



Evaluation Study on Quality of Land Records

Quality of Land Records in Uttarakhand

Lal Bahadur Shastri National Academy of Administration

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QUALITY OF LAND RECORDS – STATE-LEVEL ANALYSIS

Introduction

The Evaluation Study on the Quality of Land Records in the state of Uttarakhand was conducted based on both primary and secondary data collections. The secondary data, as per the objectives of the study, is clustered into five modules covering various aspects of the computerization of land records (RoR), digitization of spatial records, online land registration, revenue court management systems and land mutation. This data was collected by visiting the Office of the Board of Revenue, the Office of the IGR, the Government of Uttarakhand, and Tehsil offices, following the prescribed format.

In-depth interviews were conducted with senior-level officials from the Board of Revenue, the IGR office, Tehsildars, Revenue Kanoongos and village-level land revenue functionaries to understand the types of revenue records maintained, how the land records are managed, and the processes involved in revenue records management and digitization of land revenue-records, service delivery system and policies, acts pertaining to land related matters. Different formats, registers, and documents related to land revenue records and land revenue services were studied to understand the processes involved in land ownership transitions, registration of landed property, land mutation, partition and subdivision, demarcation, land use, land mortgage, etc. State-level government websites designed to provide access to land records and facilitate citizen-centric services related to land revenue matters were reviewed to analyze their content and assess the ease of use for citizens seeking services from land revenue departments.

In Uttarakhand, two sample districts out of the total 13 districts were selected for the study. One district from each of the two revenue divisions of the state was selected to represent the revenue divisions in the sample. Nainital district was selected from the Kumaon revenue division, and Dehradun district was selected from the Garhwal revenue division.

The real-time mirror status of land records was ascertained by conducting a primary survey using a structured questionnaire to interview the principal landowners of all land parcels in two villages from Haldwani tehsil of Nainital district and one village from Kalsi tehsil of Dehradun district. Additionally, telephonic interviews were conducted to collect relevant information regarding the real-time mirror status of land records from one village in Bhagwanpur tehsil of Haridwar district. These four villages were selected based on two criteria: (i) the number of land parcels and (ii) the size of the village population.

Sample frame for the study

Division	District	Sample Tehsil and Villages
Garhwal Division	Bageshwar, Chamoli, Dehradun, Haridwar , Pauri Garhwal, Tehri Garhwal and Uttarkashi Sample District - Dehradun and Haridwar	Dehradun - Kalsi Tehsil- Byas Bhood Village Haridwar - Bhagwanpur Tehsil – Harchandpur Mamra Village
Kumaon Division	Almora, Champawat, Nainital , Pithoragarh, and Udham Singh Naga Sample District - Nainital	Haldwani Tehsil- Gangapur Goulapur and Kishanpur Village
Total	03 Districts	03 Tehsil and 04 Villages

1.0 Module I. Record of Rights (RoRs)

1.1 Digitization of textual records/Computerisation of Land Records (RoR)

In the state of Uttarakhand, there are 18,32,013 Records of Rights (RoRs) comprising 2,83,74,636 land parcels. According to the available Khatauni records, each RoR contains one or more than one Khasra numbers. On average 15 Khasra numbers are there in one RoR. In a RoR/Khatauni the following information are mentioned-column No. 1 owners name, column No. 4 Bhumik Adhikar Warsh, Column No. 5 Khasra Number, Column No. 6 Area, Column No. 7-13 order description and last Column for Remarks.

In the state of Uttarakhand, the total number of Khata numbers is 18,32,013 and it is equal to the total number of RoRs in the state. There are 6,43,204 single landowners in the state and an average of 10 to 15 landowners are there per RoR with more than one Khasra number.

Total No. of RoRs	RoRs computerized	% computerized	No. of Land Parcels
18,32,013	18,32,013	100%	2,83,74,636

1.2 Citizen access to Digitalised RoR

Out of the total 18,32,013 RoRs, all 18,32,013 have been computerized, which accounts for 100%. RoRs/Khatauni are available on the portal to the public for viewing purpose only (**Disclaimer:** उक्त आँकड़े मात्र अवलोकनार्थ हैं, तहसील कम्प्यूटर केन्द्र से उद्धरण की प्रमाणित प्रति प्राप्त की जा सकती है ।). The digitally signed copy of the RoR/Khatauni can be obtained from the Tehsil Office by the land owner/representative by paying an amount of Rs. 20.

Recently, a payment gateway has been integrated into the software to facilitate fee payment and obtain a certified copy online. The security audit of the software is currently underway and is expected to commence shortly.

The RoRs are not seeded with Aadhaar and Mobile number of the land owners is not seeded with the RoR. However, attempts are being made to link Aadhaar and mobile number with the land holding data of land holders under the Agristack programme.

The website for viewing RoR by any citizen is- <https://bhulekh.uk.gov.in/Bhulekh/>. All RoRs of entire village are not available for view/download by any citizen at a single point of time. A single RoR with multiple number of khasra numbers can be viewed by entering Khasra/Gata No. or Khata No. or Registry No., or Mutation Date or land seller's name or land buyer's name, or the Khata owner's name. For example, if you enter Khasra No. 330 (belonging to the Forest Department), the Khatauni/RoR will display all the Khasra numbers associated with the Forest Department.

1.3 Legal Validity of digitalised copy of RoR

The digitally signed RoR is a legally valid document in the state, and financial institutions accept it for sanctioning loans to landowners. The digitally signed RoR can be verified through a QR code.

यह खतौनी इलेक्ट्रॉनिक डिलीवरी सिस्टम द्वारा तैयार की गयी है तथा डाटा डिजिटल हस्ताक्षर द्वारा हस्ताक्षरित है।

Both the computerized records and the Bandobasti manual records are considered sole legal records.

Land records pertaining to RoRs are updated on a real-time basis.

1.4 RoR database linked with Cadastral maps

In the state of Uttarakhand the RoR data base is linked with the 5,724 village cadastral maps against a total number of 16,691 villages. This implies that around 34% of cadastral maps have been linked to RoR data base. <https://bhunaksha.uk.gov.in/05/index.html>

1.5 Computerisation of RoR of Government held Land in the state

According to information provided by the Revenue Department, RoRs for all government land (Category 1.B and Class IV) have been computerized, except for those in 129 villages (Non ZA Areas) where consolidation and resurvey operations are ongoing. Once these operations are completed and the records are returned to the concerned tehsil, they will then be computerized. The government land falling under the Non-ZA areas and urban areas are not computerized.

1.6 Linkage of RoR database with Banks for mortgage

In the state, the RoR database is not linked with banks for mortgage purposes. Instead, a separate web application, <http://loanentry.uk.gov.in>, is used for verification of land records by the Tehsildar prior to the sanction of the loan by the bank and land mortgage with the banks. The loan disbursed details are shared with the Tehsildar for incorporation into/red flagged in the last column of the khatauni. Out of total 86 banks, 26 (30%) banks are linked through the mentioned website.

The process followed for linking RoR data base with Banks

An applicant seeking an agricultural loan visits the bank and offers their land as collateral. The bank submits the loan application online via loanentry.uk.gov.in for verification by the Tehsildar. After verification, the Tehsildar informs the bank, which then disburses the loan. The loan details are subsequently manually updated in the Record of Rights (RoR) by the Tehsil office.

1.7 Division and sub-division of Land

More than one landholder is listed in approximately 50% of the total RoRs, and in these RoRs, the share of each landowner is specified. According to the process followed Bata number and Minzumla number are mentioned in RoR for sub division of plot. Details regarding share of each holder is mentioned in the column-1 of the RoR/Khatauni.

1.8 Other facts related to RoR/Khatauni

- Gender of the Land owner is not mentioned in the RoR/Khatauni.
- Hectare as the land unit is used in the RoR/Khatauni for land area.
- Land record of urban and peri-urban areas are digitized and updated.
- RoR/Khatauni land records of all the urban areas except Musoorie nagar palika have been digitized.

Terms used in the RoR/Khatauni

Term used in RoR	Meaning
श्रेणी : 1-क / भूमि जो सक्रमणीय अधिकार वाले भूमिधारो के अधिकारमे हो	Category : 1-A/B Land which is in the possession of landholders with ownership rights
खातेदार का नाम / पिता पति संरक्षक का नाम / निवास स्थान	Name of the account holder Father Husband Name of Patron/Guardian residence
खाता संख्या	Account Number
गाटे	Plot
फसली वर्ष	Cropped Year
खसरा संख्या	Khasra Number
भौमिक अधिकार का वर्ष	Year of Terrestrial Rights
आदेश	Order
क्षेत्रफल	Area
टिप्पणी	comment

1.9 Documents/ registers related to RoR, maintained by the Revenue authorities

Revenue Authority	Register/Document- related to RoR
Lekhpal	<ul style="list-style-type: none"> • Khatauni (RoRs Register) • Khasra Form Pa. Ka.-3 • Village Cadastral Map (Sajra) • Propatra 11 Pa. ka Khatauni (Updating Legal Heir and co-share land transactions) • Rectification related to Revenue Records – Propatra -23 Pa. Ka.
Tehsil Office	<ul style="list-style-type: none"> • Digital records of Khatauni /RoRs • Misalband Register • Mutation register – R5- Entering Mutation cases Sales – Sale deed • R-6 document dakhil kharji order entry • Sawankhani Register- Case dairy for mutation
State Revenue Department	<ul style="list-style-type: none"> • Digitalized Cadastral Map • RCMS MIS • All state Online Khatauni/RoR

1.10 Process flow- who maintains, what and when entries are made in RoR documents/ registers

Khatauni - RoR Register

- Ownership records of the column 1 is updated every 06 years after incorporation of changes in all types of land ownership based on the mutation orders entered in the column 7 of the Khatauni/RoR.
- On line Khatauni/RoR- Updated on real time basis as and when mutation completed in the order column-7, Land mortgaged, Court cases, etc. are mentioned in the remark column-13.
- Khatauni Register off-line is maintained by the Lekhpal and online khatauni is updated and maintained at the Tehsil office by the Kanoongo and computer operator.
- All mutation case registers such as Mishal bandi register, mutation register -5 and 6 are maintained by the Tehsil office.
- Khasra Register- containing 13 columns- is maintained off line by the Lekhpal and the same is updated every 05 years.
- The Lekhpal has the hard copy of the Cadastral map/Sajra, which has not been updated since 1960s.

2.0 Module II. Cadastral Maps

2.1 Digitization of spatial records

The comprehensive survey across the state took place in 1960. The Sajra/cadastral maps of most villages in the state were prepared in 1960, with each map having a scale of 1:4000. In Uttarakhand, there are a total of 84,816 cadastral maps, of which around 98% (83,193) have been scanned and digitized. The last survey in the state was conducted in some villages of Dehradun in 1993.

Geo-referencing of cadastral maps has been completed for 14,554 villages. The information pertaining to geo-referencing of number of land parcels is not available with the revenue department. ULPIN has been assigned to Land parcels of 2,111 villages, however data on total number of land parcels with ULPIN is not available. Apart from ULPIN other unique ID is also assigned in the RoR (LGD Code and Land Type based unique ID).

An online facility is not available for landowners to request a survey of their land parcels for subdivision. Cadastral maps are supposed to be updated every 20 years from the date of the last survey conducted based on settlement.

3.0 Module III. Registration

3.1 Computerization of registration process

All 53 Sub-Registrar Offices (SROs) in Uttarakhand have been computerized. The first SROs in Dehradun were computerized as early as January 2003, while the most recent, in Chakrata, was computerized in June 2022. 2,57,126 land properties were registered in FY 2023-24. The state of Uttarakhand is using the National Generic Document Registration System (NGDRS) software platform- <https://ngdrs.eregistrationukgov.in/> .

3.2 On line slot booking for Registration

Online slot booking facility for registration of land properties is available in the state. Information Captured during Online Appointment Booking of slot/appointment for registration are:

1. Property Details: Khewat Number, Khasra Number, Khatauni Number, House/Flat Number: In case of urban properties, the house or flat number is recorded, Area property being registered, Latitude and Longitude of the property
2. Stamp Duty and Registration Fee
3. Consideration & Market Value of Property
4. Number of Pages in Deed
5. Parties/Witness- including their identification (ID) details, mobile numbers, and email addresses.

3.3 Integration of Revenue Office with Registration Office for the verification of land records

The backward integration of the Registration Office with the Revenue Office (Land Records) has not been done. However, after the registration of land, the land index is shared with the Revenue Office by the SRO. Sale of Govt. Land is not blocked/ red-flagged under the current registration system.

3.4 Anywhere Registration

Anywhere Registration is not allowed in the state. But, Circle Rates/ Ready Reckoner, Rates/Guideline values/ Collector Rates for lands are available to citizens in the Registration software. The state of Uttarakhand offers an online payment facility for the payment of registration fees. Unlike registration fees, there is currently no online payment facility available for stamp duty. An e-Calculator is available online for citizens to compute the required stamp duty.

3.5 Verification and Searches

There is no systematic practice of checking party or owner names and area details against land records during the registration process. The registration process does not include downloading a copy of the RoR as proof of verification. In fact, no specific process exists for verifying land records during registration process.

Sub-Registrar Offices (SROs) do not conduct searches of past registration deeds before proceeding with new registrations. The SRO does not check the seller's ownership documents against past records. The facility to upload identification documents during the land registration process is not available in the state of Uttarakhand. SROs in Uttarakhand have the facility to generate encumbrance certificates and access to legacy data.

3.6 Document Uploading and Identification

Aadhaar numbers are not captured during the registration process and PAN numbers are captured, but only for documents with a valuation above ₹10 lakh. Mobile numbers are collected from parties involved in the registration. The registration process does not have an integrated online PAN verification system for registrations involving higher costs. There is no facility available for verifying the e-KYC (electronic Know Your Customer) involving Aadhaar and PAN of parties for land registration. During Land registration use of digital pen and pad to capture the signatures of parties is practiced. Sub-Registrar Offices (SROs) in Uttarakhand are equipped to complete the registration process entirely online. The state provides a home visit for the registration by the SROs, which enables officials to visit the premises of parties who are unable to come to the SRO in person.

3.7 Triggering Auto Mutation

Every registration in Uttarakhand does not automatically trigger a corresponding digital mutation in the Record of Rights (RoR) and SROs are not integrated with revenue offices and the land record database. SROs can check the litigation status of a property scheduled for registration through the Revenue Court Management System (RCMS).

3.8 Lack of Online Registration System

There is no online registration system available for citizens that facilitates presence-less registration through e-KYC for first sales, Leave and License Agreements. SROs in Uttarakhand currently lack the ability to send SMS notifications to the parties during document registration. The Citizens have access to dynamic deed templates.

The state does not have an AI-based solution (AI Nibhrit) for masking personal information such as PAN, Aadhaar numbers, and fingerprint impressions on registered PDF deeds.

In the event of a network failure, SROs have the capability to push pending data related to mutations. An online grievance redressal system is available for filing complaints related to property registration at SROs. In FY 2023-24, 171 complaints were received, and 167 were resolved.

Citizens can search for documents based on various criteria, such as name, property details (survey number, deed number, etc.).

Uttarakhand currently does not have a mobile app developed for land registration-related services.

4.0 Module IV. Mutation

4.1 Land Mutation in the state

Consolidated data on number of applications received for mutation in the year 2023-24 is not available. As per the discussions held at the Tehsil level, each of the tehsil office has to submit a monthly progress report of hearing of mutation cases to the Collector office. The consolidated figures as well as number of pending mutation ceases are not available with the land revenue department. Based on the data collected from the IGR 90,801 registrations have been completed in the year 2023-24.

Online mutation request facility is not happening in the state. Though a trigger is sent to the tehsil office from the concerned SRO after land transaction completed through registration process, the Tehsil office has not used this trigger for initiating mutation automatically. As of now, not a single auto-mutation has taken place in the state.

As per the discussion with the state land Revenue Department, after registration of Land is completed, the copy of registered document sent from SRO to Tehsil Office. The Tehsildar fixed a date for 35 days and issue a Public notice for any objection. After completion of stipulated time, Tehsildar pass the order for mutation. On receipt a copy of order passed by Tahsildar, Registrar Kanoongo will enter the order details in register number 6 as well as in RoR.

However, as per discussion with the tehsil office it was observed that the SRO sends index of the property registered after registration is completed to the tehsil office. The Tehsil office is not able to commence auto mutation on the basis of receipt of the index of the property alone.

4.2 The process flow of the Mutation is as follows:

Step-1 Submission of Application and documents

Under Section 34/LR the documents for mutation can be submitted in any one of these three ways to the Tehsil Office:

1. The applicant will submit application for mutation, copy of affidavit, copy of RoR, and true copy of sale deed to the Tehsil Office.
2. The Tehsil office can initiate the mutation process after receiving a true copy of the sale deed from the SRO online.
3. The Lekhpal can submit form Pa. 1 (Hastataran report) with signature for the initiation of mutation.

Step-2 Mutation case forwarded to the Revenue Court – Sawal khani Register

The application detail received by means of any of the above method is entered in the Sawankhani Register by the peskaar and the notice period of 35 days required to complete the mutation with date is also mentioned in this register. Subsequent documenting the mutation case in the Sawankhani Register, the peskaar allocate the mutation cases to the Revenue court- Tehesildar, Revenue court – Upper Tehesildar and Registrar Kanoongoo.

Step-3 Register 5 (Ka.)/ Mishalband Register

The concerned Peskaar of the revenue court will prepare form no. R-5 after incorporating application/letters received from Sawal khani register and including order regarding mutation and notices to be served and order to be issued to the Lekhpal and Kanoongo for verification.

Step-4 Form No. 6

The final mutation order is entered in Register No. 6 and subsequently updated on the online portal.

5.0 Module V. Revenue Court Management System

5.1 RCMS in Uttarakhand

There are 402 Revenue Courts in Uttarakhand. All 402 Revenue Courts have been computerized. In the last financial year, 1,05,783 revenue court cases were handled using the computerized system. The data for the number of revenue court cases handled manually in the last financial year is not available.

The RCMS provides an online system for the public to enter case details. The details captured at the data entry stage include: (1) Names and details of the parties involved (2) Land details (3) Advocate's name and details. Applicants are notified of their online appointment date and time via the official website. Court orders can either be typed directly into the RCMS system or uploaded as separate PDFs and the Court orders are posted on the website. All court hearings are held exclusively in physical mode. The state has not adopted virtual or hybrid models. Currently, court case documents are stored physically. However, a pilot run for electronic storage is ongoing.

The Land Records database is linked to the RCMS system, allowing Revenue Courts to view and download RoR. However, this is only a one-way integration from Bhulekh to RCMS. The system for red-flagging pending revenue court cases in the RoR is under process. Currently, court orders are manually entered, and there is no standardized system for red-flagging. The data on the number of revenue court cases red-flagged in the RoR is not available.

The Land Records database is not linked to the eCourts system of Civil Courts. Consequently, RoR cannot be viewed or downloaded by Civil Courts. Only manual entry of court orders is done in RoR for civil court cases. There is no automated system for red-flagging, and as of the current date, no civil court cases have been red-flagged in the RoR.

REAL TIME MIRROR STATUS OF LAND RECORDS

2.0 Village 1: Byas Boodh, Tehsil – Kalsi, District – Dehradun, Uttarakhand

The population of Vyas BhooD village in Kalsi Tehsil, Dehradun district, Uttarakhand, was 1,674 according to the 2011 Census. Based on recent discussions, the current population of the village is approximately 2,300.

1. Differences between spatial records and the textual records

- The Village has two cadastral maps, Map 1 has 1-384 survey numbers and the other cadastral Map -2 has 385 to 485.
- According to the cadastral maps, there are a total of 485 survey numbers in the village.
- Both cadastral maps have been digitized.
- The last survey was conducted in 1967 and no changes have been incorporated into the cadastral maps since that time.
- The Khatauni was last updated in 2022. However, changes in land ownership due to legal heir transitions (Form 11 Pa.Ka.), sale-purchase, and gifting are recorded and updated in the order column after the mutation process is completed, specifically when Mutation Register-06 is updated.
- The Order column of the RoR/Khatauni has been updated up to 23rd July 2024 (See annexure-the copy of Form-6).

Total Survey no. as per Cadastral Map	Total Land Parcels/ Khasra numbers as per Survey	Owner as per current RoR/ Khatauni	Extent of Area of the Survey numbers as per Cadastral Map	Total Area of Land Parcels/ Khasra numbers as per RoR	Difference in area
485 (Includes 419 Private Land and 66 Govt. Land)	599 533 Private Land and 66 Government land	2974	54.351 Hectares	54.351 Hectares	Nil

1.a

The total area of survey numbers as per the cadastral map and online data, is 54.351 hectares, and the survey also records the total area of 599 land parcels as 54.351 hectares. There is no difference in the area of land parcels between the cadastral map and the survey. As per the current Khatauni (updated on July 23, 2024), there are a total of 2,974 landowners in the village.

1.b Partition and demarcation

- Partition and demarcation of land parcels have been done under Land Revenue Act-Section 176 and by mutual consent.
- Out of a total of 485 survey numbers mentioned in the cadastral map, partition has taken place in 97 survey numbers (23.1% of the total private land survey numbers, which is 419), resulting in 599 land parcels. None of the partitions have been updated in the cadastral map.
- The textual land records in the RoRs have been updated according to the partitions; however, the ground partition proceedings have not been incorporated into the RoR and the cadastral map has not been updated.

Khasra No. /Land Parcels	Owner of 533 Khasra number/Land parcels as per Current RoR	Whether Partition taken place (yes/no)	Whether Updation of Partition done in Cadastral map	Whether RoR Updated as per partition	Have on-ground partition proceedings been incorporated in RoR
599 (533 Private Land and 66 Government land)	2974	Yes, Partition has taken place in 97 Survey numbers (23.1% of total 419 private land survey numbers of Cadastral Map)	No	Yes (100%)	No

Updation of demarcation of Land Parcel

Khasra numbers	Owner of 533 Khasra number/Land parcels as per Current RoR	Whether demarcation taken place (Yes/No)	whether Updation of demarcation done in Cadastral map	Whether RoR Updated as per demarcation	Have on-ground demarcation proceedings been incorporated in RoR and Cadastral Map
599 (533 Private Land and 66 Government land)	2974	Yes (23.1%) under LRA – 176 and by mutual consent	No	No	No

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

- According to ground verification, there are 533 private land parcels with 2,974 landowners. Of these, 161 land parcels (30.02%) are owned by single landowners, and 372 land parcels (69.98%) have multiple landowners. Additionally, 66 land parcels are owned by the government and are classified as 1.B and Class-IV. There is no difference between on-ground status and records status in terms of ownerships of land.
- The RoR reflects joint ownership or co-sharer ownership, including details of changes in ownership due to legal heir changes, land sales, and the gifting of property.
- Since the last update of the Record of Rights (RoR) or Khatauni, as mentioned in Ownership Column-1 of the RoR in 2021, ownership of 13 Khasra numbers (land parcels) out of a total of 533 land parcels in the village of Vyas Bhoad has changed through land sales. This represents a change in ownership of 2.44% of the total land parcels since the last update of the Khatauni/RoR.
- The ownership of 2 Khasra numbers/Land parcels (0.38% of total land parcels) has changed due to the gifting of property.
- Land ownership has changed for 357 Khasra numbers/Land parcels (66.98% of total 533) due to changes in legal heirs.

- Ownership of 161 Khasra numbers/land parcels (30.21% of total 533) has not changed from the year 2021.
- There is no discrepancy in land ownership as verified at the ground level compared to the ownership updated in the RoRs. The last update was completed in July 2024.

2.a RoR able to capture non-agricultural land uses in detail

- Out of the total 599 land parcels, 370 have non-agricultural land uses.
- The non-agricultural use for 7 land parcels is reflected in the RoR/Khatauni. The non-agricultural use of land is updated in the RoR after land conversion is pursued under Zamindari Abolition-Land Reform, Section 143.
- The RoR format does not capture detailed land use information, such as residential, road, school, Panchayat office, forest department office, canals, and fallow land. The classification of land use is recorded in the Khasra Pa. Ka. form maintained by the Lekhpal.

Khasra No.	Classification as per RoR	Land use as per ground truthing	Is the non-agriculture land use reflected in RoR?	Difference Yes/No	Is the RoR format able to capture non-agriculture land uses in detail? (area of built-up, commercial, flats ownership etc.)	Is on-ground land use details is coincide with the details mentioned in RoR?	If not updated how long the record not been updated	Reasons for the same
599 533 Private Land and 66 Govt. land	Classification as agricultural (592) & Non-agricultural (07)	169 – Residential 05 – Banjar 20- Fallow Land Agriculture - 327 Road and	Yes (07 Khasra), based on ZALR-143	393	No	No	04 Years	Land use data is maintained offline in the Khasra register and it is updated. In RoR land use data is mentioned

		other non-agri-54						d based on land conversion applications under ZALR -143
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- On-ground ownership details, including built-up area and agriculture area on the land parcel coincide with the details in land record mentioned in the Khasra Pa.Ka. form. Construction of residential buildings over an area of approximately 250 square meter on a land parcel classified under the agricultural category is permissible, as conversion from agricultural to non-agricultural use is not required.
- Differences between on-ground status and land records status, in terms of Classification of land parcel is that land use in detail for non-agricultural purpose is not reflected in the Khatauni/RoR.

As per the primary survey and the Khasra register, the land use status of the village Vyas Bhoad is mentioned below:

Land use	Khasra number/Land parcels	In percentage
Agriculture	322	53.75%
Residential, school, Panchayat, etc.	169	28.21%
Banjar and Parti	25	4.17%
Canal and water bodies (Naher & Nala)	29	4.84%
Road and Others (Khalian)	54	9.01%
Total	599	100%

3. Differences between on-ground status and land records status, in terms of Classification of land parcel

There are 66 Khasra numbers (land parcels) classified as government land (1.kha. and Class IV), with land use designated for roads, canals, nalas, banjar land, forest areas, forest offices, Panchayat offices, and schools. 533 land parcels are classified as private land of Class-I.ka. type. Of these, 322 are used for agriculture, 164 for residential purposes, and 47 are used as khalian, private roads and water bodies.

4. on-ground status and land records status, in terms of Location and extent of the land parcel

The on-ground location of land parcels was verified with the landowners based on the identification of survey numbers and the respective locations of the land parcels. There were no differences between the locations of the land parcels as per the ground verification and the cadastral map.

Khasra No./ Land Parcels	On ground location of Land	Location of Land parcel on Revenue Map	Difference (Y/N)	Remarks
599 (533 Private Land and 66 Government land)	Landmark wise location verified	Landmarks found in same location of the map.	No Differences	All Land Parcels on Cadastral Map verified

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

There is no difference between the on-ground status and land records status in terms of encumbrances on the land parcel. Out of a total of 533 private land parcels, 238 are mortgaged or under loan, according to the encumbrance status. The details of loans and mortgages on the land are mentioned in the RoR and are continuously updated.

Khasra No.	Owner as per Current RoR	Encumbrances status as per RoR	Encumbrances status as per ground truthing	Type of Encumbrances mentioned in RoR	Type of Encumbrances as per ground truthing
599 (533 Private Land and 66 Government land)	2974	238	238	Mortgage and Loan	Mortgage and Loan

Village-2: Kishan Pur, Tehsil – Haldwani, District – Nainital, Uttarakhand

The population of Kishanpur village in Haldwani Tehsil, Nainital district, Uttarakhand, was recorded as 1,515 according to the 2011 Census. As per discussions, the current population of the village is estimated to be around 1,800.

1. Differences between spatial records and the textual records

The Village has one cadastral map and as per the Cadastral Maps in total there are 389 Land Survey numbers in the village.

The cadastral map has been digitalized. The Last survey was done in the year 1960 and thereafter no changes had been incorporated into the cadastral maps.

Total Survey no./ Land Parcels as per Cadastral Map	Total Land Parcels/ Khasra as per RoR/Khatauni	Owner as per current RoR/ Khatauni	Extent of Area of the Land Parcels as per Cadastral Map	Total Area of Land Parcels as per RoR	Difference in area
389 (Includes 374 Private Land and 15 Govt. Land)	446 422 Private Land and 24 Government land	1040	79.872 Hectares	79.872 Hectares	Nil

1.a

The total area of land parcels, as per the cadastral map and online data, is 79.872 hectares, and the survey also records the total area as 79.872 hectares. There is no difference in the area of land parcels between the cadastral map and the Khatauni/ RoR. According to the current RoR/ Khatauni, updated as of 26th June 2024, there are a total of 1,040 landowners in the village.

1.b Partition and demarcation

Partition and demarcation have been done under LRA-176 and by mutual consent. Out of a total of 374 private land survey numbers mentioned in the cadastral map, partitions have occurred in 68 cases, i.e., 18.18% of the total private land survey numbers, resulting in 422 Khasra numbers/land parcels. None of the partitions have been updated in the cadastral map.

As per the practice followed the Lekhpal is supposed to mark the partitions on the cadastral map. The RoRs have been updated as per the partitions. Ground partition proceedings have not been incorporated in RoR.

Khasra No./Land Parcel	Owner as per Current RoR	Whether Partition taken place (Yes/No)	Whether Updation of Partition done in Cadastral map	Whether RoR Updated as per partition	Have on-ground partition proceedings been incorporated in RoR
446 Private Land and 24 Government land	1040	Yes, Partition has taken place in 68 survey numbers (18.18% of total 374 private Survey numbers)	No	Yes (100%)	No

Updation of demarcation of Land Parcel

Khasra No./Land Parcel	Owner as per Current RoR	Whether demarcation taken place (Yes/No)	whether Updation of demarcation done in Cadastral map	Whether RoR Updated as per demarcation	Have on-ground demarcation proceedings been incorporated in RoR and
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					Cadastral Map
446 422 Private Land and 24 Government land	1040	Yes (18.18% of total 374 private survey numbers) by mutual consent	No	No	No

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

As per ground verification, there are 422 private landparcels/ khasra numbers with 1040 landowners, out of which 56 land parcels are owned by single landowners, and 366 land parcels have multiple landowners. The RoR reflects joint ownership or co-sharer ownership, including details of changes in ownership due to legal heir changes, land sales, and the gifting of property.

The land ownership records have been updated up to 26th June 2024 and there is no difference in land ownership as verified at the ground level compared to the ownership updated in the RoRs.

Owner as per RoR	On Ground Verification: Owner/ Person in possession	Whether persons doing cultivation are on behalf of owners/persons in possession	Why is RoR not updated in case of differences
1040	1040	Behalf of owners	No Difference

2.a RoR able to capture non-agricultural land uses in detail

Land uses of 170 khasra numbers/land parcels out of the total 446 khasra numbers/land parcels have been non-agricultural. Land use for non-agricultural purposes of land parcels have not been reflected in the RoR/Khatauni. The non-agricultural use of land is updated in the RoR, if land conversion application is pursued under LRA- 143. RoR format is not able to capture the land use in detail such as land used for residential, road, schools,

Panchayat office, canals and fallow land, etc. The classification of land use is mentioned in the Khasra Pa. Ka. form maintained by the Lakhpal. In RoR land use data is mentioned as non-agricultural and agricultural based on land conversion applications under ZALR -143.

Khasra No./Land Parcel	Classification as per RoR	Land use as per ground truthing	Is the non-agriculture land use reflected in RoR?	Difference Yes/No	Is the RoR format able to capture non-agriculture land uses in detail? (area of built-up, commercial, flats owners hip etc.)	Is on-ground land use details are coinciding with the details mentioned in RoR?	If not updated how long the record not been updated	Reasons for the same
446 422 Private Land and 24 Government land	Yes Private land and government land classified	92 – Residential 10 – Banjar 58- Water bodies including field channels/canals 05- School, Tem	No	165	No	No	NA	Land use data is maintained offline in the Khasra register and it is updated. In RoR land use data

		ple and road Agri cultu re - 281						is men tione d base d on land conv ersio n appli cati ons und er ZALR -143
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2.b On-ground ownership details, including built-up area and agriculture area on the land parcel are coincided with the details in land record mentioned in the Khasra Pa.Ka. form. Conversion from agricultural to non-agricultural use is not required for the construction of residential buildings over an area of approximately 250 Sq. metres on a land parcel and the same is classified under the agricultural category in the RoR,

3. Differences between on-ground status and land records status, in terms of Classification of land parcel is that land used for non-agricultural purpose is not reflected in the Khatauni/ RoR. As per primary survey Land use status of the Village Kishanpur is mentioned below:

Land use	Survey Numbers	In Percentage
Agriculture	281	63.00%
Residential, school, Panchayat, etc.	97	21.74%
Banjar and Parti	10	2.24%
Canal and water bodies (Naher & Nala)	58	13.00
Total	446	100%

3. Differences between on-ground status and land records status, in terms of Classification of land parcel

There are 24 Khasra numbers/land parcels classified (1.kha. and class IV) as government land, with land use designated as road, canals, nala, banjar land, panchayat office, and school. 422 land parcels are private land of Class-1.ka. type.

4. on-ground status and land records status, in terms of Location and extent of the land parcel

The on-ground location of land parcels was verified with the landowners based on the identification of survey numbers and the respective locations of the land parcels. There were no differences between the locations of the land parcels as per the ground verification and the cadastral map.

Khasra No./Land Parcel	On ground location of Land	Location of Land parcel on Revenue Map	Difference (Y/N)	Remarks
446 (422 Private Land and 24 Government land)	Landmark wise location verified	Landmarks found in same location of the map.	No Differences	All Land Parcels on Cadastral Map verified

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

There is no difference between the on-ground status and land records status in terms of encumbrances on the land parcel. Out of a total of 422 private land parcels, 62 are mortgaged or under loan, according to the encumbrance status. The details of loans and mortgages on the land are mentioned in the RoR and are continuously updated.

Khasra nos. private land	Owner as per Current RoR	Encumbrances status as per RoR	Encumbrances status as per ground truthing	Type of Encumbrances mentioned in RoR	Type of Encumbrances as per ground truthing
422	1040	62	62	Mortgage and Loan	Mortgage and Loan

Village-3: Gangapur Goulapar, Tehsil – Haldwani, District – Nainital, Uttarakhand

The population of Gangapur village in Haldwani Tehsil, Nainital district, Uttarakhand, is 226 as per the 2011 Census and in the current situation the population of the village as per discussion is around 288.

1. Differences between spatial records and the textual records

The Village has one cadastral map and as per the Cadastral Maps in total there are 88 Land survey numbers in the village.

The cadastral map has been digitalized. The Last survey was done in the year 1960 and thereafter no changes had been incorporated into the cadastral maps.

Total Survey no. as per Cadastral Map	Total Land Parcels/ Khasra as per RoR/ Khatauni	Owner as per current RoR/ Khatauni	Extent of Area of the Land Parcels as per Cadastral Map	Total Area of Land Parcels as per RoR	Difference in area
88 (Includes 82 Private Land and 06 Govt. Land)	119 113 Private Land and 06 Government land	911	29.022 Hectares	29.022 Hectares	Nil

1.a The total area of 88 survey numbers as per the cadastral map and online data, is 29.022 hectares, and the survey also records the total area of 119 land parcels as 29.022 hectares. There is no difference in the area of

land parcels between the cadastral map and the Khatauni/RoR. As per the current RoR/Khatauni (updated 15th May 2024, in total there are 911 Land owners in the village.

1.b Partition and demarcation

Partition and demarcation have been done under LRA-176 and by mutual consent. Out of a total of 88 private land- survey numbers mentioned in the cadastral map, partition has taken place in 13 (20.96% of the total 62 private land survey numbers) survey numbers, resulting in 113 private Khasra numbers/Land parcels. None of the partitions have been updated in the cadastral map.

As per the practice followed the Lekhpal is supposed to mark the partitions on the cadastral map. The RoRs have been updated as per the partitions. Ground partition proceedings have not been incorporated in RoR.

Khasra No./Land Parcel	Owner as per Current RoR	Whether Partition taken place (yes/no)	Whether Updation of Partition done in Cadastral map	Whether RoR Updated as per partition	Have on-ground partition proceedings been incorporated in RoR
119 Private Land and 06 Government land	911	Yes, Partition has taken place in 13 survey numbers (20.96% of total private Survey numbers of 62 excluding Govt. land)	No	Yes (100%)	NA

Updation of demarcation of Land Parcel

Khasra No./Land Parcel	Owner as per Current RoR	Whether demarcation taken place (Yes/No)	whether Updation of demarcation done in Cadastral map	Whether RoR Updated as per demarcation	Have on-ground demarcation proceedings been incorporated in RoR and Cadastral Map
119 113 Private Land and 06 Govt. land	911	Yes (20.96% of survey numbers) under by mutual consent	No	NA	NA

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

As per ground verification, there are 113 private land parcels/ khasra numbers with 911 landowners, out of which 30 land parcels are owned by single landowners, and 83 land parcels have multiple landowners. The RoR reflects joint ownership or co-sharer ownership, including details of changes in ownership due to legal heir changes, land sales, and the gifting of property.

The land ownership records have been updated up to the month of May 2024 and there is no difference in land ownership as verified at the ground level compared to the ownership updated in the RoRs.

Owner as per RoR	On Ground Verification: Owner/ Person in possession	Whether persons doing cultivation are on behalf of owners/persons in possession	Why is RoR not updated in case of differences
911	911	Behalf of owners	No Difference

2.a RoR able to capture non-agricultural land uses in detail

The land use of 57 out of the total 119 khasra numbers/land parcels has been non-agricultural, such as residential and road use. Another land parcel has been used for a poultry farm, and two land parcels fall into the category of banjar land.

The non-agricultural use of 60 land parcels has not been reflected in the RoR/Khatauni. All 119 land parcels are mentioned as agricultural land in the RoR (Khatauni). The non-agricultural use of land is updated in the RoR when a land conversion application is pursued under ZALRA (Zamindari Abolition and Land Reforms Act 1950) -143 and in the village land conversion under ZALRA-143 has not taken place.

The RoR format does not capture detailed land use information, such as land used for residential purposes, roads, banjar land, etc. The classification of land use is mentioned in the Khasra Pa. Ka. register maintained by the Lekhpal.

Khasra No./Land Parcel	Classification as per RoR	Land use as per ground truthing	Is the non-agriculture land use reflected in RoR?	Difference Yes/No	Is the RoR format able to capture non-agriculture land uses in detail? (area of built-up, commercial, flats ownership etc.)	Is on-ground land use details are coinciding with the details mentioned in RoR?	If not updated how long the record not been updated	Reasons for the same
119 113 Private Land and 06 Government land	Yes Private land and government land classified	59- Agricultural 47 – Residential 10- Road	No	60	No	No	NA	Land use data is maintained offline in the Khas

		02– Banj ar 01– Poult ry firm						ra regis ter
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2.b On-ground ownership details, including built-up area and agriculture area on the land parcel are coincided with the details in land record mentioned in the Khasra Pa.Ka. register.

3. Differences between on-ground status and land records status, in terms of Classification of land parcel is that land used for non-agricultural purpose is not reflected in the Khatauni/RoR. As per primary survey Land use status of the Village Kishanpur is mentioned below:

Land use	Survey Numbers	In Percentage
Agriculture	59	49.57%
Residential	47	41.17%
Road	10	8.40%
Banjar	2	1.68%
Poultry firm	1	0.84%
Total	119	100%

3. Differences between on-ground status and land records status, in terms of Classification of land parcel

There are 06 Khasra numbers/land parcels classified (1.kha. and class IV) as government land and 113 land parcels are private land of Class-1.ka. type.

4. on-ground status and land records status, in terms of Location and extent of the land parcel

The on-ground location of 113 land parcels was verified with the landowners based on the identification of survey numbers and the respective locations of the land parcels. There were no differences between the locations of the land parcels as per the ground verification and the cadastral map.

Khasra No./Land Parcel	On ground location of Land	Location of Land parcel on Revenue Map	Difference (Y/N)	Remarks
119 (113 Private Land and 06 Government land)	Landmark wise location verified	Landmarks found in same location of the map.	No Differences	All Land Parcels on Cadastral Map verified

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

There is no difference between the on-ground status and land records status in terms of encumbrances on the land parcel. Out of a total of 113 private land parcels, 24 are mortgaged or under loan, according to the encumbrance status. The details of loans and mortgages on the land are mentioned in the RoR and are continuously updated.

Khasra nos. private land	Owner as per Current RoR	Encumbrances status as per RoR	Encumbrances status as per ground truthing	Type of Encumbrances mentioned in RoR	Type of Encumbrances as per ground truthing
113	911	24	24	Mortgage and Loan	Mortgage and Loan

Village-4: Harchandpur Mamra, Tehsil – Bhagwanpur, District – Haridwar, Uttarakhand

Harchandpur Mamra, located in the Haridwar district of Uttarakhand, has a population of approximately 2,369 people according to the 2011 Census data and in the current situation the population of the village as per discussion is around 2880.

1. Differences between spatial records and the textual records

The Village has one cadastral map and as per the Cadastral Map in total there are 401 Survey numbers in the village.

The cadastral map has been digitalized. The Last survey was done in the year 1960 and thereafter no changes had been incorporated into the cadastral maps.

Total Survey no. as per Cadastral Map	Total Land Parcels/Khasra as per RoR/Khatauni	Owner as per current RoR/Khatauni	Extent of the Land Parcels as per Cadastral Map	Total Area of Land Parcels as per RoR	Difference in area
401 (Includes 314 Private Land and 87 Govt. Land)	451 364 Private Land and 87 Government land	913	159.11 Hectares	159.11 Hectares	Nil

1.a The total area of survey numbers as per the cadastral map and online data, is 159.11 hectares, and the survey also records the total area of 451 land parcels as 159.11 hectares. There is no difference in the area of land parcels between the cadastral map and the Khatauni/RoR. As per the current RoR/Khatauni (updated June 2024), in total there are 913 Land owners in the village.

1.b Partition and demarcation

Partition and demarcation have been done under LRA-176 and by mutual consent. Out of a total of 314 private land- survey numbers mentioned in the cadastral map, partition has taken place in 34 (10.80%) survey numbers, resulting in 364 private Khasra numbers/Land parcels. None of the partitions have been updated in the cadastral map.

Khasra No./Land Parcel	Owner as per Current RoR	Whether Partition taken place (yes/no)	Whether Updation of Partition done in Cadastral map	Whether RoR Updated as per partition	Have on-ground partition proceedings been incorporated in RoR
451 364 Private Land and 87 Government land	913	Yes, Partition has taken place in 34 survey numbers	No	Yes (100%)	NA (As none is done under ZALR-176)

		(10.80% of total 314 private Survey numbers)			
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Updation of demarcation of Land Parcel

Khasra No./Land Parcel	Owner as per Current RoR	Whether demarcation taken place (Yes/No)	whether Updation of demarcation done in Cadastral map	Whether RoR Updated as per demarcation	Have on-ground demarcations been incorporated in RoR and Cadastral Map
Total- 451 364 Private Land and 87 Government land	913	Yes (10.80% of 314 survey numbers) by mutual consent	No	NA	NA

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

As per ground verification, there are 364 private land parcels/ khasra numbers with 913 landowners, out of which 174 land parcels are owned by single landowners, and 190 land parcels have multiple landowners. The RoR reflects joint ownership or co-sharer ownership, including details of changes in ownership due to legal heir changes, land sales, and the gifting of property.

The land ownership records have been updated up to the month of June 2024 and there is no difference in land ownership as verified at the ground level compared to the ownership updated in the RoRs.

Owner as per RoR	On Ground Verification: Owner/ Person in possession	Whether persons doing cultivation are on behalf of owners/persons in possession	Why is RoR not updated in case of differences
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913	913	Behalf of owners	No Difference
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2.a RoR able to capture non-agricultural land uses in detail

As per field verification, land use of 182 out of the total 451 khasra numbers/land parcels has been categorised as non-agricultural, including uses such as residential, ICDS center, temple, school, brick kilns, roads, burial ground, park, and water bodies. Further disaggregation of non-agricultural land uses shows that 21 land parcels are used for residential purposes, 42 for roads, 6 for brick kilns, 104 for field channels and other water bodies, and 9 for temples, schools, ICDS centers, parks, burial grounds, etc.

The details of non-agricultural use of 173 private land parcels has not been reflected in the RoR/Khatauni, while 9 land parcels used for public facilities and categorized under government land are reflected in the RoR/Khatauni. Except for these 9 land parcels used for public services and 78 other government land, all 364 private land parcels are recorded as agricultural land in the RoR (Khatauni).

The RoR format does not capture detailed land use information, such as land used for residential purposes, roads, banjar land, etc. The details of land uses are mentioned in the Khasra Pa. Ka. 3 register maintained by the Lekhpal.

Khasra No./Land Parcel	Classification as per RoR	Land use as per ground truthing	Is the non-agriculture land use reflected in RoR?	Difference Yes/No	Is the RoR format able to capture non-agriculture land uses in detail? (area of built-up, commercial, flats ownership etc.)	Is on-ground land use details are coinciding with the details mentioned in RoR?	If not updated how long the record not been updated	Reasons for the same
Total-451	Yes Privat	364-Agri	No	60	No	No	NA	Land

364 Private Land and 87 Govern ment land	e land and gover nmen t land classifi ed	cultu ral 21 – Resi dent ial 42- Roa d 06- brick kiln 104- field cha nnel and wat er bodi es						use dat a is mai ntai ned offlin e in the Khas ra regis ter
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2.b On-ground ownership details, including built-up area and agriculture area on the land parcel are coincided with the details in land record mentioned in the Khasra Pa.Ka. register.

3. Differences between on-ground status and land records status, in terms of Classification of land parcel is that land used for non-agricultural purpose is not reflected in the Khatauni/RoR. As per primary survey Land use status of the Village Harchand pur is mentioned below:

Land use	Khasra Number/Land Parcels	In percentage
Agriculture	269	59.65%
Residential	21	4.66%
Road	42	9.31%
Brick kiln	06	1.33%
Govt. (public facilities)	09	23.03%
Water bodies/ irrigation related	104	2.00%
Total	451	100

4. Differences between on-ground status and land records status, in terms of Classification of land parcel

There are 87 Khasra numbers/land parcels classified (1.kha. and class IV) as government land. 364 land parcels are private land of Class-1.ka. type.

5. On-ground status and land records status, in terms of Location and extent of the land parcel

The on-ground location of 364 privately owned land parcels was verified with the landowners based on the identification of survey numbers and the respective locations of the land parcels. There were no differences between the locations of the land parcels as per the ground verification and the cadastral map.

Khasra No./Land Parcel	On ground location of Land	Location of Land parcel on Revenue Map	Difference (Y/N)	Remarks
Total- 451 364 Private Land and 87 Govt. land	Landmark wise location verified	Landmarks found in same location of the map.	No Differences	All Land Parcels on Cadastral Map verified

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

There is no difference between the on-ground status and land records status in terms of encumbrances on the land parcel. Out of a total of 364 private land parcels, 53 are mortgaged or under loan, according to the encumbrance status. The details of loans and mortgages on the land are mentioned in the RoR and are continuously updated.

Khasra nos. private land	Owner as per Current RoR	Encumbrances status as per RoR	Encumbrances status as per ground truthing	Type of Encumbrances mentioned in RoR	Type of Encumbrances as per ground truthing
364	913	53	53	Mortgage and Loan	Mortgage and Loan

Overall findings of real time mirror status of land records

In total 1615 land parcels/Khasra numbers of 04 villages were covered under the primary survey for assessing the real time mirror status of the land records. The overall findings are as follows:

- There is no discrepancy among the land area recorded in the RoR register, the area mentioned in the cadastral map, and the area of land parcels computed based on the primary survey for all land parcels in a village.
- In all the villages, the RoR register is updated and there are no discrepancies between the landowners mentioned in the RoR register/online RoR and the ownership established through primary surveys or ground truthing.
- The owners in possession of the land and the landowners listed in the RoR register are the same for all land parcels across the four villages.
- In all four villages, land transfers due to changes legal heirship are updated in Form No. 11 Pa.Ka and subsequently recorded in the mutation register.
- In all four villages records of government land have been maintained separately.
- Land use data in all four villages is not accurately reflected in the RoR.
- Land partitions are updated in the RoR register and are reflected in the online RoR database.
- Cadastral maps in all four villages are not updated to reflect the partition of land parcels.

GAPS, CHALLENGES, AND POLICY SUGGESTIONS

1. Best Practices in the Process of Land Record Updating

- The Lekhpal and the Kanoongo have the administrative authority to update changes in land ownership due to succession through Form No. 11 Pa. Ka. After the submission of details regarding changes in legal heirship via Form 11 Pa. Ka, the Kanoongo is required to conduct a field visit to verify the ownership changes mentioned in the form. Upon verification, the changes in ownership are recorded in Mutation Register No. 6 and subsequently updated in the online revenue database. This process has resulted in real-time updating of changes in land ownership in the mutation register and the RoR register.
- The NGDRS software is used for the registration of landed properties, and the Registration Department has developed an e-search web portal for accessing registration-related documents. Additionally, e-nakal—copies of sale deeds—can be accessed online, and the legacy registration database has also been made available online. This has significantly helped in tracking land sale and purchase details.
- The RCMS web portal provides facilities to file revenue cases with the concerned Revenue Court online and to track the progress of hearings. The parties involved in land disputes can monitor the progress and find court order details on the RCMS site.

The following are the gaps with respect to different aspects of the quality of land records and the digitalization of land records in the state of Uttarakhand.

2. Gaps in Land Records and Computerization

- RoRs/land records are not seeded with Aadhaar numbers and mobile numbers in the state.
- Cadastral maps of 10,967 villages are not linked with the revenue textual data base.
- In the state of Uttarakhand, there is no provision for citizen to apply

online for correction of their RoR.

- Online transliteration facility is not available for RoRs.
- A digitally signed copy of the RoR/Khatauni is available at the Tehsil Office, while the RoR/Khatauni available on the web portal for the public is for viewing purposes and does not carry legal authenticity.
- The RoR (Revenue Record) database is not linked directly with banks for mortgages. There is a separate web application for banks to sanction loans against the mortgage of land, available at <http://loanentry.uk.gov.in> . Currently, 26 banks are linked to the portal, while 60 banks are yet to be linked.
- Gender of land holder is not captured in the RoR/Khatauni.
- The share of each landowner is not mentioned in approximately 50% of the total RoRs where there is more than one landowner.
- Govt land is not locked for registration purpose.

3. Gaps in Digitization of spatial records

- The cadastral maps are not updated based on subdivision/partitions of land parcels since the last survey conducted in 1960.
- 1623 cadastral maps i.e. around 02% of the total cadastral maps 84,816 have not been scanned and digitized.
- Cadastral maps of 10,967 villages (around 65% of total villages- 16,826) are not linked with the revenue textual database.
- Geo-referencing of cadastral maps for 2,272 villages out of the total 16,826 villages has not been completed, which is around 13.50% of the total villages.

4. Gaps in Land Registration

- Anywhere Registration is not allowed in the state and there is no online registration system available for citizens that facilitates presence-less registration through e-KYC.
- Uttarakhand currently does not have a mobile app developed for land registration-related services.

5. Gaps in Land Mutation

- There is no online facility to apply for land mutation by the land owners.
- The integration of Registration software with Revenue offices for pushing land registration to auto-mutation is under process and has not yet been implemented.
- The Land Record database is not integrated with the SROs for the verification of land details during registration process.
- Court orders are manually entered, and there is no standardized system for red-flagging land under disputes in the RoR.
- The Land Records database is not linked to the e-Courts system of Civil Courts

6. Recommendations/Policy Suggestion

- A single-window system or unified portal for all land record-related services and applications may be developed to facilitate comprehensive access to revenue records and services.
- The Land Revenue department should make attempts to integrate the Registration system, RCMS, and Land Record database to streamline processes and ensure data consistency.
- Land records such as RoR/Khatauni are primarily used by banks to sanction loans, and farmers need the latest RoR copies to apply for benefits under PMKSY. Authenticated copies of the RoR are not

available through KIOSK or common facility centers; a digitally signed and valid copy can only be obtained from the Tehsil office. The state government should establish KIOSK at the Panchayat level and integrate existing CSCs with the land revenue records.

- The state should make necessary changes in the land revenue act -34 to simplify and digitize the mutation process, allowing for online applications and reducing manual paperwork.
- The digitalization of obsolete cadastral maps is causing issues with linking textual revenue records. Therefore, the state government should undertake settlement activities to correct the cadastral maps before integrating them with the land revenue textual records.
- The state government may digitize Khasra registers and ensure regular updates to maintain accurate land records.
- The process of upgrading record rooms is progressing very slowly, and a significant portion of old revenue documents, orders, and registers have not yet been scanned or stored digitally for better management. The state government should expedite the process of making modern record rooms fully operational at the tehsil level.
- Court orders mentioned in the RCCMS should automatically be reflected in the RoR, as the current process requires manual entry. The revenue record database should be integrated with the e-Court system for seamless recording of court orders in the RoR and for red-flagging lands under dispute.

Annexure-1

Filled up State level Indicators Format (Revenue Department, Govt. of Uttarakhand)

S.N o.	Parameter and Indicators	
1	Total number of Land Parcels	28374636
2	Total number of RoRs in the State	1832013
3	No. of RoRs computerized	1832013
4	What are the other documents/registers maintained by the Revenue authorities in the State related to RoR such as Jamabandi Register etc.	Sawankhani Register, Misalband Register, Register No. 5, Register No. 6
5	A brief process flow of who maintains, what and when entries are made in these documents/ registers to be provided	Registrar Kanoongo and Tehsildar
6	Is RoR of Govt. land held computerized in the State	Yes (Only 129 villages where consolidation and resurvey operations are ongoing are not computerized. After the record operation is completed and the records return to the concerned tehsil, they are then computerized)

7	Is RoR available on web portal for view/download by any citizen	Yes (At present, it is available for viewing only. To obtain a certified copy online, a payment gateway has been integrated into the software to facilitate fee payment. The security audit of the software is currently underway and is expected to commence this month)
8	Is digitally signed RoR available for download by any citizen	Currently no. Expected to commence this month
9	Is digitally signed RoR a legally valid document in the State	Yes
10	Is digitally signed RoR verifiable through a QR code/unique ID	Yes
11	Have manual records been discontinued so that digital records are the sole legal record?	Computerized Record and Bandobasti Manual Records both are sole legal records.
12	Is list of all RoRs of entire village available for view/download by any citizen	No. Viewing by searchable keywords
13	Total Khata numbers in the State	1832013
14	Average number of land holders in each RoR	10 to 15

15	Number of single land holder RoRs	643204
16	Number of pending applications for including names in RoRs	Nil
17	Where more than one land holder is mentioned in RoR, is share of each holder mentioned in RoR?	Approx 50% Land records of the State mentioned share in RoR
18	Details regarding in what format and in which column share of each holder is mentioned to be elaborated	Column No. 1
19	Where more than one land holder is mentioned in RoR, is sub-division of plot also done? (Details of process followed may be briefly mentioned)	Bata number and Minzumla number mentioned in RoR for sub division of plot.
20	Is RoR seeded with Aadhaar	No
21	If yes, number of RoRs seeded with Aadhaar	Nil
22	Is RoR seeded with mobile number of land holder	No
23	If yes, number of RoRs seeded with mobile	Nil
24	On what occasion phone number and Aadhaar are seeded?	For agri stack state trying to capture Aadhar and Mobile number of landholders
25	Is an alert message sent to the registered mobile number in case of any change in that RoR/mutation?	No

26	Is there a provision for citizen to apply online for correction of their RoR	No
27	Total number of RoRs corrected in the last financial year (April 2023-March 2024)	Not maintained
28	Is RoR database linked with Cadastral maps	Yes
29	If yes, Number of RoRs linked with Cadastral maps	5724 villages
30	Is RoR database linked with Banks for mortgage	No. A separate web application for this is http://loanentry.uk.gov.in
31	If yes, number of districts where it is linked	Nil
32	Also, number of banks and bank branches which are linked	26 Banks in http://loanentry.uk.gov.in
33	Number of banks and bank branches which are not linked	60 Branches in http://loanentry.uk.gov.in
34	Is mortgage mentioned/red-flagged in the RoR	Yes. in last column

35	Process flow followed for mention/red-flag in RoR to be provided	Applicant seeking an agricultural loan visits the bank and provides their land as collateral. The bank submits the loan application online via loanentry.uk.gov.in for verification by the Tehsildar. After verification, the Tehsildar informs the bank, which then disburses the loan. The loan details are subsequently updated in the Record of Rights (ROR) by the Tehsil
36	Number of RoRs with mention/red-flag of mortgage (as on date)	87327
37	Is mortgage release updated in the RoR	Yes
38	Process flow followed for mention of release of mortgage in RoR to be provided	Applicant seeking an agricultural loan visits the bank and provides their land as collateral. The bank submits the loan application online via loanentry.uk.gov.in for verification by the Tehsildar. After verification, the Tehsildar informs the bank, which then

		disburses the loan. The loan details are subsequently updated in the Record of Rights (ROR) by the Tehsil
39	Is online transliteration facility available for RoRs	No
40	Number of columns in RoRs, what details are prescribed to be captured in RoRs; What details are actually captured and not captured in practice?	Total columns 13. Details are in RoR as village name, Paragana, Tehsil, District, Crop Year, Part I/II, Khata Number. Colm No. 1-3 for Land owner detail, Colmn No. 4 Bhumik Adhikar Warsh, Colmn No. 5 Khasra Number, Colmn No. 6 Area, Colmn No. 7-13 order description and Colmn last for Remarks.
41	Is gender of land holder captured in RoR? If yes, how many females are land holders?	No
42	What is the unit of land measurement used in RoR? What is its conversion in acres?	Hectare
43	Is land record of urban and peri-urban areas also digitized and updated?	Yes

44	If yes, how many urban RoRs are there and which entity maintains it?	All, except Mussoorie Nagar Palika
45	Describe terms used in RoRs and Maps along with English/Hindi standard terms in tabular form.	RoR - Khatouni/[krkSuh Map -Cadastral Maps/ltjk



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