KATHMANDU UNIVERSITY

&

LAND MANAGEMENT TRAINING CENTRE

Dhulikhel, Kavrepalanchowk

A Report on Visit to Survey Office and Land Registry and Revenue Office of Dhulikhel, Kavrepalanchowk

For the partial fulfillment of course GEOM 310 (Cadastre)

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Thank you so much for your priceless contributions.

ABSTRACT

The following report aims to give a detailed analysis of the day-to-day running of the Survey Office and Land Registry and Revenue Office in Dhulikhel, Kavrepalanchowk, Nepal and the technologies used and the challenges encountered in the course of their work. This research was done in connection with the GEOM 310 (Cadastre) class and was centered around the tasks and responsibilities of these offices in managing the land. The Survey Office, apart from lithographical works, is a purely technical department that maintains and updates cadastral maps and records electronically under NeLIS. On the other hand, the Land Registry and Revenue Office operates more on the administrative procedures and has adopted the Land Record Information Management System (LRIMS) to store information regarding ownership and for the ease of conducting transactions o land.

The outcomes indicate that both offices employ the use of sophisticated technologies in operations with the goal of enhancing effectiveness and accountability in the management of land and property. However, the following issues still remain; organizational barriers such as; politicization of the public service, underutilization of technology and communication breakdown have implications on the efficiency of the services delivered and the satisfaction of the clients. Based on these findings, several recommendations were made for the improvement of both offices including: The need to upgrade the technological support of the offices and the need to adopt new and efficient customer management systems as well as the need to create efficient working relationship between both offices in order to minimize the bureaucratic bottlenecks observed in the current systems.

The study highlights the value of timely technological enhancements and process improvement to improve the services of land administration and towards improving the practices of the efficiencies of land management in Nepal.

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EXECUTIVE SUMMARY

The visit to the Survey Office and Land Registry and Revenue Office in Kavrepalanchowk district provided insights into their operations, challenges, and technological implementations. The Survey Office is considered as technical office regarding land. It maintains plot register and original field book. The field book contains spatial and attribute data that were recorded during the original surveying work carried out for preparation of map of land parcels. The plot register contains that information on sub-division of parcel. The Survey Office which is considered as Technical Office, effectively uses NeLIS (Nepal Land Information System) which is a form of LIS (Land Information System), for performing technical operations to the digitally available parcels of land. LIS is a simple subset of GIS (Geographic Information System). NeLIS is Open Source based full Application developed by Survey Department which aims to make the cadastral database of the whole country seamless. The major technical operations that the NeLIS system facilitates are:

- Digital storing, updating and retrieval of land records which include land ownership details and taxation information
- Parcel sub-division and merging

On the other hand, the Land Registry and Revenue Office follows administrative approach of workflow, unlike survey office that works on technical and technological approach of land administration. As the name suggests, the Land Registry and Revenue Office's main task is to register the land based on improved deed registration system which is the present land registration system of Nepal. In case of transferring of land, from one owner to other, may that be trading or inheritance, the main office that comes into play is the Land Registry and Revenue Office. Whenever a piece of land is being transferred as a whole (without any sub-division), the complete work can be done by land registration office, without the aid of survey office. As already mentioned, the survey office is needed only for technical operations involving in cadastral map such as sub-division, merging etc. In case of transfer of land by sub-dividing it, a deed document is prepared by the Land Registry and Revenue Office and it is sent to survey office for sub-division. After performing the sub-division of the land, the new land parcel map is sent to the Land Registry and Revenue Office by survey office, and then the land is registered. The Land Registry and Revenue Office uses LRIMS (Land Record Information Management System) for digitally storing ownership data of land parcel. The non-spatial data are the ownership details, details of the owner, status of the land (Guthi land or not, Mohi land or not etc), land use type etc.

1. INTRODUCTION

1.1 Background

A visit to Survey Office and Land Registry and Revenue Office of Kavrepalanchowk district was carried out as a part of partial fulfillment of the course: GEOM 310 (Cadastre). The visit was carried out on June 10, 2024. As students pursuing Bachelors in Geomatics Engineering, the visit was carried out with the aim of exploring the working procedures, challenges and technological implementations of those offices.

The Survey Office was more gravitating towards technological aspect while the Land Registry and Revenue Office was towards administrative aspect. Regardless of their nature of work and operations, these two organizations were found to be heavily intertwined. These offices were also working together in collaboration with Guthi Corporation, in cases of land parcels of Guthi. The Survey Office works under Survey Department and Land Registry and Revenue Office works under Department of Land Management and Archive.

This report contains integrated information about the Survey Office and Land Registry and Revenue Office of Kavrepalanchowk, and their functions. The documents, maps and registers available were also explored, hence information on their status is also included in this report. Different terms or words, that are used on a daily basis in these offices, related to land transactions and transfers are also briefly touched upon in this report. Interaction with the working staffs and officers provided us with deep understanding and workflow of respective offices, which are described in detail in the following sections.

1.1 Objective of the Visit

- To explore and research about the ground level working procedures of the Survey Office and Land Registry and Revenue Office of Kavrepalanchowk district of Nepal
- Explore the challenges associated with the daily works performed in the respective offices
- Determining the level of technological implementations in the respective offices
- Inspecting the level of satisfaction being acquired by general public with the services provided by respective offices

1.2 Methodology

This report is solely based on the visit performed on 10th June, 2024, to the Survey Office and Land Registry and Revenue Office of Dhulikhel, Kavrepalanchowk. The conceptual framework is based on our interaction with the technical officers and staffs (Geomatics Engineers, Officers with senior/junior training) of Survey Office and administrative officers and staffs of Land Registry and Revenue Office. Basically, we interviewed the respective staffs. The technical information and administrative information present in this report are based on the physical documents, technological software, hardcopy and digital maps that are prevalent in the respective offices.

2. SURVEY OFFICE INSIGHTS

2.1 Survey Office Background

There are about 135 survey offices all over the Nepal. 54 out of 135 Survey Offices are using NeLIS system, which the other remaining offices are working on the basis of SAEx (Spatial Application Extension), a collection of tools present in ArcMap software that can be used for operations regarding parcels. Each survey office has its own jurisdiction over certain area. The Survey Office of Kavrepalanchowk, situated at Dhulikhel has 3 departments, which one survey officer per department leads, divided based on workload and coverage of the work area, which means that a department only works regarding the parcels that falls under its responsibility. One

Figure 1 Survey Office Dhulikhel

Chief Survey Officer leads the Survey Office of Kavrepalanchowk. Other working staffs include 3 Survey Officers, 19 Surveyors, 1 Amin, 2 Computer Operators, 6 Office Helpers, and 1 vehicle driver.

2.2 Operations, Procedures and Services Offered

Below mentioned are the operations performed by the Survey Office of Dhulikhel:

1) Parcel Sub-division

In a transaction and transfer involving partition of already existing plot or parcel, the Survey Office comes into play. Using the available digital technology, which may be NeLIS or SAEx, the digitally available map of land parcel is cut into required number of parts, according to the deed, using the related parcel cutting or division tools. The parcel sub-division is carried out only after receiving the written document demanding the sub-division, by Land Registry and Revenue Office. Residential land type with area less than 130 m^2 and agricultural land type with area less than 1000 m^2 cannot be sub-divided according to the Land Use Policy 2015.

Parcel Sub-division is done when there is transaction related to splitting the parcels in case of Rajinama Paas, Angsa Banda, Darta Fari, Angsa Bujeko Bharpai as well as after reaching the land ceilling limit.

Details of documents required for Parcel Sub Division:

I. Deed: The major document required during parcel sub division is Deed where all the details regarding land transaction and subdivision is written (i.e., original land area, area of division, direction of division etc.).

II. Ghar Bato Recommendation: It is recommendation letter given by ward office which contains the information regarding the parcel and its accessibility with road and condition of building in it.

III. Property tax Receipt: For every official purpose regarding particular land parcel, owner must pay the property tax in regular basis which is basic responsibility of owner. So also, in parcel sub division process also the receipt of property tax should be attached.

IV. Citizenship: Citizenship of owner and buyer must be included in parcel sub division process.

2) Parcel Merging

This operation is similar to the sub-division process, and it only differs like tools involved, where in this case, merging tool is used in the software. A legal written document is compulsory from Land Registry and Revenue Office. Only the adjacent parcels can be merged, with compulsorily same land use type.

3) Boundary Delineation

Suppose, if a person A claims that his or her land extends 5 meters more into the land of person B, in this case, it is the responsibility of Survey Office to carry out the survey work for delineating the cadastral boundary of the lands and solving the conflict.

4) Printing of required documents

This is the task that is most frequently carried out in Survey Offices all over the country. For different financial, legal, social, governmental and other purposes, the Survey Office is responsible for printing the map of related land. Banks use the printed maps for mortgages purpose. Not only maps, the office also provides the prints of original field books in case of request by the land owners.

5) Parcel Numbering

The parcel numbering is also carried out by the survey office. In Nepal, free parcel numbering system is used because of its ease of use and unique representation method. Parcel number is generally provided from North-West corner and ends to South-West corner while preparing cadastral map. First numbers are provided to government and public parcels are provided parcel numbering at the beginning and then to the private parcel. When the parcel needs to sub-divided, the last parcel number of the ward of corresponding sheet is provided for that fragmented parcel. A separate register of the plots (plot register) consists of columns for parcel number, parcel area, registration number, date, name of buyer and seller and the remarks.

6) Tile Checking

In case of difference of area of land in land ownership document and digitally stored cadastral map, the survey office performs tile checking for ensuring the equality of area in both documents and databases.

7) Lagat Katta

Lagat Katta is the process of converting a portion of private land into public land with the owner's consent, typically for public projects like road expansions. The landowner applies, and authorities verify documents and survey the land portion to be acquired. The Survey Office updates land records, and the Revenue Office adjusts property tax based on the reduced private land area after Lagat Katta.

For example: If a private land of 10 dhur is owned by some person and 1 dhur is used by road during road expansion so to exempt the tax of extra unused 1 dhur, Lagatkatta is done. Survey office updates the map of Lagat Katta.

2.3 Documentations Available

Field Book: The field book is the original and primary documented proof of land ownership. It contains comprehensive details recorded at the time of the survey, including landowner and tenant information, directions from adjacent parcels, type of land, survey date, and any relevant remarks. This document serves as the final record of these details, providing an authoritative reference for land ownership and boundaries.

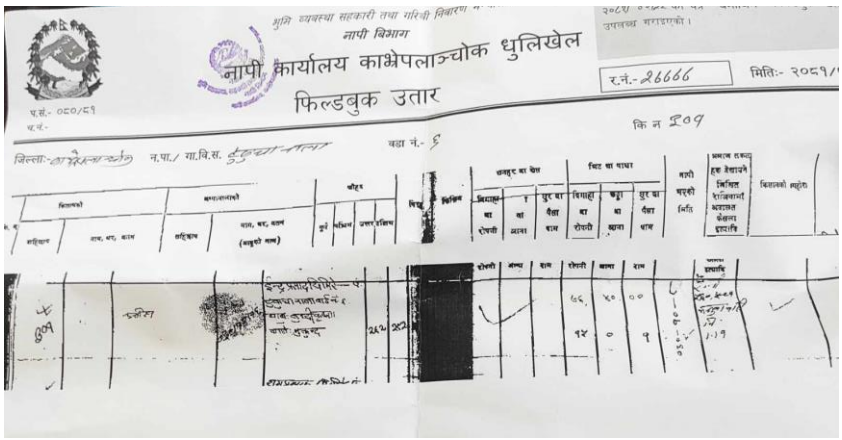

Figure 2 Field Book

Plot Registers: It is the record book keeping the information of subdivision of parcels. It contains

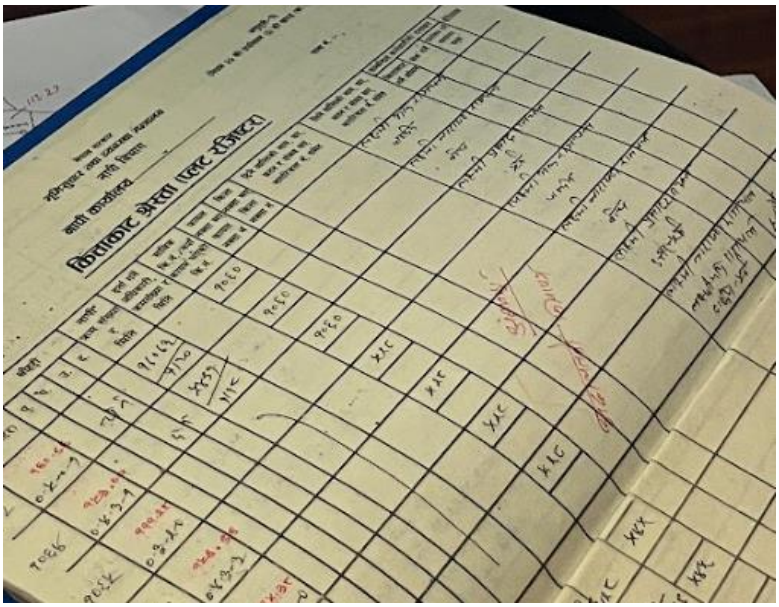

Figure 3 Plot Register

information about sub-division of parcel. It contains original parcel number and the newly assigned parcel number to the fragmented parts.

New Field Book: It is same to original field book where the details during re-cadastral surveying is recorded. 1:500 cadastral maps after resurvey are only recorded in this field book.

Old Map Sheets: These are the cadastral maps that were prepared using plane table, compass, chains/tapes etc. in permatrace.

Figure 4 Trig Sheet Maps

File maps: These are the maps prepared when the parcel is too small and if it is difficult to split in cadastral map. It is a separate map sheet of the parcel prepared in larger scale.

Parcel maps: Map prepared on the basis of land parcel, in certain regions as specified by the Director General of Survey Department.

2.4 Technological Advancements

As the time passes, the technological advancement can be seen in Survey Offices all over Nepal. The Cadastral Survey maps of land parcels were prepared using plane table, compass, telescopic alidades, chains etc. by Surveyors, Armies, Survey Goshwaras, and Survey Offices. The scanning of those hard copy sheet maps started back in 2061/62 B.S. and also the resurveying process was first started at that time. Technologically advanced devices such as UAVs (Unmanned Aerial Vehicles), GPS, Total Station, and EDM were used for the re-cadastral surveying process. In those early days, ArcMap software with collection of iterative tools known as SAEx was used for operating on those digitally available parcels. But later on, due to randomness of work, lack of authorization, easy manipulation, and expensiveness of the license of ArcMap, Nepal Government couldn't continue working with that software.

Figure 5 NELIS Interface

With technological advancement, Nepal Government developed its own open source application NeLIS for creating a digital environment for data storage and parcel operations. NeLIS contains spatial and some attribute data of land parcels, on which various cutting, splitting, merging, updating operations can be performed. NeLIS provided user-based authentication and better data keeping. Every survey officer is provided with their login credentials, for accessing the interface of NeLIS and the digital database.

Unlike the predecessors SAEx, Parcel Editor which were based on ArcGIS platform, NeLIS is a client-server based standalone application. Itis locally developed, built using Free and Open Source Software (FOSS). Due to its custom and focused development, NeLIS follows the predefined survey office business process and it can easily and quickly implement future changes in business process. New features of this application include the concept of sections which was not available in previous applications (SAEx, Parcel Editor). Data access is controlled by office ID, sections and roles, preventing unauthorized access and use of data. Data access and operations are tracked. Provision foradding owner/tenant information is available. Latest feature is provision for multi-parcel split i.e. applying spatial operations on two or more parcels as if they are single.

NeLIS identifies each transaction with a unique CaseId. CaseId is15 digits long code in following format:

xxxxyyyyzzzzzzz where

xxxx - 4 digit office code (2601)

yyyy - 4 digit fiscal year (7879)

zzzzzzz - auto increasing number.

This Case ID is unique over the whole system. This is used to transfer the transaction details between section, check unit, verification unit and vice versa. It is used to track work status and progress and can also be used to get an overview of whole transactions in the future. By default, the NeLIS work status window only shows cases from the last 15 days (Karmacharya et al., 2022).

For the use of public, there is an online portal named "Mero Kitta". Nepali citizens can get land-related services without having to visit government offices using this service. One can submit land revenue details and print the sketch of his/her plot of land. Service-seeker can access the platform by logging on to www.merokitta.dos.gov.np.After receiving the online approval, the user can enter the required details of the land and scan the land owner certificate and citizenship certificate. The relevant document link will be available on the page where one can download the document for one week. If the user does not download and use the given link within a week, he or she will have to re-do the entire process to access the service again (The Himalayan Times, 2021).

2.5 Challenges

Every service provider faces challenges while providing services to the customers. Be that be technological challenges or manpower challenges or system workflow challenges, any kind of challenge makes the working difficult and hectic. Below mentioned are some of the challenges of survey office that we visited:

1. The survey office faces difficulties resolving landowner disputes over property boundaries and ownership rights.
2. Unclear land boundaries often lead to disputes among owners, requiring precise surveys and clear demarcation.
3. The NeLIS server frequently experiences downtimes and high maintenance costs, affecting land data management and transactions.
4. Poor network infrastructure hinders effective data sharing and communication, especially in remote areas.
5. Regular maintenance and updating of the land database are challenging but essential for data accuracy and reliability.
6. Converting old physical land records into digital formats is challenging and time-consuming.

7. Handling land-related matters is inherently risky due to their sensitive nature, often involving disputes, legal complications, and high stakes for involved parties.
8. Simultaneous occurrence of re-surveying and land transaction process increases ambiguity.
9. Torn maps make it difficult to work with them.
10. Lack of sufficient skilled manpower and carelessness of presently available manpower.

2.6 Future Plans

The Future Plan of Survey Office is to integrate the cadastral maps of whole country, prepared using latest technological devices such as (Total Station, EDM, GPS), known as resurveying process, into the online database. However, providing the services based on the newly prepared maps may cause conflicts due to increment or decrement of area as compared to the old maps. The integration of information available in the field book, which is original survey book, in the NeLIS database is also being considered.

3. LAND REGISTRY AND REVENUE OFFICE INSIGHTS

3.1 Background

Land Registry and Revenue Office is the administrative body that deals with the lands of the country. It is responsible for maintaining accurate land ownership records, facilitating property transactions, and ensuring legal clarity regarding land rights. It plays a crucial role in the registration of land and property, issuance of land ownership certificates, and collection of land-related revenues.

3.2 Functions of Land Registry and Revenue Office

1) Taxation Purpose:

Property Transfer Tax and Capital Gains Tax are collected in Nepal under the control of the Land Revenue and Registry Office, which guarantees equitable taxation by establishing minimum values for land parcels and computing taxes according to actual or minimum values.

2) Land Transaction:

The Land Revenue and Registry Office is responsible for the processing of land transactions and ownership by confirming the ownership, coordinating the transfer of ownership and guaranteeing that records of ownership changes are recorded efficiently. This entails the process of moving all the transactions online through the use of the Land Record Information Management System (LRIMS).

3) Guthi Land Administration

The Land Revenue and Registry Office collaborates with the Guthi Sansthan to manage Guthi lands, maintain records, process transactions, and collect taxes. Together, they resolve disputes and ensure that Guthi lands are used according to their designated purposes, preserving their cultural and religious significance.

4) Land Mortgage:

The Land Revenue and Registry Office registers and verifies mortgage agreements, ensuring that properties can legally be used as collateral. It maintains detailed records of all mortgages, processes the release of mortgages upon loan repayment, and resolves disputes related to mortgage agreements. This ensures transparency and protects the rights of both lenders and borrowers.

5) Land Tenure Reform Works:

Land registry and revenue offices are very crucial in the implementation of land tenure reforms, documenting changes in ownership (e.g.including transferring kipat land into individual ownerships and allotting land to tenants). Land Registry and Revenue office ensure their legal

acknowledgement, collect the relevant taxes and fees from them and essentially maintain proper records for the purpose of ensuring fairness in accessing lands.

6) Lagat Katta

Lagat Katta is the process of converting a portion of private land into public land with the owner's consent, typically for public projects like road expansions. The landowner applies, and authorities verify documents and survey the land portion to be acquired. The Survey Office updates land records, and the Revenue Office adjusts property tax based on the reduced private land area after Lagat Katta.

For example: If a private land of 10 dhur is owned by some person and 1 dhur is used by road during road expansion so to exempt the tax of extra unused 1 dhur, Lagatkatta is done. Survey office updates the map of Lagat Katta.

8) Angsabanda(Parental Inheritance)

Land Revenue and Land Registry and Revenue Office is responsible for facilitating the entire process of parental inheritance transfer of land and property in Nepal. This process can be initiated as per the provisions of the National Civil Code 2075.

In the case of inheritance after the death of a parent, the legal heirs initiate the process by applying along with the deceased parent's ownership documents, death certificate, and heir certificates. The office then verifies these documents and assesses the value of the inherited land for taxation purposes. Applicable inheritance taxes are calculated and collected from the heirs based on this valuation.

After obtaining tax clearance, the office examines the complete property records, ownership history, and any existing encumbrances or disputes related to the land. Once satisfied, it facilitates the mutation (transfer) of ownership by updating the land records to reflect the new ownership status of the legal heirs. New land ownership certificates are issued to each heir, specifying their respective shares in the inherited property.

In the case of inter-vivos (among living) inheritance transfer as per the civil code, the process can be initiated by either the parents themselves or by any child seeking their share of parental property. The office verifies family and marriage documents, assesses the parent's land value, and determines all rightful offspring entitled to share according to the legal provisions.

It issues a new land ownership certificate for the reduced share of the parents and a separate certificate for the offspring's inherited share. Land records are updated to reflect this change in ownership status due to the pre-death inheritance transfer.

Throughout the process, Land Revenue and Registry Office streamlines the verification of claims, valuation, tax assessment, and re-registration of inherited land under the new owners' names. It maintains a comprehensive database linking land records, ownership details, valuations, and transaction histories, ensuring a legally compliant inheritance transfer process in Nepal.

8)Angsa Bujeko Bharpai

The legal document is issued by the office during the parental property inheritance process in cases where any rightful offspring is absent. It is issued under the condition that the portion of the divided property belonging to the absent offspring will remain registered in the name of the parent, allowing the absent offspring to make a claim any time after their presence in the office. Angsa Bujeko Bharpai is granted to offspring who have legally transferred registration into their name, thereby ensuring that they relinquish any further claims to parental property.

9) Darta Fari

Darta fari, managed by the Land Revenue and Registry Office, is the process of converting joint ownership of land into sole ownership for one co-owner. It involves applying, verifying legal requirements, and updating land records to reflect the new ownership status. This procedure ensures clarity and legal compliance in land ownership transfers.

10) Land Ceiling

Land ceiling refers to a legal restriction on the maximum area of land that individuals or entities are allowed to own or possess, aiming to prevent the concentration of land ownership and promote equitable distribution of land resources within a country or region. In Nepal, specific ceiling limits are stipulated to address historical disparities and ensure sustainable land management. The current limits are set at 68,820 square meters for the Terai (Plain) regions, including Inner Terai; 12,718.50 square meters for the Kathmandu Valley; and 35,611.80 square meters for hilly regions outside the Kathmandu Valley. These regulations are crucial for socio-economic development by facilitating broader access to land while preventing land monopolies and fostering balanced development across rural and urban areas.

The advancement of land ceiling regulations in Nepal has been significantly enhanced by the implementation of LRIMS (Land Resources Information and Management Systems) with a centralized server. This centralized system enables real-time monitoring and management of land transactions, enhancing the enforcement of ceiling limits.

3.3 Documentations Available

Sresta: It is a copy of land ownership record that is kept in Land Registry and Revenue Office.

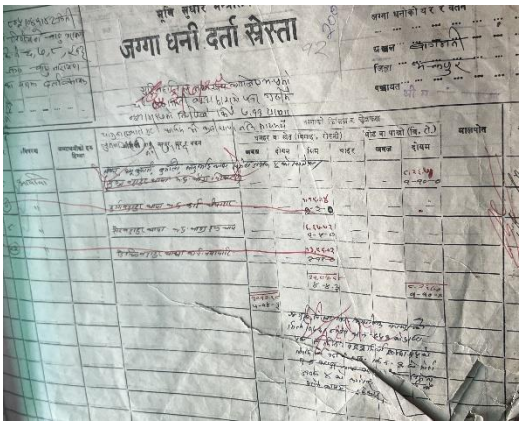

Figure 5 Shresta

Land Ownership Certificate: It is a copy of land ownership record that is given to the owners themselves.

Figure 6 Land Ownership Certificate

Moth: This is collection of sresta kept physically at office. It is required to see the land owner details at the time of transection.

Figure 7 Moth

Rokka Kitab: Register that contains the information about rokka of land.

Dakhil Kharej Kitab: Register containing the information of transfer of land rights.

3.4 Process of Land Transaction in Land Registry and Revenue Office

I. Initial Contact and Agreement

1. Contact a Service Provider:

- Engage with an LRIMS User (Certified Notary/Lekhapadi/Bhu-Sewa) service provider.

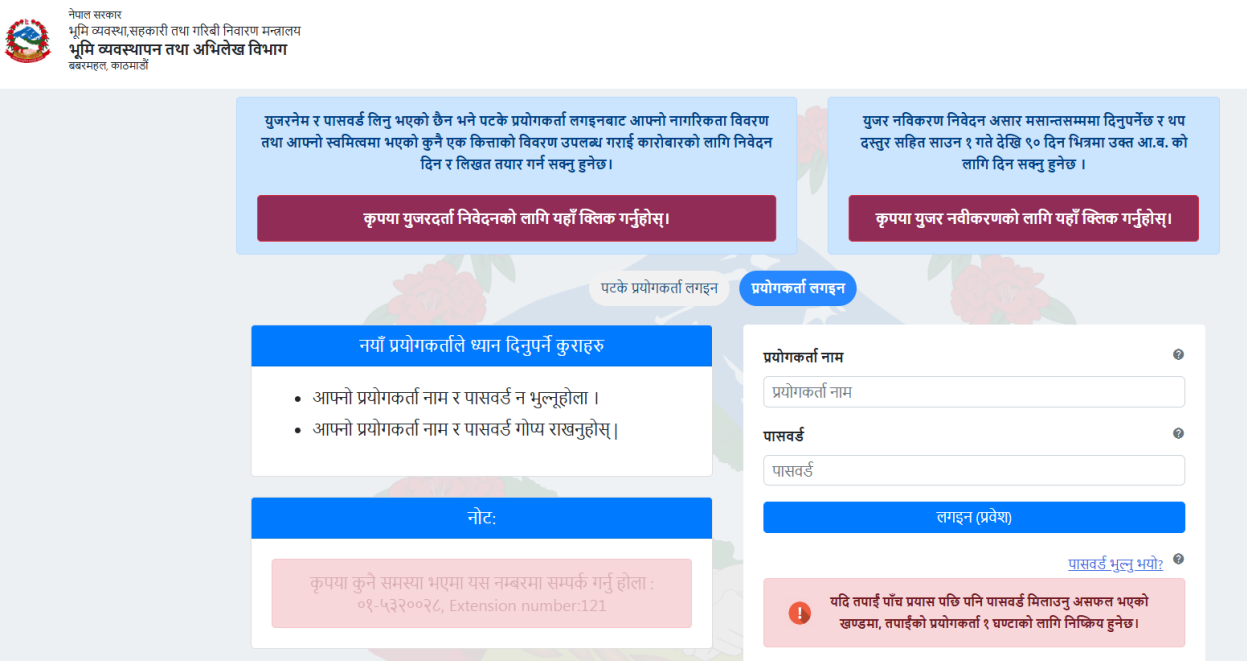

Figure 8 Public Acces Module of LRIMS

- Make an agreement with the service provider, buyer, and seller regarding the transaction.

- Grant the service provider rights to work inside the Land Revenue and Registry Office.

II. Data Entry and Document Preparation

2. Details Entry in LRIMS:

- Enter details of the buyer, seller, their citizenship certificates, land ownership certificate details, field map of the parcel, and transaction details into the LRIMS (Land Records Information Management System).

3. Print the Deed:

- Generate and print the deed from the previously filled information.

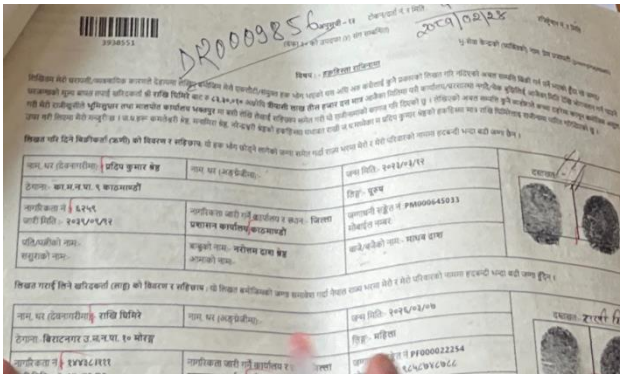

Figure 9 Registered Deed

4. Obtain Code:

- Get a code from the Lekhapadi Service Provider for the filled details.

III. Registration and Verification

5. Register the Deed:

- Register the printed deed at the Land Revenue and Registry Office by obtaining a token and initiating the process inside the office.

6. Status Check:

- Check the status of the land parcel, particularly for any mortgage (rokka) status, known as "moth bhidaune."

7. Biometric Verification:

- Complete biometric verification of the seller and buyer.

8. Generate D.R. Number:

- Generate a D.R. (Document Registration) number for the transaction.

9. SMS Notification:

- an SMS Received on the seller's mobile regarding the remainder of the land transfer process.

IV. Tax Payment

10. Pay Taxes:

- Pay the Land Transfer Tax and Capital Gain Tax at the bank extension counter based on the transaction amount or the minimum value (thaili mulya).

V. Verification and Approval

11. Tax Verification:

- An official verifies if the Land Transfer Tax is paid correctly according to the standard minimum land valuation book prepared by the Land Revenue Office (Malpot) and the local government, based on land type, facilities, and location.

12.File Processing:

- The file is passed to another section where an officer verifies the deed information with the buyer and seller, ensuring the accuracy of details such as the direction and area of the parcel, ownership rights, etc.

13. Final Verification:

- The Land Revenue and Registry Officer questions all witnesses related to the transaction to ensure no future disputes regarding ownership.

- Rechecks the Land Transfer Tax, Capital Gain Tax, and related documents before approving the transfer.

VI. Finalization

14. Registration Number:

- Upon approval, a registration number is created in the system and provided to the client for the land ownership certificate distribution process.

15. Dakhil Kharej:

- Complete the Dakhil Kharej manually in the physical record books. Dakhil Kharej is the process where the land ownership is registered in the name of the new owner, and the ownership of the previous owner is terminated.

16. Certificate Issuance:

- Print and provide the land ownership certificate to the new owner based on the registration number.

3.5 Land Taxation in Land Registry and Revenue Office:

As the main purpose of land registry and revenue office is to collect the tax from the citizens. General type of taxes collected from citizens related to land are:

I) Property tax
II) Land Transfer tax

III) Capital Gain Tax

After the restructuring of state property tax Is being collected by local government and land transfer and capital gain taxes are collected by land registry and revenue office.

3.5.1 Capital Gain Tax: Capital Gain Tax in Nepal is imposed on profits from the sale of property. This tax is calculated based on the difference between the inflation-adjusted selling price and the purchase price of the property. If the property has been owned for more than five years, a 5% tax rate is applied. For properties owned for less than five years, a higher tax rate of 7.5% is applicable.

During the revenue payment process, the government sets a minimum value for the parcel, which is periodically updated based on the location, facilities, and type of land. This ensures fair and consistent taxation by preventing undervaluation and underreporting of the sale price. Taxes are calculated on the higher of the actual sale price or the minimum value set by the government.

3.5.2 Property Transfer Tax: The Property Transfer Tax in Nepal is a tax paid by the buyer during the property registration process. The tax rates vary based on the buyer's gender and the nature of the transfer: 4% of the transaction amount if the buyer is male, 3% if the buyer is female, and 2% for property donations. This tax is imposed in addition to any other applicable taxes, such as the Capital Gain Tax. The government sets a minimum value for land parcels to ensure fair taxation, with taxes calculated on the higher of the actual sale price or this minimum value.

3.6 Technological Advancements

LRIMS

An internet-based computer system called the Land Resources Information and Management Systems (LRIMS) is used by all Land Revenue Offices (LROs) across Nepal; with its main server at Government Integrated Data Center (GIDC), Singha Darbar and a secondary server for daily backups. Only authorized personnel can access LRO's unique office code which enables them to collect and store data through an intranet link while other users can connect through the internet.

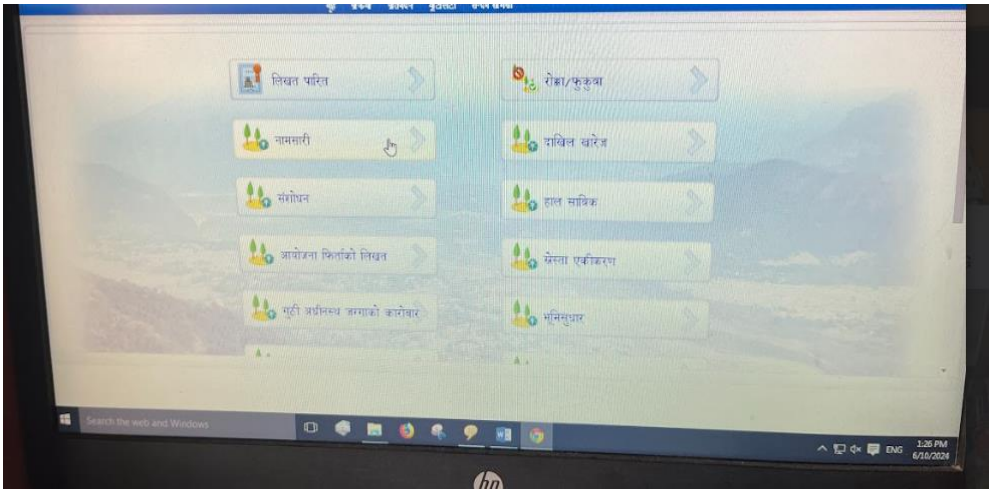

Figure 10 LRIMS Office Interface

LRIMS key features includes Centralized storage of landowner records, automated calculations for registration fees, capital gains tax, and service charges, as well as minimum valuation enforcement for real estate transactions. The buyer, seller and witness details including fingerprints, signatures and photographs can be electronically authenticated using the system. Scanning documents before uploading makes future handling easier. Real-time updates on application status and online monitoring of land administration activities are available to users, thus maximum automation potential in all LROs.

Benefits of using these systems include centralizing statistics for easy accessibility of records; check for land ceiling process; transparency increase during revenue calculation; avoid fraudulent transactions; make land demarcation programs simpler among others; monitor land administration effectively through real-time processes. It is also convenient for customers.

3.7 Challenges

Due to large number of land transactions, the office faces multiple challenges. The first and foremost challenge is for the efficient management of the queue of customers. Presence of large number of customers causes delay in the transaction operation. Also, the technological gaps present between the land registration system and customers, make it difficult for smooth transaction of the property. Fraudulent activities are also prevalent in those Land Registry and Revenue Offices where there is unregulated and unauthorized process of land registration. Carelessness of the working staffs and the notary can also be taken as challenge in case of some offices.

4. CLIENT FEEDBACKS

We had the chance to thoroughly examine the operations of Survey Office and Land Registry and Revenue Office and the range of services offered by the office during our recent visit there for our project. During our visits, we also had the chance to find out what issues people were having and whether they were happy with the services they received. The following list includes some of the issues people have when obtaining office services.

1. Inefficient Queue Management**:** Customers face large wait times due to unorganized queue systems. Although there are different departments present for different works, the queue management is not that impressive.

2. Overly Bureaucratic Processes**:** The procedures at Land Registry and Revenue Office are perceived as overly bureaucratic and cumbersome. Customers frequently encounter multiple layers of verification and approval which can slow down the processing of documents and transactions. This complexity often necessitates repeated visits and additional documentation submissions.

3. Lack of Clear Communication and Guidance**:** There is a significant gap in communication regarding the steps and documentation required for various services. Customers are often unaware of the specific forms needed or the correct sequence of actions to complete their tasks. This lack of clear guidance can lead to confusion delays and the need for repeated clarification from staff. For uneducated and elderly age people Nagarik Wadapatra is irrelevant for anything.

4. Inadequate Use of Technology**:** Some of administrative processes at Malpot Karalaya still rely on manual, paper-based methods (i.e dakhila and kharej). This not only prolongs the processing time but also increases the potential for errors and mismanagement of documents. The limited use of digital tools for record-keeping and transaction management hampers efficiency and accessibility.

5. Issue due to Hal Sabik: It is main problem people face in Survey Office. **Hal Sabik** serves to maintain a comprehensive history of land records by preserving both the current and historical data, but it also causes problem like difference in area of land parcel present in two different maps.

6. Server Issues: Due to weak network infrastructure and server strength, sometimes the server gets down which affects the whole working procedure of the office, making the customers to wait even more for completion of their work.

5. CONCLUSION

The visit to the Survey Office and Land Registry and Revenue Office in Kavrepalanchowk provided comprehensive insights into their operational procedures, technological advancements, and challenges. The visit enabled us to understand the complicated processes and functions behind land administration and management. While both offices play crucial roles in land administration, the Survey Office focuses on technical operations involving cadastral maps and digital records, whereas the Land Registry and Revenue Office handles administrative aspects of land transactions and registrations. The use of digital technologies such as NeLIS, LRIMS and Mero Kitta show a sign towards change in the field of land management. Despite efforts to integrate technology, several challenges remain, including overly bureaucratic processes, inadequate use of technology, and communication gaps. Keeping up-to-date information of land registration and ensuring public awareness regarding it are still huge challenges. Addressing these issues is essential for enhancing efficiency, transparency, and customer satisfaction in land administration services in Nepal.

6. RECOMMENDATIONS

Some of the recommendations for the betterment of both the offices are as:

1. Until and unless the map of land parcels is created according to the utilization by specific owner, and then preparation of ownership document based on that map, the conflicts will keep on accumulating.

2. Improving the technology and infrastructure of NeLIS, LRIMS and Mero Kitta servers.

3. Better customer mob and queue management system

4. Establishment of autonomous and integrated organization with less bureaucratic procedures.

5. Conduct regular workshops and distribute guides in local languages.

6. Provide regular staff trainings for use of digital software and databases.

7. Set up a dedicated help desk and introduce an online appointment system.

8. Foster better collaboration between the Survey Office and Land Registry and Revenue Office.

9. Publish regular reports on land transactions and tax collections.

7. REFERENCES

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