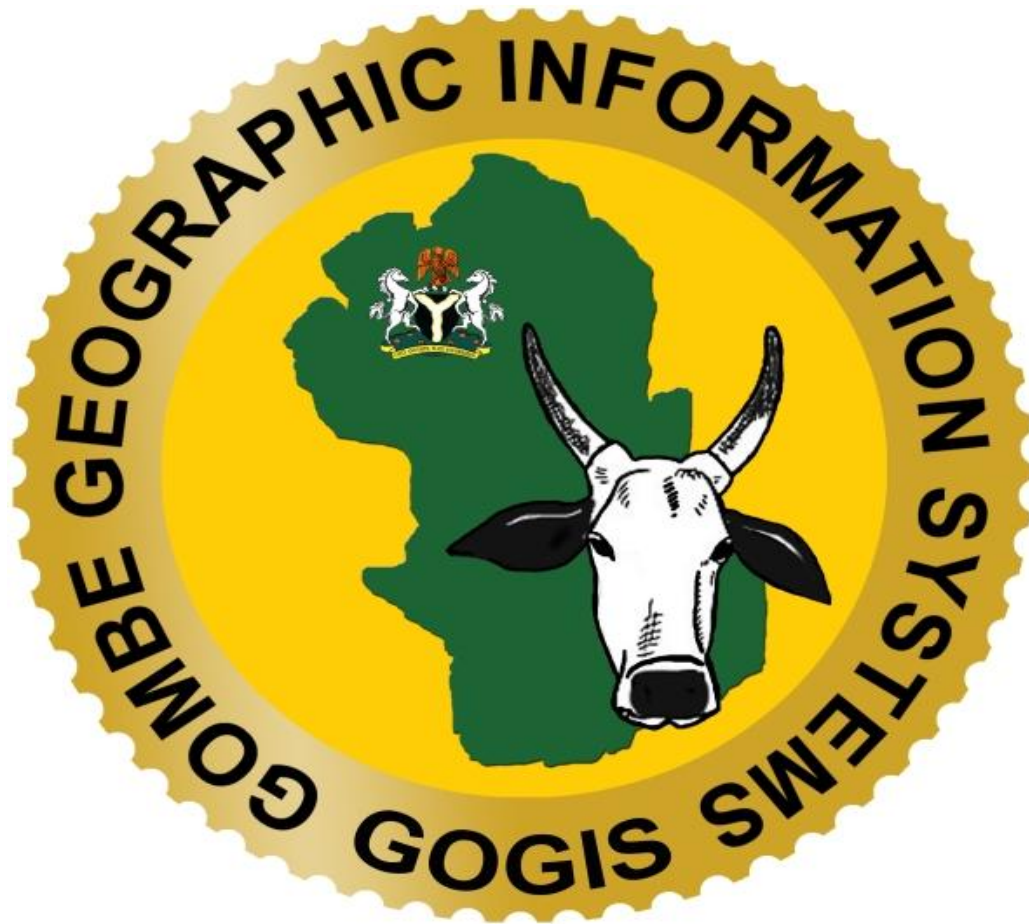# GOMBE STATE OF NIGERIA

GOMBE GEOGRAPHIC INFORMATION SYSTEMS (GOGIS)

TERMS OF REFERENCE (TOR) FOR CREATION OF A DATA CENTRIC DIGITAL ARCHIVE FOR C OF Os WITH A SEARCHABLE INDEX

DEVELOPED BY THE
GOMBE GEOGRAPHIC INFORMATION SYSTEMS (GOGIS)
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CREATION OF A DATA CENTRIC DIGITAL ARCHIVE FOR C OF Os WITH A SEARCHABLE INDEX

1.0 Background.

Prior to 2019, the processing of Statutory Certificates of Occupancy and other titles, as well as land administration in Gombe State, were carried out manual. All land records containing various sorts of information (certificates, working files, plans, maps, and deeds) held and maintained by Ministry of Lands and Survey and not digitized.

Over the years some efforts have been made for the computerization of the activities of the Land but mostly to no any fruitful result.

Presently, the state government has implement a reform program on land administration by introducing GOGIS. GOGIS was conceived as a mitigation strategy to the various problems of land administration and also serve as geo spatial data pool for all MDA's in the state. As a digital front its mission includes but not limited to

computerization of the land administration records and processes. The GOGIS system is equipped with a web based package for general land administration processes from the initial stage of applying for land title to the production of RofO and CofO with every step documented electronically using Land Administration System software called ''*MERLIN software*'' and the physical files are indexed and catalogue for ease of search and retrieval using File Tracking Management Systems (FTMS). GOGIS is equipped for digital mapping using its 10cm resolution orthophoto coverage which at the moment covers Gombe metropolis and 25cm for all the LGA and comes with the terrain model and contour lines that are essential for 3D representation of terrain and water courses and are required for environmental and engineering planning

A law for its establishment has been made and a Director General appointed. All efforts are now geared toward the automation of the land registration processes and management of land records. GOGIS is fully functional since the year 2020.

Central to the automation of the land administration is digitisation of all title documents particularly Certificate of Occupancy, therefore the **creation of data centric digital archive C of Os with a searchable index in accordance with national standard** is a center piece, below are the objectives necessary to ensure success.

1.1 Objectives of the System

i. The state through GOGIS guarantees the authenticity of all land title documents like RofO, CofO, and all land transaction records like Deed of Assignments, Mortgage, etc.

ii. Use a Secure digital template for production of title document to minimize forgery, theft, and loss.

iii. To provide unique yet easy and secured access to Land title information like information on RofO, C of O or general status on any land title.

iv. Comply with worldwide best practice on Land Administration Management Systems (LAMS).

v. Provide state of the art digital archiving system to ensure effective management of Land Titles by the use of File Tracking for ease of access and organised storage of titles and files.

vi. Provide detailed information on the status of the title documents like RofOs, CofOs, assisgnment etc.

2.0 A DATA CENTRIC DIGITAL ARCHIVE OF C of Os WITH A SEARCHABLE INDEX

Information on whether or not a title has been transferred to someone, mortgaged, or revoked is critical to determining the validity of such a land title, and such information cannot be separated from that of a C of O. To ensure that all important information linked to the C of Os are gathered and indexed, GOGIS build a Land Administration System (LAS) called Merlin to handle all of

such. It also created a geospatial database through the following:

i. GOGIS use of customized QGIS program with PostgreSQL-based for its GIS operations.

ii. Land Information System (LIS): GOGIS builds a proprietary program termed MERLIN to manage all land-related information. The program will be used to process applications, issue certificates of occupancy, and retain records of all land transactions.

iii. Database Management System (DBMS): A PostgreSQL-based DBMS is being created to process and store spatial and data for GOGIS.

3.0 COMPONENTS OF THE GOGIS SYSTEM

The following are component of GOGIS System:

i. Geographic Information System (GIS): GIS system is equipped for digital mapping using its 10cm resolution orthophoto coverage which at the moment covers part of Gombe metropolis and comes with the terrain model and contour lines that are essential for 3D representation of terrain and water courses and are required for environmental and engineering planning. It also use to visualizes information on a map using geographical coordinates for mapping and title deed plans for CofO.

ii. **Land Information System:** GOGIS uses MERLIN as its Land Information System package to execute all forms of land administration. This allows for the generation of Right of Occupancy and Certificates of Occupancy, title and instrument registration, land transactions, property valuation, and taxes.

iii. **Financial Information System (FIS)/Fiscal Cadastre:** The billing system in GOGIS LIS enable fees to be generated base on factors like the GIS size of the land, Landuse Purpose, Landuse purpose clause, predefine cadastral zones(Metro Area, Urban Area, LGA HQ, Rural Area, etc). The generate bill carries information about the land with a QR code to show the geolocation of the property.

iv. **Electronic Document Management System (EDMS):** this feature also in MERLIN enable GOGIS to convert non electronic documents like pages of the physical land files, TDP, Map and other land related document into electronic documents that can be access, search, indexed and catalog and merged with other related document automatically generated during the processing of title.

v. **Web Based GIS:** The platform enables interconnection between all the relevant MDAs and clients via URL.

GOGIS operations enabled digital mapping and analysis, as well as the consolidation of spatial and attribute data into a single database. This enable a seamless end-to-end land administration service, including application processing, C of O issuance, and information indexing. It also allow for seamless procedural collaboration across all parts of land administration, such as surveying, physical planning, and revenue management. The development of the GOGIS system has already begun with the following terms.

REFERENCE:

i. Create an integrated geo-spatial data infrastructure, including GIS, LIS, and FI/FC, coupled to an e-DBMS to

create a data-centric digital archive for all Land titles in the state.

ii. Digitize all certificates of occupancy, working files, and necessary documentation.

iii. Establish a digital workflow for land title processing and a secured archive with access control to protect and store the physical files in good form and for easy retrieval.

iv. Schedule frequent updates for the archive and digitization system.

4.0 RATIONALE

Implement an electronic document management system (EDMS) to collect, synchronize, index, archive, and back up analogue and digital data, including spatial and non-spatial information. Use appropriate tools and software to easily access and verify Certificate of Occupancy information at any time.

5.0 Action Plan

i. Create a detailed work plan for document scanning, including milestones and dates to guarantee a smooth transition from manual to digital.

ii. Building capacity to grasp the system's operation, benefits, and tools/software to be employed.

iii. Establish a fully equipped digital organization, including skilled workers and appropriate technology and software.

6.0 LEGAL COMPLIANCE

i. Ensure GOGIS process follows applicable laws and regulations for land records and certifications.

ii. Identify legal requirements and precautions to ensure the authenticity of digital certificates.

7.0 INTEGRATION

i. Identify any integration needs with other government systems or databases.

ii. Ensure interoperability with other systems for efficient information flow.

8.0 TIMELINE
Key Activities:

a. **Assessment Phase (July 2020–December 2020)**

    i. Review current C of O procedures and paperwork.

    ii. Determine technological needs and prospective vendors for the digital system.

    iii. System Development and Testing (January to March 2020)

    iv. Work with vendors to create a digital platform for C of O management.

    v. Perform thorough testing to ensure the system fulfills security and functionality standards.

b. **Training and Implementation (May 2020–June 2020)**

    i. Provide training materials and workshops for ministry staff on using the new digital system.

    ii. Gradual implementation and integration of the digital system across departments.

c. **Monitoring and Evaluation**

    i. Regularly check system performance, gather user feedback, and rectify any discovered faults.

    ii. Enhancements to optimize the digital COO management system.

d. **Deliverables**

    i. A fully functional digital platform to manage Land Administration eg. Certificate of Occupancy records.

    ii. Training / capacity building and seminars for personnel.

    iii. Provide regular progress reports and reviews.

e. **Stakeholders include**

    i. Ministry of Lands and Survey,

    ii. Private sector

    iii. NGOs

    iv. Academics

    v. Government regulatory bodies for required clearance and compliance.

f. **Budget allocation:**

    i. Cost breakdown for technology purchase, development, training, and implementation.

    ii. Set aside resources for unexpected obstacles or adjustments during the process.

g. **Quality-Control Measures:**

    i. Conduct quality checks throughout the development and implementation phases.

    ii. Continuous user input and iterative improvements.

h. **Risk Assessment:**

    i. Identify potential risks such data breaches, system failures, and personnel non compliance.

    ii. Mitigation strategies for each identified risk.

i. Approval and Review Process:

i. Conduct regular review meetings with stakeholders and ministry officials to ensure alignment with objectives and address emergent issues or changes in requirements.

Signed
Director General
Gombe Geographic Information Systems
January 2020