JIGAWA GEOGRAPHIC INFORMATION SYSTEM

STATE MINISTRY OF LANDS, HOUSING, URBAN DEVELOPMENT & REGIONAL PLANNING.

TERMS OF REFERENCE FOR A DATA-CENTRIC DIGITAL ARCHIVE OF CERTIFICATES OF OCCUPANCY

1.1 Context

Digital transformation and acceleration Digital transformation is considered an umbrella term describing the process of moving an organization or sector from a paper-based and manual service delivery mode, towards one that is fully mediated by digital technologies; this was what makes it necessary for Jigawa State to establish Jigawa Geographic Information System (JGIS) unit in August 2022.

With clear and comprehensive stages to completely drop-down paper-based records and manual procedures, the ministry agreed on quick action of phase 1 of the project which only focuses mainly on production of certificate, and that was achieved.

Phase 1 of the project provides platform used to input, store, retrieve, analyze and output geographically referenced data (location- based).

To meet with the SABER standard Phase 2 of the project is advise to execute in which Ministry of Lands will enhance efficient land administration through a computerized system of all its processes.

Digital databases to maintain land ownership records, titles, and transactions.

- Tools for mapping and spatial analysis of land use, zoning, and property boundaries.
- Digital storage and retrieval of land-related documents such as deeds, surveys, and permits.
- Platforms for public access to land information, submission of applications, and tracking of requests.
- Tools to streamline administrative processes, such as application processing and approvals.
- Systems to analyze land data for planning, policymaking, and resource management.

This would ensure transparency in all land transactions and increase the Internally Generated Revenue of the Jigawa State.

1.2 Objective

We aim to develop a secure, user friendly, and easily accessible digital archive to process, handle properly, and preserve long-term land ownership documents, including Certificates of Occupancy (CofOs) in Jigawa State.

1.3 Scope

The project will cover the following key areas:

- System and User Requirements: This includes defining the necessary business processes, as well as the integration of indexing and metadata to ensure efficient data retrieval and management.
- Application Deployment: Implementation of a full-stack MERN application, alongside the installation and configuration of required hardware.
- Data Handling and Migration: Effective management and seamless migration of existing data into the new system.
- System Resilience: Establishment of robust backup protocols and disaster recovery mechanisms to safeguard the system.
- Quality Assurance and Training: Comprehensive quality control measures, system testing, and training programs to ensure successful adoption and operation.
- Operations Manual Development: Creation of a detailed manual that outlines procedures for managing the Digital Archive, including access controls, filing and storage processes, and data sharing protocols**.**

1.4 Requirements

1.4.1 Indexing

i. Owner type (e.g., corporate entity/private individual).
ii. Owner(s) name.
iii. Owner(s) gender.
iv. Ownership type (e.g., single-owned; joint/co-owned between man and woman).
v. Property unique ID
vi. CofO issuance date.
vii. CofO registration date.
viii. CofO reference number (matching the physical record number).

1.4.2 Scanning and Archiving

The following key evidence and documents have to be captured and scanned

i. Certificate of Occupancy (CofO)
ii. Land parcel survey diagram / location map
iii. Owner's ID
iv. Allocation letter, if applicable.

The scanned document has the following specifications.

i. Raw File format: TIFF/JPEG Standard.
ii. File format: PDF.
iii. Resolution: 200 dpi.
iv. Color depth: 1-bit bi-tonal (B/W) and 24-bit color.

1.4.3 System Security and Privacy

i. JSON web token for authentication within an API interface
ii. Strict storage of tokens in cookies with enforced security measures.
iii. Utilization of HTTPS/encryption protocols.

1.5 Project Team:

- Commissioner of Land
- Special Adviser on Land

- Permanent Secretary Ministry of Land
- JIGIS Unit Head
- Data Center Manager
- Land Survey Staffs
- Land Registry Staffs

1.6 Workflow

Stage	Team/Desk Responsible	Tasks	Deliverables	Estimated Timeline
Project Design/Planning	JIGIS Unit head Data Centre Manager, IT Head and consultants	Review existing CofO process and document system for insights into designing the proposed digital archive.	Baseline assessment report, Approved digitization plan, ToR, Procurement Plan, Approved budget	1 month
Deployment, Configuration, and installation of updated software.	JIGIS Unit head Data Centre Manager and consultants	Procure, deploy, and install necessary (software/hardware),	Deployed digitalization (software/hardware configured system ,	1 month

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Document Arrangement, and Preparation for Scanning Sorting,	Clerks, JGIS Support Staffs	Review, sort, and repair documents Arrange documents with index tags	Reviewed and sorted CofO documents/folders	
Scanning And Digitization	Data Entry Operators, JGIS Staffs	Conduct high resolution scanning as per specifications.	Scanned documents ready for data entry, Documents digitized as per checklist	1 month
Data Entry	Data Entry Operators, JGIS Staff	Indexing and inputing metadata into the document system, Assign automated unique identifiers	Digitized CofO records with indexing, metadata checklist, and unique identifiers	1 month

1.5 Benefits and impacts

The benefits and impacts of digital transformation investments into land administration are both direct and indirect. Investments directly deliver financial efficiencies, improved service experiences for citizens, and potentially new revenue streams. Additionally, they also deliver indirectly in alignment with other governmental polices and broader societal goals. This includes provision of valuable resources for policy-making, legal compliance, and public engagement.

MINISTRY OF LAND HOUSING URBAN DEVELOPMENT & REGIONAL PLANNING
SIGN.....
18/12/2023

Signed
JIGIS Unit Head
Jigawa State Ministry of Lands