

# Overview of the Cadastral Survey Directorate Workflow Modernization

Supplementary Guide to the CSD Survey Standards Guidelines Manual – Special Edition for the Un-Surveyed Parcels Project

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#### **Overview of CSD Workflow Modernization**

The Cadastral Survey Directorate (CSD) within the Survey and Land Registration Bureau (SLRB) is undergoing a transformative modernization through the National 3D Mapping Project (Phase B), as outlined in the 2025 strategic enhancements. This initiative shifts from manual, fragmented processes—characterized by physical files, manual document feeding, job initiation via multiple channels, and limited system capabilities—to a fully digitized, automated, and paperless Workflow Management System (WFMS). Aligned with Bahrain Vision 2030, the changes emphasize efficiency, transparency, and integration of advanced technologies like GIS, AI, and cloud-based scalability. Overall efficiency gains are projected at 70%, driven by a weighted matrix including a 60% reduction in manual tasks, 55% in turnaround times, and 70-80% in stakeholder interactions and CRU workload.

### **Key Changes and Enhancements by Section**

The modernization addresses core pain points in the existing "As-Is" workflows, introducing streamlined, citizen-centric procedures while redistributing responsibilities to Private Sector (PS) Survey Companies.

#### **Customer Relations Unit (CRU):**

- Streamlined Job Initiation and Document Handling: Transitions from manual multichannel requests (e.g., emails, physical submissions) to a single WFMS channel with automated sorting and integrated interactions with land registration, PS Survey Offices (PSSO), and property owners.

#### **Investigation & Management Group:**

- **Direct Access for Private Sector:** PS Companies gain custom access to retrieve job documents, including Parcel Investigation (PI) data, shifting manual verifications to automated checklists and reducing internal workloads.

## Survey & Land Registration Bureau



#### **Cadastral Survey Workflows:**

- **Auto Generation of Deed Plans:** Introduces automated production of Deed Plans (DP) and other CSD products using integrated database attributes (e.g., MicroStation labels for roads and access ways), ensuring accuracy and reducing manual drafting.

#### **Examination Workflows:**

 Al-Enabled Auto Examination: Replaces manual processes with an Al flag system for CSD products, featuring direct examiner contact with PS surveyors and auditors via WFMS chat.

#### **Audit and Compliance System:**

- Automated Evaluations and Point System: Introduces a digital auditing window with performance reports, violation tracking and escalating penalties (e.g., warnings, fines, suspension for repeated infractions).
- **Dashboard and Managerial Reports:** Provides real-time overviews of survey data, KPIs (e.g., task completion times), and resource utilization for proactive management.

#### Scalability and Sustainability:

Adopts modular, customizable systems to accommodate growth, with AI for data entry, predictive valuation, and dispute resolution.

#### **Change Management:**

Includes phased implementation, stakeholder engagement, comprehensive training, and feedback loops to minimize resistance.

These enhancements establish a world-class cadastral system, fostering trust, reducing operational inefficiencies, and supporting sustainable urban planning. By empowering the private sector and automating core functions, CSD aims to deliver faster, more accurate, and paperless services, ultimately contributing to Bahrain's economic and developmental goals.