme in Kerala. The State is yet to enact a comprehensive legislation which would determine the rights through settlement in land and maintenance of land records. The survey, transfer of registry and registration of documents are governed by various laws in Kerala. The title holders base their title on series of documents of successive transfers.

4.2 Computerisation of Record of Rights

Kerala has 31.33 million land parcels/survey numbers and 30.55 million *Thandapper* numbers. In Kerala, *Thandapper number* is a unique number given to all the survey numbers/land extent held by a landowner in a village block¹⁶. This is similar to a *Khata number* in the other states except that villages are divided into blocks in Kerala. The *Thandapper* Register has the consolidated details of all *Thandapper* accounts/numbers pertaining to the landowners who own land or have ever held ownership of land in the village/ block. The *Thandapper* register (maintained online and manually) is considered as the RoR record in Kerala. Even when a landowner sells off his entire landholdings, leaving him with ‘zero’ landholding’ in the village, his *Thandapper* Number/Account remains in existence. Among the 30.55 million *Thandapper* numbers, 16.7 million comprising 55 percent are the live *Thandapper* holders (owning land at present). This is a broad estimate of the number of landholders in Kerala. Table 4.1 provides a quantitative snapshot of the computerisation of RoR in the state.

Table 4. 1 Computerisation of RoR in Kerala-Quantitative Snapshot

SI No	Parameter/Indicator*	Kerala
1	No. of Land Parcels/Survey Numbers (in million)	31.33
2	No. of RORs/Thandappers (in million)	30.55
3	RORs computerized (%)	100
4	Live Thandappers (in million)	16.02
5	Average number of land holders in each RoR	2

*As on 25th July, 2024

¹⁴ <https://dslr.kerala.gov.in/en/why-resurvey/>

¹⁵ The scheme “Re-survey of the State” was sanctioned in G.O. No. 781/65/ RD dated 6-10-1965 and is being implemented from 1966-67. Only 922 out of a total of 1666 villages) could be completed.

¹⁶ If one village has more than one block, then the landowner having lands in both blocks will have two Thandappers.

In Kerala, the permanent registers i.e. the Settlement Register or Basic Tax Registers (BTR) and the temporary registers including the textual records (Thandapper Register) have been computerised. These textual records (Box 4.1) are accessible to the common citizens on the portal www.revenue.kerala.gov.in. These are being updated by the village officers, both in an online and offline mode (Table 4.1)

Box 4.1 Land Record Registers in Kerala

Permanent Records

1. Settlement Register: Basic record of all villages where the first survey and settlement took place between 1905 and 1935.
2. Basic Tax Register (BTR): This Register is taken as a base record for all villages where resurvey was carried out from 1965 onwards

Temporary Registers

1. RoR (Thandapper) Account/Register
2. BTR/Supplementary BTR (B) – Entry of Transactions/modifications in the original BTR (A)
3. Register 1: Government lands (details of all government lands, assignable and non-assignable)
4. Register 3: Government owned lands located in other states
5. Register 4: PV Register/Mutation Registers (details of mutation applications received)
6. Register 5: Assignable Land Register (details of assignable government lands)
7. Register 8: Bought in Land register (details of lands retained by government through revenue recovery proceedings)
8. Register 9: Land Relinquishment Register (details of lands relinquished by landowners)
9. Register 10: Land Acquisition Register (details of lands acquired)
10. Register 14: Land Transfer Register (details of lands transferred to central/state departments)

A digitally signed RoR (Thandapper) extract, considered a legally valid document in Kerala can be obtained by interested persons by applying online (creating an account in the web portal and paying Rs.100), following which the Village Officer (VO) issues the *Thandapper* extract. The list of all RoRs in the village cannot be downloaded by the citizens. However, a *thandapper* based search is enabled on the portal for all citizens. Till date, 1,99,337 applications have been received for *Thandapper* extracts and 1,32,847 *Thandappers* have been downloaded from the portal¹⁷. The details of the government lands provided in the *Poramboke* Land Register is also uploaded online. All fields in the manual registers have been captured by the online system. The critical information relating to survey number, sub-vision name of landowner, extent, address, nature/type of land etc. are mandatory fields that cannot be left blank. As of now, the caste/tribe field is not a mandatory field. The RoR record in Kerala incorporates limited information namely the land details-extent, type (wet or dry land) and the tax details-basic tax, amount of tax charged, interest applicable, date of tax remittance. However, one important inclusion in the Kerala RoR is the linkage with the legacy records in that each of the TP extract mentions the associated resurvey number of the said survey numbers. The unit of land measurement used in the RoR is Hectare, Are and Square Meter¹⁸.

There is no distinction between urban and rural RoRs in Kerala. The Thandapper Register includes all private land parcels (including assigned lands) in both the rural urban areas. Only the applicable tax and the receiving entity varies; for example the land tax is to be deposited by the thandapper holders at the village office and the property tax in the respective local bodies (municipality/panchayat offices). The generation of Thandapper (numbers) of all lands, irrespective of rural/urban is the domain of the village office. The *Thandapper* register does not capture the gender field. Though Aadhaar number of landholders are generally captured, these are only done with consent and yet to be validated. As of now, among the 3.05 RoRs in the state, only 29,025 RoRs have been seeded with Aadhaar. Though mobile number is mandatory for creating an account in the web portal, the state does not have records regarding the number of RoRs seeded with mobile. There is no transliteration

¹⁷ Till 28th August, 2024

¹⁸ 1 hectare is equal to 100 are and 10,000 square metre

facility available for the RoRs in the state. The reflection of RoR extract in Kerala along with important revenue terminologies are given in Box 4.2.

Box 4.2 RoR Record in Kerala (Thandapper Account/Register)																	
എട്ടാം നമ്പർ അക്കൗണ്ട് തണ്ടപ്പേർ അക്കൗണ്ട്																	
തണ്ടപ്പേർ നമ്പർ : തണ്ടപ്പേരുടുകാരന്റെ പേരും മേൽവിലാസവും :				ബ്ലോക്ക് നമ്പർ : വില്ലേജ് : താലൂക്ക് :				(തണ്ടപ്പേർ അക്കൗണ്ട് തുടർച്ച) ഒടുക്കു വിവരം									
ക്രമ നമ്പർ	റീ സർവ്വേ നമ്പർ	സബ് ഡിവിഷൻ നമ്പർ	വിസ്തീർണ്ണം			ഇനം	തരം (നിലം/ പുരയിടം)	അടിസ്ഥാന ഭൂനികുതി (രൂപ)	റിമാർക്സ്	ഒടുക്കു തീയതി	സംസ്ഥാനക വർഷം	രസീത് നമ്പർ	ഒടുക്കിയ ആളിന്റെ പേര്	ഈടാക്കിയ തുക			റിമാർക്സ്
			ഹെക്ടർ	ആർ	സ്ക്വയർ മീറ്റർ									നികുതി	പലിശ	ആകെ	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
RoR Row Headings																	
Heading first line - Account number 8 Heading Second line - Thandaper Account Heading Third line - Thandaper Number followed by Block Number Heading Third line - Thandaper Holder's Name and Address followed by Village & Taluk names Column 1 - Serial Number Column 2 - Resurvey Number Column 3 - Sub Division Number Column 4 - Hectare Column 5 - Are Column 6 - Square Meter Column 7 - Item Column 8 – Type (wetland/dry land) Column 9 - Basic Tax (in Rs.) Column 10 - Remarks Column 11 - Date of Tax remittance Column 12 - Financial year Column 13 - Receipt Number Column 14 - Name of Remitted Person Column 15 - Amount charged towards land tax Column 16 - Amount charged towards land tax interest Column 17 - Total Amount charged Column 18 – Remarks																	
Important Revenue Terms																	
Malayalam									English								
Nilam									Wetland or paddy land								
Purayidam									Dry land								
Taram									Type								
Adisthana Bhumi Nikudi									Basic tax								
Pokkuvaravu									Mutation of names in revenue accounts; transfer of registry or recording of changes in the name of land holders for collection of revenue.								
Poramboke and									Property of Govt. which are used for public or community purposes, lanes, river beds, tanks, lakes etc.								
Tharisu									Waste land at the disposal of the government and available for extension of cultivation for public/community use.								
Thandaper (Rent roll)									Rent roll prepared by the settlement department and given to the revenue department for collection of tax.								
Kudikidappu-									Land/the homestead or the hut so permitted to be erected or occupied								

There is no provision for citizens to apply online for correction of their RoR records. All such cases have to be applied manually at the village office and there are no records that capture the applications for rectification, type of corrections and actions taken.

In Kerala, the VO makes a noting in the *Thandapper* Registers, when a landowner applies for Possession Certificate (PC), a mandatory requirement for submission of loan application in a bank. As and when the village office receives an intimation from the bank regarding loans disbursed against the mortgage of property, these are also noted manually against the Thandapper Number in the Manual Register. The linkage of the RoR database with banks too has been initiated recently through the Electronic Mortgage Reporter (EMR) since July, 2024. As of now, 37 banks have been linked. The bankers can search for the survey number through the EMR and mark the encumbrance. The EMR is integrated through Application Programming Interface (API) to ReLIS, the revenue software. About 300 plus mortgage entrance details have been received so far from the banking system and the viewing interface is at the development stage. After repayment of loan and release of mortgage, the banks are also responsible for updating the status in the remarks column of the particular survey number. A novel feature of mortgage red-flagging by the Banks in Kerala is the charge of 0.1 percent of the loan value subject to Rs. 1000 per transaction by the Banks.

Table 4.2. Mortgage Flagging in RoR

S.No	Heads	No/%
1	Districts where ROR database is linked to banks (Nos/%)	14/100%
2	Banks linked to ROR database (Nos)	33 banks
3	RoRs with mention/ red-flag of mortgage (Nos)	300+

4.3 Computerisation of Cadastral Maps

In Kerala, the RoR and cadastral maps are not linked. The State awaits the completion of the digital resurvey that will integrate the textual, spatial and registration of records. Presently, there is no subdivision initiated in the maps except at the time of land acquisition. Where more than one land holder is mentioned in RoR, the share of each holder is given only where the shareholders have applied for partition. On the other hand, in Land Acquisition cases, Section 13 of the Kerala Survey and Boundaries Act is mandated to be initiated along and is eventually effected in the FMB. At present there are three types cadastral maps are being used in Kerala; first, the scanned and vectorised historical cadastral maps; second, Electronic Total Station (ETS) based cadastral maps and third, Real-Time Kinematic (RTK) GPS based digital cadastral survey maps. Table 4.3 provides a quantitative snapshot of the status of computerisation/digitisation of maps in Kerala.

Table 4.3 Computerisation of Cadastral Maps-A Quantitative Snapshot

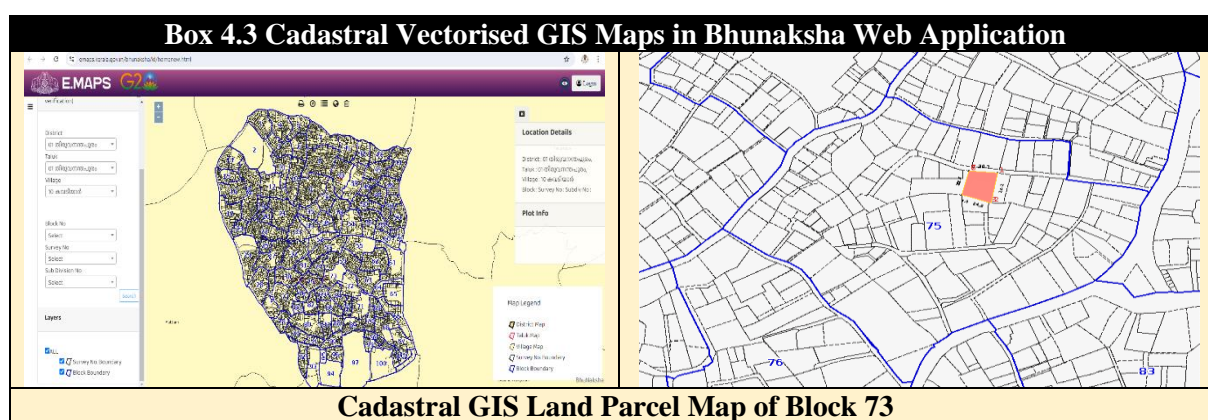
SI No	Parameter/Indicator	Kerala
1	Year of last Survey	1964
2	Scale of available cadastral maps	1:500,1:1000,1:2000,1:5000
3	Cadastral Maps (Nos)	15,89,848
4	Scanned maps (%)	72.64
5	Vectorised Maps (%)	51.26
6	Geo-referenced Maps (%)	0.34
8	Land Parcels assigned ULPIN	79570

Presently, 72.6 percent of the cadastral maps have been scanned, 51.2 percent have been vectorised and just 0.34 percent have been georeferenced. Though the digital survey has completed survey in 11 percent of the land extent, the resurvey process is not complete in these. Each of the three types of maps are described below along with observations of the Study team:

Vectorised historical hardcopy cadastral maps: The historical chain survey-based hardcopy cadastral maps from 1964 are being used as basic spatial reference maps at village level. Based on size of the village, these hardcopy cadastral maps are at 1:500; 1:1,000; 1:2000; 1:5000 scales.

The following steps explain scanning and vectorisation. The process followed is described below:

- ❖ **Step-1:** Digital scanning of hardcopy cadastral maps at about 200 dpi¹⁹
- ❖ **Step-2:** Scanned cadastral map image is geo-referenced with open-source satellite image, using ArcGIS geo-referencing tools of commercial software. As these historical cadastral maps do not have any coordinate system and essentially is a spatial sketch representation of the cadastral land parcels with few natural features (like lakes, streams and rivers), the geo-referencing is only rough and cannot be used for boundary measurements and area measurements of land parcels.
- ❖ **Step-3:** The survey number wise FMB is also scanned and geo-referenced to the corresponding spatial boundary of a geo-referenced cadastral map.
- ❖ **Step-4:** FMBs are vectorised and spatially adjusted to create village wise cadastral GIS vector database. Box 4.3 shows the Cadastral Vectorised GIS Maps in Bhunaksha Web Application



2. Electronic Total Station (ETS) Surveyed Cadastral maps

ETS based cadastral survey was carried out in 90 villages during 2016 and 2017. Technically, the ETS is an electronic theodolite integrated with an Electronic Distance Meter (EDM) and microprocessor to read slope distances (X, Y, Z) with reference to a reference point. In simple terms, the ETS uses a method of measuring distances between two points electronically by transmitting wave from one end and a reflecting prism at the other end. It measures the time required by a wave to be sent to a target and the reflection; the time is measured as distance between two points. In Kerala, about 90 villages have been re-surveyed by the ETS method. Discrepancies of land parcels areas have been observed between the RoR and ETS survey, beyond the acceptable level. The errors associated with a field level operational ETS survey are summarised below:

- ❖ Centring errors or errors resulting from levelling the instrument. If centring error occurs at one point, then the error accumulates to the subsequent measurements.
- ❖ Horizontal collimation errors that occur if the line of sight is not perpendicular to the tilting axis.
- ❖ Vertical Collimation errors that occur if the 0 degree and 180-degree line in the vertical circle does not coincide with its vertical axis
- ❖ Eccentricity errors that occur when the EDM centre of the axis does not coincide exactly with the centre of the measuring circle.
- ❖ Tilting axis errors that occur when the tiling axis of EDM is not perpendicular to its vertical axis.

Due to the field level operational ETS survey errors, it is not advisable to carryout survey for large areas such as the comprehensive cadastral survey/re-survey. This is because, the error residues may result in area differences up to meters in lengths/10s of square meters in area, depending on the topography of area and the expertise of survey team. The technological and operational lacunas are

¹⁹ 200 dots per inch (DPI) is a measurement of a printer's resolution or the number of dots of ink it can produce per inch. A higher DPI means a higher resolution and a clearer, crisper print.



often not thoroughly understood by the survey team. As expected, since accurate geo-coordinate-based land parcels (measuring areas and lengths) could not be achieved, the ETM based re-survey was discontinued. The Study team observes that this was a good decision as for the ETS surveyed villages, the resurvey objective cannot be achieved. This is owing to three reasons. First, the inherent operational/technical difficulties for carrying out the village DGPS and ETS survey; secondly, the ETS survey cannot be expected to generate accurate land parcel map data matching ground reality in terms of accuracy of extent and third, given the inherent errors (discussed above), the land owners would not accept the differences in area with the between the textual records.

3. Real-Time Kinematic (RTK) GPS based Digital Cadastral survey

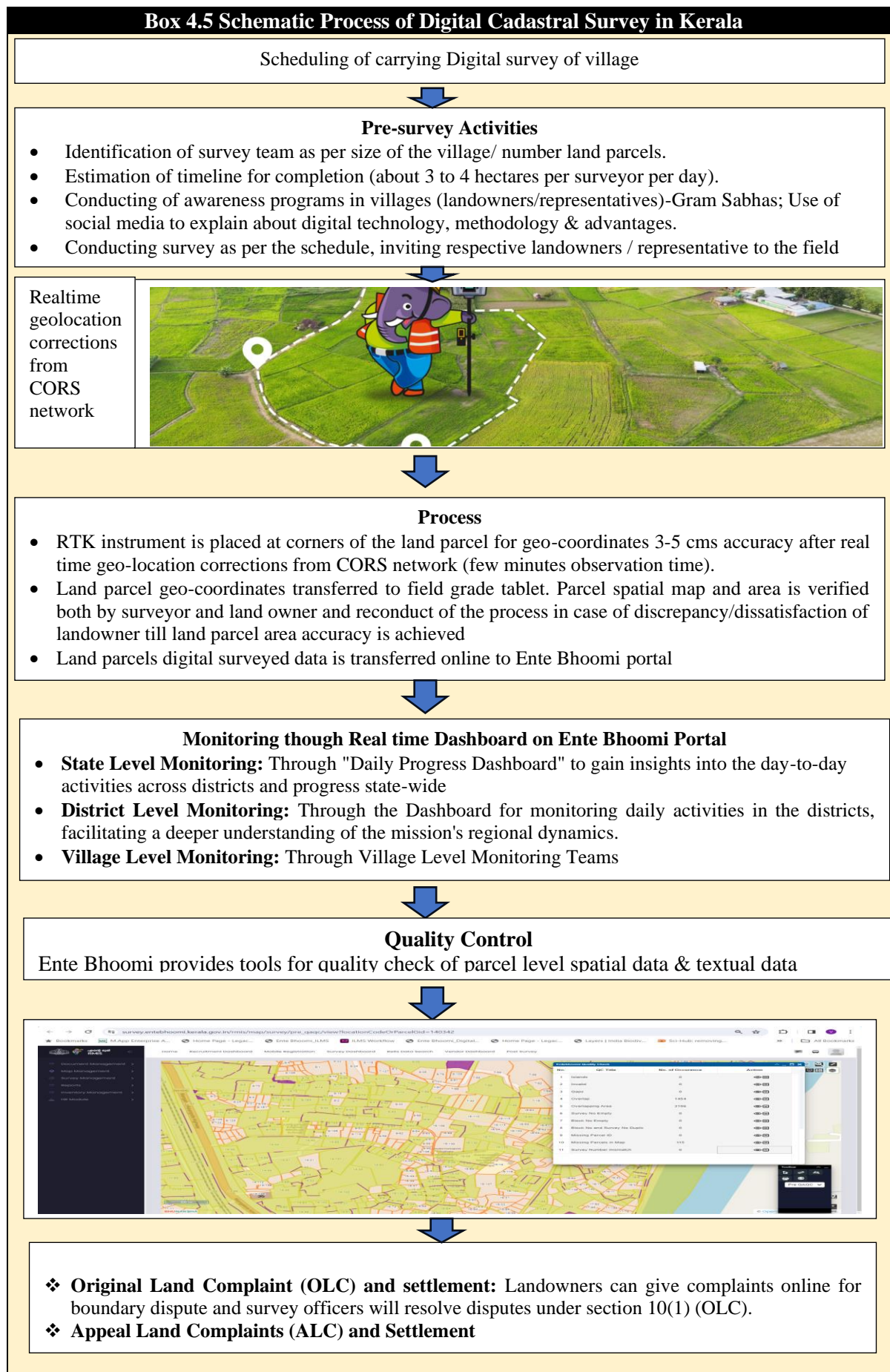
To overcome the previous re-survey limitations and challenges, Kerala is presently carrying out a comprehensive digital resurvey, village wise covering the entire state. Under the digital resurvey programme, 33,08,131 land parcels have been created for a total extent of 186980.66 hectares²⁰. The main technical components of the digital survey are:

- ❖ **Continuously Operating Reference Station (CORS) Network:** CORS is a network of RTK base stations that broadcast corrections in coordinates, usually through an internet connection. There are 28 RTK base stations in Kerala. CORS can be used to achieve the location of a point in real-time with a relative positioning accuracy of 3-4 cms.
- ❖ **RTK GPS Rovers:** 1500 RTK rovers are used for survey of accurate geo-position (X= Longitude; Y= latitude; Z= Height in WGS84 Datum at all corners of land parcel in real time).
- ❖ **Robotic ETS:** To overcome the challenges of big tree canopy in Kerala causing satellite GPS signature problems, 200 robotic ETS are used for survey in dense tree covered areas.
- ❖ **Military-grade Computer Tablets:** 1700 field grade computer tablets are being used for integration of real time land parcel boundary geo-coordinates for verification by the surveyor and land parcel owner in the field besides sending the survey data to the online *EnteBhoomi* application, (<https://survey.entebhoomi.kerala.gov.in/>)

To take up the state-wide comprehensive digital survey, the state government recruited 1500 contract surveyors and 2500 contact survey helpers. Hand-on training on digital survey were given and a team of master digital surveyors have been selected for continuously supporting the field surveyors. Presently, different survey teams are deputed in different places for conduct of the digital survey.

Box 4.4 RTK GPS based Digital Cadastral Survey	
	
CORS Network in Kerala	Real-Time Kinematic (RTK) Base Stations

²⁰ As on 10th August, 2024



4.4 Computerisation of Registration

In Kerala, all the 315 SRO offices have been computerised (Table 4.4). The enabling registration software in use is called the Package for Effective Administration of Registration Laws (PEARL). The process of computerisation of SROs had started in September 2011 and completed in March 2013. The SROs in the state are integrated with revenue offices and the land record database. The registration is allowed anywhere in the district and online facility is provided for booking an appointment. About 0.88 million landed properties were registered in the state during 2023-24. Though the sale of the government land is not blocked, the RoR mentions the ownership status of government in the given survey numbers and hence effectively blocks registration of such lands. Though the Fair Values²¹ of various categories of rural/urban lands are not uploaded on the registration software, the same is accessed online from the website of the Inspector General of Registration and Stamps (IGR), Kerala. The fair values from the IGR website have to be manually entered and the system would automatically calculate the stamp duty and registration charges. The system provides for online payment facility of stamp duty and registration charges and an e-calculator is made available for the computation of the payable amount.

Table 4.4 Computerisation of Registration-A Quantitative Snapshot

Sl No	Parameter/Indicator	Kerala
1	Number of SROs in the State	315
2	SROs computerized (%)	100
3	Month and Year of Computerisation of 1st SRO	09/2011
4	Month and Year of computerisation of latest SRO	03/2016
5	SROs integrated with Land Record database (%)	100
6	Number of land properties registered in FY 2023-24 (million)	0.88

The registration process is completed online by the SRO and SMS is triggered both during successful submission of application/slot provision as well as for completion of registration. The SRO can generate encumbrance certificate and legacy data (from 1986) for ready reference. However, in practice, the SRO only checks the online *Thandapper* for the present party/ owner names, the last transaction and the rent receipts. Capturing of PAN, Aadhaar number, mobile numbers are not mandatory. The biometrics of the parties are not captured and there is no facility to verify the eKYC of Aadhaar/PAN. There is no facility to upload the identification documents. The SROs endorsement on the deed document is entered into a manual filing sheet at the SROs office before scanning and transferring the document to the VO. The Registration (Amendment) Rules (Kerala), 2021 provides for changes for the online registration process²². The system provides for a dynamic deed template available for use. This can be made use of by the citizens though the existing practice of availing services of document writers for sale deed registration remains the same.

4.5 Process of Mutation

The process of mutating the title of property, from one person to another is termed as *Pokkuvaravu* in local parlance. Mutation, is primarily of three types; transfer of property (sale/gift of whole or part); transfers by decrees of civil courts and transfers by succession/will of inherited property. The procedure/timelines for updation of records varies according to the type of mutation. The transfer of registry is implemented online with the integration of the registration portal (pearl.registration.kerala.gov.in) with the revenue portal (revenue.kerala.gov.in). After the online registration of deeds at sub-registrar office, the data regarding the mutation of the property (Form No.1 B) is automatically transferred to the concerned village office. The VO receives the details of the seller and the new owner in his login along with the scanned registration document. There may be

²¹ Fair value is the same as circle rates, guideline values etc.

²² Electronic record defined as electronic record as defined in clause (t) of subsection (1) of section 2 of the Information Technology Act, 2000 (Central Act 21 of 2000).”; Package for Effective Administration of Registration Laws (PEARL) defined as a software module developed by the Inspector General of Registration for registration of documents.

potential delay of a week to 10 days for the receipt of the scanned document from the registrar office and it is common in Kerala to have the citizens rush to the VO with the original documents. However, the VO can initiate the process only after the formal receipt of the scanned documents from the SRO. The SRO can also push pending data of mutation in case of any network failure. Table 4.5 captures the key parameters of the mutation process in Kerala.

Table 4.5 Mutation-A Quantitative Snapshot

Sl No	Parameter/Indicator	Kerala
1	Applications received for mutation in FY 2023-24 (in million)	1.06
2	Applications disposed in FY 2023-24 (%)	95
3	Applications pending for mutation FY 2023-24 (%)	5
4	Pending applications for including names in RoRs (in million)	0.32
5	Timelines for effecting of mutation: 7-40 days-13.55%; 41-90 days-7.41 %; 91-120 days-5.09%, Remaining-73.95%	
6	Number of mutations related to sub-division (in million)	0.44
7	Applications for mutation of land with entire Khasra (%)	53.8
8	Prescribed period for issue of mutation orders from date of receipt	40 days;
9	Average period of effecting mutation	27 days

In Kerala, the mutation process is different for different sources of mutation request. For the first two types i.e. cases of registered transfer of property (sale, gift, partition etc) as well as court decrees, an enquiry as per the Registry Rules is not required and are to be disposed of. The third type of mutation i.e. due to inheritance requires mandatory notices (15 days period) to be served on the parties interested inviting objections to the transfer of registry. Copies of the notice are required to be published on the notice board of the concerned village panchayat and taluk offices. Such cases are disposed after making a personal enquiry and giving the parties an opportunity of being heard. The documents required to be submitted for the succession includes the original title deed; encumbrance certificate; death certificate of the recorded owner, indemnity proof of the legal heirs and witnesses at the VO. The succession cases only deal with recording of the legal heirs' names in the TP in place of the deceased landowner. For shares to be reflected in the RoR, partition would have to be carried out. However, unlike other states, partition can be carried out along with the mutation and do not have to be consequent to updation of RoR. A legal heirship certificate from the Registrar along with Parties Declaration are mandatory requirements for the SRO for effecting partition.

The registration of land may be of two types, for the whole land or part land. In the latter case, when sub-division is mandated, the same would have to be approved by the Tehsildar. In such cases, it is important to see if was possible to effect sub-division on the ground as confirmed on the file by the Taluk Surveyor/Revenue Inspector, following with a provisional order is passed by the Tehsildar. As per the Transfer of Registry Rules, 1966, a copy of the provisional order together with the sketch and sub-division statement in triplicate is to be communicated to the Superintendent of Survey and Land Records for scrutiny and computation and only on receiving it back after scrutiny can the final orders be passed by the Tehsildar. A copy of the sketch and sub-division statements is then communicated to the VO for mutation.

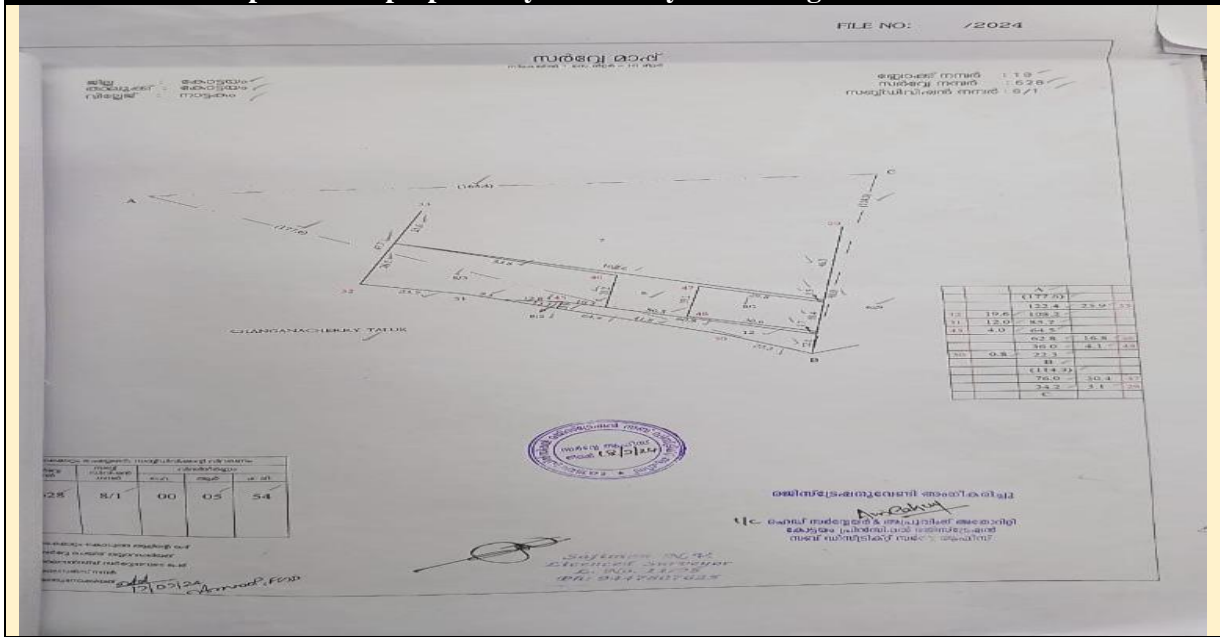
In this regard, it is important to reflect on a good practice existing in 13 villages of Kerala called the Torrens system. The Study team made a visit to these villages to understand the practice. Box 4.6 reflects the background and summary of the practice in what is called the '*Torrens villages*' by the revenue authorities in Kerala.

Box 4.6 Torrens System & Practice in Torrens Villages in Kerala

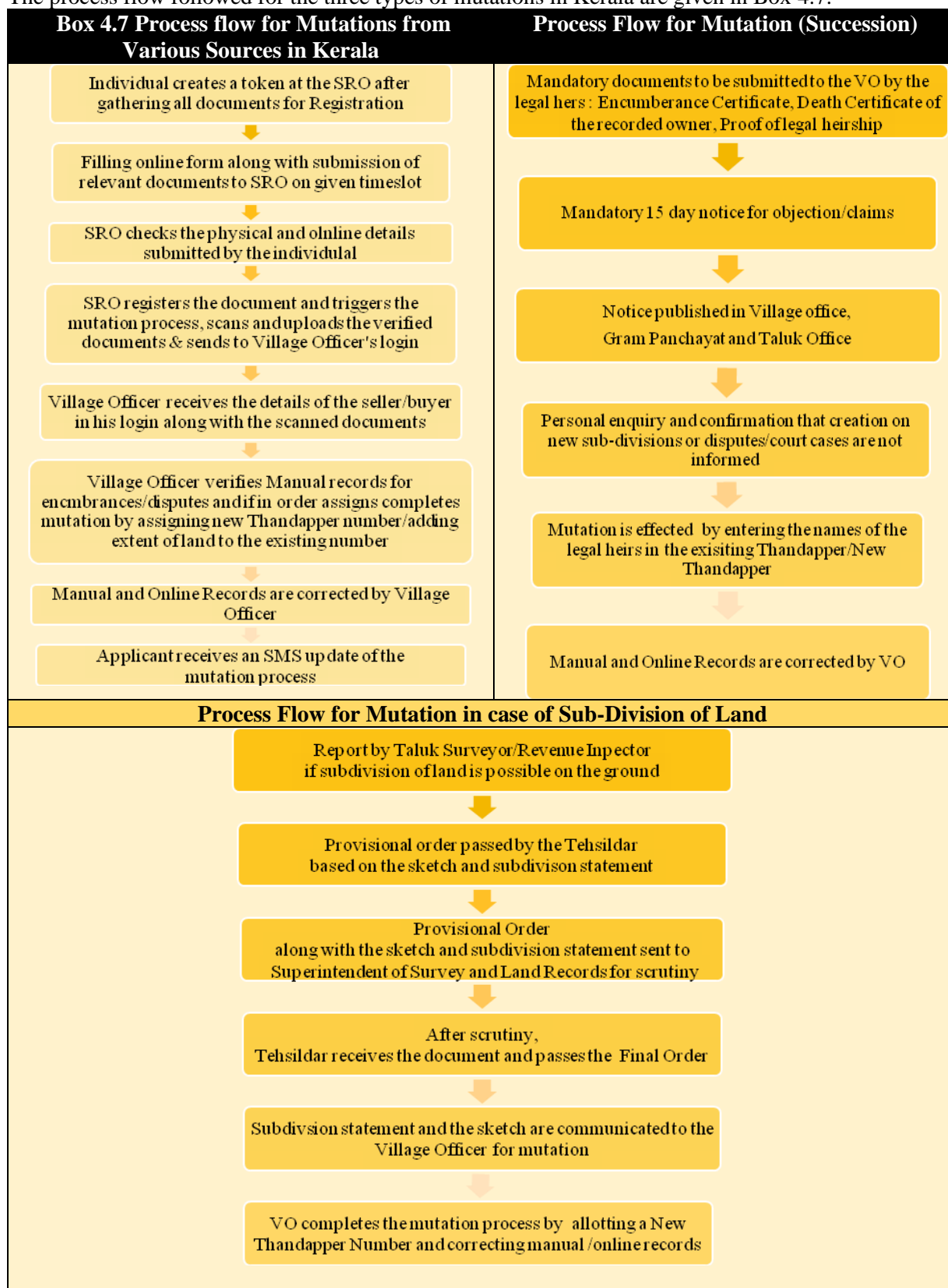
Torrens title is a land registration and land transfer system, in which a state creates and maintains a register of land holdings, which serves as the conclusive evidence (termed "indefeasibility") of title of the person recorded on the register. The Torrens system, named after Sir Robert Torrens, an Australian politician and administrator, was introduced in South Australia in the mid-19th century. The system was developed to overcome the challenges posed by the deed system of registration that provided no real guarantee of title. The passage of Sir Robert Richard Torrens' Real Property Act in 1858 introduced title by registration. In the Torrens System, the land titles register accurately and completely reflects the current ownership and interests about a person's land and the Government guarantee provides for compensation to a person who suffers loss of land or a registered interest. In order to cure the insecurity of title, the system consisted of the mirror, curtain and insurance principles. These principles meant that the contents of a land register were accurate and one did not need to go behind the register because if the mirror of title reflected incorrect information, then the person affected would be compensated by the state for any loss.

In Kerala, there are 13 villages (7 in Kottayam and 6 in Ernakulam) where a component of Torrens system is being implemented since 1995. In normal cases of registration, the sketch of the land parcel boundary and extent is not an essential requirement. However, in the 13 villages (Kottayam, Aimanam, Chegalam, Nattakom, Thiruvapur, Peroor, Kumarakom in Kottayam and Angamali, Manjapra, Mukkannur, Thuravur, Ayyauzha & Karukutty in Ernakulam District), the submission of survey map is important along with the deed for registration in respect of any transfer of land. In the Torrens villages, each landowner desiring to sell the lands must apply to the Torrens Office for the sketch/map which shall be prepared by a licensed surveyor or by an officer authorised by the Government. There are 40 plus licensed surveyors in the 13 villagers. The sketch map is prepared after physically going to the ground and surveying the extent and preparing the sketch. The sketch along with the tax receipts are important documents mandated by the SRO of these villages for the registration of land. However, after the registration, the normal process of mutation follows and there is no sub-division effected after the mutation even in the Torrens villages.

Sample Sketch prepared by the Surveyors for Registration of Land



The process flow followed for the three types of mutations in Kerala are given in Box 4.7.



The mutation is done by assigning a new *thandapper* when there is no landholding in the name of the landowner or adding the extent to an existing *Thandapper*. The applicant is intimated via an SMS. The Rules specify that no transfer of registry shall be kept pending for more than four months. The

average days for effecting mutation is estimated as 27 days. The timelines for the pending mutation in the state as a whole (0.32 million, pending as on date; 8th August, 2024) however varies; 13.55 percent were completed in 7 to 40 days; 7.4 percent in 41 to 90 days and 5.1 percent in 91-120 days. While the absolute pendency is low, the delays according to the state government are caused in case of mutation for flat owners. It is important to note that the mutation pendency data only pertains to those received from the registration department. The succession related mutations, at present, do not have end to end online enablement to map the time duration for effecting mutation. The revenue courts, 157 in number across the state is yet to be computerised in Kerala. Presently, there is a pilot project being implemented in Thrissur district for linking the land records database with the e-Court system of civil courts.

4.6 Assessment of RTM in Study Districts and Villages

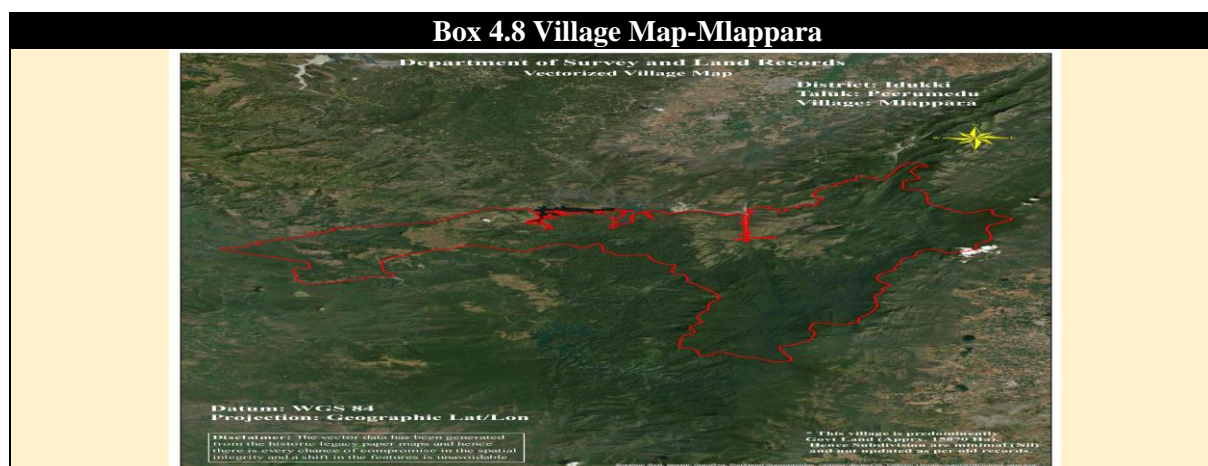
As discussed in the methodology section in Chapter 1, four villages were selected for RTM assessment from two districts. Mlappara and Peruvanthanam villages in Idukki district and Neliampathy and Kollenkode villages in Palakkad district. Idukki district is located in the southern part of Kerala and forms part of the eastern border of the State with Tamil Nadu. Though Idukki, the largest district in Kerala is home to the second largest number of Scheduled Tribes in the State. Idukki district has two revenue divisions, four taluks (Devikulam, Udumbanchola, Peerumade and Thodupuzha) and 66 revenue villages. Palakkad district is located in the central part of Kerala. Primarily an agricultural district, Palakkad is called the granary of Kerala. Palakkad district consists of two revenue divisions, six taluks (Palakkad, Perinthalmanna, Ponnani, Ottapalam, Alathur and Chittur) and 157 revenue Villages. All the land parcels were included for assessment in Mlappara and Neliampathy while 35 and 132 land parcels were evaluated in Peruvanthanam and Kollengode villages. Table 4.6 reflects the basic statistics regarding land extent and mutation in the four selected sample villages.

Table 4.6 Basic Land Information Study Villages

S. N	Indicators	Mlappara	Peruvanthanam	Neliampathy	Kollenkode
I	Land Records				
1	No of Land Parcels (Sy Nos)	51	13,354	120	16,711
2	No. of Thandappers	28	12518	81	12,323
	Live Thandappers	28	8372	35	6612
II	Mutation- Applications Received, Orders Passed & Pendency (2023-24)				
1	Applications Received	0	289	2	750
2	Orders Passed	0	284	2	750

1. Mlappara village, Idukki District

Mlappara village, located in Peerumade Tehsil of Idukki district is the largest village in Kerala in terms of land area. As per the 2011 census, Schedule Caste (SC) constituted 17.8 percent while Schedule Tribe (ST) were 57.4 percent of total population. The total extent of land is 60,955.45 hectares.



The taxable land extent in the Basic Tax Register is 208.77 ha. Lands in Survey No. 1/1 is a “Poramboke Reserve” land as per the BTR and has more than 300 recognised titles distributed under the Scheduled Tribe and Other Forest Dwellers Recognition of Forest Rights Act, 2006. The claims of more than 100 are under process. Called the Moozhikkal habitation, the area of land in the survey number is 15,873.93 hectares. Lands in Survey Numbers 5, 6, 7, 13/1, 14 and 16 are revenue lands with cardamom plantation, that had been existing since the pre-independence times. The land is owned by 40 plus landowners by inheritance, partition and sale deeds. All the land parcels of Mlappara village have been included for RTM assessment. Table 4.7 shows the results of the RTM assessment.

Table 4.7 RTM Assessment of Mlappara Village

S.No	Heads	Number
I	General	
(i)	Land Extent (Total)	60955.45 ha
(ii)	Private	208.77 ha
(iii)	Thandappers	28
(iv)	Single owner Land Parcels	28
II	Land Records & On Ground Status-Ownership and Possession	
(i)	Land Records and On Ground Ownership	67%
(ii)	Land Parcels with Non-updated Land Records	33%
a	Succession	20%
b	Sale	13%
(iii)	Land Records and Possession (Updated)	100%
III	Spatial & Textual Records	
(i)	Location and Extent	NA
IV	Land Records & On Ground Status: Land Land Use	
(i)	Land Type (Plantation)	100% (Cardamom Plantation)
(ii)	Land Use (Not given in Land Records)	Cardamom Plantation
V	Land Records & On ground Status-Encumbrances on Land	
(i)	Court Case (%)	22%
(ii)	Mortgage (%)	18.4%
a	Entry in Online Land Records	0%
b	Entry of Possession Certificate (PC) in Manual Land Records	100% (of mortgages)
c	Entry of Banks Notice in Manual Land Records	0%

Land Records and On-ground Status-Ownership & Possession: As per the primary survey, 78 percent of the landowners appearing on the RoR own and possess the land on ground. The non-updated records (18 percent) are mostly cases of succession (15 percent) followed by sales (3 percent). All the landowners surveyed conveyed that the actual possession on ground is held by them.

Spatial Records and Textual Records: The map of Mlappara village is not digitised, prepared long time back and does not even show the sub-divisions (Box 4.8). Hence the land extent difference between textual and spatial records cannot be ascertained. The location and extent of land parcels in the village also cannot be meaningfully assessed. Box 4.9 shows the assessment in case of land use.

Box 4.9 Land Use in Mlappara-Land Records and On-ground Status



Land Records and On-ground Status: In case of the land use, the records and actual use completely matches in all cases. The landowners confirmed that lands are under cardamom plantation. Given the lack of geo-referencing, the survey number-wise land use category cannot be assessed with satellite image. The satellite image shows that most of Mlappara village is covered with forests, housing the Periyar National Park, with small patches of plantation and settlements. The village land use approximation from the satellite image is forests (70%), plantation (8%); water bodies(8%) & Settlements (2%).

The land type in all the sample land parcels is 'plantation' and this is also reflected in the information shared by the landowners.

Land Records and Encumbrances on Land: The primary survey probed the encumbrances on the land in terms of land lease, mortgage of property, pending court cases or ongoing land acquisition proceedings. In 18 percent of the land parcels, the property is mortgaged. And 22 percent cases, there is an ongoing court case. There is no system of flagging court case in the RoR. The EMR, has been introduced only July, 2024. However, in case of mortgages, the Study team verified the manual records. The manual records show notings by the VO in all cases at the time of issuance of PC for application for bank loan.

Specific Issues Relating to Land Records in Mlappara

Mlappara, the largest village in Kerala requires attention of the revenue authorities. Out of the total land parcels, 33 percent of the records in the land parcels have not been updated owing to death of the landowner (20%) and registered but not mutated (13%). In both the cases, the updation of land records have been constrained owing to the prevailing issues regarding the status of land and conflicting claims of the landowners, the state and the forest department. This is summarised below:

In 2007, an extent of 881 km² was notified as core or critical tiger habitat of Periyar Tiger Reserve²³, the status of lands appears to have been a bone of contention. But, even as the status quo prevails, restrictions of different nature seemed to have been imposed on the landowners. A Gazette publication dated 3rd May, 2019 stated that as per Kerala Forests (Vesting and Management of Ecologically Fragile Lands) Act, 2003, the ownership and possession of all Ecologically fragile land held by any person or any other form of right over them, shall stand transferred to and vested in the government free from all encumbrances and the right, title and interest of the owner shall stand extinguished from the date of commencement of the Act i.e. 2nd June, 2000. Three Survey Numbers of private lands viz. 6, 13/1 and 16 were declared as Ecologically Fragile Lands (EFL) vide the notification. The total extent of such lands is 67.52 hectares. However, these parcels have not been demarcated on the ground and hence the notification has not only impacted the landowners of the notified survey numbers but also the adjacent parcels (including the right of transferability of the adjacent parcels by the landowners). While the gaps in the up dation of records is owing to the above issue and lack of clarity on the ground, the Study points out the need for an early resolution to an issue spanning few decades given the restrictions imposed on the general rights accorded for landowners. The plantations have existed in the revenue records since the earlier times and as per the survey settlement. Demarcation of the revenue lands in the village is a critical requirement to address the many ongoing issues in the village including court cases and boundary disputes.

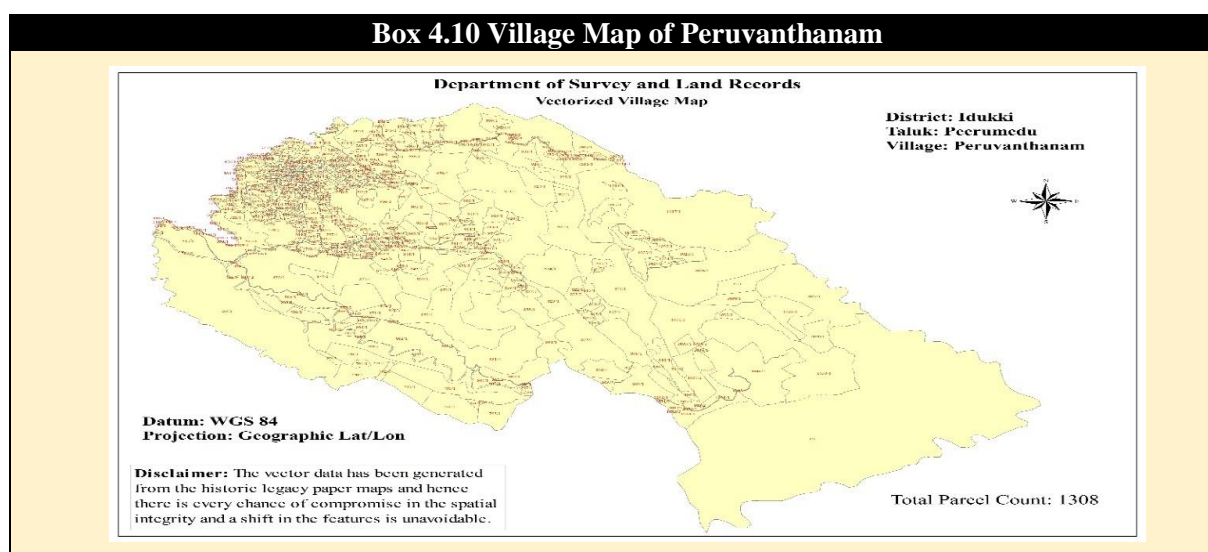
Survey No 1/1 is recorded as 'Poramboke Reserve' in the BTR. The total land extent in this survey number is 15867.50 hectares. As per the RoFR Act, 2006, 295 forest title deeds, called *Vanavakasarekha* in local parlance have been distributed to landholders in this survey number. As regards maintenance of records of rights, Rule 12 A of the FR Rules (as amended on 6.9.2012) provides

²³ Vide S.R.O No. 1089/2007 (G.O. (P) No. 75/07/F&WLD dated 31.12.2007

that on completion of the process of recognition of rights and issue of titles, the Revenue and the Forest Departments are required to prepare a final map of forest land so vested and the concerned authorities are required to incorporate the forest rights so vested in the revenue and the forest records within the specified period of record updation under the relevant State laws or within a period of three months, whichever is earlier. This position has been reiterated in the Ministry of Tribal Affairs Circular dt. 3.3.2014²⁴. The computerisation of land records leaving out the records of FRA titles (treated at par with the private land owners in the 2013 land acquisition law) is an ignored issue that requires attention of the authorities.

2. Peruvanthanam Village, Idukki District

Peruvanthanam village is located in Peerumade Tehsil of Idukki district in Kerala. The total extent of the village is 13,354 hectares, with the extent of government land and private land being 12518 and 8372 hectares respectively.



Land Records and On-ground Status-Ownership & Possession: For the RTM assessment 35 randomly selected land parcels have been included. As per the primary survey, 96 percent of the surveyed landowners in the Thandapper own and possess the land on ground. The non-updated records (4 percent) pertain to the death of the recorded landowner. All the surveyed landowners confirmed that the recorded land is under their possession.

Spatial Records & Textual Records: The map of Peruvanthanam village is not digitized and hence the land extent difference between textual and spatial records cannot be ascertained. The land use is not a mandatory detail to be updated by the VO in RoR. Hence there is no base for comparison with the details shared by the landowners. The land type in all the sample land parcels is 'dry lands' and this is also reflected in the information shared by the landowners. Table 4.11 depicts the on-ground status with regard to land use as reflected from the primary survey and an assessment of the satellite images.

Land Records and Encumbrances on Land: The primary survey probed the encumbrances on the land in terms of land lease, mortgage of property, pending court cases or ongoing land acquisition proceedings. The only encumbrance reported by the landowners is mortgage of land/property. In 50 percent of the land parcels, the property is mortgaged. The online flagging is not reflected in the RoR as the facility has just been introduced at the time of the Study. However, in 69 percent cases, the manual Thandapper Register has a noting for issuance of PC. The noting of bank confirmation of extending loan also exists in 28 percent of the mortgage cases. Only in 3 percent cases, the manual register does not have any entry.

²⁴ Vide F. No. 23011/06/2014-FRA

Table 4.8 RTM of Peruvanthanam Village, Idukki District

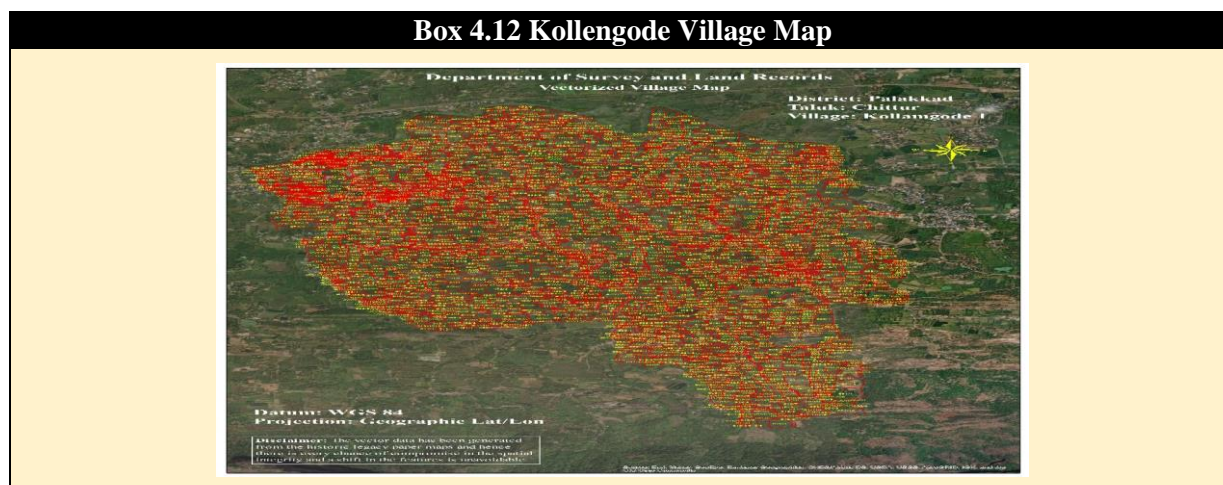
S.N	Heads	Number
I	General	
(i)	Land parcels in primary survey	35
(ii)	Thandappers in primary survey	25
(iii)	Single owner Land Parcels	23
(iv)	Joint Owner Land Parcels	2
II	Land Records & On Ground Status-Ownership and Possession	
(i)	Land Records and On Ground Ownership	96%
(ii)	Land Parcels with Non-updated Land Records	4%
(iii)	Land Records and Possession	100%
III	Spatial & Textual Records: Updation of Partition/Demarcation	
(i)	Location and Land Extent	NA
IV	Land Records & On Ground Status: Location, Extent & Land Use	
(i)	Land Type (Dry/Wet)	100%
(ii)	Land use (Not given in Land Records) Primary Survey: Residential (26%); plantation/agriculture (74.3%)	
V	Land Records & On ground Status-Encumbrances on Land	
(i)	Land lease & Court Case	Nil
(ii)	Mortgage of land/property	50% of Land Parcels
a	Entry in Online Land Records	0%
b	Entry of PC in manual land records	69%
c	Entry of banks notice in manual land records	28%
d	No Entry in manual records	3%

Box 4.11 Land Use in Peruvanthanam-Land Records and On-ground Status

The RoR does not reflect the actual land use. As reported by the landowners, the land parcels have mixed uses; ranging from residential (26%), rubber plantation (8.5%) and farm crops such as cardamom, ginger, pepper and vegetables (65.5%). Given the lack of geo-referencing, the survey number-wise land use category cannot be assessed with satellite image. The approximate land use in the village based on assessment of the satellite image is plantation/agriculture (85%); settlements (10%); water bodies and others (5%).

3. Kollengode Village, Palakkad District

Kollengode village is located in Chittur Taluk of Palakkad district in Kerala, India. It is situated 14 km away from Taluk headquarter Chittur and 26 km away from district headquarter Palakkad. Table 4.12 reflects the RTM of Kollengode Village.




Land Records and On-ground Status-Ownership & Possession: As per the primary survey of 51 landowners/Thandapper holders and 132 land parcels, 98 percent of the land records are updated. The landowners appearing on the RoR also confirm possessing the land on ground. The non-updated record, i.e. two percent is a case of succession. Table 4.9 shows the results of the RTM assessment. Box 4.13 reflects the land use in Kollengode.

Table 4.9 RTM of Kollengode Village, Palakkad District

S.N	Heads	Number
I	General	
(i)	Land Parcels (Private) in Primary Survey	132
(ii)	Thandappers in Primary Survey	50
(iii)	Single owner Land Parcels	88%
(iv)	Joint Owner Land Parcels	12%
II	Land Records & On Ground Status-Ownership and Possession	
(i)	Land Records and On Ground Ownership	98%
(ii)	Land Parcels-Non-updated Land Records	2% (Succession)
(ii)	Land Records and Possession (Updated)	100%
III	Spatial & Textual Records	
(i)	Location and Land Extent	NA
IV	Land Records & On Ground Status-Land Type and Use	
(i)	Land Type	100%; Wet (56%) & Dry (46%)
(ii)	Land Use (Not given in Land Records) Primary Survey: Vacant (6.6%); residential (25.1%); shops (2.2%); school (3.7%); paddy (57.7%) and Coconut & Banana (4.4%)	
V	Land Records & Ground Status-Encumbrances on Land	
(i)	Land lease and Court Case	Nil
(ii)	Mortgage	16%
a	Entry in online land records	0%
b	Entry of PC in manual land records	8%
c	Entry of Banks Notice in manual land records	0
d	No Entry	8%

Spatial Records, Textual Records and On-ground Status: The map of Kollengode village is not digitised and hence the land extent difference between textual and spatial records cannot be ascertained. In the absence of spatially relevant records, the location and extent of land parcels in the village also cannot be meaningfully assessed. The land use is not a mandatory detail to be updated by the VO in RoR. Hence there is no base for comparison with the details shared by the landowners. The land type in the records is wet lands (54%) and dry lands (46%). is ‘dry lands’ and this is also reflected in the information shared by the landowners. Table 4.13 depicts the on-ground status with regard to land use as reflected from the primary survey and an assessment of the satellite images.

Box 4.13 Land Use in Kollengode-Land Records and On-ground Status	
	<p>In case of the land use, the broad classification of land use as ‘Nilam’/Wet Land (54%) and ‘Purayidam’/Dry Land (46%) matches the records on ground. However, the precise land use is not reflected in the records. As per the survey, the actual land use of the surveyed lands varied from residential (25%); social infrastructure (5.9 percent), vacant (6.6%) and irrigated crops/paddy (62%).</p> <p>The approximate land use in the village based on assessment of the satellite image is rain and ground water depended paddy cultivation in two seasons (double): 75%; Grains and others crops (10%); Settlements (10%) and Waterbodies & streams (5%)</p>

Land Records and Encumbrances on Land: The primary survey probed the encumbrances on the land in terms of land lease, mortgage of property, pending court cases or ongoing land acquisition proceedings. The only encumbrance reported by the landowners is mortgage of land/property. In 16 percent of the land parcels, the property is mortgaged. The online flagging is not reflected in the RoR as the facility has just been introduced at the time of the Study. However, in 50 percent cases, the manual Thandapper Register has a noting for issuance of PC. For the remaining 50 percent, there is no entry in the manual records whatsoever. The manual records, however, have no noting for bank confirmation of extending loan in any case.

Nellyampathy Village, Palakkad District

Nellyampathy village is located in Chittur Taluka of Palakkad district in Kerala, India. It is situated 48 kms away from Chittur and 40 kilometres away from Palakkad. The total land extent in the village is 9554.11 hectares out of which 861.50 hectares is dry land (assignable/assigned) and 8692.61 ha is forest lands.

The village has a historical background, particularly with regard to the origin of private plantations. Till 18th century, though the original inhabitants were known to be nomadic people of hunter gatherers and slash and burn cultivators. The forests were believed to be under the administration of small chieftains called *Naduvazhi* and *Nambidi*. The British eventually leased out a larger portion of the forest tracts in the eastern portion while ascertaining the rights of the Kollengode Naduvazhi. The vast forests of the Nellyampathy village were known to comprise princely forests, leased forests and state forests. By the later half of the 19th century British planters started establishing plantations and the first plantations were raised in the lands leased out from the Kollengode ruler in the year 1863. In the year 1971 through an ordinance, and followed by the Kerala Private Forests (Vesting and Assignment) Act, the private forests which remained with the erstwhile chieftains were nationalized. The forests belonging to the Kollengode Kovilagam were notified as vested forests and taken over by

the Government of Kerala²⁵. The lands appearing in the Thandapper are assigned lands since the 1960s. Since clear demarcation of revenue lands and forest lands do not exist, these lands are contested by the two departments. To enable transfer of these lands, no objection certificate from the forest department is being mandated and these issues also is causing hindrances in the normal updation of records in Nelliampathy.

Box 4.14 Nelliampathy Village Map

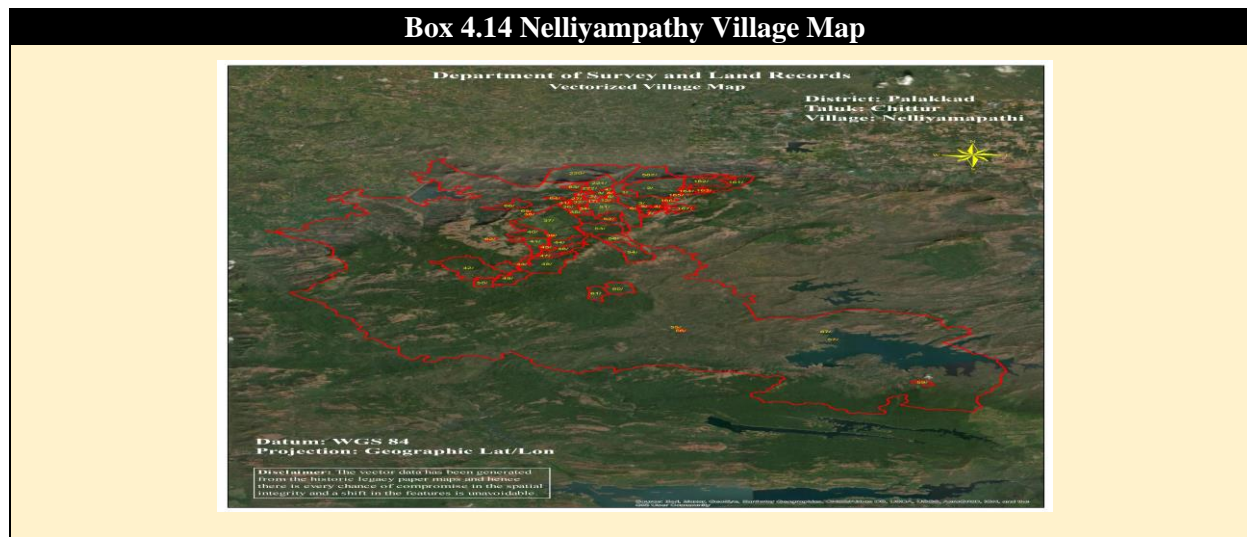


Table 4.10 Assessment of RTM in Nelliampathy Village

S.N	Heads	Number
I	General	
(i)	Land Parcels (RoR)	48
(ii)	Thandappers	35
(iii)	Single owner Land Parcels	71.4%
(iv)	Joint Owner Land Parcels	28.5%
II	Land Records & On Ground Status-Ownership and Possession	
(i)	Land Records and On Ground Ownership	20%
(ii)	Land Parcels-Non-updated Land Records	80%
a	Registered Sales	46.8%
b	Informal Sale	16.6%
c	Succession	16.6%
(ii)	Land Records and Possession (Updated-20%)	100%
III	Spatial & Textual Records: Updation of Partition/Demarcation	
(i)	Land Location and Extent	NA
IV	Land Records & On Ground Status: Location, Extent & Land Use	
(i)	Land Type (Dry/Wet)	100% (Dry Lands)
(ii)	Land Use (not there in land records); As reported by Landowners: Residence (41.6%); Residence +Shops (6.25%); Shops (10.4%); Home stay (4.1%); Resort (8.3%); Office (2%)	
V	Land Records & Ground Status-Encumbrances on Land-Nil Mortgage & Court Case	
(i)	Lease (by registered holders)	2.08%
(ii)	Rent (registered and informal sales)	20%
(iii)	Court Case	Nil
(iv)	Court Case	Nil

²⁵ Ramachandran K.K (2010): Ecology and Behaviour of Arboreal Mammals of Nelliampathy Forests, KFRI Research Report No. 382, Kerala Forest Research Institute
[chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://docs.kfri.res.in/KFRI-RR/KFRI-RR382.pdf](https://docs.kfri.res.in/KFRI-RR/KFRI-RR382.pdf)

Box 4.15 Land Use in Neliampathy-Land Records and On-ground Status



The map of Neliampathy is not digitized and hence the land extent difference between textual and spatial records cannot be ascertained. In case of the land use, the broad classification of land use as ‘Dry land’ matches the records on ground. However, the precise land use is not reflected in the records. As per the survey, the actual land use of the surveyed lands varied from residential (81.25 percent); residence and shops (6.25 percent) to shops (6.25 percent). The approximate land use in the village based on assessment of the satellite image is plantation (85%); forest (10%); water bodies (1%) and settlements (4%)

Land Records and Encumbrances on Land: The primary survey probed the encumbrances on the land in terms of land lease, mortgage of property, pending court cases or ongoing land acquisition proceedings. There are no cases of encumbrance or court cases, but 20 percent of the landholders of non-updated records have further leased/rented the land.

The gap regarding lack of action on sub-division and updation of maps has been discussed above. The resurvey of lands can be expected to address the map-related data gaps. The Kerala resurvey program is not only marked by technological finesse but also paying adequate attention to objections and grievances of the landowners through a structured mass contact programme. This is critically important for the success of the initiative. The assessment of RTM shows that the land records updation is not an issue as far as mutation of registry is concerned. The small number of cases that exist are related to succession. The lack of updation of records for Mlappara village is a concern area as sub-divisions are not effected on ground to bifurcate land parcels that are freehold. This has been causing enormous difficulties for the landowners. The restriction on normal rights (mutation) of the landowners for decades does call for serious attention of the government. A more detailed RoR that is reflective of ground realities, institution of due diligences for protecting non-transferable lands, greater online integration for some of the excluded processes/platforms, integration of records of RoFR vested lands and encumbrances owing to critical provisions in the land acquisition laws merit attention.

4.7 Summary and Suggestions

A major concern in Kerala is the lack of updation of maps and sub-divisions of survey numbers. The ongoing digital resurvey of lands can be expected to address the map-related data gaps. The Kerala resurvey program is not only marked by technological finesse but also paying adequate attention to objections and grievances of the landowners through a structured mass contact programme. This is critically important for the success of the initiative not only in Kerala but also other states planning resurveys. The assessment of RTM of the four villages shows that the land records updation does not seem to be a general issue as far as mutation of registry is concerned. The small number of cases that exist are related to succession. The lack of updation of records for Mlappara and Nelliampathy however merit attention. Legacy issues in revenue matters remain so for an extended period. The rights of the landholders in such areas deserve as much concern as others. The Study included these villages with this objective. At Mlappara, beyond the larger question of legality of vesting of lands that for more than a century remained a private land in the revenue records is the issue of the rights of other landowners as well. The landowners of neighbouring lands of those vested as EFL are also unable to exercise their rights owing to lack of effective boundaries and demarcation of sub-divisions on ground. The restriction on normal rights (mutation) of the landowners for decades does call for serious attention of the government. A more detailed RoR that is reflective of ground realities, institution of due diligences for protecting non-transferable lands, greater online integration for some

of the excluded processes/platforms, integration of records of RoFR vested lands and encumbrances owing to critical provisions in the land acquisition laws merit attention. The summary of good practices and improvements with regard to land records in Kerala are summarised below:

- ❖ **RoR linkage with Legacy Records:** The Thandappers records or the RoR mention the Resurvey number. The permanent registers have also been made online and it is hence possible to understand the origin of the Thandapper/survey number. It is important to note that in Kerala, the assigned lands are alienable and become freehold after a fixed tenure. This tenure varied at different points of time (12 years till 2009; 25 years from 2009 till 2017 and 12 years again since 2017). The origin of the present Thandapper/survey number is important for due diligences to exclude the hitherto unalienable lands from transfer (objectionable government lands; assigned lands before the mandatory lock-in period; transfer of non-transferable tribal lands etc).
- ❖ **Verification of BTR Entries:** Facilitation of online payment of land tax was initiated in 2019 and the verification was done by the VO by checking the manual entries. In 2021, a 'One Time Certification' initiative was launched whereby the VOs compared the base records for fixing the land revenue arrears to enable the payment online. According to the state government, 99 percent of the process has been completed. This ensured multiple verification to address the issue of errors in the online land records.
- ❖ **Track ownership history of all land transactions:** A good practice in Kerala involves retaining the landownership history of each Thandapper account in the online land records system. Once an account number is created in favour of a person on owning a piece of land, not only does this number remain forever (as new landowners are allotted sequential Thandapper numbers), this is also reflected in the online Thandapper Register reflecting the change in ownership since the resurvey of land in the village/block.
- ❖ **Gap in Updation Taken Care by the Pokkuvaravu/Tax Payment requirement:** The gap of land record updation can be reasonably expected for the period between the resurvey settlement cut-off date and the period when the system became online. However, for all practical purposes, the land tax receipt or Thandapper extract is an important document in Kerala, for proving ownership of land, enabling sale of land or even availing services i.e. loan, government schemes etc. There is no landownership document per se maintained by the landowners in the state in most cases other than the tax receipt. Hence, the landowners' own interest is to enable the *pokkuvaravu*, a process that in turn requires creation of Thandapper numbers addresses the gap in updation of land records to a great extent.
- ❖ **Consent-based Linkage of Aadhaar with Record of Rights:** The Kerala Government received approval from the Government of India (Ministry of Electronics and Information Technology)²⁶ for Aadhaar authentication, on voluntary basis, in the RoR (Thandapper). Kerala has provided for two options for the landowners to voluntarily link their Aadhaar number with their land records; first, self-linking through the Revenue Department's online web portal (www.revenue.kerala.gov.in) and second, linking through the village office where the VO helps with the Aadhaar seeding through the revenue department's online web portal. Biometric verification is conducted at the village office to ensure the accuracy and authenticity of the linking process. As of now, 59,068 requests have been received by the State and 29,782 have been approved. The state-government proposes to implement a Unique Thandapper System across the state.
- ❖ **Mutation of land records for flat owners:** The residents of flats and apartments in Kerala have been demanding the assessment and remittance of land tax for their undivided share of land on individual ownership basis. The State Budget, 2024 has recognised this demand and took a landmark decision to appropriately fix and levy the taxes on such undivided shares of flat owners. The processes are presently underway to implement the landmark decision. The pendency in mutation in the land record updation is primarily owing to this reason.

Suggestions for Improvement

- ❖ **Due diligence in mutation:** In Kerala, citizens are generally understood to be cautious and carry out necessary due diligences required before buying a property. An Encumbrance Certificate that is available against a fee from the registration department maps the transaction history of the given

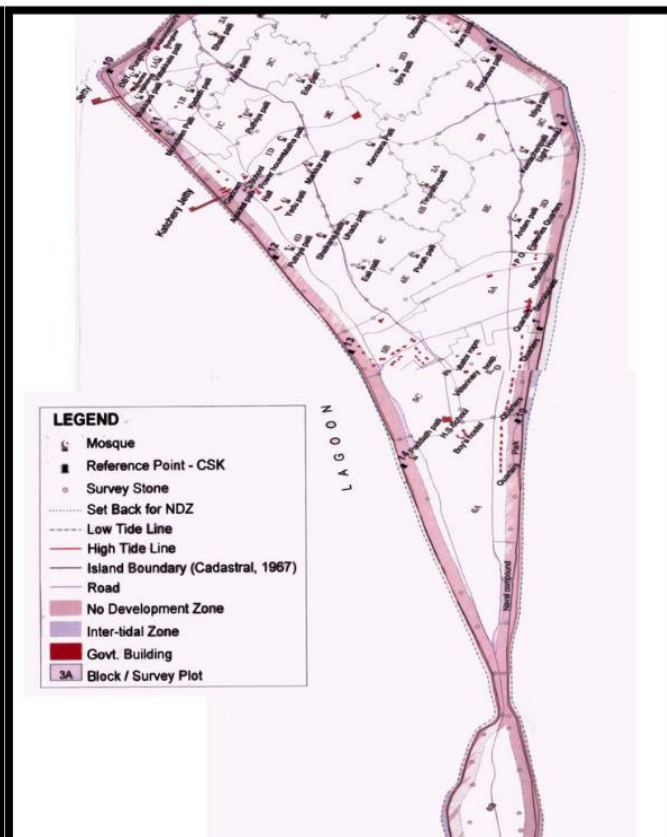
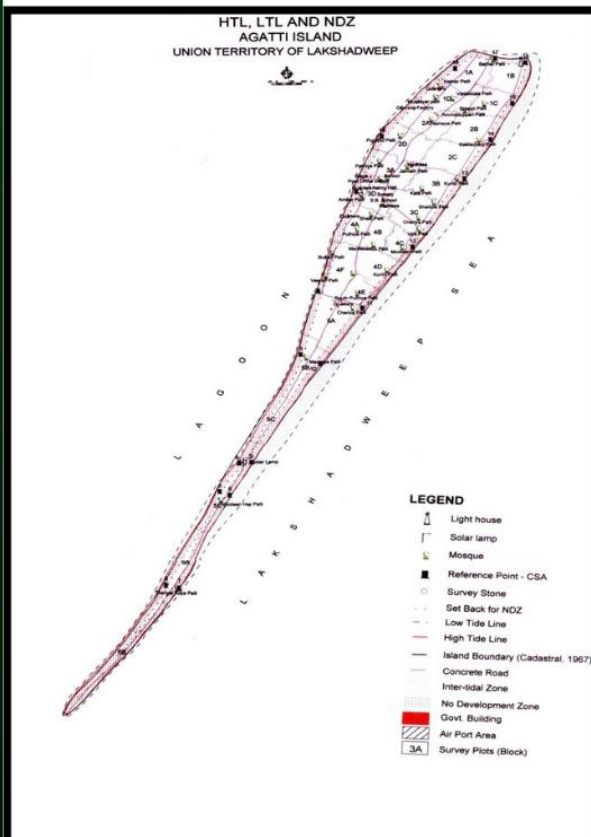
²⁶ Office Memorandum No. 13(4)/2020-EG-II(Vol-8) dated 23rd August, 2021

land in the last 30 years. A registered transaction is also considered as an ‘absolute transfer’ not requiring enquiry as per the Kerala Registry Rules, 1966. However, mandatory fields to ensure the non-transferable/prohibited lands (ceiling surplus, non-transferable assigned lands before the end of the lock in periods as well tribal lands to non-tribals.) do not exist in the present system and do not seem to be an established practice. The sanctity accorded to the registered document is very high in the State, a reason why the Transfer of Registry Rules do not prescribe a process/period for objections/claims. However, the system is still not fool proof if the (mutation/pokkuvaravu) was not done by the new owner while the old landowner continued paying the tax for the entire extent before the initiation of the online system and auto-trigger practice. The only check in such cases will be the encumbrance history maintained by the registration department. Hence institutionalising of due diligences to ensure that non-transferable land do not get registered assumes importance.

- ❖ **Linkage with legacy documents:** The online RoR should mirror the land nature and extent in the legacy documents. For e.g, the total area of the village in the BTR should match with the online system. This could not be verified in the villages visited as the manual BTR did not have the total land extent. The system ensures that total land area under respective survey number indicated at the end of each survey number tallies with the individual areas despite repeated splitting or merger. It is important that as we move over to an online system, the sanctity of legacy records, particularly the land extent of the village/government land parcels is maintained.
- ❖ **Enabling sub-divisions:** Torrens villages require the submission of survey sketch before registration of lands. The sketch is prepared after physically going to the ground and surveying the extent. Though, there is no sub-division effected in the village after the mutation even in the Torrens villages, the practice at least ensures that the registration corresponds to the ground situation and only for the extent of land actually existing on the ground is transacted. This good practice requires scaling up in all the villages.
- ❖ **Details in RoR:** In Kerala, the Thandapper register (maintained online and manually) is considered as the RoR record. Essentially, it is a taxation register, with details of tax remittance, interest, date of payment etc. Comprehensive land use details beyond the broad classification of land into *Nilam* and *Purayidam* or encumbrances like court cases or pending mutation proceedings are not included in the RoR. The non-tax paying lands viz. the RoFR also do not find a place in the online records.
- ❖ **Biometric identification of parties and digitally signed documents for auto-trigger mutation:** The SRO office verifies only the land receipts and Thandapper register and the last transaction of the seller to go ahead with the property registration. The biometric identification of the seller/buyer as well as digital transfer of the registered documents is yet to be enabled. These are important to add a layer of protection against fraudulent practices as well as further reduce the timeline for mutation.
- ❖ **Online integration of diverse platforms:** While the registered sales are automatically pushed to the VO login for mutation, the other forms of mutation namely past registries (before online system became operational in 2016), succession related mutation requests etc are not end-to-end integrated with the online system and hence cannot be monitored or tracked. It may be important to extend the online system entry for all types of mutation including succession. Similarly, the possession certificate by VO for loan application is on a different portal than the revenue software. It may be useful to integrate the two so that details of PC are also uploaded on the RoR. Similar, integration with the panchayat department software can help flag the information about the death of the landowner on the RoR. This may be of some help as succession related land records updation only happens with the voluntary steps of the legal heirs of the landowners.
- ❖ **Land acquisition related encumbrances:** In Kerala, land acquisition is being carried out under various legislations including central legislations viz. Right to Fair Compensation and Transparency in land Acquisition, Rehabilitation & Resettlement Act, 2013; the Railways Act, 1989; National Highways Act (NHA), 1956, Petroleum and Mineral Pipeline (Right of User) Act, 1962 etc. The restrictions on registering land after preliminary notification as well as vesting of land with central/state government is an area requiring updation on the RoR (like mortgages).
- ❖ **RoFR Rights:** The forest titles transferred after recognition of rights under the Scheduled Tribe and Other Forest Dwellers Recognition of Forest Rights Act, 2006 presently do not reflect in the online records. Although these rights are not alienable, these are heritable to the rights holders and may be reflected in the land records.

Chapter V

LAKSHADWEEP



Chapter 5**Land Records in Lakshadweep****5.1 Background**

The Lakshadweep Islands, covering 32 square kilometres in area was constituted as a Union Territory in 1956²⁷. Lakshadweep has 36 islands, out of which only 10 are inhabited. The RoR for Lakshadweep is issued under the Laccadive, Minicoy and Amindivi Islands Land Revenue and Tenancy Regulation, 1965. The survey and settlement operations were carried out during under the provisions of the above regulation.

5.1 Computerisation of Record of Rights

Lakshadweep has 72425 land parcels or survey numbers. All RoRs have been computerised in the UT. It is unique to find names of several landowners (8-10 in some cases) on the RoR. Lakshadweep had a matrilineal property system, wherein lands were considered a joint property of the entire family and names of all the family members found a mention in the RoR (in most cases). However, on the ground, there is generally an internal understanding of who owns which portion of the parcel. On an average, each RoR has at least 4 landholders. The settlement record, *Chitta* comprised the consolidated landholdings but it is not updated nor maintained online. Hence, presently, there is no separate online record consolidating all holdings of a landowner or allotment of a number in Lakshadweep.

Table 5.1 Computerisation of RoR in Lakshadweep-Quantitative Snapshot

Sl No	Parameter/Indicator*	Lakshadweep
1	Land Parcels (Nos)	72,425
2	RORs/Khata Numbers (Nos)	72,425
3	RORs computerized (%)	100
5	Average number of land holders in each RoR	4
The Laccadive, Minicoy and Amindivi Islands Land Revenue and Tenancy Regulation, 1965		
Preparation of Settlement Register.		
Section 33 (1): It shall be the duty of the survey officer or the settlement officer on the occasion of making or revising a settlement of land revenue to prepare a register in respect of each village to be called the “settlement register”, showing the area and assessment of each survey number, with any other particulars that may be prescribed, and other records in accordance with such orders as may, from time to time, be made in this behalf by the Administrator.		
Preparation of Record of Rights		
Section 35. It shall be the duty of the settlement officer to prepare a record of rights for each village showing the area of each survey number and other particulars and any other record or register, in accordance with the rules made under this Regulation.		
Section 36.		
(1) When a record of rights has been prepared, the settlement officer shall publish a draft of the record in such manner and for such period as may be prescribed and shall receive and consider any objections which may be made during the period of such publication		
(2) When all objections have been considered and disposed of in accordance with the rules made, the settlement officer shall cause the record to be finally published in prescribed manner.		
(3) Every entry in the record of rights as finally published shall, until the contrary is proved, be presumed to be correct.		

Though there is no rural-urban bifurcation in the RoR, the record of lands that are diverted for non-agricultural uses are not within the purview of the revenue department. The records of such diverted lands are not updated in the RoR. The unit of land measurement in RoR is hectare and are (100 acres make up one are). The RoR is available on web portal for view/download by all citizens. However

²⁷ Mariyam Mumthas (2021): Lakshadweep and the Land Question: Historicising the Present Crisis, Vol. 56, Issue No. 26-27, 26 Jun, 2021

digitally signed RoR is not legally valid document nor are manual records done away with. The RoRs are not seeded with Aadhaar or mobile numbers. No encumbrances are flagged on the RoR. The RoR is available in English and Malayalam. The original survey records, land register, FMB, location sketches and other miscellaneous records prepared during survey and all settlement records is kept as permanent record in the Secretariat of the Administration of the Union Territory. The manual records that are kept with the village revenue department include Fair Adangal, Chitta, Settlement Register, RoR, Field Measurement Book, Village Map. Some of the land/revenue specific local terminologies used in the RoR in Lakshadweep are given in Table 5.2. In the remarks column are mentioned the patta orders and numbers issued by the Administration.

Table 5.2 Key Revenue Terminologies in Lakshadweep

ADMINISTRATION OF THE UNION TERRITORY OF LAKSHADWEEP DEPARTMENT OF REVENUE												
LMALRTR Form-16 [See Rule -54(1)(b)]												
Record of Rights - Kavaratti Island												
Survey No	SubDivision No	Area		Class & Sort of Soil	Pandaram /Janmam /Purambokke	Assessment	Name of Landowner	Nature of Possession	Other rights & liabilities- Tenant or mortgage etc			Remarks/RP
		Hectare	Acre						Name of tenant	Nature of his interest in land/tenes	Other subsidiary interests	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1												
	1	0	34.6	Agriculture	Janmam		Attakoya Thangal Aranakada (Manager Purathapalli)	Owner	nil	nil	nil	751, As Ordered by ASD dated 22.10.1966
	2	0	3.7	Agriculture	Janmam		ASSAN ,KADAPURATHAVA	Owner	nil	nil	nil	342

Terms	Meaning
1 Krishi	Agriculture
Pandaram land	Land in which Government has, a proprietary right immediately before the commencement of Laccadive, Minicoy and Amindivi Islands Land Revenue and Tenancy Regulation, 1965.
2 Janmam land	Land other than pandaram land over which a person has proprietary rights under the customary law of the Islands
3 Cowledar	Person who has been or is granted a lease of pandaram land on rent for a specified period, one of the conditions that he can makes improvements thereto
4 Kudi	Land and the homestead or the hut so permitted to be erected or occupied together with the easement attached thereto
5 Land holder	Land-owner, a tenant in possession or a mortgagee in possession

5.2 Computerisation of Cadastral Maps

Lakshadweep has three types of cadastral maps; hardcopy cadastral maps (17.6%), scanned and vectorised cadastral maps (82.3%); and georeferenced cadastral maps (0.07). Table 5.3 reflects the status of computerisation of maps in Lakshadweep.

Table 5.3 Computerisation of Cadastral Maps-A Quantitative Snapshot

SI No	Parameter/Indicator	Lakshadweep
1	Year of last Survey	1961-1967
2	Scale of available cadastral maps	1:5, 1:10,1:20; Majority are 1:10
3	Total no. of Cadastral Maps	11124
4	Scanned and Vectorised maps (%)	82.3
6	Geo-referenced Maps (%)	0.07
7	Land Parcels assigned ULPIN	0

5.3 Computerisation of Registration

In Lakshadweep, for the 10 inhabited islands, there are 9 SROs²⁸. The SROs have been computerised, beginning from August 2016 to 2017. About 1403 landed properties were registered in 2023-24

²⁸ Two islands , namely Bitra and Chetlat share an SRO

(Table 5.4). SROs are not integrated with the revenue offices and land record database. Registration is only allowed in the respective island in which land is located and online facility for booking appointment has not yet been implemented in practice. The mandatory documents that an SRO verifies prior to registration include online RoR record and at least one linked document (transaction history) of the seller. Biometric verification of the parties is not yet enabled. The system facilitates generation of encumbrance certificate online for the SRO. The legacy data of transactions is available from 2000 onwards. The online system captures the Aadhaar PAN and mobile number of both the parties only for transactions of value more than 10 lakhs. Though SRO can complete the process online, yet the uploading of deed is not functioning. The fair values/circle rates of various categories of rural/urban lands are not uploaded and the system does not provide facility for online payment. Hence payment is accepted by cash or cheque. After the registration, there is no automatic mutation or pushing of registration data to the village office for mutation.

Table 5.4 Computerisation of Registration-A Quantitative Snapshot

Sl No	Parameter/Indicator	Lakshadweep
1	Number of SROs in the State	9
2	SROs computerized (%)	100
3	Month and Year of Computerisation of 1st SRO	08/2016
4	Month and Year of computerisation of latest SRO	2017
5	SROs integrated with Land Record database (%)	0
6	Number of land properties registered in FY 2023-24 (Million)	1403

5.4 Process of Mutation

In 2023-24, 1366 applications were received for mutation, 67.4 percent of which were disposed off, the average timeline for effecting mutation being 90 days. The issue with updation of records in Lakshadweep is the lack of integration of the registration and village offices for mutation. After the completion of the registration, the new buyer of the property has to move the village office for mutation of records. The chain is broken with no compulsion on part of the buyer to get his registered land mutated. Unless a partition deed is registered with respective shares of the legal heirs, the updating of the records with the names of legal heirs is not a practice in Lakshadweep. The backlog of mutation appears to be very high.

Once an application for mutation is received, the notices for objections are issued to the buyer, seller, and put up on the notice board of the office. A week's period is given for raising objections (in practice) and followed by hearing. After verifying the land details, mutation order is issued by the competent authority (Assistant Settlement Officer, Revenue Officer, BDO or Deputy Collector). This Order is then sent to the surveyor to verify the land extent area in the field and prepare a sketch. The sketch is sent to the technical wing at the Collectorate for scrutiny and after necessary verification is shared with the settlement office in each village for correction and updation of records.

Table 5.5 Mutation-A Quantitative Snapshot

Sl No	Parameter/Indicator	Lakshadweep
1	Applications received for mutation in FY 2023-24 (in million)	0.013
2	Applications disposed in FY 2023-24 (%)	67.4
3	Applications pending for mutation FY 2023-24 (%)	32.5
4	Timelines for effecting of mutation	90 days

There are 12 revenue courts in Lakshadweep that is yet to be computerised.

5.5 Reflection on Real Time Mirror from Sample Villages

The two villages selected for the assessment of the RTM are Agatti and Kavaratti. The Study team faced considerable resistance from the landowners/landholders and disagreement to part with information required for land parcel survey in both the selected villages. The random survey of land parcels (51 each) was completed with considerable difficulty, with the support of the district administration. Given below is brief of the land issue in Lakshadweep.

There are three major types of land holding or land tenure system in Lakshadweep; first, Janmam lands, where private individuals/ local islanders have permanent, heritable and transferable rights; second, Pandaram lands which according to the Laccadive, Minicoy and Amindivi Islands Land Revenue and Tenancy Regulation, 1965 are lands where government had proprietary rights immediately before the commencement of the Regulation and third, poramboke lands, where Lakshadweep administration has the exclusive proprietary right (ecologically fragile regions largely on the sea shore). The 1965 Regulation empowered the Collector to allot pandaram land²⁹ for agricultural purposes or for construction of dwelling houses (Section 14). Section 83 of the Regulation relates to conferment of rights of occupancy rights to the holders of pandaram lands while Section 84 provides the rights of the occupants. Section 83 empowers the Administrator of Lakshadweep to confer the rights of occupancy on persons who was occupying pandaram land as cowledar before the commencement of the Regulation; persons who is in occupation of pandaram land at the commencement of this Regulation and persons who may be allotted pandaram land under Section 14. The rights of an occupant in his land were to be permanent, heritable and transferable according to section 84. For various administrative reasons, Section 83 of the Regulations relating to the grant of occupancy rights could not be operationalised fully in all the islands and rights granted to the occupants under Section 84 also remained unfructified.

Recognising the issue as a major impediment to the development projects that were conceptualised for the region, the Laccadive, Minicoy and Amindivi Islands Land Revenue and Tenancy (Amendment) Regulation, 2020 was promulgated to grant occupancy rights to the holders of pandaram lands. The amended legislation under which a new section 15A was inserted provided that a transfer (sale or gift of any pandaram land) that was been made on or before the 31st day of December, 2019, between (a) the original allottee or his legal heir and successor and the Scheduled Tribe Islander; or (b) the cowledar or his legal heir and successor and the Scheduled Tribe Islander, such transfer shall be deemed to be a valid transfer for all purposes. The possession of such lands was deemed to be the allottee of the land under sub-section (1) of section 14; occupation of the land with lawful authority under section 15, and shall be eligible to be conferred rights of occupancy under section 83. The 2020 Regulation also incorporated a provision for leasing of land between the Government and a land owner for a public purpose for a maximum period of ninety-nine years. While this granted a sense of relief to the holders of pandaram lands, The Laccadive, Minicoy and Amindivi Islands Land Revenue and Tenancy (Amendment) Regulation, 2023 reversed the state to pre 2019 phase by omitting the new section 15A, introduced by the 2020 Amendment.

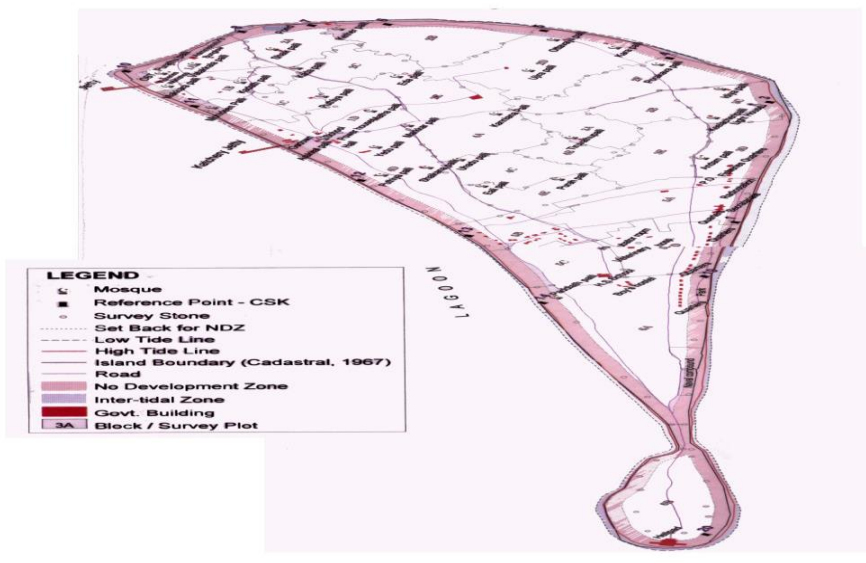
There are Pandaram lands which are in the possession of individual local islanders or local community on indefinite lease basis for agriculture for more than past one hundred years. The 2023 amendment has put the clock back for the holders of pandaram lands and the grant of occupancy rights. The Study team was met with extreme resistance to share land related data, given the general atmosphere of concern regarding the pandaram land issue and uncertainty relating to land related matters that seems to be prevailing in the UT. The findings from the assessment of RTM in the sample villages is given below:

1.Kavaratti Village, Lakshadweep Taluk, Lakshadweep UT

Description: The Kavaratti is the capital of the Union Territory Lakshadweep in India. The Island of Kavaratti lies 360 Km of the coast of the State of Kerala (218 nautical miles). at 10.57°N 72.64°E and is the closest major city on the Indian mainland. Kavaratti is a town and subdivision in Lakshadweep District. Kavaratti, the sample village is one among the four villages in the sub-division, the others being Pitti, Suheli Cheriyakara and Suheli Valiyakara. Out of the total land parcels surveyed, 92.2 percent of the parcels have multiple owners.

²⁹ Section 2 of the Laccadive, Minicoy, and Aminidivi Islands Land Revenue and Tenancy Regulation, 1965, defines “cowledar” as a person who has been or is granted a lease of pandaram land on rent for a specific period, one of the conditions of such lease being that he makes improvements thereto.

Table 5.6 Assessment of RTM of Land Records in Kavaratti

S.No	Heads	Number
Map of Kavaratti Village		
		
I General		
(i)	Land Parcels Surveyed (Private)	53
(ii)	Single owner Land Parcels (RoR)	7.84%
(iii)	Joint Owner Land Parcels (RoR)	92.16%
II Land Records & On Ground Status		
(i)	Land Records and On-ground Ownership	0%
(ii)	Land Parcels with Non-updated Land Records	100%
a	Registered Sale	43.1%
b	Succession	33.3%
c	Exchange	11.8%
d	Gift	11.8%
III Spatial Records and Textual records		
(i)	Location and Extent	NA
IV Land Records and On-ground status-Land Nature and Use		
(i)	Land Nature (Jenmom, Pandaram & Poramboke)	100%
(ii)	Land Use (Not recorded in the RoR) Houses & coconut trees (43%); coconut trees (39.2%); Houses (15.9%) & Vacant (1.9%)	
V Land Records & On-Ground Status-Encumbrances on Land-Nil		

Land Records and On-ground Status-Ownership & Possession: All the 51 land parcels surveyed on a random basis have different owners than mentioned in the RoR. In other words, not a single land parcel had updated records. Among these, 43.1 percent are those who had registered deed document, 33.3 percent have expired landowners and names of legal heirs not yet mutated in the records and the remaining who had exchanged or gifted the lands. Notably, several transactions seems to have taken place in many of the survey numbers and the present landowners in some cases do not even know the recorded landowners nor are able to links the transaction history.

Spatial Records, Textual Records & On-ground Status: The map of Agatti village is not digitized and hence the land extent difference between textual and spatial records cannot be ascertained. In the absence of spatially relevant records, the location and extent of land parcels in the village cannot be meaningfully assessed. The land nature (in terms of Janmam, Pandaram & Poramboke lands) perfectly matches with the record. All lands are classified as agricultural lands; but the actual use is mixed; ranging from coconut trees (39.2 percent), houses and coconut trees (43.3 percent), houses (16.9 percent) and vacant (1.9 percent).

Land Records and Encumbrances on Land: The primary survey probed the encumbrances on the land in terms of land lease, mortgage of property, pending court cases or ongoing land acquisition proceedings. No encumbrances were reported by the surveyed landowners. There is however no system of flagging of RoR on encumbrances in Lakshadweep.

2. Agatti Village, Lakshadweep Taluk

Land Description: The Agatti Island is at a distance of 459 kms (248 nautical miles) from Kochi and is located to the west of Kavaratti Island. It lies between 10° 48' and 10° 53' N latitude and 72° 09' and 7° 13' E longitude, having an area of 3.84 sq km. Table 5.7 reflects the assessment of RTM in Agatti village.

Table 5.7 Assessment of RTM of Land Records in Agatti

S.No	Heads	Number
I	General	
(i)	Land Parcels Surveyed (Private)	51
(iii)	Single owner Land Parcels	33.3%
	Joint Owner Land Parcels	66.6%
II	Land Records & On Ground Status-Ownership and Possession	
(i)	Land Records and On-ground Ownership	1.96%
(ii)	Land Parcels with Non-updated Land Records	98.04%
a	Registered Sale	8%
b	Succession (Death of Recorded Landowner)	92%
III	Spatial Records and Textual records	
(i)	Location and Land Extent	NA
IV	Land Records and On-ground status-Land Nature and Use	
(i)	Land Nature (Jenmom, Pandaram & Poramboke)	100%
(ii)	Land Use: (Not recorded in the RoR) Coconut trees (62.7%); Houses/Resorts (13.6%); House and coconut trees (21.5%)	
V	Land Records & On-Ground Status-Encumbrances on Land-Nil	

Land Records and On-ground Status-Ownership & Possession: Out of the total land parcels surveyed, two-thirds of the land parcels have multiple owners. As per the primary survey, 98.04 percent of land parcels surveyed are not updated, 92 percent of which are succession cases and the remaining

Spatial Records, Textual Records & On-ground Status: The map of Agatti village is not digitised and hence the land extent difference between textual and spatial records cannot be ascertained. The land nature (in terms of Jenmom, Pandaram & Poramboke lands) perfectly matches with the record. All lands are classified as agricultural lands; but in the primary survey, the actual use is mixed; ranging from coconut trees (63 percent), houses and resort (13.6 percent), house along with coconut trees (21.5 percent).

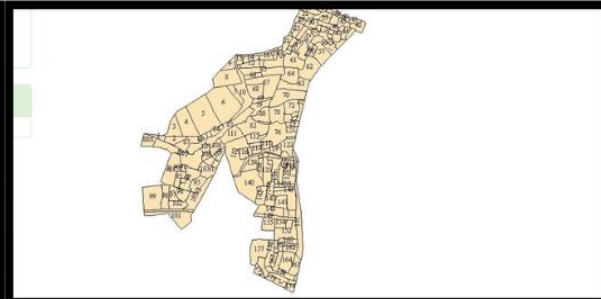
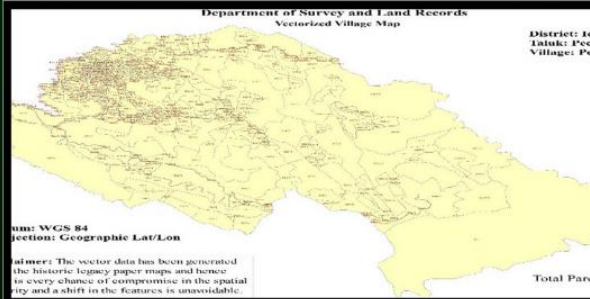
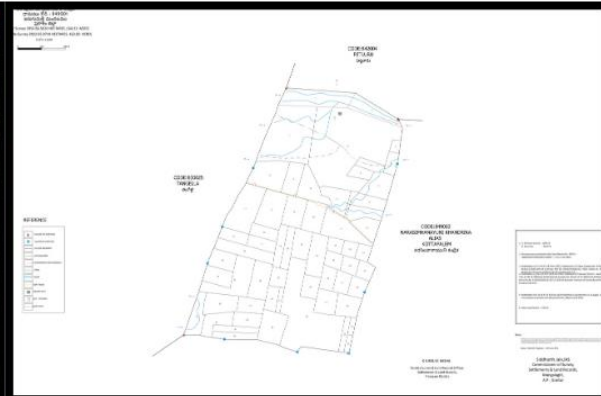
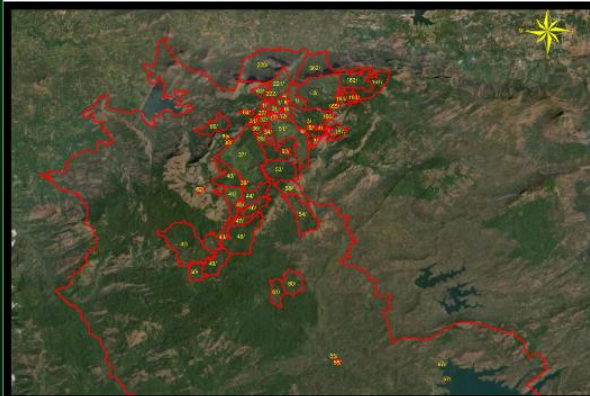
Land Records and Encumbrances on Land: The primary survey probed the encumbrances on the land in terms of land lease, mortgage of property, pending court cases or ongoing land acquisition proceedings. No encumbrances were reported by the surveyed landowners.

5.6 Conclusion

Lakshadweep presents a challenging picture on the quality of land records. Almost all the sample parcels in the two villages selected for the Study have non-updated records, both the textual and spatial. Most parameters on the computerisation/digitisation of land records, registration and mutation too have significant gaps. The pandaram land issue is a legacy issue that has to be addressed fairly and equitably to protect the interests of all stakeholders. Improving the quality of land records in Lakshadweep would require committed resource support-human, technical as well as financial.

Chapter VI

SUMMARY AND CONCLUSION



Chapter 6**Summary & Conclusions****6.1 Introduction**

The benefits of an efficient land records system are manifold. Efficient functioning of land markets, taxation systems, faster resolution of land disputes, expediting land acquisition are all critically linked to improvements on the land records front. This concluding chapter summarises the key findings and lessons from the Study of Quality of Land Records in Andhra Pradesh, Chhattisgarh, Kerala and Lakshadweep. The main objective of the study was to identify gaps in terms of progress across computerisation/digitisation of textual records, spatial records, registration and mutation process besides integration of these components for the maintenance of an updated land records system. Within the broader scope, the Study examined the extent to which RORs and Maps are outdated, the mutation/subdivisions resulting due to inheritance, the rectification in land records in people applying for rectification etc. For assessment of RTM of land records, two villages were selected in each of the Study States/UT (four villages in Kerala). Two of the States, Andhra Pradesh and Kerala are conducting a comprehensive resurvey of lands. The Study also makes a brief but transparent assessment of the technical/procedural aspects of the resurvey and puts forth broad conclusions and suggestions.

The chapter is divided into six sections; the first five sections summarise the key findings of the Study relating to textual records; spatial records; registration and mutation process and presents the key reflections from the RTM assessment of land records in Andhra Pradesh, Chhattisgarh, Kerala and Lakshadweep. Each of these sections sum up the good practices and the gaps. The sixth section presents the general recommendations of the Study considering the learnings from the four Study States/UT. The state-wise achievements and gaps in land records are given in Table 6.1.

6.2 Textual Land Records-Good Practices and Challenges

The performance of the States/UT in terms of computerisation of the textual records is discussed in terms of the legal sanctity and amendments; extent of computerisation/digitations; coverage in rural-urban areas; comprehensiveness of RoR maintained; joint ownership; encumbrances recorded; linkage to legacy records and Aadhar linkage.

Legal Sanctity and Amendments: Land revenue, including the assessment and collection of revenue, the maintenance of land records, survey for revenue purposes, and records of rights, and alienation of revenues' is an entry (Entry 45) in Schedule VII, List II (State List) of the Indian Constitution³⁰. Legislations relating to land records are in the primary domain of the state governments. There are also entries in the concurrent list that provide power to the central government along with the state government to legislate on matters that are closely connected to the land records³¹. In three of the states covered by the Study, the textual records are issued under a State law/Regulation/Code. In Andhra Pradesh, the RoR is issued under the Andhra Pradesh Records of Rights in Land & Pattadar Passbook Act, 1971 and Rules, 1989; in Chhattisgarh under the

³⁰ Entry 18 in the State List deals with Land, that is to say, rights in or over land, land tenures including the relation of landlord and tenant, and the collection of rents; transfer and alienation of agricultural land; land improvement and agricultural loans; colonization.

³¹ Important among these include the Transfer of property other than agricultural land; registration of deeds and documents (Entry 6); Evidence and oaths; recognition of laws, public acts and records, and judicial proceedings (Entry 12) and Stamp duties other than duties or fees collected by means of judicial stamps, but not including rates of stamp duty (Entry 44).

Drawing power from these entries, various laws and regulations legislations have been enacted at the state and central level to provide legal sanctity to matters connected to land records. This includes the A.P. Survey and Boundaries Act, 1923; Andhra Pradesh Records of Rights in Land & Pattadar Passbook Act, 1971; and Rules, 1989; the Chhattisgarh Land Revenue Code, 1959; the Laccadive, Minicoy and Amindivi Islands Land Revenue and Tenancy Regulation, 1965; the Kerala Transfer of Registry Rules, 1966 among the study States/UT. The key central legislations include the Registration Act, 1908, the Stamp Act, 1899, the Transfer of Property Act, 1882, the Evidence Act, 1872 etc.

Chhattisgarh Land Revenue Code, 1959 and in Lakshadweep under the Laccadive, Minicoy and Amindivi Islands Land Revenue and Tenancy Regulation, 1965. Andhra Pradesh has made comprehensive amendments in the RoR Act dealing with widening of the definition of land for resurvey of all land parcels in the state; validation of electronically maintained revenue records; enabling auto-mutation etc. In Kerala, the Registration (Amendment) Rules, 2021 provide for changes in the online registration process.

Status/progress in computerisation: Computerisation of the RoR is in toto in all the Study States/UT. A digitally signed RoR is a legally valid document that can be downloaded by the citizens in the states of Kerala, Chhattisgarh and Andhra Pradesh. The updation of manual land records is no longer mandated in Chhattisgarh and resurvey completed villages of Andhra Pradesh and digital RoR remains the only legal document. In Chhattisgarh, the digital RoR is verifiable through a QR Code and is downloadable by citizens. In Lakshadweep, the RoR is available on web portal for view/download by all citizens, though digitally signed RoR is not yet a legally valid document. Chhattisgarh is the only state that has introduced transliteration facility in Bhuiyan (the land records portal) to improve accessibility. Ease of applying for corrections and time-bound procedures to rectify mistakes are important to maintain accuracy of records. There were 0.13 million rectifications carried out in the RoR in Andhra Pradesh during 2023-24. However, both in Kerala and Lakshadweep, there is no online provision for applying for rectification.

Rural-urban coverage: A common issue with the land records in the country is the gap in the coverage of survey/settlement operations in the urban areas. Since the major source of revenue generation in colonial times was land revenue, the records were prepared only for agricultural land, Residential areas of the villages and most urban were not covered. Urban surveys have been limited even during the post-independence period and the high rate of urban spatial expansion and expanding jurisdictional boundaries have made the situation complex. The municipal tax records that are the primary records available with the Urban Local Bodies (ULBs) with regard to urban properties do not validate ownership. This remains a potent issue in Andhra Pradesh. In Andhra Pradesh, the RoR pertaining to lands that are diverted for non-agricultural uses are not updated in the RoR. These are no longer considered within the purview of the revenue department. The urban land uses, or Change in Land Use (CLU) permissions remain outside the gambit of the RoR. However, in two of the Study states, Chhattisgarh and Kerala, there is no distinction between rural and urban areas. In both these states, the revenue department maintains the RoR for both rural and urban areas. However, in Chhattisgarh, the lands diverted prior to 1972 (comprising about 2 percent of total extent) when records were maintained separately is yet to be integrated into the RoR. Even in Lakshadweep, the rural-urban bifurcation is not reflected in the RoR though records of diverted lands are not covered in the RoR.

Comprehensiveness of RoR: Among the Study States/UT, RoR as a land record is most comprehensively maintained in Chhattisgarh, covering details of land/landowner, land-use (bi-annual girdawri on crop sown) as well as the encumbrances (mortgage, mutation & revenue court cases). The gender field too is only covered in Chhattisgarh. The land use details are not covered in Andhra Pradesh, Kerala or Lakshadweep. Details of tenants/enjoyers and those possessing the land are not recorded in any of the Study States/UT. Andhra Pradesh is unique in including the details of all the forest rights holders whose rights are recognised under the Scheduled Tribes and Other Forest Dwellers Recognition of Forest Rights Act, 2006 on the webland, the online land records maintained in the resurvey villages³². In Kerala, no landownership document per se exists except the land tax receipt extract called the *Thandapper* extract. No land use details beyond the broad classification of land into Nilam and Purayidam is incorporated in the RoR.

Recording of encumbrances: Flagging of lease agreements, mortgages, court cases etc. on the RoR is vital to reflect encumbrances and prevent fraud. The progress on this is varied in the four study

³² 0.41 million FRA titleholders reflected in the webland as on September 2, 2024.

States/UT. In Chhattisgarh, the RoR coverage in terms of encumbrance flagging is the most comprehensive. The mortgage details (name of the bank, whether land is still mortgaged/repaid) are flagged in the RoR and one-fifth of all the RoRs were observed to be red-flagged during the course of the Study. The Chhattisgarh RoR, remarkably also reflects the pending mutation process and revenue court cases (progress) on the RoR. Kerala and Andhra Pradesh have loan charge modules introduced for the Banks. In Andhra Pradesh, the RoRs are being flagged by banks internally and mortgaged lands are being separately flagged by the SRO. In Kerala, the EMR has been introduced recently with a charge payable by the banks and the encumbrance can be viewed by the VO online (the viewing interface for reflection in the RoR being a work in progress). In Kerala, where manual land records are still being maintained, a system of noting the manual land records registers is widely prevalent. It is the responsibility of the VO to make a noting in the manual records when a landowner applies for PC to apply for loan. Further, a noting on the manual register is also made on intimation from the bank regarding mortgage of the property. In Kerala and Andhra Pradesh, pending mutation proceedings or court cases are not flagged on the RoR. Flagging for encumbrances, of any kind, is not a feature in the Lakshadweep RoR. None of the Study States/UT flags the land acquisition proceedings-both notification under RFCTLARR Act, 2013 and vesting of land under various central legislations.

Joint ownership: Joint ownership is a potent issue in at least two of the Study States/UT, Lakshadweep and Chhattisgarh. About 44 percent of the RoRs are joint owners RoRs in Chhattisgarh. In Lakshadweep, most RoRs have multiple landowners, with the average for the whole UT being four landholders per RoR. In Andhra Pradesh, the Splitting up of Joint Pattas Act, 1962 empowers the splitting up of joint pattas suo moto and is being used under the resurvey programme to create subdivisions without formal application by the landowners.

Landownership history and linkage to legacy records: In the context of digital land records replacing the manual textual RoR, two issues merit attention; first, an elaborate error free manual entry with authentication at multiple levels and secondly an enabling mechanism to ensure that the origin of the survey numbers are traceable to facilitate due diligences (for exclusion of transactions of non-transferable lands). In Kerala, the *Thandapper* extract/RoR mentions the Resurvey number and the permanent/legacy records have been made online making it feasible to link the origin of the survey number. Further, the landownership history of each *Thandapper* account in the online land records system is also retained in Kerala as new owners are allotted sequential *Thandapper* Numbers. In both Andhra Pradesh (resurveyed villages) and Chhattisgarh, where digital records are the sole records, the RoR does not have a link with the old survey number nor are the legacy records uploaded online.

Aadhaar linkage: Aadhaar and mobile linkage have varied progress in three states, while not initiated in the UT. About 72 percent and 53 percent RoRs are seeded with Aadhaar and mobile numbers respectively in Chhattisgarh. In Andhra Pradesh, 81.6 percent (of 10.9 million RoRs) are seeded with Aadhaar and mobile numbers. The RoRs are not seeded with Aadhaar or mobile numbers in Lakshadweep. Kerala is moving gradually with a consent-based linkage of Aadhaar and RoR; with landowners given option to voluntarily self-link through the revenue department's online web portal or through facilitation through the Village Office.

6.3 Spatial Records-Good Practices and Challenges

The progress with regard to digitisation of land records is mixed in the Study areas. In Andhra Pradesh, considerable progress has been made with the resurvey completed in 6688 villages (38 percent of total) and 100 percent georeferencing completed in all such villages (81,05,878 land parcel maps). The updation of land records in these villages is also addressed by the mandatory requirement of sub-division and formation of land parcels before registration/auto-mutation can be effected. In resurveyed villages textual and spatial records converge. In Chhattisgarh, digitisation of maps is a major part of the unfinished agenda despite considerable progress in all other parameters of land records modernisation. Though the RoR database is linked to the cadastral vectorised maps and since 2017, the updation of land parcel subdivision is carried out on cadastral vector GIS map in Bhu Naksha with digital signature; these are not geo-referenced. In the absence of geo-referencing, they can only be

used as contextual reference maps representing spatial representation of village boundary and for relative position, size and shape of any land parcel in the village. In Kerala, 3.34 million parcels have been geo-referenced for a total extent of 0.46 million hectares in the resurvey villages, comprising 11.9 percent of total extent of land in the state. In re-surveyed villages, textual and spatial records converge. In Lakshadweep, the vectorised cadastral maps constitute 82.3 percent; while geo-referenced cadastral maps constitute just 0.07 percent of total.

Spatial records that converge with the textual records/ground situation and updation of maps is the most critical issue of concern in all the Study States/UT. In Andhra Pradesh, in the 62 percent non-resurveyed villages, differences in the maps and on-ground measurements are an existential reality. No sub-divisions are effected on maps during transfer or even when shares are divided among the legal heirs in the RoR. Survey certificate is also not a mandatory requirement during transactions of part extent of land. This is the case with all non-resurveyed villages in the state. In Kerala, the RoR and cadastral maps are presently not linked. The State awaits the completion of the digital resurvey to integrate the textual, spatial and registration of records. There is no sub-division initiated in the maps except the land acquisition cases. A good practice in the Torrens villages is the mandatory physical survey and preparation of sketch in the Torrens villages in Kerala. In Lakshadweep, the maps are not digitised, maps are not updated land records on the ground has wide variance with the records. In Chhattisgarh, though sub-divisions are being carried out in the vectorised maps, as they are not geo-referenced to the earth's coordinates system, the location and extent will vary with the textual records. Also, the sub-divisions were not carried out in the maps prior to 2017, when the RoRs were manually updated in the State. In Chhattisgarh, a critical issue is the case of urban areas where each khasra has been sub-divided into innumerable small parcels and updations in the existing maps are not possible.

6.4 Registration- Good Practices and Challenges

A significant milestone achieved in DLIRMP in Andhra Pradesh, Chhattisgarh and Kerala is the complete computerisation of the SROs, their integration with the revenue/land record database and the online completion of the entire process. The level of technological integration with the land records database is near complete in both Andhra Pradesh and Chhattisgarh, the two states where signature of parties are captured digitally, identification documents uploaded, bio-metric identification of the parties (buyer & seller) enabled, circle rates uploaded on the registration software, auto-calculation of stamp duty/applicable charges, online payment and most importantly, the seamless pushing through of the digitally signed registration documents to the village. Andhra Pradesh is unique in integrating the non-transferable/prohibited survey numbers in the registration software and providing an additional protective cover for prevention of malpractices. The dynamic deeds are also introduced for use of the citizens in these states. In Andhra Pradesh, Chhattisgarh, Kerala and Lakshadweep, the online legacy data is available from 1983, 2017, 1986 and 2000 onwards respectively.

Kerala has amended the Registration (Amendment) Rules, 2021 to provide legal sanctity for the online registration. The entire registration process is completed online, allowed anywhere within the district and online facility provided for booking an appointment. The system provides for online payment facility of stamp duty and registration charges. The registration office is integrated with revenue offices and the land record database and approval of registration triggers the village office for the mutation process. However, the documents are not digitally signed. The SROs endorsement on the deed document is entered into a manual filing sheet at the SROs office before scanning and transferring the document to the VO, with a potential source of delay during rush periods. The biometrics of the parties are also not captured and there is no facility to verify the eKYC of Aadhaar/PAN or upload the identification documents.

The systems in all the Study states do not enable the SRO to check litigations online for a property scheduled for registration (except cases in revenue courts in Chhattisgarh that are flagged in the RoR). Beyond the entry of nature of lands in the khasra, there is no separate list of non-transferable lands integrated with the system (for example the assigned lands within the lock in period)³³ in

³³ For example the assigned lands and their lock in period,

Chhattisgarh, Kerala or Lakshadweep. Teething troubles were observed in the resurvey village in Andhra Pradesh (PM Kandrika) with some village LPMs not appearing for registration, issue of mortgages and their release not reflecting in the LPM, rectification in records not getting updated etc. In Lakshadweep, though the registration offices are computerised, the SROs are not integrated with the revenue/land record database and there is no auto-trigger or pushing of registration data to the village office for mutation. Further, there is no biometric verification of the parties, uploading circle rates of various categories of rural/urban lands or facility for online payment.

6.5 Mutation- Good Practices and Challenges

The auto-mutation in Andhra Pradesh and auto-trigger for mutation in Chhattisgarh and Kerala is another significant achievement of the DLIRP. Andhra Pradesh has carried out amendment in the RoR Act, 1971 to provide legal sanctity to auto-mutation and is being carried out in both resurveyed and non-resurveyed villages of the State. Once a registration is approved in Andhra Pradesh, the name of the registered purchaser is automatically mutated in the land records on real time basis. In Chhattisgarh, after the SRO completes the registration, the process is auto-triggered and time bound mutation process follows the registration (sale, gift etc). Following the mutation request auto-triggered from the SRO after registration, there is a due diligence process of calling for objections in Chhattisgarh (automatic generation of notice to the concerned land owners/ 100 random villagers through SMS; notice put up in the gram panchayat office and published in two local newspapers) before effecting mutation. In Kerala, after the online registration of deeds at sub-registrar office, request for mutation is triggered and the scanned documents are transferred online to the concerned village office. For registered transfer and court decrees, there is no enquiry to be conducted in Kerala and the initiation of auto-mutation similar to Andhra Pradesh seems to have no hindrances. In Chhattisgarh, the online system of mutation is handled through four series as per the source of mutation application receipt viz. from SRO, citizens (for earlier registries), patwari and revenue courts. The mutation request for succession is also an online process in Andhra Pradesh and Kerala and SMS alert is sent to the applicant at the time of his application as well to for conveying the final decision. Unlike Andhra Pradesh and Chhattisgarh, the succession related mutations in Kerala do not have end to end online enablement to map the time duration for effecting mutation.

A critical gap in Andhra Pradesh and Lakshadweep is that lands registered for non-agricultural/residential use do not get mutated/ reflected in RoR. In all the Study States/UT, a critical challenge relates to the pending mutations before the integration of the registration and land records system as there is no compulsion on part of the buyer to get his registered land mutated. The case of mutation of records of legal heirs (of expired landowners) is another uniform issue in all the study areas. The landowners choosing not to update records as well as those not choosing to partition the lands remain critical challenges in mutation and updation of land records. The extent of the problem is much higher in the tribal belt as revealed from the sample villages. Mutation of undivided land shares of flat owners is also an issue across all the study areas, though in Kerala, the cabinet has recently taken a decision in favour of mutation of records in the name of flat owners. Lakshadweep has a long and difficult way to go in integrating the registration and village offices for mutation. Gaps in mutation, both of registered lands and succession cases appears extensive in the UT as study in sample villages have revealed.

6.6 RTM Assessment-Key Reflections

The key findings of the Study in the ten sample villages across eight districts of four States/UT are summarised below under three heads; first, the status of ownership and possession of land; second, the spatial, textual and on ground status of the land parcels and third, the recording of encumbrances on the land records, if any.

Ownership and Possession

The proportion of updated ownership records varied in the sample villages; from 83 percent and 100 percent in the two sample villages in Andhra Pradesh; 89 percent and 63 percent in the two sample villages in Chhattisgarh; 96 percent, 98 percent, 67 percent and 20 percent in the four villages in Kerala to 1.96 percent and zero percent in Lakshadweep. The primary issue of non-updation of land

records in the study villages relates to the death of the recorded owner or succession cases. In Andhra Pradesh, in Village 1 which is non-resurveyed (Sulthanapuram), the non-updated 17 percent records, half is accounted by registered sales of small extents of land for residential use (that is not formally part of the RoR according to existing practices) and the remaining are cases of succession (expired landowners). In the re-surveyed village, PM Kandrika, the land owners name in the RoR completely matches with the ground in case of all the 67 land parcels, though 8.5 percent of the owners do not enjoy possession of land as they have reported exchanged their plots or leasing it. In Birkona village of Chhattisgarh, 37 percent of land parcels do not have updated landowners name and all the non-updated cases are owing to the death of the recorded owners. In Tuma Bahra village of Chhattisgarh too, the non-updated 11 percent records are cases of succession (expired landowners). In Peruvanthanam village of Kerala, 96 percent of the landowners appearing on the RoR own and possess the land on ground. The non-updated records (4%) is the case of expired landowners. In Kollengode village of Kerala, 98 percent of the land records are updated and all the landowners appearing on the RoR also confirm possessing the land on ground. The non-updated record (2%) is a case of succession. Lakshadweep requires a massive effort for updation of records. In Agatti village, only 1.96 percent of the landowners appearing on the RoR own and possess the land and 98.04 percent of records are not updated. Out of the non-updated records, 92 percent are cases of succession. In Kavaratti village, all the 53 land parcels had non-updated records, the cause being sale (43%), succession (33%), gift (12%) and exchange (12%).

In the two tribal dominated villages of Mlappara and Neliampathy, the updated land records comprise only 67 percent and 20 percent of total land parcels. In these villages, lack of clear boundary demarcation between revenue and forest lands, court cases and restrictions on mutations dominate the causes of lack of updation.

Spatial, Textual & Ground Status

Land Location, Extent and Land Shares: While computerisation (scanning and vectorisation) has made good progress in all the Study villages, the same is not the case with digitisation. Out of the 10 villages where the study was carried out, only 1 village, P M Kandrika has digitised cadastral maps. The land extent in cadastral map and RoR was seen converging in the digitised resurveyed village of Andhra Pradesh. However, in all the villages without digitised maps, the land location and extent difference between textual/spatial records and on-ground status cannot be ascertained. Within the textual records, there is also a substantial mismatch between separate land shares shown in the RoR and the survey sub-divisions in some cases. Only 51 percent of the land shares in the RoR have a survey sub-division number in Sulthanapuram village of Andhra Pradesh. Even in PM Kandrika, the resurveyed village with digitised map, the need for mandatory application for partition leaves a gap in terms of LPMs and shares defined in the RoR. Only 88 percent of land shares are represented by the LPMs. In Chhattisgarh's Birkona and Tuma Bahra villages, the divisions in map largely reflects the shares in RoR (96.3 percent and 88.6 percent respectively in the sample villages).

Land Type/Classification and Use: The land classification (wet/dry); type (agricultural/non-agricultural) and nature (government/private or Jenmom/Pandaram/Poramboke) on the whole had limited divergences and generally matched with the records in the study villages. In case of land use, except Chhattisgarh, the precise land use/crop details are not a mandatory requirement to be captured in the RoR in the other three Study States/UT. Though the Study has captured the actual land use as reported by the landowners as well as through the study of satellite images, there is no base for meaningful comparison. In Chhattisgarh, through the bi-annual Girdwari, the actual use in terms of crops sown perfectly matches with the ground in the state. However, while the broad land use conforms to the records (agricultural), 22 percent of the landowners in Birkona shared that the land parcels were either vacant or in residential use. Similarly, in Tuma Bahra, 8.4 percent of land owners reported that it is either vacant or in residential use.

Land Records and Encumbrances on Land: The Study assessed the encumbrances of land in terms of mortgages, lease, pending court cases etc. Among the study States/UTs, the flagging of encumbrances is only carried out in the RoR only in Chhattisgarh. In Andhra Pradesh, the loan charge

module is in internal use by the bankers within the SLBC. In Kerala, the EMR has recently been introduced and the encumbrances can be viewed by the VO for new loans. The viewing interface on RoR is however a work in progress. In addition to the recently introduced EMR, the manual records have a noting for issuance of PC given to applicants for application of loans as well as a noting of information of mortgages received from the banks. Other than Chhattisgarh, pending court cases or mutation proceedings are not flagged in the RoR of other Study States/UT. The encumbrances on land acquisition and award are not flagged in any of the Study States/UT.

The feedback of the landowners regarding service requests -mutation, rectification-from the village office was positive across all study villages (except Mlappara in Kerala where the landowners are dealing with multiple difficulties owing to lack of clear boundary demarcation, vesting of EFL lands, court cases and the non-updation of land records).

6.7 Broad Suggestions and Recommendations of the Study

The achievement and gaps in DILRMP in Andhra Pradesh, Chhattisgarh, Kerala and Lakshadweep have been outlined in Chapters 2 to 5. The assessment reflects several good practices in the Study states while also reflecting areas requiring proactive action to achieve the objectives of the ambitious programme. The key general suggestions for the Study are given below.

- ❖ **Transition to digital maps with geo-coordinated land parcels and updation of spatial records:** This is a critical component of DILRMP. In 9 out of 10 study villages in the four States/UT, digital records were not available. This inhibits meaningful comparison of the areas with the textual records and developing a land record that is a mirror image of the ground. Progress on this front is a critical requirement for achievement of the objectives of DILRMP. Kerala and Andhra Pradesh are presently in the process of conducting a digital survey and dedicated attention to complete the process, duly addressing the concerns of the landowners is the need of the hour. The process should also be initiated in Chhattisgarh and Lakshadweep at the earliest.

Lack of mandatory sub-division and non-updation of spatial records is among the most significant challenge in the achievement of the objectives of the DILRMP. Among the four states, sub-division of the land and updation of the vectorised map is only being done in Chhattisgarh (leaving out certain urban areas where it is difficult to cause sub-divisions through a non-digitised record) and the resurveyed villages of Andhra Pradesh. Preparation of a sketch after physically surveying the land extent and ensuring mandatory sub-divisions are much required steps prior to registration, the delay of which compounds the legacy issues, also taking the present records far from the ground reality.

- ❖ **Appropriate Technology for Resurvey of Lands:** The location and measurement of land parcels is extremely essential to maintain the spatial data in consonance with the RoR. The development of a spatial and textual database showing accurate parcel boundaries with true parcel identities is a critical requirement that cannot be overlooked. Excluding the resurvey villages in the two states, the Study areas are still governed by the cadastral maps-physical, scanned or vectorised. Digital land parcels with geo-coordinates is a critical requirement to improve the quality of land records. This would not only require resources but also a patient and gradual handling of the process. Land is considered as the most durable of assets, valued as a collateral, security against natural hazards (droughts, floods) and other contingencies (dowry, funeral costs), the ownership of which brings a sense of identity for a landowner. Expediting a technical survey without adequate time devoted for spending awareness and clarifying misconceptions of stakeholders is likely to face serious hindrances for successful completion. The challenges associated with similar projects in the past had lot to do with limited attention to this important aspect. Kerala seems to be getting it right with its ongoing exercise addressing the concerns of all stakeholders and an overall acceptance of the requirement at the highest level.

The Study also made an assessment of the technical aspects of the resurvey being carried out in the two states, Andhra Pradesh and Kerala, with technological variations. It was considered important to assess the technicalities of the two exercises for the attention of authorities taking up similar exercises in other states. While Andhra Pradesh initiated the resurvey with drone survey and used the ORI for cadastral mapping, Kerala is implementing the use of CORS enabled RTK for digital survey. Technically ORI is an accurate image presentation of an area, geometrically corrected with uniform scale and truly representing the ground. Accurate ORIs can be used for topographic mapping and revenue cadastral mapping where geo-position, lengths, angles, and extent are critical. However, though the drone images are acquired at very high resolution, the image acquisition can be geometrically unstable due to technical capabilities associated with drone flying as well as adverse impact of weather conditions on drone images. The technology and bundle block adjustments algorithms are not well-established in drone images. In most cases, and especially in large areas, the ORI generation is very time consuming and prone to geometric errors in terms of geo-location and measurements of lengths and areas. On the other hand, the aerial & satellite images have advantages of having stable platforms in terms of geometric fidelity. In order to optimise the time, effort and cost-effectiveness and to achieve accurate results in cadastral re-survey, the Study puts forth the following suggestions:

- ✓ Positional accuracy of 5cm to 10cm is required for operationalising the cadastral revenue survey. The unstable drone camera platform, low flying height and high relief displacement results in inherent geometric distortions that may not be well established for generation of an accurate ORI. Due to inherent geometric positional errors of drone ORIs, it is not possible to optimise or replace ground CORS enabled RTK GPS measurements. The drone image photogrammetric processing for generating village level seamless mosaic of ORI is very time consuming. This also requires digital photogrammetric experts (with critical understanding of geometric errors and geometric residues) for processing drone images for ORI generation.
 - ✓ The above issues were observed in the selected AP villages for cadastral mapping. In fact, cadastral re-survey in these villages is actually conducted using RTKs, the ORIs being used as reference images. Implementing the use of CORS and RTK for re-survey without drone ORI of each land parcel geo-coordinates would optimise the time and cost while ensuring an accurate GIS cadastral map. No additional training to the resurvey team may also be required as the present survey teams are generally trained in CORS enabled RTK survey and for preparation of GIS cadastral map in QGIS.
- ❖ **Prioritisation of Pending Records Updation:** In three states, Kerala, Chhattisgarh and Andhra Pradesh, digital RoR is a legally valid document that can be downloaded by the citizens. In all the three states, auto-mutation (Andhra Pradesh) or auto-trigger mutation (Chhattisgarh and Kerala) is being implemented. This will ensure that registered transactions are automatically updated in the records. However, the concern area for updated land records pertains to those transactions that happened prior to implementation of the auto-trigger mutation process. In Chhattisgarh, an additional pending concern is the lands diverted prior to 1972, where separate records were maintained that are yet to be integrated into the RoR. All these pending issues require a proactive and dedicated effort. Identification of such lands from the legacy records (online/manual) is important. In Andhra Pradesh and Kerala, online legacy records exist from 1983 and 1986, which will make it a less cumbersome exercise than Chhattisgarh which has online legacy records only from 2017. However, for records to mirror the ground reality, this exercise may be unavoidable. Awaiting the earlier purchasers to apply for mutation will always leave a gap that can only be removed with a proactive effort. Lakshadweep requires special care/attention and institutional support/resources because of the enormity of the issues associated with non-updated records, the considerable backlog, limited resources as well as the ongoing conflicts associated with the 'pandaram lands'.
- ❖ **Succession/inheritance-related Updatons:** In all the sample villages, the major differences in the ownership in records and the RoR stemmed from the inheritance/succession owing to the death of the recorded landowner. This will continue to be a concern even with successful breakthrough achieved with technological integration of the revenue and registration

departments and auto-mutation/auto-trigger mutations. While application for mutation and consent of the legal heirs is a critical requirement for updation of such records, an important improvement from the present state will be the recording of the death of the owner on the RoR. Aadhaar linked issuance of death certificate by the panchayat/local bodies (in Kerala) can be a helpful source to link the panchayat records with the RoR (wherever RoRs are also Aadhaar linked). The bi-annual Girdwari conducted by the Patwari in Chhattisgarh may be another source. The states have to put in place a proactive mechanism to at least flag the records with expired landowners. A similar issue is the issue of joint ownership, the problem being of enormous magnitude in Lakshadweep. To reflect the ground situation, it is important that the legal heirs and joint owners come forward to partition their lands. Enactments that enable *suo moto* splitting of Joint Pattas like in Andhra Pradesh may be an enabler. Measures to incentivise the landowners to come forward to update the records may require attention of the authorities.

- ❖ **Land Records in Peri-Urban Areas/ Ownership in flats:** In Chhattisgarh, one-third of the pending updations in maps pertain to urban/peri-urban areas where lands have been fragmented into extremely small extents. The map updation will be a humungous exercise that requires special attention. In Andhra Pradesh, non-updation of diverted lands and in the urban areas are major gaps in the non-resurveyed villages (forming about two-thirds of the total villages in the state). Similarly, the records of diverted lands are not maintained in the RoR in Lakshadweep where no rural-urban difference is maintained in the maintenance of RoR. Coverage of all lands in the RoR, irrespective of the rural-urban distinction as in Chhattisgarh and Kerala are good practices worth emulation. Integration of urban building plan approvals and CLU is a welcome move to reflect the existence of built-up properties in the land records/RoR across States/UTs. Decision to mutate the undivided share of the land in the name of the flat owners is also a welcome move in Kerala that merits replication.
- ❖ **Purification of Land Records:** The online RoR is considered the sole land record in Andhra Pradesh (resurveyed villages) and Chhattisgarh. It is important to ensure that adequate due diligence measures are institutionalised to fool proof for manual entry errors as well as to exclude legally non-permissible lands from transaction (objectionable government lands, assigned lands before the lock in period etc.). The linkage to legacy records through the inclusion of the resurvey number in the RoR and online availability of legacy records in Kerala is a good practice worth emulation. This may be essential if quality of land records is to be maintained.
- ❖ **Legacy land record issues require proactive intervention:** Addressing boundary issues between forest and revenue lands and legacy issues merit attention. In two of the tribal dominated Study villages of Mlappara and Nelliampathy in Kerala, decades have gone by with vague restrictions on land transfer and lack of clarity on the boundaries and demarcation of lands. The rights of the existing landowners appear severely compromised not even in the disputed lands but also landowners of parcels adjacent to these of the lands. These require proactive attention of the revenue authorities.
- ❖ **Comprehensive RoR with land use and land possession details:** Columns 13 to 16 of the RoRs in Andhra Pradesh (resurvey villages) and columns 9 to 11 of the RoR in Lakshadweep cover the tenant details. However, these columns have been left blank. In the two other states, Chhattisgarh and Kerala, the RoR does not provide these details. Formalisation of tenancy is an issue that has now been recognised and accurate reflection of possession on ground would require the inclusion in the RoR. Similarly, the actual land use is covered only in Chhattisgarh but not a mandatory requirement in the other states. This is another area where the RoRs are found lacking.
- ❖ **Recognised Rights under RoFR Act, 2006:** The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation (RFCTLARR) Act, 2013 includes under the definition of 'landowner' those whose land rights on forest lands are recognised under the Scheduled Tribe and Other Forest Dwellers Recognition of Forest Right Act, 2006. The RoFR Act mandates that

records of such landowners whose rights are recognised be incorporated and maintained as a part of the land records. The practice of Andhra Pradesh to include the 4,15,060 forest rights holders into the online webland/RoR is a welcome move that may be encouraged for replication in other states.

- ❖ **Flagging of Encumbrances in the RoR:** Flagging of encumbrances is important to reflect the present status of land. These will relate to mortgages, leases, court cases, and even the pending mutation proceedings. Among the states, only Chhattisgarh (in July 2024) has a provision for flagging RoR with mortgages, with Andhra Pradesh and Kerala developing loan charge modules for entry of mortgages by banks for their internal viewing (and also viewing by the VO in Kaerala). Among the Study States/UT, only Chhattisgarh has computerised the RCMS and flagging of pending revenue court cases in the RoR. These are worth replication by other states.

A critical gap in all the states is the lack of flagging of land acquisition related encumbrances. Besides mutation of lands which has become a legacy issue in the case of lands acquired by government/PSUs in the past, an ongoing issue is lack of information of land acquisition proceedings on the RoR eventually paving way for various malpractices and costly implications for the exchequer. Land is acquired for various infrastructure projects under both the central and state legislations. Often, encumbrances are created after the legally permitted cut off dates (preliminary notification under the RFCTLARR Act, 2013) or vesting of land under the various other central legislations³⁴. Creation of land acquisition module for the acquiring/requiring bodies for integration with the RoR may be very useful. Flagging the RoR with details of pending acquisition process will be an important requirement to mirror the ground reality.

³⁴ **Section 11(4), RFCTLARR Act, 2013:** No person shall make any transaction or cause any transaction of land specified in the preliminary notification or create any encumbrances on such land from the date of publication of such notification till such time as the proceedings under this Chapter are completed: Provided that the Collector may, on the application made by the owner of the land so notified, exempt in special circumstances to be recorded in writing, such owner from the operation of this sub-section: Provided further that any loss or injury suffered by any person due to his wilful violation of this provision shall not be made up by the Collector

Section 3D (2), NHA, 1956: On the publication of the declaration under sub-section (1), the land shall vest absolutely in the Central Government free from all encumbrances.

Section 6(2), PMP Act, 1962: On the publication of the declaration under sub-section (1), the right of user in the land specified therein shall vest absolutely in the Central Government free from all encumbrances.

Section 20 D (2): On the publication of the declaration under subsection (1), the land shall vest absolutely in the Central Government free from all encumbrances.

Table 6.1 Land Records Modernisation: Good Practices and Gaps Across Study States

	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
I	Textual Land Records-Good Practices and Gaps			
1	Legal Backing RoR is issued under the Andhra Pradesh Records of Rights in Land & Pattadar Passbook Act, 1971 and Rules, 1989 and necessary amendments for computerisation and digitisation have been done.	Legal Backing RoR is issued under the Chhattisgarh Land Revenue Code (CGLRC), 1959	Legal Backing No landownership document per se exists except the land tax receipt extract called the Thandapper extract. The Thandapper Register is treated as the RoR in Kerala	Legal Backing RoR is issued under the Laccadive, Minicoy and Amindivi Islands Land Revenue and Tenancy Regulation, 1965.
2	Computerisation of RoR <ul style="list-style-type: none"> ❖ All RoRs computerised ❖ Digitally signed RoR ❖ Valid legal document ❖ Verifiable through a QR Code ❖ Downloadable by citizens ❖ Online Rectification allowed (0.13 million rectifications in 2023-24) ❖ Gender field included in resurvey villages 	Computerisation of RoR <ul style="list-style-type: none"> ❖ All RoRs computerised ❖ Digitally signed RoR ❖ Valid legal document ❖ Verifiable through QR Code ❖ Downloadable by citizens ❖ Transliteration facility provided ❖ Online Rectification allowed (36599 rectifications in 2023-24) ❖ Gender field included 	Computerisation of RoR <ul style="list-style-type: none"> ❖ All RoRs computerised ❖ digitally signed RoR ❖ legally valid document ❖ Downloadable by citizens 	Computerisation of RoR <ul style="list-style-type: none"> ❖ All RoRs computerised ❖ Digitally signed RoRs do not exist; ❖ Not a legally valid document
3	Rural-Urban Coverage Gaps <ul style="list-style-type: none"> ❖ Only rural agricultural lands in RoR ❖ Records of lands that are diverted for non-agricultural uses and habitations (Abadi) are not updated in the RoR. ❖ Urban land uses, or Change in Land Use permissions remain outside the gambit of the RoR 	Rural-Urban Coverage <ul style="list-style-type: none"> ❖ No distinction between rural and urban; all lands covered under RoR ❖ Revenue department maintains the RoR for both rural and urban areas Gaps <ul style="list-style-type: none"> ❖ Lands diverted prior to 1972 (comprising about 2 percent of total extent) when records were maintained separately is yet to be integrated into the RoR. 	Rural-Urban Coverage <ul style="list-style-type: none"> ❖ No distinction between rural and urban; all lands are covered under RoR 	Rural-Urban Coverage <ul style="list-style-type: none"> ❖ No distinction between rural and urban; all lands covered under RoR Gaps <ul style="list-style-type: none"> ❖ Details of diverted lands are not covered under the RoR

Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
<p>Comprehensiveness of RoR</p> <ul style="list-style-type: none"> ❖ Details of all the holders of forest lands, those whose rights are recognised under the RoFR Act, 2006 included in the RoR (Webland) <p>Gaps</p> <ul style="list-style-type: none"> ❖ Landownership history and Linkage to legacy records does not exist in RoR: ❖ Precise land use in terms of crops sown is not reflected in the RoR ❖ Details of tenants/enjoyers/possession on ground not included in RoR ❖ Encumbrances are not flagged (explained below) 	<p>Comprehensiveness of RoR</p> <ul style="list-style-type: none"> ❖ RoR is comprehensive covering details of land/landowner as well as land-use (crops-bi-annual girdawri) and encumbrances (mortgage, mutation & revenue court cases. All the 912 revenue courts are computerised and integrated with the revenue records (with regard to flagging). <p>Gaps</p> <ul style="list-style-type: none"> ❖ Landownership history and Linkage to legacy records does not exist in RoR: ❖ Details of tenants/ enjoyers/ possession on ground not included in RoR ❖ Details of RoFR right holders are not included in the Land Records 	<p>Comprehensiveness of RoR</p> <ul style="list-style-type: none"> ❖ Landownership history and Linkage to legacy records: <ul style="list-style-type: none"> ✓ RoRs reflects Resurvey number ✓ Landownership history of each Thandapper account in the online land records system is retained ✓ Permanent registers have also been made online ✓ Feasible to link the origin of the survey number. <p>Gaps</p> <ul style="list-style-type: none"> ❖ No land use details beyond the broad classification of land into Nilam and Purayidam or encumbrances ❖ Details of tenants/ enjoyers/ possession on ground not included in RoR ❖ Details of RoFR right holders are not included in the Land Records 	<p>Comprehensiveness of RoR</p> <p>Gaps</p> <ul style="list-style-type: none"> ❖ Landownership history and Linkage to legacy records does not exist in RoR: ❖ No land use details beyond the broad classification of land into Jenmom, Pandaram & Puromboke or encumbrances like court cases or pending mutation ❖ Details of tenants/ enjoyers/ possession on ground not included in RoR
<p>Joint Ownership</p> <ul style="list-style-type: none"> ❖ Splitting of Joint Pattas provide for <i>suo moto</i> action 	<p>Joint Ownership</p> <ul style="list-style-type: none"> ❖ 44% of RoRs are Joint Owners 	<p>Joint Ownership</p> <ul style="list-style-type: none"> ❖ Not a potent issue in the State 	<p>Joint Ownership</p> <ul style="list-style-type: none"> ❖ Most RoRs have multiple landowners; Average of 4 landowners per RoR
<p>Aadhar linkage</p> <p>82% RoRs seeded with Aadhar</p>	<p>Aadhar Linkage</p> <p>73 % of RoRs seeded with Aadhar</p>	<p>Aadhar Linkage</p> <ul style="list-style-type: none"> ❖ Consent-based Linkage of Aadhaar with RoR (29,782 linked) ❖ Option to voluntarily self-link or through village office 	<p>Aadhar Linkage</p> <p>Aadhar not linked with RoR</p>

Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
Recording of Encumbrances-Good Practices and Gaps			
<ul style="list-style-type: none"> ❖ Amendment carried out in the RoR Act, 1971 to facilitate the flagging of mortgages. ❖ Loan charge module created for use by banks under the SLBC umbrella; 4.94 million RoRs being flagged by banks ❖ Mortgaged lands flagged by registration department for internal use <p>Gaps: Land records do not flag any of the following:</p> <ul style="list-style-type: none"> ❖ Mortgages ❖ Land acquisition ❖ Pending mutation proceedings ❖ Court cases 	<p>Comprehensive flagging of online RoR with encumbrances</p> <ul style="list-style-type: none"> ❖ Mortgage details (name of the bank, whether land is still mortgaged/repaid) are flagged in the RoR; 21percent of all the RoRs are red-flagged ❖ Pending mutation process flagged in the RoR ❖ Revenue court cases flagged on the RoR. <p>Gaps:</p> <ul style="list-style-type: none"> ❖ Land acquisition details are not flagged 	<p>Noting on Manual Records for Mortgages</p> <ul style="list-style-type: none"> ❖ Village Officer makes a noting in the Manual Land Records (Thandapper Registers) when a landowner applies for possession certificate to apply for loan ❖ Intimation from the bank regarding loans disbursed against the mortgage of property also noted in Manual Register <p>Linkage of the online RoR database with banks initiated through EMR; Banks are given a login to flag the Survey numbers; Viewing interface being developed</p> <p>Gaps: Land records do not flag any of the following:</p> <ul style="list-style-type: none"> ❖ Land acquisition ❖ Pending mutation proceedings ❖ Court cases 	<p>Gaps: Land records do not flag any of the following:</p> <ul style="list-style-type: none"> ❖ Mortgages ❖ Land acquisition ❖ Pending mutation proceedings ❖ Court cases
3 Spatial Records- Good Practices and Gaps			
<ul style="list-style-type: none"> ❖ 38 percent of villages resurveyed ❖ 100 percent geo-referenced land parcels in 6688 resurveyed villages ❖ In 87 percent of village maps (87%) are geo-referenced including the non-resurvey villages ❖ Mutation in re-surveyed villages 	<ul style="list-style-type: none"> ❖ RoR database is linked with the cadastral vectorised maps and though not geo-referenced, can be used as contextual reference maps representing spatial representation of village boundary and for relative position, size and shape of 	<ul style="list-style-type: none"> ❖ Digital survey completed in 10.9 percent of total extent of land ❖ 33,08,131 geo-referenced land parcels have been created for a total extent of 186981 hectares in the resurvey villages. ❖ In resurveyed villages, textual and 	<p>Vectorised cadastral maps constitute 82.3 percent; and geo-referenced cadastral maps constitute just 0.07 percent.</p>

	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
	<p>requires mandatory sub-division in spatial records before registration; after auto-mutation, new land parcels are formed.</p> <ul style="list-style-type: none"> ❖ In resurveyed villages, textual and spatial records converge <p>Gaps:</p> <ul style="list-style-type: none"> ❖ The FMBs beyond the resurvey villages are not geo-referenced; the maps and on-ground measurements may not match in all non-resurveyed villages ❖ No sub-division effected even when shares are divided among the legal heirs; 	<p>any land parcel in the village.</p> <ul style="list-style-type: none"> ❖ Post, 2017, there is updation of land parcel subdivision on cadastral vector GIS map in Bhu Naksha with digital signature <p>Gaps:</p> <ul style="list-style-type: none"> ❖ Even though sub-divisions are being carried out in the vectorized maps, not being geo-referenced to earth's coordinates system, the location and extent will vary with the textual records ❖ The sub-divisions were not carried out in the maps prior to 2017, when the RoRs were manually updated ❖ In urban areas where each khasra has been sub-divided into innumerable units; sub-divisions not demarcated. 	<p>spatial records converge.</p> <p>Gaps:</p> <ul style="list-style-type: none"> ❖ In Kerala, the RoR and cadastral maps are presently not linked. The State awaits the completion of the digital resurvey to integrate the textual, spatial and registration of records. ❖ No sub-division initiated in the maps except the land acquisition cases. 	<p>Gaps:</p> <p>Maps are not being updated</p>
4	Registration- Good Practices and Challenges			
	<ul style="list-style-type: none"> ❖ Section 4 of the RoR Act, 1971 has been amended to include electronic transfer by Registration department. ❖ Entire registration process is completed online ❖ All SROs are integrated with Revenue/Land Record database since 2016. ❖ Registration is allowed all over the state with the consent of the SRO where the land is situated. 	<ul style="list-style-type: none"> ❖ SROs are integrated with revenue/land record database ❖ Entire registration process is completed online ❖ Signature of parties captured digitally and identification documents are uploaded ❖ Bio-metric identification of the parties (buyer & seller) is enabled. ❖ Circle rates are uploaded on the registration software and the 	<ul style="list-style-type: none"> ❖ The Registration (Amendment) Rules (Kerala), 2021 provides for following changes for the online registration ❖ All SRO offices have been computerised and entire registration process is completed online. ❖ The registration is allowed anywhere in the district and online facility is provided for 	<ul style="list-style-type: none"> ❖ SROs have been computerised ❖ System facilitates generation of encumbrance certificate online ❖ Legacy data of transactions is available from 2000 onwards

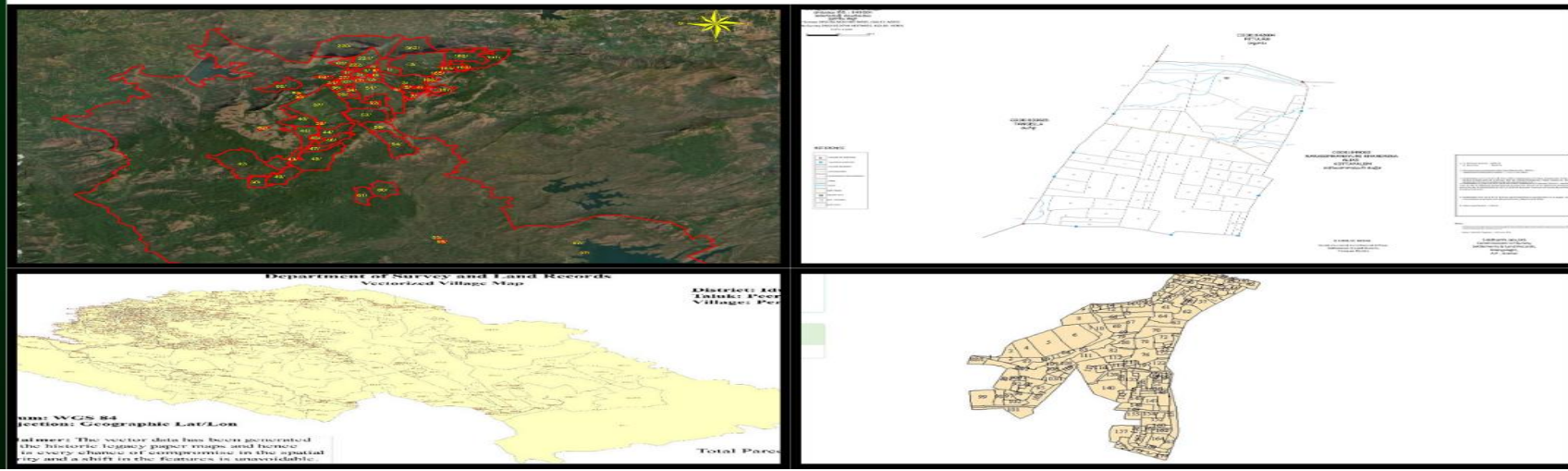
Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
<ul style="list-style-type: none"> ❖ Legacy data of transactions is available from 1983 onwards ❖ Circle rates are uploaded on the registration software and the system auto-calculates applicable charges and facilitates online payment. ❖ List of prohibited lands that are to be blocked from registration integrated into the system. <p>Gaps:</p> <ul style="list-style-type: none"> ❖ In non-resurveyed villages, registration allowed in terms of shares, without survey certificate delineating the location and extent of property sold on ground ❖ No requirement of sub-divisions prior to or post registration; sub-divisions are only done for only those applying for partitions by paying requisite fee through Meeseva. ❖ Litigation (revenue and civil courts) cannot be accessed by SRO ❖ Some teething troubles were observed in the resurvey villages 	<p>system auto-calculates applicable charges and facilitates online payment</p> <ul style="list-style-type: none"> ❖ Online process of pushing through the digitally signed record documents to the village is a seamless process and working well on the ground. <p>Gaps:</p> <ul style="list-style-type: none"> ❖ Non-transferable/prohibited lands not integrated in the registration software 	<p>booking an appointment</p> <ul style="list-style-type: none"> ❖ SROs in the state are integrated with revenue offices/land record database ❖ System provides for online payment facility of stamp duty and registration charges ❖ SRO can generate encumbrance certificate and legacy data (from 1986) for ready reference. ❖ Registration data (Scanned documents) pushed online to village office for mutation <p>Gaps:</p> <ul style="list-style-type: none"> ❖ Biometrics of the parties are not captured ❖ No facility to verify the eKYC of Aadhaar/PAN ❖ No facility to upload the identification documents. ❖ Documents not digitally signed; SROs endorsement on the deed document is entered into a manual filing sheet at the SROs office before scanning and transferring the document to the VO ❖ Non-transferable/prohibited lands not integrated in the registration software ❖ Litigation (revenue and civil courts) cannot be accessed by SRO 	<p>Gaps:</p> <ul style="list-style-type: none"> ❖ SROs are not integrated with the revenue offices and land record database. ❖ No biometric verification of the parties. ❖ The circle rates of various categories of rural/urban lands are not uploaded and the system does not provide facility for online payment. ❖ After the registration, there is no automatic pushing of registration data to the village office for mutation.

	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
5	Mutation-Good Practices and Challenges			
	<ul style="list-style-type: none"> ❖ Auto mutation facilitated by amendment in Section 5 of the RoR Act, 1971 ❖ Name of the registered purchaser automatically mutated on real time basis in both surveyed and non-resurveyed villages ❖ Mutation of all types, both sale and succession are computerised and completed online ❖ SMS alert is sent to the applicant at the time of his application as well to for conveying the final decision <p>Gaps:</p> <ul style="list-style-type: none"> ❖ Pending mutations before the integration of the registration and land records system ❖ Legal heirs of expired landowners choosing not to update records as well as those not choosing to partition the lands ❖ Lands registered for non-agricultural use/residential use do not get mutated/reflected in RoR. 	<ul style="list-style-type: none"> ❖ Online system of mutation is and handled through 4 series from the source of receipt (received from SRO; citizens for earlier registries; patwari & revenue courts). ❖ After the SRO completes the registration, the process is auto-triggered at the revenue/village office and time bound mutation process follows the registration (sale, gift etc) ❖ There is a due diligence process of calling for objections; automatic notice gets generated and sent to land owners through SMS and 100 random villagers; notice put up in the Gram Panchayat and published in 2 local newspapers before effecting mutation. ❖ Average days for mutation is given as 23 days. <p>Gaps:</p> <ul style="list-style-type: none"> ❖ Pending mutations before the integration of the registration and land records system; ❖ Mutation of undivided land shares of flat owners ❖ Legal heirs of expired landowners choosing not to update records 	<ul style="list-style-type: none"> ❖ The transfer of registry is implemented online with the integration of the registration portal (pearl.registration.kerala.gov.in) with the revenue portal (revenue.kerala.gov.in). ❖ After the SRO completes the registration, the process is auto-triggered at the revenue/village office and time bound mutation process follows the registration (sale, gift etc) ❖ Scanned documents pertaining to registration transferred online to village office for mutation ❖ No transfer of registry shall be kept pending for more than 4 months. ❖ Average days for mutation is given as 27 days. <p>Gaps:</p> <ul style="list-style-type: none"> ❖ Pending mutations before the integration of the registration and land records system ❖ Legal heirs of expired landowners choosing not to update records ❖ Succession related mutations at present do not have end to end online enablement to monitor the 	<p>Gaps:</p> <ul style="list-style-type: none"> ❖ Lack of integration of the registration and village offices for mutation. ❖ Pending mutations of lands registered earlier but not applied for mutation. No compulsion on part of the buyer to get his registered land mutated. ❖ Gaps in mutations of both registered lands and succession cases is extensive ❖ Pending issue of pandaram lands

	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
			time duration ❖	
6	Reflections from Real Time Mirror of Sample Villages			
	<p>Ownership & Possession</p> <ul style="list-style-type: none"> ❖ 83% and 100% of land records are updated in the two sample villages (Sulthanapuram and PM Kandrika) i.e. landowners appearing on the RoR own the land on ground. ❖ 8.5 percent of the lands owners do not have possession on ground in PM Kandrika (leased/exchanged)(❖ Out of the non-updated 17 percent records in Sulthanapuram village, half is accounted by registered sales of small extents of land for residential use and the remaining are cases of succession (expired landowners). <p>Spatial, Textual & Ground Status:</p> <ul style="list-style-type: none"> ❖ Only P M Kandrika has digitised cadastral maps. The land extent in cadastral map and RoR was seen converging in this resurveyed village ❖ In Sultanapuram, without digitised maps, the land location and extent difference between textual/spatial records and on-ground status cannot be ascertained. ❖ Within the textual records, there is a substantial mismatch between separate land extent shares shown in the RoR and the survey sub-divisions. Only 51 percent of the land shares in the RoR 	<p>Ownership & Possession</p> <ul style="list-style-type: none"> ❖ 89% and 63% percent of land records are updated in the two sample villages (Tuma Bahra and Birkona) i.e. landowners appearing on the RoR own and possess the land on ground. ❖ The non-updated records in both the villages are cases of succession (expired landowners). <p>Spatial, Textual & Ground Status:</p> <ul style="list-style-type: none"> ❖ The maps of both villages are not digitized and hence the land location and extent difference between textual/spatial records and on-ground status cannot be ascertained. ❖ In Birkona and Tuma Bahra villages, the divisions in map largely reflects the shares in RoR (96.3 percent and 88.6 percent respectively). ❖ In case of broad land use (agricultural), there were slight variations; 22 percent of the 	<p>Ownership & Possession:</p> <ul style="list-style-type: none"> ❖ 98%, 96%, 67% and 20% of land records are updated in the four sample villages (Peruvanthanam, Kollengode, Mlappara and Nelliampathy i.e. landowners appearing on the RoR own and possess the land on ground ❖ The non-updated records are mostly cases of succession (15% in Mlappara; 4% in Peruvanthana and 2% in Kollengode). ❖ In the two tribal dominated villages of Mlappara and Neliampathy, the updated land records are owing lack of clear boundary demarcation between revenue and forest lands, court cases and restrictions on mutations <p>Spatial, Textual & Ground Status:</p> <ul style="list-style-type: none"> ❖ In the absence of spatially relevant records in all the four sample villages, the location and extent of land parcels in the village cannot be meaningfully assessed. In Village 1, the records and actual use completely matches in all cases cardamom plantation (agricultural/non-agricultural). 	<p>Ownership & Possession:</p> <ul style="list-style-type: none"> ❖ 1.96% and 0% of land records are updated in the two sample villages (Kvaratti and Agatti) i.e. landowners appearing on the RoR own and possess the land on ground ❖ In Agatti village, out of the non-updated records, 92 percent are cases of succession. ❖ In Kavaratti Village 2, all the 53 land parcels had non-updated records, the cause being sale (43%), succession (33%), gift (12%) and exchange (12%). <p>Spatial, Textual & Ground Status:</p> <ul style="list-style-type: none"> ❖ The maps of both villages are not digitized and hence the land extent difference between textual and spatial records cannot be ascertained.

Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
<p>have a survey sub-division number in Sultanapuram</p> <ul style="list-style-type: none"> ❖ In PM Kandrika, the land extent of each parcel is exactly matching with the Webland Adangal. However, Only 88 percent of land shares are represented by the LPMs as partitions are done only on application by landowners ❖ The RoR reflects the cultivable land extent, land nature (patta, poramboke and govt. land) and land classification (dry, govt. land, gramakantam and assessed waste). The broad land use in the records matches with the ground. ❖ The actual use of land is not reflected in the RoR and hence meaningful comparison cannot be made <p>Land Records and Encumbrances on Land:</p> <ul style="list-style-type: none"> ❖ The only encumbrance in the sample villages are mortgages. These are not flagged in the RoR. The loan chargeable module is for internal use of the banks. 	<p>landowners in Birkona shared that the land parcels were either vacant or in residential use. Similarly, in Tuma Bahra, 8.4 percent of land owners reported that it is either vacant or in residential use.</p> <ul style="list-style-type: none"> ❖ The crop details perfectly matched with the RoR for the remaining. <p>Land Records and Encumbrances on Land:</p> <ul style="list-style-type: none"> ❖ All the court cases (4 in Tuma Bahra) and mortgages reported by the land owners in both the villages are flagged in the RoR. 	<p>In Village 2, the RoR does not reflect the actual land use which is mixed; ranging from residential (26%), plantation (8.5%) and irrigated/unirrigated farm crops. In village 3 too, the use is mixed ranging from residential (26%), plantation (8.5%) and irrigated/unirrigated farm crops (65.5%).</p> <p>Land Records and Encumbrances on Land:</p> <ul style="list-style-type: none"> ❖ Online records re yet to flag encumbrances ❖ Manual records have notings of VO as given below: <ul style="list-style-type: none"> ✓ Peruvantham Village: 69 percent cases of mortgage, the Manual Thandapper Register has a noting for issuance of PC in 69% cases; Noting for bank confirmation of extending loan also exists in 28% cases and No entry in 3% cases ✓ Kollengode: In 50 percent cases there is an entry in the manual records for PC and no entry in manual records for the remaining 50% 	<p>Land Records and Encumbrances on Land:</p> <p>No encumbrances were reported by the landowners of the sample. Flagging of RoR with encumbrances has not been initiated</p>

ANNEXURES



Annexure I – District wise data on computerisation of Land Records

1. Andhra Pradesh

Sl No.	District Name	Total ROR	Total Villages	Computerisation of Land Records - completed (%)	Mutations Computerised – completed (%)	RoR linked with Aadhaar (%)	ROR Distribution through CSC, Kisok, Online,etc (%)
1.	Alluri Sitharama Raju	1,73,954	3,232	98.08	98.08	91.62	98.02
2.	Anakapalli	17,10,803	720	100.00	100.00	82.92	100.00
3.	Anantapur	4,07,088	502	100.00	100.00	100.00	100.00
4.	Annamayya	17,99,361	488	98.57	98.57	98.57	98.57
5.	Bapatla	9,03,444	276	98.19	98.55	93.12	93.12
6.	Chittoor	4,74,381	813	99.63	99.75	97.91	97.79
7.	East Godavari	4,57,517	356	82.30	82.58	82.02	82.58
8.	Eluru	3,62,171	688	98.55	98.55	97.82	98.40
9.	Guntur	5,54,918	212	100.00	100.00	100.00	100.00
10.	Kakinada	2,68,997	414	100.00	100.00	100.00	100.00
11.	Konaseema	7,37,265	290	100.00	100.00	100.00	100.00
12.	Krishna	3,01,573	518	98.07	98.07	91.89	98.07
13.	Kurnool	4,02,698	453	100.00	100.00	100.00	100.00
14.	Nandyal	8,18,692	453	98.90	99.12	99.12	99.12
15.	NTR	5,01,392	310	93.87	99.03	59.68	99.03
16.	Palnadu	5,63,792	359	97.49	98.05	98.05	96.66
17.	Parvathipuram Manyam	3,08,489	958	96.03	96.03	95.93	96.03
18.	Prakasam	5,40,138	847	96.22	97.28	97.28	97.05
19.	SPSR Nellore	3,42,651	727	89.00	94.22	89.55	94.09
20.	Srikakulam	23,21,166	1,425	99.51	99.65	95.65	86.04
21.	Sri Sathya Sai	13,91,488	460	100.00	100.00	100.00	100.00
22.	Tirupati	3,36,657	1,008	97.82	96.92	95.73	97.82
23.	Visakhapatanam	1,99,517	91	100.00	100.00	100.00	100.00
24.	Vizianagaram	5,49,041	978	99.59	98.36	99.08	99.49
25.	West Godavari	6,04,234	279	100.36	100.36	68.46	100.36
26.	Y.S.R.	3,37,730	707	88.68	96.04	86.28	95.19
	Grand Total	1,73,69,157	17,564	97.41%	97.99%	93.56 %	96.73 %

Source – DILRMP-MIS 3.0 website (Accessed on July 2024)

2.Chhattisgarh

Sl No.	District Name	Total ROR	Total Villages	Computerisation of Land Records - completed (%)	Mutations Computerised – completed (%)	RoR linked with Aadhaar (%)	ROR Distribution through CSC, Kisok, Online,etc (%)
1.	Balod	7,84,191	687	99.56	99.56	98.98	99.56
2.	Baloda Bazar	11,76,858	678	98.67	98.67	23.75	98.67
3.	Balrampur	7,18,627	640	100.00	100	1.25	100.00
4.	Bastar	4,19,628	587	100.00	100	27.94	100.00
5.	Bemetara	8,82,766	706	100.00	100	0.00	100.00
6.	Bijapur	1,26,637	557	99.10	98.02	43.99	99.10
7.	Bilaspur	12,19,887	707	100.00	100	4.95	99.86
8.	Dantewada	1,65,846	219	100.00	100	95.43	99.54
9.	Dhamtari	6,94,709	600	100.00	87.66	39.33	89.00
10.	Durg	8,62,561	447	100.00	97.76	0.45	97.76
11.	Gariyaband	4,23,421	702	96.44	97.29	88.75	97.72
12.	Gaurella Pendra Marwahi	2,78,866	225	100.00	100	0.44	100.00
13.	Janjgir-Champa	5,98,747	450	99.33	99.33	3.11	99.33
14.	Jashpur	8,46,485	755	100.26	100.26	6.62	100.26
15.	Kabirdham	16,02,328	1,011	100.00	100	24.43	100.00
16.	Kanker	6,91,667	999	100.00	100	99.10	100.00
17.	Khairgarh Chhuikhadan Gandai	4,64,640	494	99.80	99.8	13.16	99.80
18.	Kondagaon	3,31,457	536	99.25	98.88	65.49	98.88
19.	Korba	8,63,019	792	100.00	99.74	55.56	100.00
20.	Korea	2,79,911	281	100.00	100	98.58	100.00

Sl No.	District Name	Total ROR	Total Villages	Computerisation of Land Records - completed (%)	Mutations Computerised – completed (%)	RoR linked with Aadhaar (%)	ROR Distribution through CSC, Kisok, Online,etc (%)
21.	Mahasamund	11,76,258	1,150	99.74	99.74	99.22	99.74
22.	Manendragarh Chirimiri Bharatpur	2,21,844	372	100.00	100	96.51	99.73
23.	Mohla Manpur Ambagarh Chouki	2,93,728	498	100.00	100	40.96	100.00
24.	Mungeli	5,87,984	669	100.00	100	100.00	100.00
25.	Narayanpur	70,861	247	72.87	72.87	6.07	72.87
26.	Raigarh	11,12,951	944	100.00	99.89	48.73	100.00
27.	Raipur	10,72,712	545	100.00	100	8.26	100.00
28.	Rajnandgaon	6,39,538	697	96.56	96.56	61.55	96.56
29.	Sakti	4,90,714	465	100.00	100	95.91	100.00
30.	Sarangarh Bilaigarh	9,66,131	743	99.73	99.73	29.48	99.73
31.	Sukma	2,25,218	282	98.58	98.58	87.94	98.58
32.	Surajpur	8,19,598	552	100.00	100	100.00	100.00
33.	Surguja	10,37,897	582	100.00	100	25.95	100.00
	Grand Total	2,21,47,685	19,819	99.25 %	98.80%	49.12 %	98.89 %

Source – DILRMP-MIS 3.0 website (Accessed on July 2024)

3. Kerala

SI No.	District Name	Total ROR	Total Villages	Computerisation of Land Records - completed (%)	Mutations Computerised – completed (%)	RoR linked with Aadhaar (%)	ROR Distribution through CSC, Kisok, Online,etc (%)
1.	Alappuzha	5,14,768	94	100.00	100	0.00	100.00
2.	Ernakulam	7,94,680	128	100.00	100	0.00	100.00
3.	Idukki	2,69,784	68	100.00	100	0.00	100.00
4.	Kannur	18,43,478	138	100.00	100	0.00	100.00
5.	Kasaragod	1,13,647	126	100.00	100	0.00	100.00
6.	Kollam	9,31,657	105	100.00	100	0.00	100.00
7.	Kottayam	3,01,361	101	100.00	100	0.00	100.00
8.	Kozhikode	21,54,778	118	100.00	100	0.00	100.00
9.	Malappuram	24,02,292	138	100.00	100	0.00	100.00
10.	Palakkad	10,87,953	160	100.00	100	0.00	100.00
11.	Pathanamthitta	3,06,344	70	100.00	100	0.00	100.00
12.	Thiruvananthapuram	13,02,172	125	100.00	100	0.00	100.00
13.	Thrissur	17,91,478	254	100.00	100	0.00	100.00
14.	Wayanad	4,66,682	49	100.00	100	0.00	100.00
	Grand Total	1,42,81,074	1,674	100.0 %	100.00%	0.0 %	100.0 %

Source – DILRMP-MIS 3.0 website (Accessed on July 2024)

4. Lakshadweep

SI No.	District Name	Total ROR	Total Villages	Computerisation of Land Records - completed (%)	Mutations Computerised – completed (%)	RoR linked with Aadhaar (%)	ROR Distribution through CSC, Kisok, Online,etc (%)
1.	Lakshadweep	72,425	24	100.00	0	0	95.83
	Grand Total	72,425	24	100%	0%	0%	95.83%

Annexure II – Consolidated Responses of Study States/UT on DoLR Questionnaire (Part I)

Module I – Record of Rights

Sl No	Parameter/Indicator	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
1	No. of Land Parcels (million)	25	24.71	31.33	0.07
2	No of RoRs (million)	10.9	24.68	30.53	0.07
3	No. of RoRs computerised	10.9	24.68	30.53	0.07
4	Other docs maintained by Revenue authority related to RoR	Initial Revenue Records,	B1- Jamabandi (Khatauni) & Khasra 1 & 2. [Maintained online]	Two Permanent Registers and 14 Temporary Registers	FMB, Land Register Extract, Chitta, Adangal etc
5	RoR of Govt land computerised	Yes	Yes	Yes	Yes
6	RoR is available digitally for view/download by any citizen	Yes	Yes	Yes, but citizens must apply online by paying Rs.100	Yes
7	Digitally signed RoR available for download by any citizen?	Yes	Yes	By the applicant only	No
8	Digitally signed RoR a legally valid document?	Yes	Yes	Yes	NA
9	Digitally signed RoR verifiable through a QR code/ unique ID?	Yes	Yes	Yes	NA
10	Manual records been discontinued?	Yes	Yes	No	No
11	RoRs of entire village available for view/download by any citizen?	Yes	Yes	No, Thandapper number based search is enabled for all	Yes
12	Total Khata numbers (million)	10.9	9.34	30.53	.07
13	Average number of land holders in RoR	-	-	2	4
14	No of single land holder RoRs (million)	-	13.5	-	
15	Pending applications for mutation	21,065	Nil	3,16,084 (on 25.7.24)	0
16	Share of landholders mentioned in RoR?	Yes	No	No	No
17	Column in RoR that mentions land share	Column 15 of Adangal	No	NA	N/A
18	Incase of more than one land holder in RoR, is sub division of plot done?	Yes If partition is applied)	No	No	No
19	RoR seeded with Aadhaar?	Yes	Yes	Yes (with informed consent)	No
20	No. of RoR seeded with Aadhaar	89.6 Lakhs private RoR	17983732	29,025 (on 26.7.24)	N/A
21	RoR seeded with mobile number?	Yes	Yes	Yes (Not mandatory)	No

SI No	Parameter/Indicator	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
22	No of RoR seeded with mobile (million)	8.9	13.2	N/A	N/A
23	Occasion phone number and Aadhaar are seeded?	When a new landowner is recorded as Pattadar in ROR first time	Any Time	Mobile: Login account creation; Aadhaar: Thandapper & Aadhaar linking	N/A
24	Alert message sent to the registered mobile number in case of any change in that RoR?	Yes	Yes	No	No
25	Provision to apply online correction of RoR	Yes	Yes	No	No
26	RoRs corrected in FY 2023- 2024	1,34,399	36,599	N/A	Nil
27	RoR database linked with Cadastral maps?	Yes, in resurveyed areas	Yes	No	Yes
28	RoRs linked with Cadastral maps (million)	8.1 geo referenced LPs	17.5	N/A	0.07
29	RoR database linked with Banks-Mortgage	Yes	Yes	Yes	No
30	Districts-RoR database linked to banks	All 26 districts of AP	33 (All Districts)	14	N/A
31	Banks/bank branches-linked to RoR database	Banks- 66 Branches- 11847	4743	37	N/A
32	Number of banks and bank branches which are not linked to RoR database	Nil	Nil	Private banks will also be included on SLBC's request	N/A
33	Mortgage mentioned/ red-flagged in RoR?	Yes, for the bankers through the loan charge module creation	Yes	Yes	No
34	RoRs with mention/ red-flag of mortgage (as on date)	4.9 million	5.2 million	68 (on 1.8.24)	N/A
35	Mortgage release updated in the RoR?	Yes	Yes	There won't be any flag attached to the Land Parcel after the release of EMR is performed. Release charge details would be saved in the system	No
36	Online transliteration facility available?	No	Yes	No	English & Malayalam
37	Columns in RoR, and details captured	All 15 Columns	All. Part 1 and 2	All 18 columns	All 12 Columns
38	Gender of land holder captured in RoR? (If	Yes, for resurvey	Yes (5989845)	No	

SI No	Parameter/Indicator	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
	yes, how many females are land holders?)	completed villages Males – 1528726 Female - 842414			
39	Unit of land measurement used in RoR?	Acres	Hectares, Square feet	Hectare, Are, Square Meter	Are & Hectare
40	Land record of urban and peri-urban areas also digitised and updated?	Yes, for agricultural lands	Yes	Yes	N/A
41	Urban RoRs	-	1.9 million	No such separation of RoR	N/A

Module II - Cadastral Maps

SI No	Parameter/Indicator	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep	
1	Year of last Survey	1975	2004	1998	1964	1961-1967
2	Scale of available cadastral maps	Village – 1:7920, 1:3960	Village- 1:5000	1:4000	1:500,1:1000,1:2000,1:5000	1:5,1:10, 1:20. Maximum are 1:10
		FMB/LPMs – 1:1000, 1:2000, 1:5000	FMB/LPMs -1:1000, 1:2000			
3	Number of Cadastral Maps	Village – 17,564	Village – 6,688	47861	15,89,848(FMB)	11124
		FMB/LPMs-48,84,661	FMB/LPMs – 81,05,878			
4	Number of maps scanned	Village – 16,750	-	47861	11,54,976	9164
		FMBs- 47,81,224	-			
5	Scanned maps converted into digital format (vectorized)	Village –16,750		47861	8,14,990	9164
		FMBs – 44,87,669				
6	Number of cadastral maps Geo-referenced	Village – 15,352	Village- 6,688	1	5491(Block Map)	8
			FMBs – 81,05,878			
7	Number of LPs Geo-referenced		81,05,878	917	-	
8	Number of LPs assigned ULPIN		81,05,878	917	79570	Nil
9	Any other unique ID assigned?	No	No	No	-	Nil
10	Online facility for request to survey of their land parcel for subdivision?	Yes	Yes	No	N/A	No
11	Number of online requests pending for subdivision (as on date)	3,225	2,958	No	N/A	N/A

SI No	Parameter/Indicator	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep	
12	Subdivisions updated in the cadastral map, as a practice?	Updated in FMB but not in village map	Yes (mandatory)	Yes	N/A	Yes
13	Ratio of Survey number and RORs land holders per ROR	2:1	0.9:1	-	N/A	

Module III – Registration

SI No	Parameter/Indicator	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
1	Number of SROs	294	102 SROs	315	9
2	Number of SROs computerised	294	102 SROs	315	9
3	Month and Year of Computerisation of 1st SRO	05.02.1999	Feb – 2017	09/2011	15.8.2016
4	Month and Year of computerisation of latest SRO	05.02.1999	Oct – 2023	03/2016	2017
5	Number of land properties registered in FY 2023-24	21,91,770	2,84,000	8,86,065	1402
6	Number of SROs integrated with Revenue Offices and Land Record database	294	102 SROs	315	Nil
7	Online facility for booking appointment slot for registration?	Yes	Yes	Yes	Yes, but not operational
8	Information/ details are captured during online system for appointment slot booking	Executant, Claimant, property details, time/ date	All party & property detail	Yes	NA
9	Property attributes are captured in the online system	Survey number, door number, plot number, boundaries, village name, mandal, district	Ward, Sheet No. and Plot No., Khasra	Yes	Survey Number
10	Anywhere registration is allowed in the state?	Yes	No	Anywhere within district	No
11	Sale of Government Land is blocked/ red-flagged?	Yes	No	No	Registration document verified by Survey Section
12	Circle rates available to citizens in the registration software?	Yes	Yes	No	No
13	Online payment facility available for application fee?	Yes	Yes	Yes	No
14	Online Stamp duty calculator available for citizens?	Yes	Auto calculation	Yes	N/A

Sl No	Parameter/Indicator	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
			module is there		
15	Party/ owner names and area details checked from RoR? Copy of RoR downloaded as proof of checking?	Yes	Yes; Integrated with Land Records but no option to download RoR	Yes. RoR is not available for downloading	Yes
16	Is this mandated in in Rules, SOP, Manual or just a practice?	As per rules	Official Letter	Practice	Just a practice
17	Number of years registration deeds searched by SRO before registration?	30 years	No	Last transaction	Previous document mentioned in deed
18	SRO checks seller's ownership document by past record?	Yes	No	Yes	Yes
19	PAN, Aadhaar number, mobile number are captured for Party?	Yes	Yes (not mandatory yet)	No	PAN- property above 10,00,000/-
20	Online PAN verification system integrated for Registrations involving higher cost?	Under development	Yes	No - Application with MeITY	No
21	Facility available to verify eKYC of Aadhaar/ PAN during admission of parties?	Yes	Ongoing integration with Aadhaar & PAN	No	No
22	Party signature captured using digital pen and pad?	Aadhaar based e-signatures	Yes	No	No
23	Identification documents upload facility available?	Yes	Yes	No	No
24	Whether SRO is able to complete registration online	Yes	Yes	No	Yes, but uploading of deed not functioning
25	Home visit module available for SRO?	Yes	Home visit registration is done but module does not exist	Yes Updation happens within the office network)	Yes
26	SRO has facility to generate encumbrance certificate and e-search?	Yes	Yes	Yes	No
27	SRO can access legacy data as a ready reference?	Yes, 1983 till date & before 1983 digitisation under process	No	Yes	From the year 2000 onwards
28	Registration trigger a corresponding digital mutation ?	Yes	Yes-Auto-trigger	No	No

SI No	Parameter/Indicator	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
29	SRO can push data of mutation in case of network failure?	Yes	Yes	Yes	No
30	SRO can check litigations online for property?	No	No	Yes. Court attached cases	No
31	SRO is able to trigger SMS for important events?	Under development	No	Yes	No
32	Online registration system for citizens available through eKYC for first sale, Leave and License Agreements to facilitate presence less registration anywhere anytime?	No	No	No	No
33	Dynamic deed templates are available?	Yes	Integration is in process	Yes	No
34	AI Nibhrit solution is available for masking personal information of PAN, Aadhaar number and fingerprint impressions on registered pdf deeds?	Development completed under trials	Integration is in process	In progress	No
35	Year from which digitised legacy data available	1983 till date & before 1983 digitisation under process	2017	1986	Year 2001 onwards
36	Online grievance redressal system is available for filing complaints related to property registration at SRO?	Yes	No	No	No
37	No of online grievances received & settled during 2023-24	2069; Completed all	-	N/A	N/A
38	Document can be searched based on Name, Property details like survey number, deed number, etc.?	Yes	Yes	-	By Survey Number
39	Mobile app developed for land registration related services (Yes/No)?	Under development	Developing SUGAM application to capture GPS photos of the property.	-	No

SI No	Parameter/Indicator	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
1	Applications received for mutation in FY 2023-24 (Nos)	1072651	555628	1067021	1366
2	Applications disposed in FY 2023-24 (Nos)	1051586	546324	1005811	922
3	Applications pending for mutation (Nos)	21065	9304	61210	444
4	Online facility available for requesting mutation?	Yes	Yes	Yes	Nil
5	Auto-trigger mutation facility available in the State	Yes	Yes	No	NA
6	Type of transactions are eligible for auto-trigger mutation?	Sale, gift, partition	All documents received by Registration	N/A	N/A
7	Transactions in FY 2023-24 eligible for auto-mutation (Nos)	230234	267945	N/A	N/A
8	Of these, how many mutations were actually completed through auto-trigger?	230234	265962	N/A	N/A
9	Mutations related to sub-division (Nos)	-	2115	4,36,932	Data not available
10	Out of total mutation cases received through Registration how many are for mutation of land with entire Khasra	-	265962	5,68,879	Data not available
11	Process for receiving objections from public	Tehsildar issues Form-8 notice calling for objection for every mutation application received by him. The objections are enquired and disposed off as per RoR Act.	Manual	Offline	Objections shall be decided by CA and orders disposing f objections entered in the register of disputed cases.
12	SMS sent to all mobile number of all villagers?	No	No	Yes	No
13	Facility for objections to be sent online?	No	No	No	No
14	Prescribed period for issue of mutation orders from the date of receipt and what is actual period in practice	30 days	Undisputed: 3 months, Disputed: 6 months	40 days 27 days is the median time	90 days
15	SMS alert sent to applicant at each stage for his information?	Yes	Yes	No	No
16	Patwari submits report online?	Yes	Yes	Yes	No
17	Certified order copy of the mutation sent to the applicant	Yes	DSC Signed	No	No

SI No	Parameter/Indicator	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
	through email or whatsapp or is it available for download?		Final order is available in Bhuiyan & Revenue Court Website.		
18	Pending cases where mutation orders have been passed but certified copy is not yet sent to the applicant? Average number of days of pendency of such cases?	No pending cases	All cases Orders uploaded on website.	N/A	Applicant collects the copy from concerned Revenue Office
19	Cyber Tehsil functional or proposed to be functional in the State? If proposed, what is the stage?	There is no requirement for Cyber Tehsil as auto mutation is now introduced integrating Registration department software and Revenue department software	No	Cyber Tehsil is functioning online, but online submission of claims and objections is under process	No
20	RoRs updated immediately after issue of mutation orders or does the State follow a different practice and cycle of updation of RoRs? If so, the details of process and cycle followed for updation	RoR is updated on real time bases when an mutation request is approved or when an auto mutation record is approved	Yes (Once the mutation order is sanctioned, Patwari updates the RoR)	RoR updated immediately, after the approval of mutation, but no mutation order is issued	No
21	In what type of mutation request it is carried out without inviting objection?	N/A	No	In all cases, except for Absolute ownership transfer through registered deeds	In Land Acquisition Cases

Module V – Revenue Court Management System

Sl No	Parameter/Indicator	Andhra Pradesh	Chhattisgarh	Kerala	Lakshadweep
1	Revenue Courts in the State (Nos)	*	912	159	12
2	Revenue Courts computerised (Nos)		912	0	Nil
3	Revenue court cases handled in the computerized system-2023-24 (Nos)		524050	0	Nil
4	Revenue court cases handled in the manual system in 2023-24 (Nos)		Nil	159	15
5	Online system available for public to enter case details?		Yes	No	No
6	Online appointment date and time notified to applicant?		Yes (Website & SMS)	No	No
7	Court order typed on RCMS system directly or pdf of court order uploaded?		Both	N/A	No
8	Court order sent to litigants on email/ whatsapp/ posted on website?		Posted on website	No	No
9	Court hearings held online/VC or only in physical mode or hybrid?		Only in physical mode	Hybrid	No
10	Mode of storing cases (electronically/physically)		Both	Physically	Physically
11	Land Records database linked to RCMS system		Yes	N/A	No
12	Registration software linked to RCMS software		Yes	N/A	No
13	Pending revenue court case red-flagged in RoR?		Yes	N/A	N/A
14	Number of revenue court cases red-flagged in the RoR (Nos)		78876	N/A	Nil
15	Land Records database linked to eCourts system of Civil courts?		No	Pilot in 2 munsiff courts, Thrissur	No
16	If yes, how many eCourts are linked with LR database?		-	2	N/A
17	Pending civil court case red-flagged in RoR?		No	Work in progress	N/A
18	Number of civil court cases red-flagged in the RoR (as on date)		No	Nil	N/A

*Secretary DILRMP has informed that NIC Delhi is developing a generalised software for all states for RCMS

Annexures III - Land Parcel Primary Survey Details

1. Andhra Pradesh – Sulthanapuram Village, Adoni Mandal, Kurnool District

Sl No.	Khata Number	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Survey Nos	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remarks
1	1	449007	Kuruva Nagamma		3	4	Self	Single crop (U)		
						4	0.24		Single crop (U)	
2	2	106080	Late Mantriki Ediga Eranna (expired)	Meenakshamma (wife)	2	3.96	Self	Multiple crop (I)		
				1.Devanna(son)	5/3	0.48		Multiple crop (I)		
				2.Tayanna(son)	6A/4	0.04		Multiple crop (I)		
				3.Devendra(son)						
3	5		E.Rama swamy (expired)	Hanumanthamma	6/A4	0.04	Self	Animal fodder		
				Vannappa						
				Eeranna						
				Yashodamma						
4	6		Mekala Narasappa		6/1A	0.3		Non-agriculture		
5	7		Nidaram Eeranna		6/2A	0.15		Non-agriculture		
6	8	10672	Eediga Nagappa		5/1	0.8	Self	Single crop (U)		
						6/A4	0.06	Self	Single crop (U)	
7	9	10691	E. Ramudu		6/A5	7.31	Self	Single crop (U)	Mortgage	

Sl No.	Khata Number	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Survey Nos	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remarks
									(NF)	
8	11	13U23S0 20000004	K. Mahadevamma		16/A3B	0.05	Self	Single crop (U)		
					16A2A	0.08	Self	Single crop (U)		
					7/2	1.59	Self	Single crop (U)		
					7/3	0.13	Self	Single crop (U)		
9	13	10689	V. Veeraraju		12	0.73	Self	Single crop (U)		
					17	2.05	Self	Single crop (U)		
					19	0.75	Self	Double crop (I)		
10	14	10673	Ananthachari		16A/1A	3.2	Self	Single crop (U)	Mortgage (NF)	
11	15	13023W0 20000002	K.Nagendra Rao		16/A3B	0.37	Self	Single crop (U)		
					16A2A	1.25	Self	Single crop (U)		
					7/2	1.6	Self	Single crop (U)		
					7/3	0.12	Self	Single crop (U)		
12	16		Pedda Malla Reddy		16/A3B	0.42	Self	Non-agriculture		
13	17	733651	Ediga Mangamma		21/1	2.37	Self	Multiple crop (I)		

Sl No.	Khata Number	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Survey Nos	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remarks
					22/1	1.66	Self	Multiple crop (I)		
14	18	559047	G.Seshappa		21/2	1.61	Self	Single crop (U)		
					22/2	1.69	Self	Single crop (U)		
15	19		Golla Husenamma		23/1	0.74	Self	Non-agriculture		
16	20		Ayyappa		23/3	0.62	Self	Double crop (I)		
					23/4	0.98	Self	Double crop (I)		
17	22	10693	A.Sankaramma		28/1	2.2	Self	Multiple crop (I)	Mortgage (NF)	
18	23	559043	A.Venkatesulu		28/2	1.98	Self	Single crop (U)		
19	24	563774	K. Pedda Anjineya		28/3	2.02	Self	Single crop (U)		
20	25		M. Budda Hanumanna (expired)	Thikka Lakshamma(wife)	28/4	1	Self	Single crop (U)		Mutation completed
				Pedda Mareppa			Self			
				M.Mareppa			Self			
				Veeresh			Self			
				Nagesh			Self			
21	26	860010	Govindarajulu		10A	1.43	Self	Non-agricultural		
					11	1.01	Self	Non-agricultural		

Sl No.	Khata Number	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Survey Nos	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remarks
					14B	0.2	Self	Non-agricultural		
					18	2.8	Self	Non-agricultural		
					9	1.83	Self	Non-agricultural		
22	27		Ediga Sanjappa		5/1		Self	Single crop (U)		
23	28	491274	Ediga Basavarajulu		12	0.73	Self	Single crop (U)		
					17	2.05	Self	Single crop (U)		
					19	0.75	Self	Single crop (U)		
24	29	469854	V. Chandra Reddy		12	0.73	Self	Single crop (U)		
					17	2.05	Self	Single crop (U)		
					19	0.75	Self	Single crop (U)		
25	30	733655	G. Ranganna		26	0.41	Self	Multiple crop (I)	Mortgage (NF)	
26	31	700595	Golla Narasimhulu		6/3A	1.91	Self	Multiple crop (I)		
27	32	700594	Golla Veeraraju		6/3A	1.91	Self	Single crop (U)		
28	33	700589	Golla Sriramulu		6/3A	1.91	Self	Single crop (U)		
29	35	736922	Daresh Gowd		25	0.57	Self	Single crop (U)		
					26	1.08	Self	Single crop (U)		
					27	0.6	Self	Single crop (U)		

Sl No.	Khata Number	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Survey Nos	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remarks
30	37	13A23T0 20000005	Ediga Ashok		21/1	0.07	Self	Single crop (U)		
					22/1	0.8	Self	Single crop (U)		
31	38	13C23A0 20000006	Ediga Hanumanthamma		5/2	0.47	Self	Single crop (U)		
					5/3	0.16	Self	Single crop (U)		
					6/A4	0.05	Self	Single crop (U)		
32	39	13K2310 20000007	E.Padmavathi		10A	1.43	Self			
					11	1.01	Self			
					14B	0.2	Self			
					18	2.8	Self			
					9	1.84	Self			
33	40	13E23E0 20000009	G.Lakshmi		23/2	0.5	Self	Single crop (U)		
34	41	13023P02 0000013	G.Hanumanthu		1	0.23	Self	Single crop (U)		
					2	1.83	Self	Single crop (U)		
					23/2	0.04	Self	Single crop (U)		
					7/1	0.46	Self	Single crop (U)		

Sl No.	Khata Number	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Survey Nos	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remarks
35	42	13A23D0 20000012	G.Veeraraju		2	1.23	Self	Single crop (U)		
					23/2	0.04	Self	Single crop (U)		
					24	2.73	Self	Double crop (I)		
					7/1	0.52	Self	Single crop (U)		
36	43	1392390 20000010	G.Charkravarthi		2	1.23	Self	Single crop (U)		
					23/2	0.04	Self	Single crop (U)		
					24	2.85	Self	Single crop (U)		
					7/1	0.52	Self	Single crop (U)		
37	46	13D23K0 20000014	G.Nirmala		7/1	2	Self	Single crop (U)		
38	48		Bajaramma		20-2	1.66	Self (assigned)	Single crop (U)		
39	49	13P23J02 0000015	Harijana Kuruvamma		28/4	0.57	Self	Single crop (U)		
40	50		M.Mareppa		28/4	0.5	Self	Single crop (U)		

2. Andhra Pradesh – P. M. Kandrika Village, Zarugamalli Mandal, Prakasham District

Sl No.	Khata No	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Land Parcel No	Survey Number	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remark
1	2	08D497001	Bandi Ramanamma		8	4/2	1.06	Self	Single crop (I)		
					26	15/3	3.11	Self	Single crop (I)		
					37	11-1	2.33	Self	Single crop (I)		Application given for resurvey
					40	11-1, 12/3	1.36	Self	Single crop (I)		
2	3		Gongati Thirupathamma		7	4/2	1.05	Exchanged			
3	16	New Katha No is 77, Passbook applied but not received	Bandi Subbarao	Bandi Kondamma	20	7	2.65	Self	Single crop (I)		7 cents land less as per resurvey
4	17	084496I001	Bandi Kondareddy		19	7	2.65	Leased	Single crop (I)		
5	20	08X4984001	Yellavula Sreenivasa Reddy		17	8/1,9/1	5.34	Self	Single crop (I)		
6	22	08W49LG001	Bandi Kondamma		9	4/4	2.68	Self	Single crop (I)		
					18	8/2	3.9	Self	Single crop (I)		
7	25	08549SR001	Yellavula Ankamma		35	10	2.01	Self	Single crop (I)		

Sl No.	Khata No	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Land Parcel No	Survey Number	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remark
8	26		Maaram Reddy Kondaiah		38	11-4	2.73	Leased	Single crop (I)		
9	27		Gogati Narasamma		44	10	3				
10	28	085499V001	Bandi Narashimha Reddy		34	10	2	Self	Single crop (I)		
11	34	08349W9001	Suraa Koteswara Rao		32	9/2	1.46	Self	Single crop (I)		
12	39	08L49BI001	Kunam Veerabadra Rao		3	3,4/3	11.23	Self	Single crop (I)		
					12	5/1	0.4	Self	Single crop (I)		
13	40	08X498P001	Bhimaneni Koteswara Rao		4	4/3	22.61	Self	Single crop (I)		
					12		0.4	Self	Single crop (I)		
14	41	08E4964001	Bhimaneni Nirmala		4	3,4/3	22.61	Self	Single crop (I)		
					17	5/1	0.4	Self	Single crop (I)		
15	42	08E49MG001	Bandi Sreenivasareddy		39	11-3B	2.09	Self	Single crop (I)		
16	43	08C491L001	Bandi Ramanaiah		39	11-3A2	2.09	Self	Single crop (I)		
17	44		Bandi Venkateswarlu		37	11-3A2	2.33	Self	Single crop (I)		
18	45	08449V00100	Bandi Kotireddy		55	16/2B	1.17	Self	Single crop (I)		

Sl No.	Khata No	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Land Parcel No	Survey Number	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remark
		0004									
19	46	814955001	Bandi Koteswara Rao		42	12/2	1.17	Self	Single crop (I)		
20	47	08M49ZK0001	Bandi Bramhaiah		25	16/1C	0.96	Self	Single crop (I)		4 cents land less as per resurvey
					47	14/1C	0.51	Self	Single crop (I)		
21	48		Yallavula Lakshmi		36	10,10-1	4.43	Self	Single crop (I)	Lease (NF)	
22	49	08F49TI001	Sura Ramanamma		31	9/2A	1.46	Exchanged	Single crop (I)		1 cent land less as per resurvey
23	50		Bandi Sujatha		23	16/1A	0.95		Single crop (I)		
					45	14/1A	1.31		Single crop (I)		
24	51	085496T001	Bandi Nagamma		24	16/1B	0.95	Self	Single crop (I)		
					46	14/1B	1.26	Self	Single crop (I)		4 cents land less as per resurvey
25	52		Maram Reddy Ramanamma		13	5/1	2.33	Self	Single crop (I)		
26	53	08849S001000038	Yallavula Ramanamma		29	15/1	1.51	Self	Single crop (I)		
					21	5/1	4.05	Self	Single crop (I)		

Sl No.	Khata No	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Land Parcel No	Survey Number	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remark
27	55	08V497A001	Alikepalli Mallikarjuna Reddy		14	6	2.83	Self	Single crop (I)		
28	56	08T49V2001	Maram Reddy Ramanamma		22	5/1	1.92	Self	Single crop (I)		
					48	13	3.32	Self	Single crop (I)		
29	57	08G49U3001	Alikepalli Rohit Reddy		16	6	4.21	Self	Single crop (I)		
30	58		Maram Reddy Narasareddy		33	9/3	2.94	Self	Single crop (I)		
31	59	0849ES001	Bandi Bhaskar Reddy		27	15/2	2.22	Self	Single crop (I)		
32	60	New Passbook Applied but not Received	Alikepalli Sreenath Reddy	Govindamma	15	6	2.2	Self	Single crop (I)		
33	61	085490E01	Maram Reddy Lakshamma		6	4-1	1.07	Self	Single crop (I)		
34	62	08D491C001	Maram Reddy Vijay Bhaskar Reddy		11	5/2	1.76	Self	Single crop (I)		
					52	17	1.44	Self	Single crop (I)		
35	63	08B49E7001	Maram Reddy Ravindra Reddy		57	17	1.43	Self	Single crop (I)		

Sl No.	Khata No	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Land Parcel No	Survey Number	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remark
36	64	08149WB001	Maram Reddy Subba Reddy		56	17	1.43	Self	Single crop (I)		4 cents land less as per resurvey
37	65	08F49EZ001	Yallavula Venkateswarlu		61	18/5	0.43	Self	Single crop (I)		
38	66	08R49J8001	Yallavula Venkatakrishna		60	18/5	0.43	Self	Single crop (I)		
39	67	08449PG001	Yallavula Subba Reddy		30	9/1	1.46	Self	Single crop (I)		2 cents land less as per resurvey
40	68	08K49QI001	Maram Reddy Srinivasa Reddy		5	4-1	0.5	Self	Single crop (I)		
					10	5/1	1.75	Self	Single crop (I)		
					58	17	2.15	Self	Single crop (I)		
41	69	08A496R001	Maram Reddy Vishnuvardhan Reddy		5	4-1	2.15	Self	Single crop (I)		
					10	5/1	0.5	Self	Single crop (I)		
					51	17	2.15	Self	Single crop (I)		
42	70	08149B00100047	Yallavula Kondamma		28	15/1	1.51	Self	Single crop (I)		
43	71		Bandi Madhava Reddy		59	18/4	0.88	Self			

Sl No.	Khata No	Pattadar Passbook Number	Name of the landowner	Legal Heirs	Land Parcel No	Survey Number	Extent (Acres)	Land Possession	Land Use	Encumbrances	Remark
44	72	08049Y6001	Bandi Ramanamma		43	12/1	1.72	Self	Double crop (I)		
					49	13,14/2, 14/3,15/ 4,18/1,1 8/2,18/3	14.17	Self	Double crop (I)		
45	74	08449WV001	Bandi Kondamma		37	11-2	2.33	Self	Single crop (I)		
					41	11- 2,12/3	1.28	Self	Single crop (I)		
					53	16/2A	1.27	Self	Single crop (I)		
46	75	08449VF001	Yallavula Picchamma		50	14/3	1.62	Self	Single crop (I)		
					54	16/2C	1.17	Self	Single crop (I)		

3. Chhattisgarh – Birkona Village, Katghora Tehsil, Korba District

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
1	1	99	Amardas, Ramdas, Jugmuniya, Sukhmuniya		99	1.12	Govt Land (assigned)	Paddy (U)		
2	2	101	Kanhaiyadas, Ramdas, Chamrinbai, Shyamdas, Balramdas,		101	0.92	Govt Land (assigned)	Paddy (U) + House		
3	3	64	Ganesh Das (expired), Jagramdas, Sundariya	Noni bai, Santoshi bai, Ram bai, Hareliya bai, Kareliya bai, Panchratan, Sudhirdas, Asthir Das	64	0.58	Govt Land (assigned)	Paddy		
4	4	6	Tiharobai, Jankibai		6	2	Govt Land (assigned)	Paddy (I)		
5	5	66	Dulardas (expired)	Kanhaiya das, Asthir das, Jagram, Nirbhawan, Shivdas, Hira, Jankibai, Tihar bai, Nanhinoni	66	0.22	Govt Land (assigned)	Paddy (U)		
					160	0.2	Govt Land (assigned)	Paddy (U)		
6	7	7	Nirbhawan Das		7	0.27	Govt Land (assigned)	Paddy (U)		Rectification - completed

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
					61	0.73	Govt Land (assigned)	Paddy (U)		
7	8	89	Shankardas		89	0.77	Govt Land (assigned)	Paddy (U)		
8	9	3	Shivdas		3	0.5	Govt Land (assigned)			
9	10	4	Shivdas, Ramsheelabai (expired), Purainbai (expired), Hiradas, Shusheelabai, Nankibai, Nonibai (Expired), Dhanwabai	Hiradas, Ramshilabai, Susheela Bai, Nanki Bai, Noni bai, Dhanbai, Sukhdas	4	1	Govt Land (assigned)	Paddy (U)		
10	2	38	Chamru Singh (expired), Hirasingh, Manjit Singh	Vimla	38	0.18	Govt Land (assigned)	Paddy (U)		
					143	0.36	Govt Land (assigned)	House		
					158	0.45	Govt Land (assigned)	Paddy (U)		
11	9	29	Samaru Das (expired), Dular das (expired), Charan das, Akridas, Nainanoni, Dineshbai (expired)	Nirbhawan, Asthirdas, Jagrandas, Kanhaiyadas, Samharin bai, Shyam das, Balramdas	29	0.1	Govt Land (assigned)	Paddy (U)		

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
					37	0.13	Govt Land (assigned)	Paddy (U)		
					39	0.07	Govt Land (assigned)	Paddy (U)		
					40	0.1	Govt Land (assigned)	Paddy (U)		
					44	0.19	Govt Land (assigned)	Paddy (U)		
					58	0.12	Govt Land (assigned)	Paddy (U)		
					62	0.49	Govt Land (assigned)	Paddy (U)		
					122	0.46	Govt Land (assigned)	House+ Arhar, urad, corn (U)		
					161	0.26	Govt Land (assigned)	Paddy (U)		
					165	0.22	Govt Land (assigned)	Paddy (U)		
					170	0.08	Govt Land (assigned)	Paddy (U)		

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
12	1	82	Anant Singh, Laxman, Gangabai, Paavan Singh, Nonibai		82	0.9				
					116	0.27				
					127	0.19				
					129	0.19				
					131	0.14				
13	2	155	Ekta kanwar, Kunjbai, Kusumlata, Chetan bai, Harsha kanwar, Pushplata, Rekha, Ramprakash, Sangeeta kanwar, Sarita kanwar, Seema kanwar		155	0.36	Self	Paddy (U)		
					157	0.96		Paddy (U)		
					162	0.2		Paddy (U)		
					164	0.59		Paddy (U)		
					168	0.37		Paddy (U)		
14	3	128	Kanhai Singh, Baijnath Singh		128	0.44	Self	Horsegram (U)		
15	4	19	Gangabai, Godabai, Lakshmbai		19	0.14	Self	Paddy (U)		Resides outside village

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
					65	0.82		Paddy (U)		
16	5	48	Ganeshdas (expired), Jagrandas, Sundari bai,	Noni bai, Santoshi bai, Ram bai, Hareliya bai, Kareliya bai, Panchratan, Sudhirdas, Asthir Das	48	0.15	Self	Paddy (U)		
					146			Vacant		
17	6	88/2	Chatur Singh, Raghubir Singh		88/2	0.753	Self	Paddy (U)		
18	7	56	Chamar Singh(expired)		56	0.23	Self	Paddy (U)		
19	8	95	Jamal Khan		95	0.45				
					103/2	1.44				
20	9	45	Dular Shah		45	0.3				Resides outside village
21	10	51	Nanhuram		51	0.21				
22	11	147	Nanhuram		147	0.43	Self			
23	12	111	Narayan Singh(expired)	Chatkunwar, Vishnu Singh, Bajrang Singh, Arun Singh, Leela kanwar, Maya kanwar, Santoshi,	111	0.6	Self	Paddy (U)		

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
				Saraswati						
24	13	25	Pratap Singh		25	0.24		Paddy (U)		Resides outside village
25	14	49	Purushottam (Expired)	Sattar Singh, Rambai, Subhash, Pratap Singh, Gopal, Nirala, Padum Singh, Uttam Singh, Nirmala	49	1	Self	Paddy (U)		
26	15	8	P Shridhar Naidu		8	0.95		Vacant		Resides outside village
27	16	57	Balsingh		57	0.92		Paddy (U)		Resides outside village
28	17	59/2	Balsingh, Gulabsingh (expired)		59/2	0.26	Self	Paddy (U)		
29	18	26	Mangal Singh (minor), Bali (minor), Harihar Singh		26	0.02	Self	Paddy (U)		
					50/1	0.028		Paddy (U)		
					52	0.05		Paddy (U)		

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
					78	0.53		Paddy (U)		
					126	0.14		Vacant		
					130	0.18		Vacant		
					145/1	0.124		Vacant		
30	19	36	Manojkumar, Dhirpalsingh, Manoharsingh, Dhankunwar, Surajkunwar,Mayaram, Devsingh, Chandankunwar, Rajendrakumar, Chatkunwar, Gopalsingh, Kaushalya		36	0.17	Self	Paddy (U)		
					142	0.36		House		
					171	0.5		Paddy (U)		
					173	0.22		Vacant		
31	20	43	Mahendrapal Singh		43	0.15	Self	Paddy (U)	Mortgage - F	Resides outside village
					92	0.189		Paddy (U)	Mortgage - F	
32	21	76	Madhosingh		76	1.13	Self	Paddy (U)	Mortgage	

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
									e - F	
33	22	73/3	Madhosingh		73/3	0.137	Self	Paddy (U)		
					123	1.0		Vacant		
34	23	17	Raghubir Singh, Nonibai (expired), Phoolbai	Mahabir, Manharan, Bhan Singh	17	0.55	Self	Paddy (U)		
					133	0.09		House		
					139	0.44		Paddy (U)		
					23	0.13		Paddy (U)		
					30	0.210		Paddy (U)		
					113	0.85		Paddy (U)		
					114	0.22		Paddy (U)		
					34	0.380		Paddy (U)		
35	24	46	Ramesh Singh, Mahendrapal Singh, Ramkripal Singh		46	0.27	Self	Paddy (U)		
					50/2	0.142		Paddy (U)		
					55	0.1		Paddy (U)		
					59/1	0.64		Paddy (U)		
					63	0.72		Vacant		

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
36	25	21	Ravindrapal Singh, Kunti, Shakunti, Madhan, Amarkunwar		21	0.26	Self	Paddy (U)		
					31	0.05		Paddy (U)		
					33	0.37		Paddy (U)		
					86	0.47		Paddy (U)		
					94	0.52		Paddy (U)		
					108	0.37		Paddy (U)		
					132	0.2		Vacant		
					135	0.07		Vacant		
					136	0.02		Paddy (U)		
					138	0.19		Paddy (U)		
37	26	96	Ramprakash		96	0.32	Self			
					102	0.37				
38	27	73/1	Ramayan Singh		73/1	0.052	Self	Paddy (U)		
					73/2	0.061		Vacant		
39	28	163	Ramayan Singh, Bali (minor)		163	0.39	Self			

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
40	29	32	Ramayan Singh, Chamra Singh, Charan Singh, Rupkunwar, Bachankunwar		32	0.26	Self	Paddy (U)		
					35	0.11		Paddy (U)		
					53	0.2		Paddy (U)		
					69	0.13		Paddy (U)		
					80	0.41		Paddy (U)		
					83	1.05		Paddy (U)		
					87	0.53		Paddy (U)		
					93	0.09		Paddy (U)		
					106	0.12		Paddy (U)		
					134	0.75		House + Vegetables (U)		
41	30	88/1	Vijendra Kumar		88/1	0.817	Self	Paddy (U)		
					137	0.04		Vacant		
42	31	125	Shankar Das		125	0.04	Self	House		

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
43	32	167	Sukhdas, Chandandas(expired), Ramti(expired), Kamti, Gulabdas(expired), Malti, Samarin, Karthik(expired), Manik, Kuchanbai, Bandhan, Panwarabai, Nanhi	Chamri bai, Kisun Das, Krishna das, Kabir das, Sharmila bai, Ramila bai, Seema bai, Artidas	167	0.14	Self	Paddy (U)		
44	33	145/2	Sangita Akhande, Ashish Kumar		145/2	0.526	Self	Paddy (U)		
45	34	27	Santosh Singh, Shakuntalabai, Sumitrabai, Subhadrabai, Meenabai, Momitabai, Bundkunwar		27	0.05	Self	Paddy (U)		
					42	0.26		Paddy (U)		
					250	0.160		Vacant		
46	35	41	Sonkunwar (expired), Pawan Singh, Amrita, Ramkunwar	Rajkumar, Darshan, Manharan	41	0.13	Self	Paddy (U)		
					47	0.3		Paddy (U)		
					71	0.23		Paddy (U)		
					85	0.8		Paddy (U)		

Sl No.	Khata Number	Basra Number	Name of land owner	Legal Heirs	Survey No	Extent (Hectare)	Possession	Land Use	Encumbrances	Remarks
					91	0.12		Paddy (U)		
					119	0.25		Urad/Arhar /Corn (U)		
					144	0.17		Urad/Arhar /Corn (U)		

4. Chhattisgarh – Tuma Bahra Village, Dhamtari Tehsil, Dhamtari District

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
1	2	10/1	10/1	1.Sakar 2. Krishnabai 3. Kesaribai		0.37	Self	Paddy (U)	Mortgage – F	
			19			0.17	Self	Paddy (U)	Mortgage – F	
			21			0.71	Self	Paddy (U)	Mortgage – F	
2	3	10/2	10/2	Dashrath		0.4		Paddy (U)		Resides outside village
3	4	118	118	Vishnuram		0.04	Self	Paddy (I)		
			122			0.1	Self	Paddy (I)		
			198			0.24	Self	Vegetables (U)		
			202			0.06	Self	Vegetables (U)		
			206			0.13	Self	Paddy (I)		
			300			0.07	Self	Vegetables (U)		
4	7	13	13	1.Ghurau, 2. Ghurai, 3. Cherkin		0.32	Self	Paddy (U)		
			23			0.15	Self	Paddy (U)		
			50			0.08	Self	Vacant		
			149			0.25	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			177			0.27	Self	Paddy (U)		
			186			0.34	Self	Paddy (U)		
			213			0.12	Self	Paddy (U)		
			249			0.83	Self	Paddy (U)		
			261			0.61	Self	Paddy (U)		
			573			1.96	Self	Millet (U)		
5	9	15	15	Ramapati		0.18	Self	Paddy (U)		
			97/1			0.25	Self	Paddy (U)		
			170/2			0.2	Self	Paddy (U)		
6	11	166/2	166/2	Hirde		0.13	Self	Paddy (U)		
			200/3			0.02	Self	Urad (U)		
			298/1			0.02	Self	Urad (U)		
			575/1			0.27	Self	Millet (U)		
7	12	166/3	166/3	1.Gaiduram, 2.Radhabai		0.13	Self	Paddy (U)		
			200/1			0.01	Self	Paddy (U)		
			298/3			0.03	Self	Paddy (U)		
			575/2			0.27	Self	Paddy (U)		
8	13	166/4	166/4	1.Hirau, 2. Dukhiyabai		0.13	Leased	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			200/2			0.02	Leased	Urad (U)		
			298/2			0.02	Leased	Urad (U)		
			575/3			0.27	Leased	Millet (U)		
9	16	170/1	170/1	1.Bodhan, 2. Bodhni		0.21	Self	Paddy (U)		
			528			0.64	Self	Paddy (U)		
			546			0.3	Self	Paddy (U)		
10	25	183/1	183/1	Vijaykumar		1.36	Self	Vacant		
11	26	183/2	183/2	Naveenkukmar		1.36	Self	Vacant		
12	32	480	480	Tulasiram Sukaro (expired)	Ankalu ,Neelam	0.18	Self	Paddy (U)		
13	36	20	20	1.Govdhan, 2.Sukharam		0.32	Self	Paddy (U)	Mortgage – F	
			22			0.1	Self	Paddy (U)	Mortgage – F	
			86			0.47	Self	Paddy (U)	Mortgage - F	
			473			0.21	Self	Paddy (U)	Mortgage – F	
			521			0.07	Self	Paddy (U)	Mortgage - F	
			523			0.15	Self	Paddy (U)	Mortgage - F	
14	38	217	217	Narayan		0.32	Self	Paddy (U)		
			476			0.16	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			502			0.09	Self	Paddy (U)		
			507			0.21	Self	Paddy (U)		
15	40	225	225	Dukhu		0.08		Vacant		Resides outside village
16	42	227	227	Lacchni		0.07	Self	Paddy (U)		
			238			0.13	Self	Paddy (U)		
			297			0.11	Self	Paddy (U)		
			351			0.47	Self	Paddy (U)		
			489			0.35	Self	Paddy (U)		
			492			1.42	Self	Paddy (U)		
			495			0.38	Self	Paddy (U)		
17	50	244	244	Sukhdev		0.06		Vacant		Resides outside village
18	51	113/1	113/1	1. Balram 2. Ramkrishna 3. Sahodra Bai 4. Ishwari Bai 5. Parvati 6. Bhuneshwari		0.11	Self	Paddy (U)		
			197			0.14	Self	Paddy (U)		
			344			0.11	Self	Vacant (U)		
19	52	246	246	Bhagwan		0.07		Vacant (U)		Resides outside

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
										village
20	54	248	248	Dwarika		1.35		Paddy (U)		Resides outside village
			251/2			0.65		Paddy (U)		
21	67	272	272	Ramkumar		0.64	Self	Paddy (U)	Mortgage – F	
			449			0.35	Self	Paddy (U)		
			454			0.08	Self	Paddy (U)		
			506			0.12	Self	Paddy (U)		
			509			0.13	Self	Vacant		
			540			0.19	Self	Paddy (U)		
			303			0.06	Self	Paddy (U)		
			422			0.41	Self	Paddy (U)		
			424			0.05	Self	Paddy (U)		
			432			0.06	Self	Paddy (U)		
			435			0.07	Self	Paddy (U)		
			446			0.39	Self	Paddy (U)		
22	69	277	277	Sanjukumar		0.08	Self	Paddy (U)		
23	70	278	278	Kuwarbai		0.08	Self	Paddy (U)		
			462			0.09	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
24	71	279	279	Aghanteen (expired)	Dasru, Kunti	0.08	Self	Paddy (U)		
			401			0.17	Self	Paddy (U)		
			406			0.18	Self	Paddy (U)		
			436			0.12	Self	Paddy (U)		
			463			0.12	Self	Paddy (U)		
25	76	302	302	1.Mohan 2.Mugobai		0.07		Vacant		Resides outside village
			519			0.01		Paddy (U)		
			525			0.02		Paddy (U)		
			529			0.11		Paddy (U)		
			534			0.03		Paddy (U)		
26	78	307	307	Mayaram		0.04	Self	Paddy (U)		Kisan kitab update - completed
			448			0.36		House		
27	79	310	310	Sumitra		0.03	Self	House		
28	81	316	316	Bhagwan		0.1	Self	Urad (U)		
			524			0.12	Self	Paddy (U)		
			543			0.13	Self	Paddy (U)		
29	87	331	331	Gangabai		0.02		House		Resides outside

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
										village
30	90	34	34	Kacheru		0.22	Self	Paddy (U)	Mortgage – F	
			39			0.18	Self	Paddy (U)	Mortgage – F	
			59			0.89	Self	Millet (U)	Mortgage – F	
			68			0.32	Self	Paddy (U)	Mortgage – F	
			70			0.66	Self	Paddy (U)	Mortgage – F	
			105			0.08	Self	Paddy (U)	Mortgage – F	
			109			0.1	Self	Paddy (U)	Mortgage – F	
			137			0.28	Self	Paddy (U)	Mortgage - F	
			139			0.07	Self	Paddy (U)	Mortgage – F	
			145			0.13	Self	Paddy (U)	Mortgage – F	
			153			0.07	Self	Paddy (U)	Mortgage – F	
			241			0.05	Self	Paddy (U)	Mortgage – F	
			263			0.18	Self	Paddy (U)	Mortgage – F	
			271			0.1	Self	Paddy (U)	Mortgage – F	
			332			0.03	Self	Urad (U)	Mortgage – F	
			485			0.21	Self	Paddy (U)	Mortgage – F	
			518			0.12	Self	Paddy (U)	Mortgage – F	

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			549			0.03	Self	Paddy (U)	Mortgage - F	
31	121	41	41	Manaram		1.28	Self	Paddy (U)		
32	123	419	419	Dayaluram		0.12		Paddy (U)		
			425			0.13		Paddy (U)		
			429			0.06		Vacant		
33	124	43	43	Devnath		0.19	Self	Paddy (U)		
			60			0.39	Self	Vacant		
			92			0.04	Self	Paddy (U)		
			96			0.07	Self	Paddy (U)		
			133			0.05	Self	Paddy (U)		
			147			0.09	Self	Paddy (U)		
			150			0.13	Self	Paddy (U)		
			154			0.08	Self	Paddy (U)		
			327			0.03	Self	House		
			336			0.02	Self	Vegetables (U)		
			475			0.08	Self	Paddy (U)		
			481			0.06	Self	Paddy (U)		
			551			0.09	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
34	125	438/2	438/2	Ramotin		0.05	Self	Paddy (U)		
			458/2			0.2	Self	Paddy (U)		
			465/1			0.08	Self	Paddy (U)		
			465/4			0.11	Self	Paddy (U)		
			504			0.05	Self	Paddy (U)		
			580/3			0.03	Self	Paddy (U)		
35	126	45	45	Aasadu		0.08	Self	Paddy (U)		
			61			0.26	Self	Paddy (U)		
			94			0.11	Self	Paddy (U)		
			134			0.06	Self	Paddy (U)		
			143			0.1	Self	Paddy (U)		
			155			0.07	Self	Paddy (U)		
			334			0.01	Self	Vegetables (U)		
			474			0.07	Self	Paddy (U)		
			482			0.06	Self	Paddy (U)		
36	129	468	468	Samaru		0.14		Paddy (U)		Resides outside village
37	131	479	479	Raysingh		0.05		Paddy (U)		Resides outside

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
										village
			522			0.08		Paddy (U)		
38	134	488	488	Sudama		0.24		Paddy (U)		Resides outside village
			512			0.21		Paddy (U)		
39	136	498	498	Bharat (expired)	Hembai Netam	0.25	Self	Paddy (U)		
40	159	562	562	1.Narayan 2.Tulsiram 3.Akalkin 4.Sukaro		1.01	Self	Paddy (U)		
41	177	7/1	7/1	Gaiduram		0.34		Paddy (U)		Resides outside village
42	178	7/2	7/2	Shyamlal		0.34	Self	Paddy (U)		
43	182	85	85	1.Dukharam (expired) 2.Sukhawati 3.Dukhibai	Kanhaiya, Keshav Ram Netam,Lalita	0.54	Self	Paddy (U)		
			112			0.12	Self	Paddy (U)		
			121			0.1	Self	Paddy (U)		
			166/1			0.18	Self	Paddy (U)		
			207			0.06	Self	Paddy (U)		
			274			0.25	Self	Paddy (U)		
			281			0.25	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			357			0.28	Self	Paddy (U)		
			472			0.37	Self	Paddy (U)		
			527			0.68	Self	Paddy (U)		
44	183	87	87	Radheshyam		0.92	Self	Paddy (U)		
			131			0.36	Self	Paddy (U)		
45	186	126	126	Amrit		0.16	Self	Paddy (U)		
			175/2			0.87	Self	Paddy (U)		
46	187	101/1	101/1	1.Amrit, 2.Mohan, 3. Triveni		0.02	Self	Paddy (U)	Mortgage – F	
			196			0.27	Self	Paddy (U)	Mortgage – F	
			204			0.65	Self	Paddy (U)	Mortgage – F	
			215			0.27	Self	Paddy (U)	Mortgage – F	
			243			0.11	Self	Urad (U)	Mortgage – F	
			250			0.66	Self	Millet (U)	Mortgage – F	
			265			0.19	Self	Paddy (U)	Mortgage – F	
			267			0.34	Self	Paddy (U)	Mortgage – F	
			306			0.05	Self	Paddy (U)	Mortgage - F	
			447			0.36	Self	Vacant	Mortgage - F	
			554			0.25	Self	Paddy (U)	Mortgage – F	

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
47	188	115	115	1.Ashwan 2.Ashwani 3.Ashwatin 4. Sahodra		0.01	Self	Paddy (U)		
			195			0.17	Self	Paddy (U)		
			205			0.11	Self	Paddy (U)		
48	189	128/1	128/1	Aatma Ram		0.16	Self	Paddy (U)		
49	190	141	141	Aatmaram		0.17	Self	Paddy (U)		
			148			0.1	Self	Paddy (U)		
			152			0.08	Self	Paddy (U)		
			156			0.07	Self	Paddy (U)		
			232/1			0.02	Self	Vegetables (U)		
			242/1			0.02	Self	Vegetables (U)		
			571/1			0.28	Self	Vacant		
50	191	211/1	211/1	Asharam Mandavi		0.2		Paddy (U)		Resides outside village
51	192	97/4	97/4	1. Ishwar 2. Mukuteshwari		0.06	Self	Paddy (U)		
			234/2			0.02	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
52	193	210	210	1.Uttara Bai 2.Keshab 3.Tumeshwar 4.Indumati 5.Narayan 6.Hemlata bai 7.Lalita Bai 8.Anukabai 9.Gandhari 10.Neeraj 11.Dinesh 12.Lila 13.Nakul 14.Sahdev 15.Draupadi 16.Siyaram 17.Revati		0.2		Paddy (U)		Resides outside village
			322			0.06		Vacant		
			408			0.37		Vacant		
53	194	295	295	1. Udhobai 2.Ahilyabai		0.02		Vacant		Resides outside village
54	195	99	99	1.Kamalu 2.Kamalesh 3.Shivakumari		0.29	Self	Paddy (U)		
55	196	111	111	1.Kantu 2.Jansingh 3.Pahru		0.14	Self	Paddy (U)		
			120			0.03	Self	Vacant		
			165			0.17	Self	Paddy (U)		
			167			0.33	Self	Paddy (U)		
			199			0.04	Self	Vegetables (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			282			0.25	Self	Vacant		
			299			0.04	Self	Vacant		
			318			0.04	Self	Vacant		
			361			0.3	Self	Vacant		
56	198	397	397	1.Ganga Nag 2. Mohit Kumar 3.Karan Nag		0.25		Vacant	Court case – F	Resides outside village
			402			0.62		Vacant	Court case – F	
			405			0.18		Vacant	Court case – F	
			407			0.18		Vacant	Court case – F	
			411			0.47		Vacant	Court case – F	
			413			0.14		Vacant	Court case – F	
			414			0.67		Vacant	Court case – F	
			415			0.32		Vacant	Court case – F	
			416			0.29		Vacant	Court case – F	
			417			0.25		Vacant	Court case – F	
			418			0.29		Vacant	Court case – F	
			426			0.08		Vacant	Court case – F	
			428			0.03		Vacant	Court case - F	

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
57	199	31	31	1. Ganeshram 2. Sunil 3. Sushila 4. Panchbai 5. Amrica		0.11	Self	Paddy (U)		
			33			0.16	Self	Paddy (U)		
			107			0.08	Self	Paddy (U)		
			108			0.37	Self	Paddy (U)		
			220			0.02	Self	Millet (U)		
			291			0.04	Self	Urad (U)		
			292			0.04	Self	Urad (U)		
			340			0.01	Self	Urad (U)		
			421			0.28	Self	Timber		
			430			0.15	Self	Paddy (U)		
			433			0.09	Self	Paddy (U)		
			442			0.12	Self	Paddy (U)		
			443			0.04	Self	Paddy (U)		
			445			0.19	Self	Paddy (U)		
			450			0.25	Self	Paddy (U)		
			451			0.11	Self	Paddy (U)		
			455			0.03	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			456			0.15	Self	Paddy (U)		
			457			0.1	Self	Paddy (U)		
			466			0.11	Self	Paddy (U)		
			467			0.16	Self	Paddy (U)		
58	200	71	71	1. Gopi 2. Gopal 3. Bhikam 4. Kirtan		0.11	Leased	Paddy (U)		
59	201	97/3	97/3	Govardhan		0.15		Paddy (U)		Resides outside village
			100/2			0.08		Paddy (U)		
			100/5			0.05		Paddy (U)		
			100/8			0.07		Paddy (U)		
			100/11			0.06		Paddy (U)		
			179			0.05		Paddy (U)		
			234/1			0.03		Vacant		
			381			0.15		Vacant		
			383			0.18		Vacant		
60	202	185	185	1.Janakram 2.Purushotam(expired)	Soma Shori	0.19		Paddy (U)		
			223			0.03		Vegetables		Mutation - completed

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
								(U)		
			317			0.06		House + Vegetables (U)		
61	203	571/3	571/3	Jamunabai		0.18	Self	Vacant		
62	204	51	51	1.Daniel 2.Manish 3.Vishal		0.44	Self	Vegetables (U)	Mortgage – F	Resides outside village
			52			0.48	Self	Vegetables (U)	Mortgage – F	
			80			0.28	Self	Vegetables (U)	Mortgage - F	
63	205	162	162	1.Devarika 2.Savitri 3.Rahimat 4.Bodhni (expired) 5. Aarti (expired) 6.Kesh Kumar 7.Agni Banvasa 8.Hathiyarin (expired) 9.Mallu(expired) 10. Lacchani (expired)	Kushal	0.41	Self	Paddy (U)		
			164			0.04	Self	Paddy (U)		
			184			0.53	Self	Paddy (U)		
			251/1			0.08	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
64	206	36	36	1. Dasruram 2. Kuntibai 3. Aghanteen(expired)	Dasru, Kunti	0.15	Self	Paddy (U)		
			44			0.18	Self	Paddy (U)		
			56			0.2	Self	Paddy (U)		
			62			0.25	Self	Paddy (U)		
			93			0.04	Self	Paddy (U)		
			95			0.07	Self	Paddy (U)		
			135			0.08	Self	Paddy (U)		
			142			0.15	Self	Paddy (U)		
			151			0.08	Self	Paddy (U)		
			158			0.1	Self	Paddy (U)		
			159			0.05	Self	Paddy (U)		
			326			0.07	Self	Paddy (U)		
			335			0.01	Self	Paddy (U)		
			483			0.13	Self	Paddy (U)		
			516			0.07	Self	Paddy (U)		
			517			0.03	Self	Paddy (U)		
65	207	55	55	Deepak Kumar		1.28		Vacant	Court case – F	Resides outside

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
										village
			113/2			0.11		Vacant	Mortgage – F	
			559			0.39		Vacant	Mortgage – F	
66	208	404/2	404/2	1.Deepak Jain 2.Kamana Jain		0.18		Diverted		Resides outside village
67	209	64	64	Deepak Jain		1.2		Vacant		Resides outside village
			65			1.22		Vacant		
			364			0.34		Vacant		
			372			0.46		Vacant		
			380			0.18		Vacant		
			382			0.15		Vacant		
			392			1.32		Vacant		
			393			0.95		Vacant		
			437			0.61		Vacant		
			438/5			0.67		Vacant		
			439			0.64		Vacant		
68	210	40	40	Deeplata		0.46		Vacant	Mortgage – F	Resides outside village

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
69	211	91	91	1. Dharamu 2. Kumari 3. Draupadi 4. Dharmin 5. Chanda		0.31	Self	Paddy (U)		
			127			0.18	Self	Paddy (U)		
			129			0.11	Self	Paddy (U)		
			138			0.3	Self	Paddy (U)		
			140			0.07	Self	Paddy (U)		
			144			0.05	Self	Paddy (U)		
			146			0.08	Self	Paddy (U)		
			157			0.07	Self	Paddy (U)		
			160			0.08	Self	Paddy (U)		
			231			0.04	Self	Vegetables (U)		
			235			0.07	Self	Vegetables (U)		
			240			0.04	Self	Urad (U)		
			260			0.5	Self	Paddy (U)		
			484			0.8	Self	Paddy (U)		
			487			0.22	Self	Paddy (U)		
			500			0.08	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			511			0.13	Self	Paddy (U)		
70	212	18	18	1. Nischala (minor) 2. Ekashwi (minor) 3. Sujata		0.08		Paddy (U)		Resides outside village
71	213	30	30	1. Neetu (minor) 2. Umeshwari (minor) 3. Gajnu		0.59	Self	Paddy (U)		
			72			0.12	Self	Paddy (U)		
			88			0.5	Self	Paddy (U)		
			440			0.58	Self	Paddy (U)		
			441			0.38	Self	Paddy (U)		
			557			0.25	Self	Paddy (U)		
72	214	49	49	Pradipkumar		1.52	Self	Vegetables (U)		Resides outside village
73	215	74	74	Ishita Netam		0.84	Self	Paddy (U)		Mutation – completed, Resides outside village
			75			0.3	Self	Paddy (U)		Mutation – completed
74	216	38	38	Parmatma		0.2	Self	Paddy (U)		
			128/2			0.11	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			232/2			0.01	Self	House		
			242/2			0.02	Self	Vegetables (U)		
			486			0.23	Self	Paddy (U)		
			552			0.22	Self	Paddy (U)		
			571/2			0.28	Self	Vacant		
75	217	359/1	359/1	Pushank Sahu		0.46		Vacant		Resides outside village
76	218	17/1	17/1	Pusuram		0.21	Self	Paddy (U)		
			26/1			0.2	Self	Paddy (U)		
			82/1			0.07	Self	Paddy (U)		
			285			0.09	Self	Paddy (U)		
			337/1			0.02	Self	Paddy (U)		
			515/1			0.1	Self	Paddy (U)		
77	219	14	14	1.Manoj Kumar, 2. Manish Kumar, 3. Lakshni bai		0.18	Self	Paddy (U)		Mutation – completed, Resides outside village
78	221	117	117	1.Balram, 2.Bhagaiya, 3.Puniyabai		0.08		Paddy (U)	Mortgage - F	Resides outside village
			132			0.98		Paddy (U)	Mortgage – F	

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			201			0.04		Vacant	Mortgage – F	
			301			0.11		Vacant	Mortgage - F	
79	222	314	314	1.Balakrishna 2.Abhilasha 3.Akanksha 4.Anjali		0.01		Vacant		Resides outside village
80	223	119	119	Bhagwati Bharati		0.03	Self	Paddy (U)		
			130			0.25	Self	Paddy (U)		
			208			0.03	Self	Paddy (U)		
			579			0.18	Self	Paddy (U)		
81	224	17/2	17/2	Maituram		0.21	Self	Paddy (U)		
			26/3			0.19	Self	Paddy (U)		
			82/3			0.08	Self	Paddy (U)		
			90			0.07	Self	Paddy (U)		
			211/2			0.1	Self	Paddy (U)		
			304			0.05	Self	Paddy (U)		
			337/2			0.02	Self	House		
			515/2			0.09	Self	Paddy (U)		
82	225	581	581	Manoharanlal Mandavi		0.3		Vacant		Resides outside village

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			398			0.22		Vacant		
			412			0.45		Vacant		
83	226	100/1	100/1	Manoj Kumar		0.06		Paddy (U)		Resides outside village
			100/4			0.08		Paddy (U)		
			100/7			0.1		Paddy (U)		
			100/10			0.13		Vacant		
			100/13			0.04		Paddy (U)		
84	227	228	228	Muraha		0.08	Self	Paddy (U)		
			469			0.64	Self	Paddy (U)		
85	228	222/1	222/1	1.Maharaji (expired) 2.JugriBai(expired) Dawru 3.Rishdarka (minor)	Primal, Jameth	0.01	Self	Vacant		
			287/1			0.02	Self	Vacant		
			431			0.14	Self	Paddy (U)		
			434/2			0.04	Self	Paddy (U)		
			438/3			0.05	Self	Paddy (U)		
			458/3			0.2	Self	Paddy (U)		
			458/5			0.12	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			465/3			0.08	Self	Paddy(U)		
			514/2			0.04	Self	Paddy (U)		
			514/4			0.05	Self	Paddy (U)		
			580/4			0.03	Self	Vacant		
86	229	218	218	1.Mahashir 2.Laxman 3.Sushila 4.Puniya 5.Kamaleshwari		0.41		Paddy (U)		Resides outside village
87	230	359/2	359/2	Ma Mankesari Godham Tumabakra Adhyesh Rupesh Rajput		0.4		Vacant		Resides outside village
88	231	42	42	1. Mithilesh Kumar 2. Poonanand Mandavi		0.53		Vacant		Resides outside village
			98			0.23		Paddy (U)		
			101/2			0.28		Paddy (U)		
89	232	311	311	1.Milan 2.Jageshwar 3.Rameshwari 4. Rameshwar 5.Kamalabai 6.Ramlabai 7.Ramli 8.Sumitra 9.Gangabai		0.06		Vacant		Resides outside village
			578			0.03		Vacant		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
90	233	37	37	Md. Aslam Razvi		0.66		Diverted		Resides outside village
91	234	125	125	Mohan		0.12	Self	Paddy (U)	Mortgage – F	
			175/1			0.4	Self	Paddy (U)	Mortgage - F	
			175/3			0.6	Self	Paddy (U)	Mortgage - F	
92	235	221	221	1.Ranjit 2.Meena 3.Ramkuwar		0.01	Self	Paddy (U)		
			276			0.15	Self	Paddy (U)		
			289			0.04	Self	Paddy (U)		
			320			0.01	Self	Vegetables (U)		
			460			0.1	Self	Paddy (U)		
			538			0.07	Self	Paddy (U)		
93	236	313	313	1.Radheshyam 2.Radhau		0.01	Self	Paddy (U)		
			319			0.02	Self	Vegetables (U)		
			339			0.01	Self	Vegetables (U)		
			459			0.14	Self	Vegetables (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			464			0.23	Self	Paddy (U)		
			470			0.13	Self	Paddy (U)		
			536			0.08	Self	Paddy (U)		
			555			0.24	Self	Paddy (U)		
94	237	97/2	97/2	1. Ramkumar 2. Ramihan 3. Kameen		0.13		Paddy (U)		Resides outside village
			100/3			0.08		Paddy (U)		
			100/6			0.04		Paddy (U)		
			100/9			0.13		Paddy (U)		
			100/12			0.04		Paddy (U)		
95	238	82/2	82/2	1. Ramkrishna 2. Savitri 3. Bhurwa 4. America 5. Purushottam		0.31		Vacant		Resides outside village
96	239	356	356	1. Ramkrishna 2. Yashoda 3. Urmila Bai		0.11	Self	Paddy (U)		
			471			0.03	Self	Paddy (U)		
			556			0.11	Self	Paddy (U)		
97	240	444	444	1. Ramkrishna 2. Yashoda 3. Urmila		0.2	Self	Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
				Bai						
			453			0.07	Self	Paddy (U)		
			530			0.06	Self	Paddy (U)		
			532			0.2	Self	Paddy (U)		
			539			0.14	Self	Paddy (U)		
98	241	171	171	1.Ramkishore 2.Ramnand		1.21		Millet (U)		Resides outside village
			577			0.81		Millet (U)		
99	242	287/3	287/3	1.Ramprasad 2.Ramji 3.Rambhau 4.Rambati 5.Rambai 6.Ratni		0.02		Vacant		Resides outside village
			434/1			0.04		Paddy (U)		
			438/4			0.06		Paddy (U)		
			458/4			0.2		Paddy (U)		
			465/2			0.08		Paddy (U)		
			514/3			0.05		Paddy (U)		
			580/1			0.02		Paddy (U)		
100	243	283	283	Ramratan		0.6		Vacant		Resides outside village
101	244	262	262	Ramhin		0.09		Paddy (U)		Resides outside

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
										village
			264			0.18		Paddy (U)		
102	245	203	203	1.Rikhiram 2.Devaki 3.Tuleshwar 4.Santoshi		0.05	Self	Paddy (U)		
			212			0.1	Self	Vegetables (U)		
			224			0.11	Self	Vegetables (U)		
			286			0.1	Self	Paddy (U)		
			477			0.05	Self	Paddy (U)		
			478			0.06	Self	Paddy (U)		
			520			0.04	Self	Paddy (U)		
			531			0.06	Self	Paddy (U)		
			569			1.47	Self	Paddy (U)		
103	246	73	73	1. Rohit 2.Mohit 3. Rambati 4. Shyambati 5.Manbati		0.21	Self	Paddy (U)		
104	247	76	76	Larjayemeshwar Netam		0.99		Paddy (U)		Resides outside village
			77			0.2		Paddy (U)		

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			78			0.3		Paddy (U)		
105	248	172	172	Lokeshwar Katlam		0.98		Vacant		Resides outside village
106	249	350	350	Vivekanand		0.79		Vacant		Resides outside village
107	250	102	102	1.Vishnu 2. Narad		0.1		Paddy (U)		Resides outside village
			103			0.36		Paddy (U)		
			104			0.06		Paddy (U)		
			106			0.22		Paddy (U)		
			114			0.03		Paddy (U)		
			116			0.06		Paddy (U)		
			209			0.05		Paddy (U)		
108	251	362	362	Vishnuram		0.59		Vacant	Court case – F	Resides outside village
			368			0.01		Vacant		Mutation - completed
			373			0.39		Vacant	Court case - F	
			379			0.43		Vacant	Court case – F	
			384			2.01		Vacant	Court case – F	
			385			1.1		Vacant	Court case - F	

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			387			1.6		Vacant		Mutation - completed
			390			0.84		Vacant	Court case - F	
			391			1.25		Vacant		Mutation - completed
			395			0.57		Vacant		
			396			0.5		Vacant		Mutation - completed
			399			0.16		Vacant		
			400			0.16		Vacant	Court case - F	
			420			0.45		Vacant		Mutation – completed
			427			0.4		Vacant		Mutation - completed
109	252	375	375	Smt Aishwariya Mandavi		1.14		Vacant		Resides outside village
			376			0.72		Vacant		
			404/1			1.94		Vacant		
110	253	53	53	Smt Satarupa Salam		1.57	Self	Vegetables (U)	Mortgage + Court case – F	
			83			0.42		Vacant	Mortgage - F	
111	254	561	561	Sobha Mahadik		1.91	Self	Vegetables (U)		
112	255	294	294	Sanjuram		0.02		Vacant		Resides outside

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
										village
			496			0.18		Paddy (U)		
113	256	275	275	Santram		0.15	Self	Paddy (U)		
			288			0.01	Self	Urad (U)		
			321			0.01	Self	Vegetables (U)		
			341			0.01	Self	House		
			537			0.08	Self	Paddy (U)		
114	257	97/5	97/5	Santosh Kumar Netam		0.14		Paddy (U)		Resides outside village
115	258	237	237	1.Samaruram 2.Ramnath 3.Lekhanibai		0.04	Self	Paddy (U)	Mortgage – F	
			296			0.03		House	Mortgage – F	
			349			0.48		Paddy (U)	Mortgage – F	
			491			0.24		Paddy (U)	Mortgage - F	
			499			0.15		Paddy (U)	Mortgage - F	
116	259	11	11	1.Siaram 2.Revatibai		0.27	Self	Paddy (U)	Mortgage – F	
			110			0.11	Self	Paddy (U)	Mortgage – F	
			214			0.76	Self	Paddy (U)	Mortgage – F	

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			266			0.41	Self	Paddy (U)	Mortgage – F	
			490			0.11	Self	Paddy (U)	Mortgage – F	
			494			0.46	Self	Paddy (U)	Mortgage – F	
			545			0.2	Self	Paddy (U)	Mortgage - F	
117	260	182	182	1.Sonawati 2.Shankarlal 3.Balram 4.Krishna 5.Kaminibai		0.02		Vacant		Resides outside village
118	261	236	236	1.Hemlal 2.Sohadri bai 3.Vedlral 4.Hembai		0.06		Vacant		Resides outside village
119	262	222/2	222/2	1.Hariram 2.Rajendra 3.Ghurai		0.01	Self	Paddy (U)		
			287/2			0.05	Self	Paddy (U)		
			423			0.15	Self	Paddy (U)		
			438/1			0.05	Self	Timber		
			458/1			0.25	Self	Urad (U)		
			514/1			0.08	Self	Paddy (U)		
			514/5			0.08	Self	Paddy (U)		
			580/2			0.02	Self	Paddy (U)		
120	263	12	12	Hriday		0.31	Self	Paddy (U)	Mortgage - F	
			16			0.26	Self	Paddy (U)	Mortgage – F	

Sl No	Khata No	Basra No	Survey No	Name of the landowner	Legal Heirs	Extent (Hectare)	Land Possession	Land use	Encumbrance	Remarks
			32			0.29	Self	Paddy (U)	Mortgage – F	
			81			0.61	Self	Paddy (U)	Mortgage – F	
			84			0.24	Self	Vacant	Mortgage – F	
			308			0.02	Self	Vacant	Mortgage – F	
			309			0.05	Self	Vacant	Mortgage – F	
			329			0.06	Self	House + vegetables (U)	Mortgage – F	
			461			0.15	Self	Paddy (U)	Mortgage- F	
			510			0.23	Self	Paddy (U)	Mortgage – F	
121	264	163	163	1. Hiralal 2. Naven 3. Jamuna 4. Krishna 5. Tomendra Kumar 6. Thaneshwari 7. Nadani		0.03	Self	Vacant		
			290			0.07	Self	Urad (U)		
			315			0.54	Self	Urad (U)		
			501			0.1	Self	Paddy (U)		
122			497	Ramnath Netam		0.14		Paddy (U)		Mutation -completed, Resides outside village

5. Kerala – Mlapara Village, Peerumade Tehsil, Idukki District

Sl No.	Thandapper No	Date of Tax Receipt	Name of Land Owners	Legal Heirs	Survey No	Extent			Land Type	Possession	Land Use	Encumbrances	Remarks
						Hect	Are	Sqm					
1	1	18/10/2022	Roshni		14/1	0	20	23	Dry	Self	Plantation	Court Case	Mutation - Succession
					7/1	1	59	86	Dry	Self	Plantation		
					6-1	0	6	7	Dry	Self	Plantation		
					5/1	4	66	23	Dry	Self	Plantation		
2	2	16/3/2024	K V Abraham (Expired)		13/1-1	4	48	40	Dry	Self	Plantation		
					7/2	0	14	97	Dry	Self	Plantation		
3	3	14/12/2023	K. V. George	SALE- Varkey George, Sheeba Mathew, Geetha Mathew, Suseela Jose, Roshni Abraham, Annie George	7/3	0	19	83	Dry	Self	Plantation		Registered partition deed on 1/2012.
	3		K. V. George		6/2	27	20	68	Dry	Self	Plantation		

Sl No.	Thand apper No	Date of Tax Receipt	Name of Land Owners	Legal Heirs	Survey No	Extent			Land Type	Possession	Land Use	Encumbrances	Remarks
						Hect	Are	Sqm					
4	5	17/4/2024	K.V. Sebastian	SALE- Fancy, Johny, Sini, Tiya, Sony, Achama, Taniya	5/3	10	68	36	Dry	Self	Plantation		Land registered. Now 10 landowners. But not mutated
			K.V. Sebastian		7/5	0	3	23	Dry	Self	Plantation		
			K.V. Sebastian		6/4	3	35	89	Dry	Self	Plantation		
			K.V. Sebastian		13/1-3	9	93	90	Dry	Self	Plantation		
5	6	07/03/2023	M.N Viswanathan Chettiyar		5/4	9	42	91	Dry	Self	Plantation	Mortgage	
6	7		K. V. Kurian			0	60	70	Dry	Self	Plantation		
			K. V. Kurian			6	58	82	Dry	Self	Plantation		
			K. V. Kurian			0	2	43	Dry	Self	Plantation		
			K.V. Kurian			3	53	29	Dry	Self	Plantation		
7	8	16/3/2024	K.M Varkey		13/1-5	4	13	59	Dry	Self	Plantation		

Sl No.	Thand apper No	Date of Tax Receipt	Name of Land Owners	Legal Heirs	Survey No	Extent			Land Type	Possession	Land Use	Encumbrances	Remarks
						Hect	Are	Sqm					
8	9	16/3/2024	K. M. Abraham		13/1-6	3	69	88	Dry	Self	Plantation		
9	10	16/3/2024	K. M. Joseph		13/1-7	3	69	88	Dry	Self	Plantation		
10	11	19/9/2023	K.J Varkey		5/6	10	11	71	Dry	Self	Plantation	Mortgage + Court case	Mutation - Succession
11	12	14/12/2023	Varkey George		13/1-8	6	22	81	Dry	Self	Plantation		
12	13		George Sebastian			8	9	37	Dry	Self	Plantation		
			George Sebastian			0	38	44	Dry	Self	Plantation		
13	14		K. Rajendrakumar			14	70	62	Dry	Self	Plantation	Mortgage	
			K. Rajendrakumar			2	22	58	Dry	Self	Plantation		
			K. Rajendrakumar			1	9	26	Dry	Self	Plantation		
			K. Rajendrakumar			0	66	77	Dry	Self	Plantation		
14	16	28/5/2024	Mary Joseph		5/9	2	2	34	Dry	Self	Plantation		Mutation-succession

Sl No.	Thandapper No	Date of Tax Receipt	Name of Land Owners	Legal Heirs	Survey No	Extent			Land Type	Possession	Land Use	Encumbrances	Remarks
						Hect	Are	Sqm					
15	17	16/3/2024	Grace Abraham (Expired)		13/1-10	6	7	2	Dry	Self	Plantation		
16	18	16/3/2024	K. M. Thomas		6	6	32	51	Dry	Self	Plantation		
17	19	21/11/2023	Renju Kurian (Expired)	Roshan Renju(wife), Kurien Scaria(son), Rosemary, Rose Ann, Riya Mary(daughters)	13/1	8	9	34	Dry	Self	Plantation		
18	20	28/5/2024	Reena Joseph		5/10	4	4	68	Dry	Self	Plantation		Mutation-succession
19	21	24/5/2028	Beena Dominic		5	4	4	65	Dry	Self	Plantation		Mutation-succession
20	22	14/12/2023	Annie Thomas		13/1-2-1	2	83	28	Dry	Self	Plantation	Court Case	
21	23	14/12/2023	Roslin Francis		13/1-2-2	2	83	28	Dry	Self	Plantation	Court Case	
22	24	14/12/2023	Ria Thomas		13/1-2-3	2	83	28	Dry	Self	Plantation	Court Case	

Sl No.	Thand apper No	Date of Tax Receipt	Name of Land Owners	Legal Heirs	Survey No	Extent			Land Type	Possession	Land Use	Encumb rances	Remarks
						Hect	Are	Sqm					
23	25	14/12/2023	Katharine Thomas (Expired)	Annie Thomas, Roslin Francis, Ria Thomas	5/2	0	10	12	Dry	Self	Plantation	Court Case	
			Katharine Thomas		6/3	8	8	96	Dry	Self	Plantation		
			Katharine Thomas		16	0	44	52	Dry	Self	Plantation		
			Katharine Thomas		13/1-2	13	96	96	Dry	Self	Plantation		
			Katharine Thomas		7/4	0	10	12	Dry	Self	Plantation		
24	26	4/5/2024	1) Thomas George,		5/8-1	4	56	30	Dry	Self	Plantation		
25	27	4/5/2024	1) Kurian George,		5/8	4	56	26	Dry	Self	Plantation		

6. Kerala – Peruvanthanam Village, Peerumade Tehsil, Idukki District

Sl No.	Thanda pper No	Date of Tax Receipt	Name of Land Owner	Legal Heirs	Survey No	Extent		Land Type	Possession	Land Use	Encumbrances	Remarks
						Are	Sqm					
1	10829	17-10-2023	Sijo Kurian		1001/16-88-2-1	14 r	16	Dry	Self	Ginger (I)	Mortgage (P)	Mutation
					1001/16-88	61	50	Dry	Self	Ginger (I)		
2	2133	25-09-2023	Sabukumar		1001/48	56	66	Dry	Self	Cardamom (U)	Mortgage	
3	10943	23-01-2024	Sreejesh		719/9-3-1	4	5	Dry	Self	Pepper + Vegetables (I)		Mutation, Succession
4	9999	20-09-2023	Sreejesh		719/4	6	88	Dry	Self	Pepper + Vegetables (I)		Mutation, Succession
					719/9-2	5	26	Dry	Self	Pepper + Vegetables (I)		
					719/9-3	8	9	Dry	Self	Pepper + Vegetables (I)		
					728/1-2	11	51	Dry	Self	Pepper + Vegetables (I)		
5	9975	24-04-2023	Abhilash, Saritha mol		978/2-2-5	4	5	Dry	Self	Residence		

Sl No.	Thanda pper No	Date of Tax Receipt	Name of Land Owner	Legal Heirs	Survey No	Extent		Land Type	Possession	Land Use	Encumbrances	Remarks
						Are	Sqm					
6	10235	25-01-2024	Ashokan		641/2-7-2	1	41	Dry	Self	Residence	Mortgage (P)	
7	9150	03-06-2024	Sajeev		1001/16-154-1-2	14	16	Dry	Self	Cardamom (U)		
					1001/16-156-1	12	14	Dry	Self	Cardamom (U)		
					1001/16-5	53	82	Dry	Self	Cardamom (U)		Mutation
8	2150	20-09-2023	Joseph		1001/2	58	48	Dry	Self	Pepper + Vegetables (I)		
9	5222	08-07-2024	Mathew		1027/5-10-2-1	44	11	Dry	Self	Ginger (I)	Mortgage (P)	Mutation
10	3776	13-08-2024	Thankachan, Omana		978/2-3-1	9	71	Dry	Self	Ginger (I)	Mortgage (P)	Mutation
11	12457	14-08-2024	Bindhu. P.R		287/3-2-1-1	4	55	Dry	Self	Residence	Mortgage	Mutation
12	5875	26-09-2023	Mathew		811/11/26	10	52	Dry	Self	Ginger (I)	Mortgage (P)	
					815/6-10-2		81	Dry	Self	Ginger (I)	Mortgage (P)	
13	12123	26-09-2023	Joseph Agasthy		824/32-4-1	3	24	Dry	Self	Residence	Mortgage (P)	Mutation

Sl No.	Thanda pper No	Date of Tax Receipt	Name of Land Owner	Legal Heirs	Survey No	Extent		Land Type	Possession	Land Use	Encumbrances	Remarks
						Are	Sqm					
14	6830	01-04-2024	C.M. Valsala Kumari		696/1-1-6	5	56	Dry	Self	Residence	Mortgage (P)	
15	8926	28-12-2023	Usha		276/2-2-1	5	77	Dry	Self	Residence		
					276/2-11		81	Dry	Self	Residence		
16	9232	19-03-2024	K. M. Rajamohan Nair		718/1-5	13	76	Dry	Self	Pepper + Vegetables (I)		Mutation, succession
17	12949	19-03-2024	K. M. Rajamohan Nair		691/1-3	5	25	Dry	Self	Irrigated farm crops (single)		Rectification
18	12787	14-08-2024	Sheela babu		297/1-1	2	2	Dry	Self	Residence		
19	6846	24-07-2024	Bindhu Mohan		859/8	2	2	Dry	Self	Irrigated farm crops (single)		Mutation
20	6421	22-06-2024	Sebastian		1015/1-48	76	89	Dry	Self	Cardamom (U)		Mutation
21	10913	22-03-2024	Thomson Joseph		1001/16-63-1	49	37	Dry	Self	Pepper + Vegetables (I)	Mortgage	
					1001/16-65	49	37	Dry	Self	Pepper + Vegetables (I)	Mortgage	
22	6101	26-06-2024	Jalaja Kumar		898/3-10-1	28	12	Dry	Self	Rubber	Mortgage	

Sl No.	Thanda pper No	Date of Tax Receipt	Name of Land Owner	Legal Heirs	Survey No	Extent		Land Type	Possession	Land Use	Encumbrances	Remarks
						Are	Sqm					
										Plantation	(P)	
					898/3-19-3	38	64	Dry	Self	Rubber Plantation	Mortgage (P)	
23	3943	14-08-2024	Said Muhammad		642/1-1-2	3	34	Dry	Self	Pepper + Vegetables (I)	Mortgage (P)	
24	8714	14-08-2024	Mohanan (expired)	Shyamala, Shyam Mohanan, Sarath Mohanan, Saran Mohanan	859/26-3	6	75	Dry	Self	Residence		
25	7283	04-08-2018	M.S. Varghese		1001/89-116	2141		Dry	Self	Rubber Plantation	Mortgage	

7. Kerala – Kollengode Village, Chittur Taluk, Palakkad District

SI No.	TP No	Date of Tax Receipt	Name of Land Owner	Legal Heirs	Survey No	Extent			Land Type	Possession	Land Use	Encumbrances	Remarks
						Hect	Are	Sqm					
1	1983	4-4-2024	Kumar		169/2	0	31	60	Wet	Self	Paddy (I)		
					172/1	1	62	0	Wet	Self	Paddy (I)		
					172/2-3	0	15	31	Wet	Self	Paddy (I)		
					175/1	0	57	0	Wet	Self	Paddy (I)		
					194/3-1	0	36	45	Wet	Self	Paddy (I)		
2	4339	17/8/2024	Polson		551/17-2	0	2	2	Dry	Self	Residence		
3	6697	8-24-2017	Sivan		552/6	0	8	10	Dry	Self	Residence		
4	3218	17/8/2024	Surendran M		443/3-2	0	4	4	Dry	Self	Residence		
5	0619	20/4/2024	Sivaprasad		518/25	0	2	46	Dry	Self	Residence	Mortgage (P)	
6	6993	19/6/2024	Murugankutty		361/44	0	0	10	Dry	Self	Residence		Mutation
					566/26	0	8	10	Dry	Self	Residence		
					626/19	0	3	60	Dry	Self	Residence		
7	4598	5-7-2024	Dinesh		605/18-4	0	2	43	Dry	Self	Vacant		Change in land use
8	5131	24/7/2017	Sasi		292/15	0	2	2	Dry	Self	Residence		

Sl	TP No	Date of	Name of	Legal	Survey No	Extent	Land	Posse	Land Use	Encum	Remarks		
9	5454	24/8/2017	Guruvayoorapan		381/19	0	0	87	Dry	Self	Residence		
					381/19-3	0	0	63	Dry	Self	Residence		
10	6628	24/8/2017	Muhammad Shereef		665/7	0	1	70	Dry	Self	Vacant		
11	5226	17/8/2024	Seyth Musthafa		205/10-1	0	2	79	Wet	Self	Vacant	Mortgage (P)	
12	5057	15/5/2024	Ramadevi, Beena, Devanand		11-1-1980	0	24	0	Dry	Self	Residence		
					80/14	0	97	65	Dry	Self	Paddy (I)		
					80/3	0	87	48	Dry	Self	Paddy (I)		
					8-1-1980	0	12	40	Dry	Self	Paddy (I)		
					9-1-1980	0	0	80	Dry	Self	Paddy (I)		
					1-Sep	0	9	20	Dry	Self	Residence		
13	4658	8-24-2017	Santhakumari		492/9	0	1	61	Dry	Self	Residence		Mutation
14	5251	25/5/2024	Siju		488/10-6	0	2	46	Dry	Self	Residence		
					492/1-4	0	2	22	Dry	Self	Residence		
					175/1-1	0	33	18	Wet	Self	Paddy (I)		
15	2640	8-24-2017	Sundararajan		517/6	0	4	0	Wet	Self	Paddy (I)		
16	3932	27/6/2024	Girija		682/2	0	16	65	Wet	Self	Paddy (I)	Mortgage	

Sl	TP No	Date of	Name of	Legal	Survey No	Extent		Land	Posse	Land Use	Encum	Remarks
											(P)	
17	3546	14/5/2024	Prasad		122/6	0	39	25	Wet	Self	Paddy (I)	
					122/7	0	31	57	Wet	Self	Paddy (I)	
					556/1	0	6	47	Wet	Self	Paddy (I)	
					556/1-2	0	10	96	Wet	Self	Paddy (I)	
					556/2	0	28	88	Wet	Self	Paddy (I)	
					556/3	0	5	95	Wet	Self	Paddy (I)	
					556/6-1	0	2	0	Wet	Self	Paddy (I)	
18	3116	5-4-2024	Kanakarajan		493/14	0	3	45	Dry	Self	Residence	
					493/7-1	0	2	2	Dry	Self	Vacant	
					493/8	0	4	10	Dry	Self	Vacant	
19	4465	11-4-2024	Satheesan		443/20	0	2	58	Dry	Self	Residence	
					443/21	0	1	25	Dry	Self	Vacant	
					443/47	0	8	10	Dry	Self	Paddy (I)	
					443/9	0	3	15	Dry	Self	Paddy (I)	
20	3678	27/4/2024	Rajan		149/8-1	0	40	47	Wet	Self	Paddy (I)	
					183/3	0	3	32	Wet	Self	Paddy (I)	
21	3,19,04, 711	2-5-2024	Krishnakumar		143/4-4	0	4	0	Dry	Self	Residence	

Sl	TP No	Date of	Name of	Legal	Survey No	Extent	Land	Posse	Land Use	Encum	Remarks		
					146/3-1	0	35	21	Wet	Self	Paddy (I)		
					147/1-1	0	49	39	Wet	Self	Paddy (I)		
					148/2-1	0	2	84	Wet	Self	Paddy (I)		
					148/5	0	16	0	Wet	Self	Paddy (I)		
					148/7	0	91	60	Wet	Self	Paddy (I)		
22	3804	17/8/2024	Mubeena		335/21	0	0	19	Dry	Self	Residence		Mutation
					525/16	0	6	7	Wet	Self	Coconut + Banana (I)		
23	5635	17/8/2024	Sabeer Ahammed		524/7-3	0	1	56	Wet	Self	Coconut + Banana (I)	Mortgage (P)	
					525/11-5	0	7	26	Wet	Self	Coconut + Banana (I)		
24	7316	06-05-2024	Poujama, Muhammed Sameer, Sabeer Ahammed	Thoufeeq Ali	335/17	0	2	17	Wet	Self	Coconut + Banana (I)		Mutation
					335/4	0	1	36	Dry	Self	Coconut + Banana (I)		

Sl	TP No	Date of	Name of	Legal	Survey No	Extent	Land	Posse	Land Use	Encum	Remarks		
					525/11	0	7	23	Wet	Self	Coconut + Banana (I)		
					525/5-1	0	8	72	Wet	Self	Coconut + Banana (I)		
25	4742	10-5-2023	Thoufeeq Ali		524/7-1	0	1	44	Wet	Self	Paddy (I)	Mortgage (P)	Mutation
					525/11-1	0	5	96	Wet	Self	Paddy (I)		
					525/6-1	0	1	90	Wet	Self	Paddy (I)		
26	4120	17/8/2024	Muhammad Sameer		335/4-1	0	0	9	Dry	Self	Residence		
					525/11-4	0	7	63	Wet	Self	Paddy (I)		
					335/3-1	0	0	32	Dry	Self	Residence	Mortgage	Mutation
27	2121	1-4-2024	Krishnakumar		106/2	1	10	46	Wet	Self	Paddy (I)		
					106/5	0	17	21	Wet	Self	Paddy (I)		
					106/6	0	47	66	Wet	Self	Paddy (I)		
					106/7	0	6	92	Wet	Self	Paddy (I)		
28	4632	11-4-2024	Himanya Ashok, SK. Ashok		106/4	0	84	75	Wet	Self	Paddy (I)		
					116/3	0	31	97	Wet	Self	Paddy (I)		

Sl	TP No	Date of	Name of	Legal	Survey No	Extent	Land	Posse	Land Use	Encum	Remarks	
					117/6	0	20	24	Wet	Self	Paddy (I)	
					308/2	0	34	42	Wet	Self	Paddy (I)	
29	2,72,63, 915	11-4-2024	Parvathi		305/8	0	41	94	Wet	Self	Paddy (I)	
					379/18	0	5	85	Dry	Self	Residence	
					379/20	0	0	41	Dry	Self	Residence	
30	3117	1-4-2024	Ashok, Krishnakumar		307/10	0	1	14	Dry	Self	Vacant	
					307/11	0	2	77	Dry	Self	Residence	
					307/12	0	2	35	Wet	Self	Paddy (I)	
					307/13	0	35	85	Dry	Self	Vacant	
31	4667	1-4-2024	Parvathi, Rajagopal, Bhuvanasundh ari		306/1	1	13	15	Wet	Self	Paddy (I)	
					309/1	0	68	5	Wet	Self	Paddy (I)	
					310/1	0	25	50	Wet	Self	Paddy (I)	
32	2389	17/8/2024	Vanaja		549/32	0	0	43	Dry	Self	Vacant	
					549/33	0	1	60	Dry	Self	Residence	
33	2392	17/8/2024	Sivadasan		549/34	0	0	43	Dry	Self	Residence	
					549/35	0	4	3	Dry	Self	Residence	

Sl	TP No	Date of	Name of	Legal	Survey No	Extent	Land	Posse	Land Use	Encum	Remarks	
					550/15	0	4	4	Dry	Self	Residence	
34	4516	8-24-2017	Thyagarajan		236/18-2	0	0	30	Dry	Self	Residence	
35	5508	30/5/2024	Ramya KT		234/16-1	0	4	45	Dry	Self	Residence	Mutation
36	1092	2-6-2023	Perumalkovild evaswam		227/2	0	30	85	Dry	Self	School	
					257/14	0	0	80	Dry	Self	School	
					257/15	0	2	45	Dry	Self	School	
					257/16	0	3	75	Dry	Self	School	
					257/17	0	14	25	Dry	Self	School	
37	4525	17/8/2024	Parvathi		234/18	0	7	80	Dry	Self	Residence	
38	3301	24/11/2020	Sasikumar		334/21	0	2	0	Dry	Self	Residence	
39	3489	29/4/2023	Mujeeb Rahman		535/22	0	2	2	Dry	Self	Shop	
					535/11-2	0	0	81	Dry	Self	Shop	
40	3345	30/6/2024	Jijeesh		92/4-1	0	9	71	Wet	Self	Paddy (I)	
					92/4-2	0	11	33	Wet	Self	Paddy (I)	
					92/4-3	0	38	45	Wet	Self	Paddy (I)	
					98/8-1	0	14	97	Dry	Self	Paddy (I)	
41	3702	14/6/2024	V. Chandran		113/22	0	3	18	Dry	Self	Residence	

Sl	TP No	Date of	Name of	Legal	Survey No	Extent	Land	Posse	Land Use	Encum	Remarks	
					118/6	0	19	10	Wet	Self	Paddy (I)	
					118/8	0	45	60	Wet	Self	Paddy (I)	
42	5042	1-7-2024	MS. Sivan		236/28	0	0	14	Dry	Self	Shop	
43	3362	2-4-2024	Jiji CG		463/2	0	35	21	Wet	Self	Paddy (I)	Mutation
					464/8-1	0	11	80	Wet	Self	Paddy (I)	
44	3699	2-4-2024	Bhamini		511/5	0	45	1	Wet	Self	Paddy (I)	
45	2328	2-4-2024	Jojo CG		456/10	0	60	70	Wet	Self	Paddy (I)	
46	3970	29/5/2023	khaleel Rahman		143/4-7	0	4	5	Dry	Self	Residence	Mortgage
47	1745	2-4-2024	Gangadharan		452/17	0	3	91	Wet	Self	Paddy (I)	Re-survey request
					452/2	0	15	40	Dry	Self	Paddy (I)	
					456/1-1	0	8	50	Dry	Self	Paddy (I)	
					456/3	0	45	7	Wet	Self	Paddy (I)	
					456/8	1	8	96	Wet	Self	Paddy (I)	
					510/1	0	10	0	Dry	Self	Paddy (I)	
					510/2	0	8	50	Wet	Self	Paddy (I)	
					511/11	0	34	40	Wet	Self	Paddy (I)	
					511/13	0	11	13	Wet	Self	Paddy (I)	
					511/14	0	29	36	Wet	Self	Paddy (I)	

Sl	TP No	Date of	Name of	Legal	Survey No	Extent	Land	Posse	Land Use	Encum	Remarks		
					511/3	0	0	69	Wet	Self	Paddy (I)		
					511/8	0	5	87	Wet	Self	Paddy (I)		
					512/5	0	12	30	Wet	Self	Paddy (I)		
					512/9	0	3	57	Wet	Self	Paddy (I)		
48	3316	17/8/2024	Prajeesh, Ajitha		434/9	0	2	22	Dry	Self	Paddy (I)		
49	6668	23/4/2024	Shahul Hameed		339/29	0	3	36	Wet	Self	Paddy (I)	Mortgage	Succession
50	2834	4-4-2024	Sathi		174/6	1	28	55	Wet	Self	Paddy (I)		
					175/1-1	0	33	18	Wet	Self	Paddy (I)		
					176/1	0	7	200	Wet	Self	Paddy (I)		

8. Kerala – Nelliampathy Village, Chittur Taluk, Palakkad District

S.No	TP No	Date of Tax Receipt	Land Owners Name	Legal Heirs	Survey No	Extent of Land			Land Type	Possession	Land Use	Encumbrances	Remarks
						Hect	Are	Sqm					
1	18	7-1-2021	Kunjumani		12/27	0	12	90	Dry	Self	Residence + Shop		
2	26	19-09-2023	Benitta James		17/9	0	0	60	Dry	Self	Residence		
					12/5	0	0	20	Dry	Self	Residence		
3	23	14-09-2023	PT Jacob Thomas (expired)	P.J.Davis, PJ Rabias, PJ Vincent, PJ Joseph, PJ Chacko, PJ Josphine, P.J Rosley	17/2	0	12	70	Dry	Self	Residence + Shop		
4	17	28-11-2019	C.V. Joseph	SALE-Sandya w/o Sajeev	12/24	0	2	65	Dry	Self	Shop		
5	29	25-05-2023	Said Muhammad (expired)	Kunjumma, Nabeesa, Abdul Rahiman, Aisha, Salahudheen, Hamsa	17/23	0	1	5	Dry	Self	Residence		
6	4	9-14-2023	Rosisli		12/9	0	0	35	Dry	Self	Residence		
					17/13	0	1	5	Dry	Self	Residence		

S.No	TP No	Date of Tax Receipt	Land Owners Name	Legal Heirs	Survey No	Extent of Land			Land Type	Possession	Land Use	Encumbrances	Remarks
7	12	14-09-2023	P.A. Rukkiya		12/17	0	0	12	Dry	Self	Residence		
					17/22	0	0	40	Dry	Self	Residence		
8	3	23-04-2024	K. Chinnappa	SALE- Abdhul Kareem and Abdhul Saleem	12/8	0	0	65	Dry	Self	Residence		
					17/12	0	2	5	Dry	Self	Residence		
9	5	16-09-2023	N Sundaran, M Ramamurthy	SALE - Ramadas	12/10	0	0	25	Dry	Self	Residence		
					17/14	0	0	90	Dry	Self	Residence		
10	10	9-16-2023	Parasuraman	Devi, Ramadasan, Muraleedhar an, Sudarsanan, Rajalakshmi, Dakshayani, Sureshkumar	12/15	0	0	15	Dry	Self	Residence		
					17/20	0	0	35	Dry	Self	Residence		
11	1		Perumal Chettiyar	Balakrishna, Saraswathi	12/2	0	0	16	Dry	Self	Shop	Rent	
					17/5	0	1	35					
12	2		Amini	SALE- Kumaran pazhaniyapp an	17/6	0	1	20	Dry	Self	Residence		New TP no 47
					12/3	0	0	25					

S.No	TP No	Date of Tax Receipt	Land Owners Name	Legal Heirs	Survey No	Extent of Land			Land Type	Possession	Land Use	Encumbrances	Remarks
13	6	08/11/2023	Nanikutty Amma	SALE-Santhosh Kumar, Mohan Kumar	12/11	0	0	25	Dry	Self	Shop	Rent	
14	7	12/10/2021	George Abraham	SALE-Muraleedharan	12/12	0	0	20	Dry	Self	Shop	Rent	
					17/16	0	0	85					
15	9	27/09/1986	Raman, Keluparambil Chalakudi, Mukundapuram Thrissur	SALE-Mohideen and Mohideen sold to Dennis	12/14	0	0	21	Dry	Self	Shop	Rent	
					17/19	0	2	40					
16	11	31/07/2017	K Mohamed	Shabeer, Rukkiya, Shabitha	12/16	0	0	20	Dry	Self	Residence		
					17/21	0	0	15					
17	14	29/04/2024	Anto	SALE-Johnson s/o joseph	12/19	0	0	23	Dry	Self	Residence		New TP no 45
					12/20	0	0	6					
					17/25	0	0	80					
18	15	19/09/2023	Vijayan		12/21	0	0	65	Dry	Self	Residence		
19	16	02/03/2022	Simon Joseph	SALE-Sandya w/o sajeev	12/23	0	1	20	Dry	Self	Residence		

S.No	TP No	Date of Tax Receipt	Land Owners Name	Legal Heirs	Survey No	Extent of Land			Land Type	Possession	Land Use	Encumbrances	Remarks
20	19		J. N. T. U. C		12/28	0	1	80	Dry	Self	Office		
21	20	08/06/2020	Omana Khosi	SALE-Degles mentas	12/29	0	1	80	Dry	Self	Home stay		
22	21	08/06/2020	C. K. Unni	SALE-Degles Mentas	12/30	0	1	78	Dry	Self	Home stay		
23	22		Rosa, Childrens Alisabath, Anin	SALE - Sharafudheen	12/31	0	14	40	Dry	Self	Resort	Lease	
24	24	16/09/2023	Antony	SALE-Rappayi	17/3	0	0	70	Dry	Self	Lodge and restaurants		
25	27		A. P. Antony, C. L. Annamma	SALE- KK Jyothi Kumar	17/10	0	3	80	Dry	Self	Hotel		New TP no 51
26	28	08/09/2023	Nanikutty Amma	SALE-Santhosh Kumar and Mohan Kumar	17/15	0	1	30	Dry	Self	Residence	Rent	
27	30	27/09/2023	J. J Laser	Sumesh, Vesudhas, Baby, Sherly, Laya, Alex, Suji, Sofy, Lisy, Rosly, Sherly, Robert, Mariya, Philomina, Sebastian,	27/2	0	6	95	Dry	Self	Residence		

S.No	TP No	Date of Tax Receipt	Land Owners Name	Legal Heirs	Survey No	Extent of Land			Land Type	Possession	Land Use	Encumbrances	Remarks
				Lilly, Gracy									
28	31	18/06/2010	K Narayani	Sivadasan, Ashok Kumar, Ganesh, Beena Kumari, Dhanalakshmi, Shailaja	31/2	0	6	10	Dry	Self	Residence and shop		
29	32		1. Tharavu, 2. Velayudhan, 3. Nalapilla, 4. Uthuli, 5. Dinnar, 6. Kunjupillai, 7. Appupillai, 8. Thuvaran, 9. Cheku, 10. Gopalan, 11. Unthan, 12. Arayadi		55	0	91	25					This place is unsurveyed land belonging to the king of Kollamkot, which has no survey subdivision and Pattayam. This land, held by the King's permission, has no boundaries or buildings, and lies like forest land

S.No	TP No	Date of Tax Receipt	Land Owners Name	Legal Heirs	Survey No	Extent of Land			Land Type	Possession	Land Use	Encumbrances	Remarks
30	33		1. Anandan, 2. Nallapillai, 3. Nallapillai 4. Usman, 5. Chempakan, 6. Murukappan, 7. Thandan, 8. Neelakandan, 9. Mayandi, 10. Varghese, 11. Chandayan, 12. Shivamoni, 13. Kannumani, 14. Chemmukkan, 15. Ponnu, 16. Ramankutty, 17. Vellayappan, 18. Chatta, 19. Velandi, 20. Kanthan, 21. Chandian,		56	5	11	25					Same as above
31	34		1. Chellankan, 2. Appupillai, 3. Mariyami, 4. Shivamoni		57	0	30	0					Same as above

S.No	TP No	Date of Tax Receipt	Land Owners Name	Legal Heirs	Survey No	Extent of Land			Land Type	Possession	Land Use	Encumbrances	Remarks
32	35		1. Kunjan, 2. Kaliyappan, 3. Kunjan, 4. Aandiyappan		58	0	38	75					Same as above
33	36		1.Chinnatham bi, 2.Rangaswami , 3. Guruswami, 4. Ponkannan, 5. Alankappan, 6. Ponnuswami, 7. Chinnappan, 8. Thanappan, 9. Malliyappan, 10. Chinnappan, 11. Muthayyan, 12.Cheilappan, 13. Suriyan, 14. Kariyappan, 15.Chittan, 16. Dharma, 17.Velacham, 18. Kanthappan, 19. Lakhmanan,		59	24	59	50					Same as above

S.No	TP No	Date of Tax Receipt	Land Owners Name	Legal Heirs	Survey No	Extent of Land			Land Type	Possession	Land Use	Encumbrances	Remarks
			20. Pandiyan, 21. Apuswami, 22. Kanthaswami, 23. Kunjiyappan, 24. Kumaraswami, 25. Veluchami, 26. Chuvannan, 27. Pangini										
34	37		Madhava Raja, Ravi Verma, Raja Pulaiyampara		63	53	25	0					Same as above
35	38		Annama C L	SALE- KK Jyothikumar	12/6	0	1	0	Dry	Self	Hotel		TP no 50

9. Lakshadweep – Agatti Village

Sl No.	Unique No	Name of Land Owners	Legal Heirs	Survey No	Sub division No	Extent		Land Type	Possession	Land Use	Remarks
						Are	Sqm				
1	3456	1.Pookoya, 2. Kuttalammada, 3. Muhammed Koya, 4. Kuttalammada, 5. Beebi, 6. Kuttalammada	SALE - Sikkaender Hussain	1254	5	1	50	Wet	Self	House & Coconut tree	Mutation - completed
2	103	1.Alikoya Melapattiniyoda, 2.Kasmikoya, 3.Koottiyapada (expired)	K Attakoya	815	1	27	0	Wet	Self	House & Coconut tree	
3	1549	1.Hamsa Chattikakada, 2. Kasmi Chattikakada, 3.Lathi, 4. Chattikakada, 5.Pookoya Chattikakada, 6.Pathumma Chattikakada, 7.Kasi Koya Pathiniyoda	K Attakoya	743	5	3	20	Wet	Exchange	Coconut tree	
4	73	1.Alikoya Melapattiniyoda, 2.Muthukoya Thalakada, 3. Pakirichibiyoda	K Attakoya	61	1	25	30	Wet	Self	Coconut tree	
5	3388	1.Attakoya, 2.Keelapura, 3.Kasmikoya, 4.Mapadaillam (expired), 5.Koya, 6.Melapattiniyoda, 7.Kunhibi, 8.Beekuttiyoda 9.Kallilam,	K Attakoya	1031	8	53	30	Wet	Self	Coconut tree	

		10.Kadeeshabi, 11.Koodathapada 12. Bandavioyoda, 13. Asiamyammabi									
6	1194	Alikoya Melapattiniyoda	K Attakoya	743	1	12	70	Wet	Self	Coconut tree	
7	275	1.Aboosalakoya Kallillam, 2.Attakoya Kallpura	K Attakoya	1184	11	6	50	Wet	Self	Coconut tree	
8	255	1.Aboopacker Melapura,2. Kunji Melaiillam, 3.Kulus Vallayaioda (expired)	Lanrath	861	11	0	30	Wet	Self	Coconut tree	
9	2597	1.Kulus Vallayaioda (expired), 2.Aboopacker Vallaioda	Lanrath	910	11	0	80	Wet	Self	Coconut tree	
10	2605	1.Mariyam Vellonoda 2.Muhamed Vellonoda (expired), 3.Rukhiyath Vellonoda	Lanrath	1094	13	5	30	Wet	Self	Coconut tree	Mutation - completed
11	2598	1.Kulus Vallayaioda (expired), 2.Asi pandara pura	Sainaba	965	2	0	50	Wet	Self	Coconut tree	
12	3521	1.Kulus, 2.Vellenoda (expired), 3.Kunhi Koya, 4. Keela pura, 5.Alikoya, Keelappura, 6.Aboobacker, Keelapura, 7.Seethikoya, 8. Keelapura,9. Cheriyabi, Keelappura, 10.Kunhi Koya, 11.Keela illam, 12.Jameelabi, 13.Sarabiyoda,	Sainaba	1064	10	0	70	Wet	Self	Coconut tree	

		14.Pathummabi, 15. Sarabiyoda									
13	2610	1.Kunhibi, 2.Kattampalli		1058	1	5	30	Wet	Exchange	Coconut tree	
14	719	1.Abdulkadhar Koya(expired), 2.Kocha	Sirajudheen	330	17	0	80	Wet	Self	Coconut tree	
15	797	Attakidavu Koya (expired)	Fathima	1132	17	1	80	Wet	Self	House	
16	3525	1.Muhammed Koya, 2.Therkku kunthinamel,3. Attakidavu koya lenkiyoda(expired), 4.Kasmi koya lenkiyoda, 5.Sethu muhammed koya lenkiyoda, 6.Muhammed koya lenkiyoda, 7.Fathumabi lenkiyoda, 8.Ummul vahidha uppathoda, 9.Addhul Nasar uppathoda, 10.Kuji koya Kilappura, 11.Jemilabi Sharaboyoda, 12.Fathimabi Sharaboyoda.	Alikoya	1218	4	2	20	Wet	Self	Coconut tree	
17	2886	1.Beefathummabi Kattampally, 2.Abdhul Rahman Kattampally, 3.Nafeebabi Kattampally, 4.Attakidavu koya lenkiyoda(expired), 5.Kasmikoya lenkiyoda, 6.Saithumuhammed koya lenkiyoda, 7.Mohammed koya lenkiyoda, 8.Fathumabi lenkiyaoda,	Abdhul Gafoor	1138	11	0	40	Wet	Self	Coconut tree	

18	2851	1.Kadishommbi, 2.Noodam.	Attabi	010	7	2	80	Wet	Exchange	House	
19	2501	1.Kidavukoya (expired), 2.Kakkada Moidheen, 3.Kittachetta	Abdul Jabbar	1132	20	6	50	Wet	Self	Coconut tree	
20	4285	Ummer koya Poovommada	Fousia Begum, Faisal Fayas,	388	1	16	70	Wet	Self	House & Coconut Tree	
21	3280	1.Asi pandarapura, 2.Abdul Rahiman Pandarapura	Badarudheen	1265	1	62	50	Wet	Self	Resorts	Pokkuvaravu (pending)
22	190	1.Aboobacker Sarammabada Cheriyapura Koyassan (expired), 2.Sarammapada Fathima, 3.Sarammapada cheriyapura	Badarudheen	955	1	10	80	Wet	Self	House & Coconut Tree	
23	528	Ummerbadathota (expired)	Muhammed Ali	1016	7	6	0	Wet	Self	House	
24	3719	Sakeena Kattupura	Shammon	022	3	9	40	Wet	Self	House	
25	467	1.Abdulkader koya Oavoon, 2.Kojan koya oavoon, 3.Cheriyakoya Oavoon	Sainaba	131	5	2	55	Wet	Exchange	Coconut tree	
26	251	Aboosabi Kippattu Achara biyoda Meppada illam		1011	11	0	70	Wet	Exchange	Coconut tree	
27	1179	Kunjikoya thalakada pakrithibiyoda (expired)	Hamsa koya	1283	4	8	30	Wet	Self	Coconut tree	

28	1076	Kunjibi Koya (expired)	Hamsa koya	95	4	0	80	Wet	Self	Coconut tree	
29	2171	Syed koya thalakada pakrichi (expired)	Hamsa koya	95	3	0	70	Wet	Self	Coconut tree	
30	3087	1.Mathu koya, 2.Bantharil Abubacker	Hamsa koya	830	12	1	30	Wet	Self	Coconut tree	
31	476	1.Aboobacker Kalanoda, 2.Rukiyath Kalanoda (expired)	Mahmood K	058	8	2	90	Wet	Self	House & Coconut Tree	
32	482	Aboobacker Kalanoda (expired)	Hidayathulla (expired), Ramlabegum, Fithahutheen, Hameed Abu Kasim.	482	5	0	20	Wet	Self	Coconut tree	
33	4098	1.Shamsudheen, 2.Kuttiyam mukriyoda, 3.Rayipappada	Thajudheen	444	1	2	20	Wet	Exchange	House & Coconut Tree	
34	477	1.Rukkiyath Kalanoda (expired), 2. Kasmi koottiam mukriyoda	Mahmood K	326	1	0	30	Wet	Self	Coconut tree	
35	2121	1.Kathisummabi, 2.Pettabalam	Kamarunneesa mariyaman	309	1	1	80	Wet	Self	House & Coconut Tree	Mutation – completed
36	1573	1.Hamsakoya Kootilamada (expired), 2.Kunjikoya Kootilamada	Abdul Kadiri koya	1081	8	4	50	Wet	Self	Coconut tree	
37	2829	1.Cheriya koya, 2.Thekku	Abdul Kadiri	728	2	0	60	Wet	Self	Coconut tree	

		aliyamada	koya								
38	2954	1.Ahmmad Avammapada, 2.Khalid Avammapada, 3.Koyammu Avammapada,4. Hamsa Avammapada, 5.Ampna avammapada, 6. Beelathi Avammapada, 7. Bambathi Avammapada, 8. Kadeesamma Avammapada, 9. Shareeta Avammapada.	SALE- Murshid Mariam Manzil	345	8	0	90	Wet	Self	Coconut tree	
39	2158	1.Kasim koya Meppada (expired) 2.Acharabiyoda Meppada illam- Mullabi kippad Acharabiyaoda meppada illam. 3.Mohammed koya keepatty achara beevi mappada illam	Fathuma muthalper, Davood	459	9	3	90	Wet	Self	Coconut tree	
40	2152	1.Kasimkoya keppattu (expired) 2.Achariyoda mappada illam	Davood	1084	13	1	60	Wet	Exchang e	Coconut tree	
41	200	1.Alikoya Ponthanoda, 2.Koya ponthanoda(expired)	Abdul Gafoor/ Abdul Nasar	123	1	3	10	Wet	Self	Coconut tree	
42	3611	1.Pathumma (expired), 2.Ellathetta	Khadeesha Umma	248	2	0	20	Wet	Self	House	
43	4366	Mohammed Ella Chetta (expired)	Nafeesa	249	2	7	60	Wet	Self	House	
44	2345	Aminumma Ellachetta (expired)	Hameeda Ellachetta	261	2	0	90	Wet	Self	Coconut tree	

45	2344	Aminumma Ellachetta (expired)	Abdul Rahiman	402	7	1	90	Wet	Self	Coconut tree	
46	179	1.Pathumma, 2.Ellathetta	SALE- Abdul Rasak Ellachetta	1208	5	0	80	Wet	Self	House & Coconut Tree	
47	1970	Kolus Kathishapada (expired)	Koyilam Amniumma	216	2	3	80	Wet	Self	House & Coconut Tree	
48	2185	Kader Ellathetta	SALE - Abdul Rahiman Ellathetta	143	5	2	80	Wet	Self	House & Coconut Tree	
49	3722	Kolus Kayichapada (expired)	Abdul Rahiman	729	7	4	80	Wet	Self	Coconut tree	
50	383	Beebi Banthar (expired)	Mujeeb Rahiman, Katheesa bee, Hasara	786	2	17	50	Wet	Self	House & Coconut Tree	
51	1391	Cheriya bee (expired)	Hajara	846	12	1	10	Wet	Self	Coconut tree	

10.Lakshadweep – Kavaratti Island

SI No.	Unique NO	Land Owners Name	Legal Heirs	Survey No	Subdi vision No	Extent		Land Type	Possession	Land Use	Remarks
						Are	Sqm				
1	128	1.Ahammed, 2.Kathiyathoda, 3.Ibnumaja and 11others, 4.Vellipura	Addul Raheem	59	2	3	30	Wet	Self	House	
2	715	1.AASI, 2.Keliyam, 3.Kunhibi (expired), 4.Keliyam, 5.Sarabi ,6.Keliyam, 7.Sarabi ,8.Kunjeliyam, 9.Alikoya & ATHERS 9 ,10.Kunjeliyam, 11.Mohammedkoya ,12. Kunjeliyam, 13.Nallakoya ,14.Kunjeliyam, 15.Asiyommabi ,a, 16. Sayed Abdullakoya ,17.Kunjeliyam, 18.Mullakoya ,a, 19.Muthukoya ,a, 20.Nafeesabi ,a, 21.Irshad Khan ,22. Kunjeliyam Palakappad	Cheriyakoya Dalakapat	849	1	52	40	Wet	Self	House	
3	1339	1.Muhammed,2. Kakkiniyapura	SALE - Mullipura Shafa Begum	81	7	25	70	Wet	Self	House	Mutation (pending)
4	1635	1.Poo Chekkilam Kudumpathile, 2. Pintahudrchakarum	SALE - Ashiyana Jasmin Sherin, Ashiyana Jaseem Sherin.	112	7	5	70	Wet	Self	Vacant	
5	936	1.Kidav, 2. Koliyapura	SALE- Chandi	467	10	0	50	Wet	Self	House	

Sl No.	Unique NO	Land Owners Name	Legal Heirs	Survey No	Subdivision	Extent	Land Type	Possession	Land Use	Remarks
			Pura, Said Buhari							
				530	3	3	10	Wet	Self	House & Coconut Tree
				628	1	0	40	Wet	Self	House
6	1069	1.Khalid (expired), 2. Kartholapura	Bambathi melillam	838	9	8	40	Wet	Self	House & Coconut Tree
7	1700	1.Sainudheen Malmi, 2. Pappadam.	SALE- Chammankath mansoor Ahamed pathada jasmina begum.	674	10	22	50	Wet	Self	House & Coconut Tree Mutation (pending)
8	59	1.Aboobacker, 2. Thalella Odhi (expired)	Okkas Melliam	763	11	2	50	Wet	Self	Coconut tree
9	1969	1.Aboobacker, 2. Thalilapura (expired)	Alikoya beeranthoda	691	7	1	0	Wet	Self	House
10	1018	1.Kasmi, 2. Chakkikulam (expired)	Jameela Melillam	838	8	1	90	Wet	Self	Coconut tree
11	1771	1.Vampan, 2.Chanthiram, 3.Fathumma,	Chandiram Mujeeb Rahman	574	5	2	0	Wet	Self	Coconut tree

Sl No.	Unique NO	Land Owners Name	Legal Heirs	Survey No	Subdivision	Extent	Land Type	Possession	Land Use	Remarks	
		4. Chamdiram. (expired)									
12	34	1.Saidkoya, 2.bandekakkada, 3.Muthukoya, 4. bandekakkada	SALE - Ummer Farooq	668	4	7	80	Wet	Self	Coconut tree	
13	981	1.Vamban, 2.Chandiram (expired)	Chandiram Raihnath	564	3	13	60	Wet	Self	Coconut tree	
14	887	1.Kasmi 1/2, 2.chekillam, 3.safiya 1/4 ,4.chekillam, 5.cheriyakoya 1/8 ,6.chekillam, 7.naseer (minor) 1/8 ,8. chekillam	Attakoya (exchange)	325	8A	3	10	Wet	Exchange	House	
15	1680	1.Saithapoo, 2.Kuttithayapura	Attakoya (Dhanam)	325	9	1	10	Wet	Self	House & Coconut Tree	GIFT
16	1840	1.Cheriyakoya , 2.Melilapura, 3.Muthukoya ,4. Melilapura, 5.Shaikoya ,6.Melilapura, 7.Ayshabi ,8.Melilapura, 9.Muthubi , 10.Melapura (expired)	Attakoya	823	8	27	10	Wet	Self	House & Coconut Tree	
17	1959	1.Muhammed, 2.Alavukkadu,	SALE- Farisa Begum	445	7	0	30	Wet	Self	House	

SI No.	Unique NO	Land Owners Name	Legal Heirs	Survey No	Subdivision	Extent	Land Type	Possession	Land Use	Remarks
		3.Ali, 4.Alavukkadu								
18	1431	1.Ahammed, 2.Kunnumtura	SALE- Siad ali tharamokkupura	101	9	2	30	Wet	Self	Coconut tree
19	1959	1.Muhammed, 2.Alavukkadu, 3.Ali, 4.Alavukkadu	Mhammed Shafeeq (Dhanam)	465	3	19	30	Wet	Self	Coconut tree GIFT
20	1330	1.Muhammed, 2.Checkillam	Sare chetta Ashraf (exchange)	390	7	5	60	Wet	Exchange	Coconut tree
21	751	1.Attakoya Thangal, 2.Avayanakada.	Checkillam Kasmi (exchange)	154	9	4	50	Wet	Exchange	Coconut tree
22	1712	1.Saromma, 2.Thangalaillam, 3.Mohammed Hashim ,4. Thangalaillam, 5.Kunhi Kunhi ,6. Mashaikina Pura	SALE- Aishommabi	704	3	57	50	Wet	Self	Coconut tree
23	743	1.Ahmad Musliyar ,A, 2.Kasmi Musliyar ,A, 3.Aysha ,A, 4.Muhammed ,A, 5.Muthukoya ,6.Mukriyaillam Checkillam, 7.Attabi ,8. Mukriyaillam Checkillam	Attabi, Muhammed Shiyas, Shana (Dhanam)	138	5	33	20	Wet	Self	Coconut tree GIFT

SI No.	Unique NO	Land Owners Name	Legal Heirs	Survey No	Subdivision	Extent	Land Type	Possession	Land Use	Remarks
24	588	1.Muhammed Malimi, 2.Kumbidam	Muhammed Nishad (Dhanam)	294	1	43 50	Wet	Self	Coconut tree	GIFT
25	849	1.Kuttiyammad, 2.Pandiyalapura	Muhammed Nishad (Dhanam)	293	3	1 90	Wet	Self	Coconut tree	GIFT
26	3	1.Kidaev, 2.Molekkepura	Kunjibee Alikkakada (Dhanam)	532	6	0 30	Wet	Self	Coconut tree	GIFT
27	579	Aboobacker Mullipura	Abdul Asees (Dhanam)	141	1	11 80	Wet	Self	House	GIFT
28	1789	1.Vamban, 2.Pattiyava	SALE- Hamsath Master	66	6	5 20	Wet	Self	Coconut tree	
29	1605	1.Rugiya, 2. Nangottiyam	SALE- Ashiyana Jasmin Sherin and Jaseem sherin	113	3	2 50	Wet	Self	House & Coconut tree	
30	1959	1.Muhammed, 2. Aulakkada, 3. Ali 4. Aulakkada	SALE- Muhammed koya	501	8	0 40	Wet	Self	House & Coconut Tree	
31	668	1.Hamsa koya sarabiyoda Rukiya, 2. Nangottam.	SALE- Sabidha Pakkipura	314	8	2 80	Wet	Self	House & Coconut Tree	

SI No.	Unique NO	Land Owners Name	Legal Heirs	Survey No	Subdivision	Extent		Land Type	Possession	Land Use	Remarks
32	1970	1.Ayshamma, 2. thalelaodi	SALE- Achammada Jalaludheen	795	9	1	50	Wet	Self	House & Coconut Tree	
33	1758	1.Vamban, 2.Avvappada	SALE- Thahira	643	2	0	70	Wet	Self	House & Coconut Tree	Mutation (pending)
34	1041	1.Kasmi malmi, 2.karimadam	SALE- Thahira Nombicham	643	5	2	90	Wet	Self	House & Coconut Tree	
35	1641	1.Said muhammed koya thangal 2.Ekkarapalli	SALE- Lukmanul Hakeem	413	3	10	10	Wet	Self	Coconut tree	
36	715	1.Sarabi Kunnjeliyam (expired), 2.Sarabi ,3.Kunjeliyam, 4.Alikoya & ATHERS 9 ,5.Kunjeliyam, Mohammed Koya ,6.Kunjeliyam Palakappad, 7.Nallakoya ,8.Kunjeliyam, 9.Asiyommabi ,10.Kunjeliyam, 11.Sayed Abdullakoya ,12.Kunjeliyam, 13.Mullakoya ,a, Muthukoya ,14.Kunjeliyam Palakapad, 15.Nafeesabi ,a, 16.Irshad Khan ,17.Kunjeliyam Palakappad	Said abdulla koya	791	10	1	0	Wet	Self	House & Coconut Tree	Mutation (pending)
37	1443	1.Muhammed,	Nadira pura	535	10	13	0	Wet	Self	Coconut	

SI No.	Unique NO	Land Owners Name	Legal Heirs	Survey No	Subdivision	Extent	Land Type	Possession	Land Use	Remarks
		2.Pura (expired)							tree	
38	1641	1.Said Mohammed koya Thangal, 2.Ekkarpalli	SALE- Hamsa koya	404	8	97	70	Wet	Self	Coconut tree
39	596	1.Ishak keyi 2.Bammali (expired)	Sadik	115	10	2	80	Wet	Self	House & Coconut Tree
40	1017 & 1208	1.Kadisha, 2.Uthampokkakkada	SALE- Shamseera thasnin	791	11A	3	30	Wet	Self	House & Coconut Tree
41	916	1.Kidav malmi Avapada Sayed ,2.Kuttippappapura, 3.Alikunhi ,4.Kuttippappapura, 5.Kidave ,6.Kuttippappapura, 7.Kulus ,8.Kuttippappapura, 9.Khoulath ,10.Kuttippappapura, 11.Sakina ,12.Kuttippappapura	Muhammed Ali Thekkidapura (exchange)	774	2	7	20	Wet	Exchange	Coconut tree
42	1155	Kanjikoya	SALE- Narangapura	516	10	12	0	Wet	Self	Coconut tree
43	1605	1.Rukhiya, 2. Nangottiyam	SALE- Fathima Hassan	602	1	1	40	Wet	Self	House & Coconut Tree
44	955	Kidav Agam	Kidav, Muhammed,	698	1	4	50	Wet	Self	House & Coconut

SI No.	Unique NO	Land Owners Name	Legal Heirs	Survey No	Subdivision	Extent		Land Type	Possession	Land Use	Remarks
			Hamsath, Khalid, Fathima, Ayushoma in Agam house							Tree	
45	642	1.Poo, 2.Thavazhi members 3.Chekkilam	SALE- Naseema Srambipura	39	10	3	10	Wet	Self	House & Coconut Tree	
46	1447	1.Pookoya ,2.Chandipura, 3.SAINA ,a, 4.Lirar ,a, 5.Rajakunhi ,a, 6.Hameed ,a, 7.Seethikoya ,a, 8.MUTHUBI ,a, 9.RUKHIYA ,a, 10.Haris ,a, 11.FATHIMA ,a, 12.Abdul Kadar ,a, 13.Jameela ,a, 14.Sayed Buhari ,a, 15.HAJARA ,a	Abdul Kader (Dhanam)	588	2	14	0	Wet	Self	House & Coconut Tree	GIFT
47	6	1.Abdul Asees, 2.Thalakkada (expired) 3.Agatti	Kathisa	868	7B	3	20	Wet	Self	House & Coconut Tree	
48	914	1.Kidav, 2.kilapura (expired)	Kamarudheen Agathi Melaiillam, Meppalli Althaf Hussain Kavaratti	593	3	2	90	Wet	Self	House & Coconut Tree	
49	566	1.Cheriyakoya, 2.nangamada 3.Meliapura, 4.Sayed Muhhamed koya, 5. Koliyala	Subaida	703	8	3	50	Wet	Self	House & Coconut Tree	Mutation (pending)

Sl No.	Unique NO	Land Owners Name	Legal Heirs	Survey No	Subdivision	Extent		Land Type	Possession	Land Use	Remarks
		(expired)									
50	1588	1.Nallakoya , 2.Beerampathummada	Fathima Channapura Padippura (Dhanam)	451	2	0	20	Wet	Self	House & Coconut Tree	GIFT
51	369	Attabi Edanilam	SALE - Khalid	696	1D	2	20	Wet	Self	House & Coconut Tree	Mutation (completed)