

TRANSFORMING SURVEY OFFICES: TECHNOLOGY, MANAGEMENT AND COORDINATION

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ABSTRACT

This article tries to explore practical and innovative ideas to enhance service delivery, transparency, and efficiency in Survey Offices through low-cost, technology-driven, and coordination-based initiatives. It outlines how simple interventions in office management, good governance, record preservation, and the use of information technology—when integrated with proper collaboration and coordination can transform survey offices of the country. Without considering major legal or structural changes, the article emphasizes creativity, leadership, and the tactical use of existing resources to improve public satisfaction, streamline workflows, and promote good governance in Survey Offices. Through the suggested measures, Survey Offices can enhance public trust, accelerate service delivery, reduce procedural delays, and contribute to more accountable and citizen-focused cadastral services.

KEYWORDS: Transformation, Good Governance, Record Management, Innovation, Low-cost Reform, NeLIS

1. BACKGROUND

The Survey office is a government institution under Survey Department, Ministry of Land Management, Cooperatives and Poverty Alleviation that provides services in sensitive areas of cadastre and supports parcel-based land administration of the country. Currently, such services are being provided through 135 survey offices across the country. In line with the concept of a Parcel-Based Land Administration System, the issuance of the Land Survey Act, 2019 led to the systematic preparation of cadastral maps and associated records through Survey Goshwaras. Later, updates to these maps were handled by the maintenance branch, which evolved through the survey branch into the current structure of survey offices. The core responsibilities of survey offices include preserving, storing, and updating cadastral maps, and associated registers. After the dissolution of the Survey Goshwaras in 2065 BS, in addition to updates of maps and records, resurveying is also being carried out by survey offices assigned by Survey Department. Essentially, survey offices handle tasks such as parcel subdivision, consolidation, field book and parcel register extraction, field demarcation, tile checks, and technical support for cadastral issues. Depending on available resources, they also carry out resurveying in allocated areas, preparing cadastral maps and field books, registering land, issuing land ownership certificates, preparing land registration

records, and hand over to relevant land revenue offices. To make services timely, simple, efficient, transparent, and technology-friendly, many innovative and reformative actions can be implemented in survey offices. Some offices have already initiated such practices, while others are progressing. This article is prepared to help all survey offices introduce timely improvements and move forward innovatively based on practical experience, best practices, and study.

2. INTRODUCTION

This article presents possibilities for innovation in service delivery, operational tasks, office management, record preservation and utilization, and optimal use of available information technology within survey offices. While major reforms like infrastructure development and preparation of high-accuracy cadastral data require significant investment (high-cost demand), some innovations can be implemented at minimal cost (low-cost, no-cost, or low-hanging fruit). This article does not delve into major legal, policy, structural, or technical overhauls, but rather discusses how innovation can be achieved through creativity, modern work approaches, optimal use of existing IT, positive thinking, collective motivation, effective leadership, and high employee morale. It outlines five areas for innovation: office management, good governance, record management, technology utilization, and coordination.

3. AREAS OF INNOVATION

3.1 Office Management

3.1.1 Courteous Entry Message: Displaying welcoming messages such as "Welcome" or "Namaste" at the entrance of any public service office in local language and context can foster a positive impression among service recipients. Such messages can be attractively written or displayed on monitors/boards at the entrance of survey offices.

3.1.2 Cleanliness and Beautification: To improve the working environment and public perception, office premises and service rooms should be clean, peaceful, and aesthetically pleasing. Adequate parking should be arranged, and suitable flowers and decorative plants should be planted. Cleanliness should be maintained regularly in toilets, offices, passages, and waiting areas. Weekly group clean-up activities involving all staff foster a sense of ownership and send a message against littering. Waste should be sorted (biodegradable and non-biodegradable) and disposed accordingly. Educational and motivational displays related to surveying history, unit conversions, important reminders for buyers/sellers, and quotes from experts can also be showcased.

3.1.3 Waiting Area for Clients: A proper waiting area should be set up to avoid long lines and protect clients from weather while waiting. TV or display boards can provide entertainment and information, including awareness videos about services such as Merokitta system, buyer responsibilities, and available services. Free Wi-Fi and drinking water should be available. Charging stations can be arranged in coordination with service providers like Nepal Telecom.

3.1.4 Staff Responsibility Board with Photos: To avoid confusion about service desk and officials, a display board with photos and responsibilities of staff, categorized by area (municipality/ward), should be placed aside of the entrance or visible area. Additional service flow charts and required documents for each service should also be displayed clearly.

3.1.5 Clear Division of Work: Each employee must have a clearly defined role and responsibilities documented in writing. Technical employee (Assistant Surveyor, Surveyor, Survey Officer, Chief Survey Officer) should be assigned service areas (VDCs/municipalities or wards) and allocate responsibility. In survey offices where Nepal Land Information System (NeLIS) has implemented,

responsibilities should be assigned as per the provision on that system.

3.1.6 Uniformity in Service Desks: All service desks should follow a consistent layout with similar furniture and furnishing. Desks must be able to hold maps and documents, and dual monitor systems should be used so both staff and clients can view the same screen. Counters should restrict unauthorized access to official documents.

3.1.7 Regular Monthly Meetings: At least one staff meeting per month should be held to discuss performance, challenges, solutions, directives, and good practices in the office. This fosters collective ownership and improves office operations.

3.1.8 Capacity Development Training: Staff should be provided opportunity to participate in relevant training, workshops, and orientation programs. In-house peer learning and group discussions should be encouraged. Training on GIS, remote sensing, GNSS, LiDAR, satellite imagery, UAVs, and topics like office management, professional ethics, and stress management can enhance performance and motivation.

3.1.9 Employee Recognition: Implementing a system of rewards and penalties can discourage poor performance and promote excellence. Monthly and yearly best employee awards can motivate staff and enhance the office's image.

3.1.10 Recreational Activities: Organizing recreational programs like picnics or exposure visits time to time promotes team bonding, creativity, and employee morale.

3.1.11 Auction of Unusable Items: Old, damaged, and irreparable items should be auctioned off as per regulations to avoid clutter and improve aesthetics and space management.

3.2 Good Governance

3.2.1 E-Attendance System: To enforce discipline and punctuality among staff, an electronic attendance system (E-attendance) can be introduced. This would require mandatory clock-in and clock-out at designated times, encouraging a culture of arriving and leaving on time. It also provides an objective basis for evaluating staff performance for rewards or disciplinary action. Coordination with the Department of Information Technology may be required for technical and logistics support

3.2.2 Operation of Customer Care Desk: Besides registration and inquiry desks, a Customer care desk can be established to assist clients, especially those who are illiterate. Assistance may be about writing applications, providing stamps and photocopies, preparing and verifying files, confirming required documents, and guiding clients to the appropriate service desks. This reduces reliance on third parties or middlemen.

3.2.3 One-Door Service System: Implementing a one-door system streamlines service delivery. Instead of sending clients to multiple rooms, one designated desk handles the entire process. After submitting necessary documents, a designated office clerk handles all processing, calling the client only if additional verification is needed. For example, map printing services could be fully completed from the room where the token was issued.

3.2.4 Public Display of Service Status: In NeLIS-based offices, digital systems track applications. By displaying real-time updates (e.g., which phase does the document is in; registered, processing, under review, or completed) on monitors, clients can track progress. This boosts transparency and reliability. A Service Tracking System can also be developed for online status checks.

3.2.5 Special Service Desk: For senior citizens, pregnant women, and people with disabilities, a special service desk can be set up in a convenient location. Dedicated staff can assist these clients with applications, document preparation, and services eliminating the need to visit various service units. Accessible ramps must also be mounted.

3.2.6 Daily Service Display: Daily data on services delivered such as parcel subdivisions, map prints, and revenue collected can be displayed for general public using a digital board. This enhances accountability and transparency.

3.2.7 Daily Work Log: Each staff member should maintain a logbook of tasks performed daily. The log should include receipt and completion times for any application or files. This supports performance analysis and discourages delays.

3.2.8 Delineation Service Management: Delineation services, especially in urban offices, are in high demand and typically scheduled between Kartik and Jestha. To avoid delays and dissatisfaction of the clients, appointment dates should be given on the day of request,

and inform client for making arrangement of the local representatives to be present at the time of delineation. An application system including the information and documents regarding request dates, responsible staff, field reports, and status updates should be developed.

3.2.9 Information and Grievance Officers: Survey offices must assign Information Officers to ensure transparency and communication. Similarly, Grievance Officers must handle client complaints regarding services or staff conduct. Their contact details and photos should be prominently displayed.

3.2.10 Regular Monitoring: Chief of Survey offices should regularly monitor operations via CCTV and also by the application installed in mobile systems. Regular visits to each section of the office and weekly field visits to the areas where surveying/surveying is being conducted by the chief improve accountability of all the staffs and allow prompt issue resolution.

3.2.11 Client Feedback Form: Client feedback mechanisms are vital for improving service quality. Feedback forms or booklets with questionnaires can be provided, along with QR codes for digital submission. This helps to assess satisfaction and identify areas for improvement.

3.3 Record Management

3.3.1 Organized Storage of Maps, Field Books, and Plot registers: Modern plan chests with lockable chambers for storing cadastral maps can be brought in use. Special care should be taken to protect field books from sunlight, moisture, and insects. Only retrieve original cadastral maps with proper logs authorized by the office chief. Plot registers and Fieldbooks should be digitized/scanned and systematically organized

3.3.2 Digitization of Incomplete Maps: All remaining maps, including those from resurvey or file maps, should be digitized. Images of field books and plot registers should be linked in the reference system for faster retrieval. Coordination can be made with the Survey Department to integrate those data into the NeLIS system.

3.3.3 Digital Archiving System: All incoming and outgoing correspondence should be scanned and stored digitally on secure servers or desktops with regular backups. A document management system can be developed for easy retrieval based on date, subject, or sender/recipient.

3.3.4 Map Preservation: Old and fragile original maps can be preserved using transparent plastic folders with

reinforced backing and sealed edges. In NeLIS-enabled offices, even trace maps can be preserved similarly as they do not need to be retrieved frequently.

3.3.5 Binding of Kittakat Traces: All kittakat trace prepared during parcel subdivision process should be systematically binded in volumes of about 100, with dates clearly labeled. Until enough are collected for binding, they can be stored in loose files.

3.3.6 Integrated Record of Public Land: Based on field books and plot registers, a detailed record of government/public land including location, map sheet number, parcel number, and area should be prepared. Satellite overlays can help as a reference to identify parcel boundaries and verify historical data.

3.4 Use of Information Technology

3.4.1 Digital Citizen Charter: A digital Citizen Charter outlining services, required documents, processing time, fees, responsible officers, and grievance handling officer contacts can be displayed. Charters can be made multilingual and may include jingles or videos. QR codes can be arranged to provide full information of the services.

3.4.2 Use of Dual Monitors: Dual monitors at service desks can be installed so that service seekers can observe maps and data from the monitor facing towards them. This helps clients to have an idea of the location, orientation and shape of their parcels which enhances transparency.

3.4.3 Token System: A queue management system can be implemented to manage crowds for services like map printing. Clients collect tokens and are called to counters in order, reducing wait times and confusion.

3.4.4 CCTV Monitoring: CCTV in key areas like entrance, service desks, records rooms, waiting areas can be installed to enhance transparency and deter misconduct. Office head can monitor footage on-site or remotely via internet/mobile.

3.4.5 Internal Communication and Intercom: Intercom systems can be installed for internal communication, minimizing physical movement and preserving confidentiality. Staff may also use internal groups on messaging apps like WhatsApp or Viber.

3.4.6 Fingerprint Door Locks: Sensitive records like maps, field books, and plot registers can be safeguard from the unauthorized access using fingerprint locks on

access doors. Access only to the responsible staff ensure document confidentiality and security.

3.5 Coordination

3.5.1 Coordination with Local Governments: Effective service delivery by survey offices requires close coordination with local governments and their representatives. Regular formal or informal meetings can foster cooperation. Key areas for coordination include: sharing information on required documents for land related services, public awareness on land transactions, online services, responsibilities of landowner during resurvey, role of ward representatives in field delineation, land use classification, and controlling encroachment on government and public land. Providing local governments with detailed cadastral maps including old VDC/municipality and map numbers enhances service facilitation for local government.

3.5.2 Coordination with Provincial Government: Provincial land ministries often support record management and infrastructure development through annual programs. Coordination with the related ministry can help in managing budget and program for strengthening survey offices and improving records management.

3.5.3 Coordination with Land Revenue Offices: Survey Offices and land revenue offices are closely linked for land related services. For example, deed for partial ownership transfer or parcel subdivision are prepared by the land revenue offices and parcel split based on that deed is being carried out by the survey offices. Coordination ensures accuracy, legal compliance, and smooth service delivery. Issues related to land transaction and land registration such as record amendment as per the evidence, registration of unregistered land, and update ownership record also require coordination.

3.5.4 Coordination with District Administration Offices: District administration offices oversee peace, security, and inter-agency coordination. For complex service delivery issues or coordination with other offices, the district administration's support is crucial. Best practices from survey offices can also be shared during regular district meetings to inspire replication by others.

3.5.5 Coordination with the Survey Department: In case of policy, legal, administrative, or technical challenges, direction from the parent agency, Survey Department is

vital. Offices must adhere to circulars and directives from the department and report innovative practices to the department so other offices can take-up ideas on good practices.

3.5.6 Coordination with Building Construction Division

Offices: For physical infrastructure development or repair, technical assistance from the Urban Development and Building Construction Division is essential. Coordination with these offices may provide support and financial & technical assistance for general construction and renovation,

4. CONCLUSION

This article tries to present low-cost, coordination-based transformations that survey offices can adopt and implement using their resources or in collaboration with other institutions. While policy, structural, legal, and procedural reforms requiring departmental or ministerial involvement are beyond this article's scope, it emphasizes practical measures to improve service delivery, transparency, record management, and staff capacity. These ideas aim to enhance survey offices by modernizing record preservation, improving staff performance, and fostering good governance. By maximizing the use of available technologies, survey offices can ensure quality services, effective management, and accountability, ultimately contribute to improve land administration and cadastral services of the country.

(The views expressed in this article are based solely on the personal experience and insight of the author)

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