

GOVERNMENT OF THE GAMBIA



Ministry of Communications and Digital Economy

NATIONAL DIGITAL ADDRESSING POLICY [2023]

The Government of The Republic of The Gambia

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INTRODUCTION

The Recovery Focused National Development Plan (NDP) of The Gambia (2023 - 2027) leapfrog the status of ICT from being an Enabler only as it was in the previous NDP to being a top national development priority for Government. This upgrade can be associated with the immense contribution of the Gambia ICT Sector to GDP, employment creation, income generation for citizens, revenue generation for public and private, economic growth and sustainability in The Gambia.

This new recovery focused NDP leverages from the previous NDP, which has already yield dividend in the digital economic sector of The Gambia and its dependencies, as the country is currently witnessing an uptake in the adoption and usage of digital technologies and services with positive spillover effects in all sectors of the economy, which has triggered a shift towards digital and smart solutions across various sectors. These advancements offer opportunities to transform traditional addressing method into a modern, technology-driven ones and leverage data-driven approaches to address urbanization, population growth, difficulties in pinpointing precise locations of places and the increasing complexity of addressing requirements.

Understanding the benefits and opportunities of transforming and modernizing traditional addressing into digital addressing systems, The Ministry of Communications and Digital Economy (MOCDE), The Gambia, in partnership with Google Africa Initiative, Google Maps, and Addressing the Unaddressed Initiative in India and in collaboration with the Banjul City Council, successfully implemented a proof-of-concept digital addressing system pilot project in Banjul, The Gambia, assigning digital addresses to approximately 2500 properties.

Building on the success of the pilot project in Banjul, the Ministry of Communications and Digital Economy has expanded the digital addressing system initiative to cover the Kanfing Municipality (KM) Area, assigning approximately 33,000 digital addresses to properties within KM and in the West Coast Region, assigning approximately 100,000 digital addresses to properties within Kombo North. Now, the Ministry aims to further roll out the digital addressing project in other areas within the West Coast Region that are yet to be addressed and remaining part of the country.

The reason being, **a comprehensive and accurate digital addressing system is crucial for socio-economic development, public service delivery, emergency response, and efficient urban planning and management.** By providing a unique digital address to each property including residents, businesses and other landmarks can be registered and located more easily, delivery services can be streamlined, including postal and e-commerce services, and public utilities can be effectively managed, and the government get more taxes collected while business gets more visibility. Moreover, in emergency situations, having precise digital addresses enables quick and targeted response efforts, saving lives and resources, and more so social services such as ambulance and fire & rescue services.

To effectively, efficiently and sustainably rollout a robust and inclusive national digital addressing system, there will be a need for an underlying national digital addressing policy to create and promote consistency, coordination, cooperation, efficiency, and coherency in property addressing throughout the country and enables a digital presence for all properties (residence, business and others) within The Gambia, including important locations and landmarks, to ensure efficient service delivery through ease of access to social amenities/services.

Consequently, this National Digital Addressing Policy has been developed by the Ministry of Communications and Digital Economy through the support of the African Union – European Union Digital for Development (AU-EU D4D) Hub Project in partnership with the eGovernment Academy (eGA) of Estonia.

This National Digital Addressing Policy, in broader terms, aims to create a harmonized and standardized addressing format with an underlying framework that enhances navigation, logistics, emergency services, and overall governance to ensure more inclusive development and citizen-centric services and bridge gaps in service delivery, especially in areas where traditional addresses may not accurately reflect residents' locations. This move towards a digital addressing approach aligns with broader goals of harnessing data-driven governance and the goal of the new recovery-focused NDP to transform the Gambia into a Digital Nation.

ABBREVIATIONS

AI	Artificial intelligence
DACC	Digital Addressing Competence Centre
DAP	Digital Address Portal
GICTA	Gambia ICT Agency
GIS	Geographic information system
ICT	Information and communications technology
IoT	Internet of Things
IS	Information system
LG	Local government
MDGs	Millennium Development Goals
MoFEA	Ministry of Finance and Economic Affairs
MoICI	Ministry of Information and Communications Infrastructure
MOCDE	Ministry of Communications and Digital Economy
NG	National guidance
NDP	National Development Plan
NDASC	National Digital Addressing Steering Committee
PPP	Public-private-partnerships
PWD	Person with disabilities
SDGs	Sustainable development goals
SIP	Sector Investment Plan
UPU	Universal Postal Union
USET	University of Science, Engineering and Technology
5G	Fifth-generation technology standard for broadband cellular networks

EXECUTIVE SUMMARY

The Digital Addressing Policy establishes principles and an implementation guide to developing a national digital addressing system in The Gambia.

This addressing policy promotes consistency, cooperation, efficiency, and coherency in property addressing throughout the country and enables a digital presence for all properties within The Gambia, including important locations and landmarks, to ensure efficient service delivery through ease of access to social amenities/services such as financial institutions, markets, government institutions, business, community centers, and emergency services.

The policy contains the following six chapters:

1. Chapter One is an **Overview**. It highlights the importance of a quality Digital Addressing System as part of the socioeconomic infrastructure of a country. It explains how the system helps to improve the efficiency and quality of delivery services and facilitate business, trade activities, and, consequently, national development.
2. Chapter Two states the **Vision, mission, and guiding principles of the Policy**. It also describes the overall policy objectives and proposes strategies for achieving them.
3. Chapter Three contains the **Policy coordination, institutional, and implementation framework**. It states and defines public and private sector stakeholders' roles, responsibilities, and functions while implementing this policy.
4. Chapter Four includes the **Legal principles** necessary for implementing the Policy.
5. Chapter Five is about **Monitoring and evaluation**. It explains the methodologies to monitor and evaluate the Policy's implementation: assessment of impact, monitoring and evaluation of outputs, and monitoring and assessment of implementation. The MoCDE will monitor and evaluate the Policy implementation with other relevant stakeholders as mentioned in the implementation framework of the Policy.
6. Lastly, Annex 1 contains the **roadmap** for implementing Digital Addressing Policy. This is an integral part of the Policy. The main objectives of the Policy that are detailed are as follows:
 - Provide a Policy, Legal necessary to support the development of a Digital Addressing System for The Gambia.
 - Promote national rollout of digital addressing infrastructure based on up-to-date information technologies.
 - Promote national and regional digital addressing databases and portals that are fully integrated, reliable, and secure to share information seamlessly.
 - Promote human resource capacity development and innovation in Digital Addressing technologies.
 - Engage all stakeholders and promote and ensure the development and availability of a unified and coherent national digital addressing system for the country.

GLOSSARY

Geoinformation system (GIS) - information technology that allows you to combine a model image of the territory (electronic display of maps, diagrams, space, and aerial images of the earth's surface) with spatial data of tabular type (various statistical data, lists, economic indicators, etc.) for automated management of spatial data and associated with them attributes.

Digital address portal - an information system that is a concrete implementation of a GIS that visualizes a spatial database with a convenient interface for operational use and provides creation, editing, storage of spatial data, and interaction between stakeholders.

National digital address portal - a unified state DAP that provides creation, editing, storage, utilize, and distribute by authorities of holistic countrywide spatial data based on digital addressing and interaction between central government, local government authorities, business, private and public sectors.

Local digital address portal - a state DAP that provides creation, editing, storage, utilize, and distribute by local government authorities of holistic region-wide spatial data based on digital addressing and interaction between local government authorities, business, private and public sectors.

Basic address information - a set of address information attributes that is minimally sufficient to describe the addressing object (e.g., identifier, address, geo coordinates and affiliation to an administrative unit, type of addressing object).

National digital address database - an information system to store holistic countrywide basic address information and spatial data based on digital addressing.

Local digital address database - an information system to store holistic region-wide basic address information and spatial data based on digital addressing.

Digital address data - a set of address information attributes that includes the collected and verified basic address information and other address information and is stored in the national and/or local digital address database.

National digital addressing plan - a document describing a nationwide roll-out plan for applying the digital addresses, including deployment of needed infrastructure, national digital addressing system, authorities and services, step-by-step areas' coverage plan with digital addresses, and its estimated timelines and necessary resources.

The national digital addressing system - a complex of organizational structures, legal and methodological support, and information technologies that form and implement the policy of addressing in the country based on the digital address system (e.g., Google Plus Code, Digital Address Code, etc.).

Traditional Address - refers to the usual format used to describe the location of a particular

building or another addressable object. It usually includes hierarchically connected components such as street names, building or house numbers, city names, and postal codes that in concatenated form uniquely identifies the addressable object. The development and implementation of traditional addressing is out of scope of Digital Addressing Policy.

Digital address - serves as a unique identifier of the addressable object location on the Earth's surface. Utilizing a digital address provides navigation and search for addressable objects, including those without a traditional address. It allows users to search for and access the digital attributes or characteristics associated with a real-world object in the digital realm.

CHAPTER 1: OVERVIEW

1.0 Background

Since the launch of the “Addressing the world – An address for everyone” initiative in 2009 by the Universal Postal Union, there have been a series of international activities to raise awareness of the value of digital address infrastructure as a key infrastructure of countries. UPU has stressed that urban development, economic growth, and the provision of essential services are intrinsically linked to digital address infrastructure in urban and rural areas. Digital Addresses are a crucial element in aiding the delivery of policies at national and international levels in support of both the Millennium Development Goals and Sustainable Development Goals, particularly regarding governance, the rule of law, poverty reduction, disease prevention, and the provision of essential services such as electricity, sanitation, food, and water.

Establishing a good digital addressing system is an essential part of the socioeconomic infrastructure of countries. A digital addressing system helps to improve the efficiency and quality of services and facilitates business and trade activities including e-commerce and, consequently, national development.

Identifying individuals through addresses worldwide has moved from the Post Office to the traditional location of the addressee. This applies to mail, parcels, or any other deliverable. The migration from traditional (non-digital) addresses to digital addresses has enhanced the ability of governments, commercial entities, and utility and emergency service providers to identify the intended persons.

MoCDE, as the entity directly or indirectly responsible for implementing ICT infrastructure, has an overarching vision to ensure full connectivity of everyone to the ICT services. Also, The Government of the Gambia, through its National Development Plan (NDP), set an enabling goal of making The Gambia a digital nation, knowledge-based economy, and information society that is people-centered to be enabled by Digital Transformation in all spheres of society. In responding to the MoCDE vision and NDP goal, MoCDE strives to enhance its e-Government program while devising a “whole of country” approach to digital transformation. To do so, it realized the need for a holistic countrywide national digital addressing system that would lay the foundation for a plethora of applications and services to strive to ensure the country greatly reaps dividends from the digital economy.

Currently, MoCDE, on behalf of GoTG, adopted and implemented a digital addressing system using the Google Plus Codes addressing solution, which is a digital addressing system establishing a digital infrastructure that connects people with their surrounding using GPS or other positioning systems and GIS to compute the precise and accurate location of places, including businesses, residential and other landmarks for ease, effective and efficient navigation, and localization within communities.

In addition, the Google Plus Codes (digital addressing system), like any other digital addressing solution, is an invaluable tool that enables Smart-City applications and services for better city management, improved emergency response through more effective and efficient navigation, increased access to utilities and postal services due to ubiquitously available

digitized properties (residents, business and landmarks) to quickly pinpoint locations, boost e-commerce services and other emerging technologies such as Internet of Things (IoT), Artificial Intelligence (AI), virtual and augmented reality, and 5G and so on, through location-based services enabled by the digital addressing system for enhanced experience and operation.

This digital addressing system is an essential enabler for digital government services and digital transformation in our society. It promises to fundamentally change how services, businesses, transactions, transportation, administrative procedures & processes, governance, and so on are operated and conducted in the country. In addition, it provides substantial economic prospects, prosperity, and job creation to The Gambia and the Gambians.

The Digital Addressing Policy has been developed to guide and support the sustainable development, rollout, and management of ongoing national digital addressing initiative in The Gambia and ensure that the Government, business and citizens effectively utilizes the digital addressing system of the country and harness from its underlying benefits.

This Policy is entrenched with strategic principles, objectives, and an implementation framework to guide future rollouts and ensure the sustainability of the national digital addressing system of The Gambia. The guiding principles for the Policy are anchored in the spirit of cooperation, collaboration, and partnership among stakeholders.

1.1 Justification for the Policy

The intention is to take The Gambia from applying digital addresses to developing a digital addressing system based on modern IT solutions. This system would cater to sites, including properties, buildings, individual units or businesses, objects, features, or points of interest.

This Policy document is the first step in developing the policy framework for implementing the vision of the digital addressing system for The Gambia.

A digital addressing system is essential for facilitating socio-economic transformation and development. The benefits of a digital addressing system for governments, businesses, and the people are as follows.

1.1.1 Governments:

- Facilitates planning and implementation of public policies and services.
- Facilitates city, residential, and locality management and planning.
- Enhance better data management for policy formulation.
- Facilitates the combat against natural disasters such as fire and flood.
- Reinforces national and international security.
- Provides more efficient and effective collection of taxes and licenses.
- Essential for the functioning of emergency services.
- Facilitates and enhances e-Government services.
- Enhances efficiency in service delivery.
- Enhance visibility of public places, landmarks, health facilities, educational facilities and other landmarks.

- Enhances visibility of voting places and promotes access to voting sites.

1.1.2 Businesses:

- Ensure more accurate customer targeting.
- Streamlined logistics and supply chain management.
- Facilitates easy access to clients for service providers.
- Enhances product and service visibility.
- Improves customer experience, awareness, and reachability.
- Facilitates and improves location-based marketing and development of new products.
- Enables the development of databases for customer management.
- Facilitates the delivery of products ordered online.
- Reduces delivery times for goods.
- Increased business efficiency.

1.1.3 Private and public sector

- Provides a digital platform for accessing digital addressing data.
- Enhanced coordination between private and public entities.
- Improves navigation for transportation and delivery services.
- Improves navigation experience within the area.
- Helps to keep track of population concentration.
- Offers easy access to social, emergency and security services.
- Facilitates home delivery of goods sold locally, nationally, and internationally.
- Promotes digital trade, e-commerce and postal or courier service delivery.

To fully enjoy the above benefits of the Digital Addressing System, **there is a need for a robust enabling Policy, Legal and regulatory framework to guide its rollout and management.** The framework will also suggest a cooperation mechanism on how stakeholders will work together to achieve a fully-fledged and functional digital addressing system.

CHAPTER 2: THE POLICY

This chapter lays out the mission, vision, and guiding principles of the Digital Addressing Policy. In addition, the chapter also lays out the Objectives, Strategies, and Targets of the Policy.

2.1 Vision

The Vision: To establish a unified, accurate, reliable, coherent, inclusive, fully available, and functional national digital addressing system for The Gambia that serves as the cornerstone of a smart and well-planned urban and rural environment, facilitating seamless interactions between individuals, businesses, and government entities.

2.2 Mission

The Mission: To develop, implement, upgrade, maintain and sustain a standardized and up-to-date national digital addressing system to ensure assignment of unique and accurate digital addresses to all properties within the country to facilitate a fully digitized, more accessible, more efficient, safer, more convenient and sustainable Gambia.

2.3 Guiding Principles

To enhance national growth and transformation, the Digital Addressing Policy is guided by the following principles:

- **Technology:** Providing and using up-to-date information technology for the development, maintenance, and management of a unified information field of digital addresses.
- **Accuracy:** Ensuring that every property is assigned a precise and unique digital address for seamless navigation and service delivery.
- **Accessibility:** Providing digital addresses for all places and ensure everyone uses the digital addresses within the country including free access to basic digital address information from the Government (National and Local) digital address databases and Digital Addressing Portal (DAP).
- **Interoperability:** Developing a system that can be integrated with various technologies and platforms to promote accessibility and inclusivity.
- **Security:** Implementing robust data protection and cybersecurity measures to safeguard sensitive location information and applying the principles of anonymization, pseudonymization and randomization of data during digital address assignments.
- **Inclusivity:** Ensuring that the digital addressing system caters to the needs of all individuals, regardless of their technological literacy or socio-economic status including supporting local participation in the national rollout of the digital addressing system, its maintenance and management.
- **Scalability:** Designing a digital addressing system that accommodates future growth, urban & rural expansion, and technological advancements.
- **Collaboration:** Facilitating collaboration and cooperation between all stakeholders at central and local government levels including government agencies, private

enterprises, and the public to ensure a well-functioning and successful digital addressing system.

- **Partnership:** Promoting public-private partnerships for optimal utilization of resources.
- **Policy Coordination:** Facilitating a policy synergy between the National Digital Addressing Policy and other relevant Policies and ensure participation and contribution to regional and international initiatives to consolidate Digital addressing systems at policy and operational levels.
- **Communication and Sensitization:** Providing awareness, sensitization, advocacy, and training about the national digital addressing system.

2.4 Objectives

The objectives of this Policy are to:

1. Provide a Policy, Legal and Regulatory Framework necessary to support the development of a National digital addressing system in The Gambia.
2. Promote national rollout of digital addressing infrastructure based on up-to-date information technologies.
3. Promote a national and regional digital addressing database that are fully integrated, reliable and secure to share information seamlessly.
4. Promote human resource capacity development and innovation for the implementation of the National digital addressing systems.
5. Engage all stakeholders and promote and ensure the development and availability of a unified and coherent national digital addressing system.

2.5 Assumptions

This policy assumes:

- The Government of The Gambia continues to be responsible for producing and aggregating digital addresses including enabling technological infrastructure and related applications, equipment, or devices.
- MoCDE will remain the custodian of digital addresses in the National domain.
- MoCDE will become the custodian of the National Digital address database.
- MoCDE will establish a National Addressing Steering Committee or task force comprised of all relevant stakeholders.
- Local governments are custodians of digital addresses in their domains for the foreseeable future.
- Local governments are custodians of their local digital address databases and their related management in line with the national digital addressing system format informed and adopted by stakeholders at national level.
- Local governments, as custodians of local digital address databases, will share or integrate their local digital address databases with the national digital address database.
- As detailed in this policy, roles, and responsibilities are consistent with the legislatively established roles and responsibilities for governance and custodianship.
- Stakeholders, including government bodies, businesses, and citizens, will actively

participate in the adoption and maintenance of the digital addressing system.

- Sufficient resources will be allocated to ensure the ongoing development, maintenance, and updates of the digital addressing system.
- Digital address producing, aggregating, distributing, and usage are being executed in a unified IT environment by responsible actors.

2.6 Strategies

Strategic policy objective 1: Provide a Policy, Legal, and Regulatory Framework necessary to support the development of a Digital Addressing System for The Gambia.

It includes:

1. Reviewing the existing legal framework to provide a conducive environment for the national rollout of a digital addressing system for The Gambia.
2. Development and adoption of the legal framework to efficiently implement the Digital Addressing Policy for The Gambia.
3. Compelling all stakeholders to budget for installing and maintenance of digital addressing infrastructure.
4. Compelling the Gambia Postal Services Corporation and other Postal and Courier Services to integrate the national digital addressing system into their business processes and activities.
5. Empowering the people and law enforcement agencies to protect the digital addressing infrastructure.

Strategic policy objective 2: Promote national rollout of digital addressing infrastructure based on up-to-date information technologies.

It includes:

1. Encouraging public-private partnerships (PPP) in the rollout and use of digital addressing infrastructure.
2. Encouraging, empowering, and compelling local government authorities to roll out and use the digital addressing infrastructure.
3. Providing free access to the basic address information from the government (national and local) digital address databases and portals.

Strategic policy objective 3: Promote national and regional digital addressing databases and portals that are fully integrated, reliable and secure to share information seamlessly.

It includes:

1. Development, deployment, and sensitization of the National Digital Address Database.
2. Development, deployment, and sensitization of the Local Digital Address Databases.
3. Development, deployment, and sensitization of the National Digital Address Portal.
4. Development, deployment, and sensitization of the Local Digital Address Portals.

Strategic policy objective 4: Promote human resource capacity development and innovation for implementing the National digital addressing systems.

It includes:

1. Promoting and encouraging the youth to be the drivers of digital addressing through the early integration of digital addressing technologies (Google Plus Code) and education through curriculums.
2. Encourage companies, as significant actors in capacity building, to implement digital addressing technologies through internship and industrial training schemes.
3. Ensure equal opportunity in digital addressing technologies training at all levels taking into consideration special interest groups like the public sector, women, youth, and PWDs.
4. Continuously increase people's knowledge about the opportunities the digital addressing system can bring to their lives.
5. Include a budget at the MoCDE level to support human resource capacity development and innovation for the National Digital Addressing Initiative.
6. Promote and encourage collaboration for research and development of IT solutions that can benefit from the digital addressing environment.

Strategic policy objective 5: Engage all stakeholders and promote and ensure the development and availability of a unified and coherent national digital addressing system.

It includes:

1. Establishing a communication strategy and plan to promote and encourage the usage of the national digital addressing system and the associated benefits.
2. Establishing interactive communication channels between all stakeholders where information can be shared in real-time.
3. Establishing sustainable funding arrangements and partnerships.
4. Putting in place spokespersons who can promote digital addressing at political, local, and institutional levels.
5. Mobilizing and sensitizing stakeholders about the importance of using digital addressing technologies in their day-to-day economic, political, and social activities.

CHAPTER 3: POLICY COORDINATION AND INSTITUTIONAL FRAMEWORK

3.0 Overview

Achieving the Digital Addressing Policy’s mission and objectives will depend on an integrated approach during implementation. The implementation is supported by developing strategic synergies and partnerships between the public and private sectors. Furthermore, for the policy to succeed, there must be clear roles, responsibilities, functions for different stakeholders and it is essential to have a robust coordination mechanism and institutional framework in place.

3.1 Institutional Framework

The development and implementation of a National Digital Addressing Policy is a complex endeavor that requires a well-defined institutional framework to ensure effective coordination, governance, and execution. The following institutions are important in creating a favorable environment and enabling an institutional framework that will drive the coordination and implementation of the Policy:

1. The National Assembly
2. The Cabinet
3. The Ministry of Communications and Digital Economy
4. The National Digital Addressing Steering Committee
5. The Gambia ICT Agency
6. The Gambia Postal Services
7. The Gambia Bureau of Statistics
8. The Ministry of Lands, Regional Government & Religious Affairs
9. The Ministry of Works, Transport, and Infrastructure
10. The Ministry of Finance and Economic Affairs
11. The Gambia Revenue Authority
12. The Ministry of Information
13. The Ministry of Justice
14. The Ministry of Interior
15. The Ministry of Health
16. The Ministry of Public Services
17. The Public Utilities Regulatory Authorities
18. The Gambia Fire and Rescue Services
19. The University of Science, Engineering and Technology (Digital Addressing Competence Centre)
20. The local government authorities (area councils, municipal councils, city councils)
21. Gambia Telecommunication Company Limited (GAMTEL)
22. Public Private Participation and Civil Society

3.1.1. The National Assembly

The liberalization of the economy in general and the ICT sector has opened new requirements for transparent and effective legal and regulatory governance instruments. Therefore, the role of the National Assembly in the effective implementation of this policy shall include, among others:

- a) Enacting appropriate and effective legislation that will create a flexible, dynamic, and responsive legal and regulatory system to support the implementation of the Policy.
- b) Creation of a legal framework to support the establishment of Policy, coordinating and implementation institutions, and the amendment of relevant legislative provisions to facilitate the creation of dynamic regulatory agencies.
- c) Facilitate the allocation and approval of financial resources for the implementation of the Policy.
- d) Monitor the effective use of the financial resources allocated to public sector institutions for implementing the Policy.

3.1.2. The Cabinet

The government, collectively, and ministries individually, have a primary duty to ensure that government policy best serves the public interest. In this regard, the government shall:

- a) Provide vision and leadership at the highest level of government to support the implementation of the Policy.
- b) Become an exemplary user of digital addressing.
- c) Mainstream digital addressing programs and projects in all sectors and ensure that this reflects in the national budget as means of commitment to the Government.
- d) Resource mobilization, especially for programs targeted to implement the Policy.

3.1.3. The Ministry of Communications and Digital Economy

The Ministry shall be responsible for the overall coordination of formulation, implementation, review, target setting, and oversight of all Digital Addressing Policy, strategies, and programs. Specifically, the ministry shall:

- a) Coordinate the review, development, and implementation of relevant laws and standards related to the Digital Addressing Policy and ensure that the standards are in tandem with regional and international best practices.
- b) Spearhead the resource mobilization from government, development partners, and other stakeholders for the successful implementation and sustainability of the Digital Addressing Policy and projects.
- c) Provide good leadership and direction, especially to local governments and other stakeholder institutions, to support the national implementation and rollout of digital addressing.
- d) Establish and coordinate the National Digital Addressing Steering Committee or task force to drive, oversee and serve as an oversight to all digital addressing endeavors in the country.
- e) Coordinate and ensure periodic review of national digital addressing policy frameworks, including the national digital addressing system format and standard.
- f) Harmonizing the Digital Addressing Policy with other policies in the sector and other related sectors.
- g) Establishment and management and ensuring the availability of the core digital addressing ICT-infrastructure: National Digital Address Database and the national Digital Address Portal.

- h) Undertake public awareness at all levels through expos, forums, conferences, and other stakeholder consultations.
- i) Provide and facilitate national forums on the national digital addressing systems when needed.
- j) Facilitate the commercial use of digital addresses through appropriate mechanisms.
- k) Provision of an enabling IT regulatory framework to support the implementation of the Policy.

3.1.4. National Digital Addressing Steering Committee

The National Digital Addressing Steering Committee (NDASC) is **responsible for directly coordinating the development, implementation, review, goal setting, and oversight of all digital addressing policies and regulatory frameworks, strategies, and programs.**

The NDASC is **a permanent advisory body** established by the government to participate in the evaluation of the effectiveness of state policy in the field of implementing digital addressing. It promotes the coordination of the activities of the subjects of relations in the specified area.

The main tasks of the NDASC are:

1) coordination of actions of executive authorities and local government authorities with the aim of:

- Development of policies and practices in the field of implementation of digital addressing
- Effective implementation of the Digital Addressing Policy.
- Development of the National Digital Addressing Plan.
- Effective implementation of the National Digital Addressing Plan
- Effective implementation of digital addressing pilot projects.
- Construction of modern IT infrastructure for implementation, utilization, and development of digital addressing.
- Interaction between the institutions or entities that are responsible, for example, for property or house digital numbering, traditional address numbering, road / street naming, and address locality names and boundaries.

2) assistance in:

- Exercising the powers of executive authorities and local government authorities in the field of implementation and development of digital addressing, creating conditions for the implementation and development of digital addressing in the relevant territory
- Implementing the Digital Addressing Policy.
- Cooperation of executive authorities and Local government authorities with the Digital Addressing Competence Center, businesses, and civil society institutions in the field of implementation of digital addressing and its development
- Carrying out sensitization, informational and educational activities to implement digital addressing.
- The commercial use of digital addresses through appropriate mechanisms
- Coverage of the activities of authorities, local government authorities, businesses, and civil society institutions in the field of implementation of digital addressing.

3) determination of ways and means of solving issues that arise during the implementation of state policy in the field of digital addressing, increasing the efficiency of the activities of executive authorities, and local government authorities in the specified area.

4) improvement of the regulatory framework in the field of implementation of digital addressing.

The NDASC, in accordance with the tasks assigned to it:

- 1) Participates in** the evaluation of the effectiveness of Digital Addressing Policy.
- 2) Participates in** the preparation, review, and submission of proposals, conclusions, and recommendations to the National Digital Addressing Plan, funding plans, and digital addressing project plans.
- 3) Submits proposals** to the government and individual ministries to improve the implementation of state policy in the field of digital addressing at the regional or local level.
- 4) Interacts and exchanges work experience** with the Digital Addressing Competence Center and civil society institutions in the field of digital addressing and its development.
- 5) Analyzes the situation** and problems in implementing digital addressing.
- 6) Studies the results of the activities** of executive authorities and local government authorities in implementing digital addressing.

The NDASC has the right to:

- 1) receive the information necessary for the performance of the tasks assigned to it (in the prescribed manner from the central government authorities of executive power, local government authorities, enterprises, institutions, and organizations);
- 2) involve representatives of local government authorities, enterprises, institutions, organizations, as well as public associations (with the agreement of their leaders) and independent experts (with the agreement);
- 3) consider the proposals of civil society institutions on issues within the competence of the NDASC;
- 4) have prompt resolutions for urgent issues within the competence of the NDASC and for the fulfillment of the tasks assigned to it, form permanent or temporary working groups operating in the period between its meetings;
- 5) organize conferences, forums, seminars, meetings, and other events;
- 6) make proposals for incentives per the established procedure for representatives of civil society institutions and individual citizens for their contribution to ensuring the development of the digital addressing implementation field.

The NDASC interacts with state authorities, enterprises, institutions, and organizations while performing its assigned tasks.

The NDASC includes representatives of:

1. The Ministry of Communications and Digital Economy
2. The Gambia ICT Agency
3. The Gambia Postal Services

4. The Gambia Bureau of Statistics
5. The Ministry of Lands, Regional Government & Religious Affairs
6. The Ministry of Works, Transport, and Infrastructure
7. The Ministry of Finance and Economic Affairs
8. The Gambia Revenue Authority
9. The Ministry of Information
10. The Ministry of Justice
11. The Ministry of Interior
12. The Public Utilities Regulatory Authorities
13. The Gambia Fire and Rescue Services
14. The University of Science, Engineering and Technology (Digital Addressing Competence Centre)
15. The local government authorities (area councils, municipal councils, city councils)
16. Representatives from institutions of civil society and business associations.

The Head of the Cabinet approves the personal composition of the Coordination Council. No more than one representative from each civil society or business may be delegated to the NDASC.

The NDASC includes:

1. The Chair of the NDASC - the Permanent Secretary of the Ministry of Communications and Digital Economy, responsible for the implementation of the state policy in the field of implementation of digital addressing.
2. The Deputy chair of the NDASC - representative of the local government authorities.
3. The Secretary of the NDASC is the head of the GICTA.

The term of office of the coordination council is three years. Members of the NDASC participate in its work on a public basis. The personal composition of the NDASC is formed based on the proposals of the relevant executive authorities, local government authorities, enterprises, institutions, organizations, and civil society institutes.

After approval of the personal composition of the NDASC, such persons may be included in it based on official letters from the state authorities, enterprises, institutions, organizations, and civil society institutes that they represent, but no later than three months before the end of the term of office of the NDASC.

Membership in the NDASC is terminated in the event of:

1. completion of the term of office of a member of the NDASC.
2. the absence of a member of the NDASC at the first meeting without valid reasons.
3. systematic (more than two times in a row) absence of a member of the NDASC at its regular meetings without valid reasons.
4. receipt of a notice from a civil society institute, enterprise, institution, or organization signed by the head, unless otherwise provided for in its founding documents, about recalling its representative and terminating his membership in the NDASC.
5. the impossibility of a member of the NDASC to participate in its work due to his health condition, and his recognition in a court of law as incapable or limited in capacity.

6. submission of a corresponding application by a member of the NDASC.
7. entry into legal force of a court's conviction against a member of the NDASC.
8. death of a member of the NDASC.

The decision to terminate membership in the NDASC is formalized in the minutes of the NDASC.

The Regulation of the NDASC determines the organization of activities of the NDASC.

The main organizational form of the NDASC 's work is meetings, which are held by the decision of the chair of the NDASC when necessary, but not less often than once a quarter.

Extraordinary meetings of the NDASC can be convened at the initiative of the chair of the NDASC or one-third of the total composition of its members. In the absence of the chair of the NDASC, meetings of the NDASC may be held by decision and at the initiative of the deputy chair of the NDASC. Meetings of the NDASC are conducted by the chair of the NDASC or, in his absence, by the deputy chair of the NDASC, and in the absence of the deputy chair of the NDASC, by a member of the NDASC authorized by the said council.

A meeting of the NDASC is considered legitimate if the majority of members from the general composition of the council are present.

At the invitation of the NDASC, representatives of central and local government authorities, civil society institutions may participate in its meetings.

The chair of the NDASC, his deputy, and the members of the NDASC make proposals regarding the consideration of issues at the meeting of the NDASC.

Preparation of the agenda of the NDASC meeting, considering the proposals of its members and materials for consideration at the meeting, is provided by the secretary of the NDASC.

The decision of the NDASC is adopted by open voting by the majority of the members from the total composition of the NDASC. In the event of an equal distribution of votes, the chair's vote at the meeting is decisive.

Proposals and recommendations approved by the NDASC are formalized in a protocol, signed by the chair of the meeting and the secretary of the NDASC and sent to the members of the NDASC.

An NDASC member who does not support the decision can express his separate opinion in writing, which is attached to the meeting minutes.

The protocol of the meeting of the NDASC is posted no later than seven calendar days after the date of the meeting on the official website of the Ministry of Communication and Digital Economy.

Decisions of the NDASC, adopted within its competence, are advisory for consideration in the work of executive power bodies and local government authorities.

Proposals and recommendations of the NDASC can be implemented by adopting the relevant decision by the executive power body, local government authorities.

The Digital Addressing Competence Center provides organizational, methodological, informational, analytical, and logistical support for the activities of the NDASC and creates appropriate conditions for its work.

3.1.5. Gambia ICT Agency

The main function of the Gambia ICT Agency (GICTA) will be development, deployment, management, and utilization of the national and municipalities or local government digital addressing databases and portals and ensure that they are reliable, secure, interoperable, and fully integrated with other databases or systems within the country.

The GICTA is responsible for development, deployment, implementation, and management of the required digital addressing I.T Infrastructure for the country and as well support MOCDE in the implementation of the National Digital Addressing Policy.

As part of the national program for digital addressing, a GICTA shall manage the following activities:

1. Development, implementation, management, and sustainability of the digital addressing I.T Infrastructure in the country, including creating the national and local digital address databases and the national and local digital addressing portals, electronic maps and geoinformation systems.
2. Dealing with technical issues related to the functioning of the digital addressing IT infrastructure.
3. Cooperation with national and local authorities and organizations responsible for the utilizing the national and local digital address databases and the national and local digital addressing portals.
4. Developing standards and related documents in the field of digital addressing.
5. Monitoring and analyzing the use of digital addressing systems and providing recommendations for their improvement.
6. Promoting and popularizing digital addressing systems among users and the public.

3.1.6. Ministry of Lands, Regional Government & Religious Affairs

The Ministry of Lands, Regional Government & Religious Affairs is responsible for all land, housing, and urban development matters. The ministry is also tasked to put in place policies and initiate laws responsible for sustainable land management aimed at promoting sustainable housing for all and fostering orderly urban development in the country.

Regarding the Policy, the ministry will provide digital maps or principal geomatic coordinates for plots surveyed and mapped to facilitate ease and quick update of the GIS portal. They will also ensure the integration and linkage of the national digital addressing system with its internal procedures and processes. This includes digitalizing land, land plots, land parcels, land records, and management. To engage all LGAs to start assigning street names to all streets in

their respective communities to ensure a holistic national digital addressing system, as digital addressing system will be more effective with the availability of accurate and coherent street names.

3.1.7. The Gambia Standards Bureau

The Gambia Standards Bureau (TGSB) is responsible for standardizing methods, processes and products (both imported and locally produced). It promotes standardization, conformity assessment and related in the fields of industry and commerce to support industrial efficiency and development. Additionally, it disseminates and promotes standards for public welfare, health, and safety. The Gambia Standards Bureau shall be responsible for the following:

1. Developing and establishing technical standards and guidelines for the National Digital Addressing System to ensure consistency, accuracy, and interoperability of the addressing data across different platforms and systems.
2. Coordination of the development of any standards relevant to Digital Addressing.
3. Ensure technical standards and other coherent standards are developed including defining technical specifications and requirements for the digital addressing system. This includes aspects such as data formats, data transmission protocols, data validation methods, and integration with existing and future technologies.
4. Harmonization of standards at regional and international levels including to ensure that the addressing standards meet international best practices and quality benchmarks and to establishes mechanisms for quality control, testing, and validation of the addressing data to maintain accuracy and reliability.
5. Documenting developed standards comprehensively, including detailed explanations of technical specifications, guidelines for implementation, and best practices for maintaining the accuracy and effectiveness of the digital addressing system.
6. Organize training programs and capacity-building initiatives for relevant stakeholders to help users and administrators understand and apply the standards correctly.
7. Ensure continuous Improvement of developed standards considering feedback and emerging technologies to continuously review and update the standards as necessary for the National Digital Addressing System to remains up-to-date and relevant in the ever-evolving technology landscape.
8. Establish mechanisms for monitoring the implementation of the digital addressing system standards and ensuring compliance including periodic audits, assessments, and corrective actions to address any deviations from the established standards.

3.1.8. The Gambia Postal Services

The Gambia Postal Services is the National Postal Operator charged with providing universal postal services nationally through an extensive network of postal delivery outlets down to the rural level. In the implementation of this policy, The Gambia Postal Services shall be responsible for the following:

- a) Integration of the National digital addressing system, including associated data into its procedures, business processes, workflow, database, or information systems.

- b) Upgrade equipment or systems in all Post offices to make them compliant and or compatible with door-to-door mail delivery using the national digital addressing system.
- c) Verification of the data of the national DAP in collaboration with a strategic partner from the private sector.
- d) Training of postal personnel in postal operations which require door-to-door mail delivery using the national digital addressing system.
- e) Verification of the data of the National and local digital address databases.
- f) Facilitate the commercial use of digital addresses through appropriate mechanisms.
- g) Report errors, anomalies, and inaccurate digital addresses to MoCDE or local governments.

3.1.9. Digital Addressing Competence Center

The Digital Addressing Competence Center (DACC) is a separate organization subordinate to the University of Science, Engineering and Technology (USET) or organization in similar nature, or a structural subdivision of the USET or similar organization, specializing in knowledge, skills, and competencies in digital addressing. DACC should be created with the aim of improving the quality of products and services, optimizing processes, and increasing the efficiency of implementation of digital addressing systems.

The main function of the DACC is the development, collection, storage, dissemination and exchange of knowledge and experience between stakeholders in the field of digital addressing implementation. In addition, the DACC also carries out consulting activities, training, development, and improvement of policies, methods, methodologies, and technologies for developing and implementing digital addressing.

The DACC is responsible for developing, implementing, reviewing, and realizing the Digital Addressing Policy and Regulatory Framework, strategies, and programs.

A vital element of the DACC is a highly qualified staff with special knowledge, experience, and skills in the field of both traditional and digital addressing.

As part of the state program for digital addressing, a DACC can perform the following tasks:

1. Development and implementation of digital addressing systems in the country, including creating electronic maps and geoinformation systems.
2. Conducting scientific research and developing methodological materials on digital addressing.
3. Providing technical support and consultations to users on issues related to digital addressing.
4. Organizing and conducting training courses and professional development for specialists working in the field of digital addressing.
5. Cooperation with state authorities and organizations responsible for geoinformatics and spatial planning.
6. Developing standards and regulatory documents in the field of digital addressing.
7. Monitoring and analyzing the use of digital addressing systems and providing recommendations for their improvement.
8. Promoting and popularizing digital addressing systems among users and the public.

The structure of the digital addressing competence center may include the following divisions or functional areas:

- **The technical support department** ensures the high quality of the National and local digital address databases and the National and local DAPs and services of digital addressing, as well as satisfying the user's needs in technical support.
- **The planning and implementation department** is responsible for the comprehensive planning and implementation of digital addressing projects that will comply with the requirements of the Digital Addressing Policy.
- **The marketing department** ensures the effective promotion of digital addressing.
- **The training and consulting department** ensures a high level of professional knowledge and skills among the center's employees, participants in pilot projects, and employees of central and local governments, as well as providing quality advice to representatives of stakeholders.
- **The administrative department** ensures the efficient and smooth operation of the competence center, including organizational, administrative, and financial matters, as well as security.

In addition, the competence center may include specialists in standardization, security, engineers, analysts, and other specialists necessary to perform specific tasks.

3.1.9.1 Technical support department

The technical support department in the DACC will deal with technical issues related to the functioning of the digital addressing IT infrastructure. Specific functions of the technical support department may include:

1. **Answering user questions:** The technical support department will answer user questions about the functionality of the national and local digital address databases and the National and local DAPs, their use, and configuration.
2. **Resolving technical issues:** the technical support department will resolve technical issues that may arise when using the national and local digital address databases and the national and local DAPs.
3. **Product updates:** The technical support department will update the national and local digital address databases and the national and local DAPs and services and test them before starting.
4. **Technical administration** of IT infrastructure: technical administration and technical support of IT infrastructure of digital addressing: national and local digital address databases and the National and local DAPs.
5. **Provision of core infrastructure** (Government Network and National Data Centre) as a channel for communication, storage, and hosting of the national and local digital address databases and the National and local DAPs.
6. **Provision of a shared platform** over which the national and local digital address databases and the National and local DAPs shall be arranged.
7. **Provision of guidance,** support, and conformance assessment regarding the Information Security for the National and local digital address databases and the National and local DAPs.
8. **Integration** of the National and local digital address databases and the National and local DAPs services with other e-Government services.

9. **Provision of other IT-related technical support** to the National and local digital address databases and the National and local DAPs.
10. **Product performance monitoring:** The technical support department will monitor the performance of the National and local digital address databases and the National and local DAPs and services and make any necessary corrections.
11. **User training:** The technical support department can design and deliver user training to help them better use the National and local digital address databases and the National and local DAPs and services.

3.1.9.2 Planning and implementation department

The planning and implementation department at the DACC will develop new digital addressing projects and their support and evaluate the quality of implementation of digital addressing projects. Specific functions of the development department may include:

1. **Analysis of the implementation of the digital addressing policy:** the Planning and Implementation Department develops methodologies for assessing the quality of the implementation of digital addressing. Using these methods, quarterly monitoring of the implementation of digital addressing is carried out, and the quality of implementation of digital addressing projects and the National Digital Addressing Plan is assessed.
2. **Development of digital addressing plans:** new digital addressing plans are being developed based on analyzing the results of implementing digital addressing and user needs.
3. **Assessing the quality of address information:** methods are being developed to evaluate the quality of address information in the National Digital Addresses Database and Local Digital Addresses Databases. Using these methods, address information quality is evaluated at least twice a year.
4. **Project management:** the planning and implementation department manages and coordinates the implementation of digital addressing projects, ensuring the timely and high-quality implementation of projects.
5. **Collaboration with other departments:** the planning and implementation department will cooperate with other departments of the competence center, such as the marketing department, and technical support department, to ensure the complete cycle of planning and implementation of digital addressing projects.

3.1.9.3. Marketing department

The marketing department in the DACC will be responsible for promoting digital addressing products and services. The main functions of the marketing department can be:

- 1.1. **Market research:** The marketing department will analyze and study the needs of government and local government, businesses, and the public to determine which digital addressing products and services are most in demand.
- 1.2. **Development of marketing strategies:** Based on the market analysis and needs, the marketing department will develop marketing strategies and plans, determine the target audience, and how to attract them.
- 1.3. **Advertising and promotion:** the marketing department will design and launch

advertising campaigns, write press releases, create promotional materials, and ensure the digital addresses topic's presence on social media.

3.1.9.4 The training and consulting department

The training and consulting department at the Digital Addressing Competence Center will ensure a high level of professional knowledge and skills for the employees of the competence center, as well as advising government officials, and participants in pilot projects on issues related to the implementation and use of digital addressing. The main functions of the training and consulting department can be:

1. **Staff training:** the training and consulting department will develop training programs for the staff of the center, participants in pilot projects, employees of government and local government, conduct training and seminars, and organize online courses and other educational events to ensure a high level of professional knowledge and skills among representatives of stakeholders. Train civil servants who require door-to-door delivery of social services.
2. **Consulting:** the training and consulting department will advise on the implementation and use of digital addressing; help solve problems, and clarify issues related to technical support and the use of digital addressing products.
3. **Development of manuals and instructions:** The training and consulting department will develop manuals and instructions for traditional and digital addressing, using Google products, and equipment to facilitate employee's work and simplify digital addressing procedures.
4. **Evaluation and analysis:** the training and consulting Department will evaluate the effectiveness of training and consulting, conduct data analysis, and develop measures to improve the quality of the competence center's educational and consulting activities.
5. **Development and innovation:** the training and consulting department will follow the trends and developments in digital addressing, look for new methods and approaches to training and consulting, innovate in its work, and ensure continuous improvement in the quality of digital addressing.

3.1.9.5 The administrative department

The administrative department of the DACC will deal with organizational and administrative issues related to the center's work. Key responsibilities of the administrative department may include the following:

- 1.1. **Office management:** the administrative department will be responsible for the management of the office, including its equipment, furniture, decoration, and general condition. It will track resources and inventory and arrange repairs and maintenance.
- 1.2. **Document management:** the administration department will organize, and store documents and other information related to the work of the DACC.
- 1.3. **Human resources management:** the administrative department will be responsible for managing the personnel of the DACC, including the organization of the recruitment and dismissal process, and the development and implementation of policies and procedures in the field of personnel management.

- 1.4. **Financial management:** the administrative department will be responsible for the financial management of the DACC, including budgeting, accounting for expenses and revenues, preparing financial reports, and managing financial resources.
- 1.5. **Organization of events:** the administrative department will organize the events of the DACC, such as seminars, conferences, meetings, and other events.
- 1.6. **Communications coordination:** The administration department will coordinate communications between the various departments of the DACC and external contacts, including customers, suppliers, and partners.
- 1.7. **Security management:** the administration department will be responsible for the security of the DACC, including the safety of the building, office, and staff.

3.1.10. Municipalities and Local government authorities

To effectively support the implementation of the National Digital Addressing System in the Gambia through this National Digital Addressing Policy, Municipalities and Local Government Authorities have crucial roles to play. In the implementation of this Policy, municipalities and local governments shall be responsible for the following:

1. **Data Collection and Verification:** Collaborate with relevant departments and agencies to collect accurate and up-to-date property and location digital address data within their jurisdictions and verify the accuracy of the collected data and ensure that it conforms to the established standards for the digital addressing system.
2. **Database Maintenance:** Maintain a comprehensive and updated database of property and location digital addresses within their respective areas and regularly update and manage the digital addressing system's database to reflect any changes, such as new constructions, demolitions, or changes in property ownership.
3. **Address Allocation and Assignment:** Allocate unique digital addresses to all properties and locations within their jurisdictions according to the defined addressing conventions and guidelines and assign digital addresses to new properties and ensure that existing properties are correctly assigned their respective digital addresses.
4. **Public Awareness and Education:** Conduct awareness campaigns to educate residents, businesses and property owners about the importance and benefits of the digital addressing system and provide guidance to residents on how to use and share their digital addresses for various purposes, such as emergency services, postal deliveries, and navigation.
5. **Collaboration with Stakeholders:** Work closely with utility companies, emergency services, postal services, businesses, and other relevant stakeholders to ensure the integration of the digital addressing system into their operations and collaborate with private sector partners, such as mapping and navigation companies, to enhance the accuracy and accessibility of the digital addressing data.
6. **Dispute Resolution:** Establish mechanisms for addressing disputes related to property digital addresses, such as cases of overlapping, inaccurate or incorrect addresses and provide a transparent process for resolving disputes and updating address information as necessary.

7. **Policy Advocacy and Feedback:** Provide input to the development and refinement of the National Digital Addressing Policy based on their practical experiences and local insights and advocate for policy adjustments that align with the specific needs and challenges of their municipalities or local government areas.
8. **Monitoring and Reporting:** Monitor the implementation of the digital addressing system within their jurisdictions and assess its effectiveness and provide regular reports to the Ministry of Communications and Digital Economy on the progress, challenges, and successes of the digital addressing system's implementation.
9. **Capacity Building:** Develop the skills and capacity of municipal and local government staff to effectively manage, maintain and sustain the digital addressing system and provide training to relevant personnel on data collection, data ingestion, database management, and addressing standards.

3.1.11. Media

The media comprises print, radio, television, and the Internet (news agencies, official authorities' websites, social networks, etc.). In the implementation of this Policy, in cooperation with responsible bodies, the following are the roles of the media:

1. Report objectively development of implementing digital addressing policy.
2. Provide continuous sensitizing the masses on the benefits of the Digital Addressing system.
3. Understand that the digital addressing projects are for the national good.
4. Report issues, errors, anomalies, and inaccuracies related to the national digital addressing system to MoCDE.

3.1.12. The people and public sector

The people and public sector shall be responsible for the areas below during the implementation of the Policy:

1. Taking responsibility for registering land properties, realty, and registration place for easy allocation of their digital address.
2. Working with relevant authorities to facilitate the development of well-planned and formal human settlements.
3. Protection of digital addressing infrastructure.
4. Report issues, errors, anomalies, and inaccuracies found related to the national digital addressing system to GICTA and MoCDE.
5. Policy to highlight, residents or citizens to report wrongly affixed address boards to relevant authorities such as ward councilors, councils, or ministries.

3.2. Digital Address Data Roles

The policy aims to **provide confidence in using digital address data within The Gambia for all stakeholders**. This will be achieved by establishing policies and processes that digital address producers, aggregators, distributors, and users can use to deliver digital address useability, quality, and completeness. The outcome will provide a digital address for all properties and sites

requiring an address location to be established, including individual buildings, units, businesses, and location features.

The framework harmonizes the roles and functions of the main stakeholders in the rollout of the digital addressing system and supports The Gambian Digital Address Policy.

Role	Actors	Description
Digital address data producers	<ul style="list-style-type: none"> • Digital addressing makers (projects) • Local governments • Ministry of Lands, Regional Government and Religious Affairs (MoLRGRA) • Department of the Traditional Address Planning (DoPP) • GICTA • DACC (USET) 	Responsibilities associated with assigning a digital address (Plus Code) to the addressing objects, collecting and uploading digital addresses to local and national digital address databases, production and installation of the address boards.
Digital address data aggregators	<ul style="list-style-type: none"> • GICTA • Local governments 	Responsible for collecting information contained within or provided from the national and local digital address databases.
Digital address data distributors	<ul style="list-style-type: none"> • GICTA • Local governments • Value-added resellers 	The functions and roles apply only to those who distribute data directly sourced from national and local digital address databases.
Digital address data users	<ul style="list-style-type: none"> • State government authorities • Ministries, Departments and Agencies • CSOs / NGOs • Schools (Universities, tertiary institutes, and educational facilities) • Health Facilities • Local Governments • Commercial entities • Members of the public / citizens 	Details the functions and roles of users who access data sourced from the national and local digital address databases, and national and local DAPs.

3.2.1. Digital Address Data Producers

Three types of digital address data producers are: digital addressing makers (projects), local governments, GICTA, and National Digital Addressing Steering Committee.

Functions for data producers

Digital address data producers	Functions
Digital addressing makers (projects)	<p>The functions that these stakeholders can perform to support comprehensive and standardized addressing are:</p> <ol style="list-style-type: none"> 1. Maintain awareness of applicable standards, policies, procedures, and guidelines which can guide their work in addressing. 2. Create and own the project plan to execute the addressing project. 3. Coordinate project plan to execute the addressing project with local governments throughout the executing project. 4. Provide project updates on a regular basis to the local governments team, MoCDE, GICTA, DACC (USET), DoPP, and MoLRGRA team. 5. Assigning a digital address to objects according to the addressing Policy and national digital addressing format and standard. 6. Quality assessment and collecting digital address data. 7. Uploading digital address data to the local and national digital address database. 8. Production of address boards. 9. Installation of address boards. 10. Organizing training about the adopted national digital address maker tool and processes for the field operations team. 11. Troubleshoot and escalate issues to find quick resolutions and avoid disruption to the field operation. 12. Supporting the Local Governments team and GICTA team in maintaining local and national digital address databases.

<p>Local governments</p>	<p>Local governments are the key stakeholders and are responsible for the administration of core digital address components (IT infrastructure for assigning a digital address, infrastructure for production address boards, and local digital address databases) within their local government area and the implementation of digital address through the installation of road and address locality signage and ensuring the appropriate display of door or house numbers.</p> <p>Their on-ground presence and local knowledge make their administrative roles of maintaining digital address records, endorsing new digital address components, and resolving anomalies vital for establishing a quality digital address system.</p> <p>Functions that the local government can perform to support comprehensive and standardized addressing are:</p> <ol style="list-style-type: none"> 1. Maintain awareness of applicable standards, policies, procedures, and guidelines which can guide their work in digital addressing. 2. As the authority, provide production and apply digital addresses within their boundaries. 3. To consult and notify citizens, property owners, business owners, and authorities about the implementation of measures for digital addressing. 4. Organizing and conducting the sensitization campaign of digital addressing. 5. Maintain the IT infrastructure for assigning digital addresses, production of address boards, and storage of digital address data as local digital address databases. 6. Cooperatively work with digital addressing makers (projects) to maintain a single source of truth digital address database for Local Government Areas - Local Digital address databases. 7. Provide production and installation of Address boards. 8. Ability to issue orders for the 'display of a complying address and removal of a non-complying address' on owners or occupiers of premises whereby failure to comply is an offence and a penalty is applied. 9. Coordinate project plan to execute the addressing project. 10. Provide updates of digital address coverage to the MOICI team regularly. 11. Set up an internal committee responsible for digital addressing implementation and request for clearance/permit needed before implementation. 12. Provide protection mechanisms to avoid the address board's vandalism within their areas.
<p>GICTA, National Digital Addressing Steering Committee, DACC (USET)</p>	<p>Functions which can perform to support comprehensive and standardized addressing are:</p> <ol style="list-style-type: none"> 1. Maintain awareness of applicable standards, policies, procedures, and guidelines which can guide their work in digital addressing. 2. Organizing and conducting the sensitization campaign of digital addressing. 3. Cooperatively work with local government to maintain a single source of truth digital address database - national Digital address database. 4. As the authority implements digital address policy frameworks. 5. Mobilize needed resources to facilitate continued digital address projects or programs rollout within the country. 6. To provide support to digital address data producers on address component issues and facilitate queries or dispute resolution through the digital address policy review process. 7. To maintain awareness of applicable standards, policies, and legislation developments within other Gambian and International jurisdictions and

	<p>introduce innovative practices in Gambia as required.</p> <p>8. To maintain and publish policy, principles, process, procedure, and guideline documentation to inform other stakeholders in production, management, and use of digital address data.</p>
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3.2.2. Digital Address Data Aggregators

There are two types of digital address data aggregators: GICTA; local governments.

Functions for Data Aggregators

Digital Address Data Aggregators	Functions
GICTA	<ul style="list-style-type: none"> • The primary role of the GICTA is to develop guidelines and regulate the creation, maintenance, and aggregation of digital address data in the Gambia. • Responsible for aggregating address information it receives from digital address data producers and supporting custodians for the digital address data on the national level. • Cooperatively work with local government to maintain a single source of truth digital address database - national digital address database. • Maintain the IT infrastructure for collecting and storing digital address data as national digital address databases. • Apply due diligence in maintaining the national digital address database by the digital address data requirements. • Identify and refer for consideration instances of addressing which do not conform to the requirements of the policies. • Ensure the quality of digital address data and increase the utility and interoperability of the national digital address database. • Collecting and aggregating address data into the national digital address database. • Collaborate with digital address data producers to exchange information regarding quality, including missing or erroneous data.

<p>Local Governments</p>	<ul style="list-style-type: none"> • Responsible for aggregating address information it receives from digital address data producers and supporting custodians for the digital address data on the local government level. • Cooperatively work with Digital Addressing Makers (projects) to maintain a single source of truth digital address database for local government areas - Local Digital address databases. • Maintain the IT infrastructure for collecting and storing the Digital Address Data as Local Digital address databases. • Apply due diligence in maintaining the Local Digital address databases by the digital address data requirements. • Identify and refer for consideration instances of addressing which do not conform to the requirements of the policies. • Ensure the quality of digital address data and increase utility and interoperability of the local digital address databases. • A data aggregator is responsible for accessing address data and aggregating this into the local digital address database. • Collaborate with digital address data producers to exchange information regarding quality, including missing or erroneous data.
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3.2.3. Digital Address Data Distributors

The leading digital address data distribution stakeholders are GICTA, local government, and value-added resellers.

Functions for Data Distributors

<p>Digital address data distributors</p>	<p>Functions</p>
<p>GICTA</p>	<ul style="list-style-type: none"> • The GICTA is responsible for distributing data from the National Digital address database via the National DAP, API, and others and maintaining access and delivery arrangements for address data from the National Digital address database. Therefore, the National DAP and API should be developed as government tools to access address data from the national digital address database. • The GICTA is responsible for ensuring the quality and timeliness of data as per the requirements of this policy. • The GICTA is responsible for reviewing and approving/disapproving specific requests to access or use the digital addressing data in whole or in part for whatsoever reason. • GICTA should make available guidelines that assist in effectively managing digital address records, services, and service delivery channels that effectively and efficiently provide digital address verification and management practices.

<p>Local governments</p>	<ul style="list-style-type: none"> • Local governments are responsible for distributing data from the local digital address databases via local DAPs and API and maintaining access and delivery arrangements for address data from local digital address databases. Therefore, local DAPs and API should be developed as local government tools to access data from the local digital address databases. • Local governments are responsible for ensuring the quality and timeliness of data as per the requirements of this policy. • Local governments should make available guidelines that assist in effectively managing digital address records, services, and service delivery channels. The guidelines help to create effective and efficient digital address verification and management practices.
<p>Value-added resellers</p>	<ul style="list-style-type: none"> • Value-added resellers typically consume raw data from national and local digital address databases via API, then apply a set of quality assurance metrics and other metadata or attributes before on-selling the data to end-users. • Value-added resellers are encouraged to source address data from the national and local digital address databases and provide this data to users.

3.2.4. Digital Address Data Users

All members of the public are beneficiaries of the consistent and appropriate use of the national and local digital address databases as a source of truth for digital address information across The Gambia. Therefore, there is a strong imperative for government agencies and corporations to use address information to deliver services to access and reference national and local digital address databases as the authoritative source of information.

Data users can be provided with access to the national and local digital address databases from various distributors.

Data users are encouraged to inform the owners of the national and local digital address databases (digital address data aggregators) of errors, inaccuracies, or omissions in the data so that they may inform the digital address data producers to resolve the issue and subsequently notify the data distributors.

Functions for Data Users

<p>Digital address data users</p>	<p>Functions</p>
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Government institutions (central and local)	<ul style="list-style-type: none"> • Government institutions ensure access to the national digital address database and associated basic address information via National DAP and API within their systems. • They may develop in-house systems for attributing business-specific details to the data, but there are no requirements for digital address data producers and digital address data aggregators to collect, aggregate, maintain, or distribute this information. • They should maintain awareness of relevant digital addressing to capture and manage address data.
Commercial entities	<ul style="list-style-type: none"> • Commercial entities are encouraged to access and use data from the national and local digital address databases via national and local DAPs and API. • Using this data as a source of truth for address information in commercial spatial solutions, DAPs, and address software will ensure consistency and reliability of address data usage.
Members of the public, citizens	<ul style="list-style-type: none"> • Members of the public and citizens are encouraged to use and reference authoritative digital addresses produced, endorsed, and approved by the national and local governments via products and services which are using access to authoritative DAPs. • When a member of the public and citizens becomes aware that an address they are using or have referred to does not adequately represent, identify or locate a property, feature, or point of interest, they should advise the local government responsible for the digital address in that area.

3.3. National Digital address database

Digital address data producers will generate and maintain a national digital address database that can be used as the unified source of truth for producers, aggregators, distributors, and users of address data.

Given the unlimited scope of individual user requirements for address data, the national digital address database will maintain basic address information and spatial data to which users can ascribe business-case-specific information within their systems. In addition, the database will contain authoritative and non-authoritative addresses.

This Policy defines an addressable object as a location accessed via the road network or lanes. An addressable object or property can be as follows:

- **Residences (operating household i.e., a family unit that shares meals together)**
- **Businesses**
- **Government offices & establishments**
- **Health facilities**
- **Educational facilities**
- **Places of worship (e.g., mosques, churches etc.)**
- **Community centers**
- **Recreational centers**
- **Historical monuments**
- **Cemeteries**

- **Public toilets**
- **Others.**

The above properties can be a place of habitation or a **location to which services may be delivered or where people can congregate, visit, or reference for location purposes.**

Any location which fulfills these definitions of an addressable object should be assigned a digital address, and the data must be maintained in the national and local digital address databases. **In addition, for multi-dwelling buildings, for his policy, only the entrances would be assigned addresses unless otherwise deemed necessary by the digital addresses producer in consultation with MoCDE, GICTA, DACC (USET) and local governments.**

For developing and maintaining a comprehensive national and local digital address database, **an address is a string of data containing at least necessary components and references to a location that describes a geographical point accessed via the road network.** The national and local digital address database components, types of data, and structure of basic address information are defined in the description of the national and local digital address databases.

3.4. Digital Address Portals

The GICTA shall establish **the National DAP** which shall contain the following information, among others:

- a) Digital, traditional, and geographic addresses of all households in The Gambia,
- b) Layers to serve other sectors like the electricity sector, water sector, health sector, and security sector; and
- c) Linkages to existing GIS systems in the public and private sectors.

The local government shall establish **a local DAP** which shall contain the following information, among others:

- a) All households in the local government area with details of ownership and occupancy.
- b) Digital, traditional, and geographic addresses of all households in the local government area.
- c) Layers to serve other sectors like the electricity sector, water sector, health sector, and security sector.
- d) Linkages to existing GIS systems in the public and private sectors.

The chosen model should leverage the private sector's capacity and technical know-how to deliver public services.

3.5. Digital Addressing Basis

The Gambia shall adopt a standard and unique digital addressing technology solution that can be interoperable with existing international addressing systems and standards with usable and widely known data formats and can interface with existing major or well-known maps or map platforms, applications, or services. This digital addressing technology solution should be able to integrate with the traditional addresses where and when necessary and possible, as a basis for a unique, coherent, and integrated national digital addressing system.

CHAPTER 4: LEGAL FRAMEWORK

There is a need for a robust regulatory framework supporting the implementation of the Digital Addressing Policy. The stakeholders in the development of the legislation on the implementation of digital addressing are the Ministries of Communications & Digital Economy, Justice, Lands, etc. The legal and regulatory framework should provide the following:

1. Using digital addresses in the government's information systems and registers.
2. Unambiguous and unique identification of the individual's address for deeds registration.
3. Unambiguous and unique identification of the address of the ownership (buildings, premises, lands plot) for deeds registration.
4. Using digital and traditional (non-digital) addresses in all national documents, including all national identity and form registrations.
5. Decreasing the number of mistakes made by people.
6. Criminalize the vandalization of digital addressing systems or digital address boards.
7. Eradicate opportunities for corruption and fraud.

The legal and regulatory framework should cover the following pertinent issues:

- a. Mandatory both using Digital Addresses and traditional (non-digital) addressing for registering:
 - i. House owners and tenants.
 - ii. Deeds.
 - iii. Businesses and charitable bodies.
 - iv. Taxpayer and Taxpayer Identification Number (TIN), tax type.
 - v. Citizens and Residential Permit.
 - vi. National identification documents (including ID cards, voter registration cards, and driving licenses).
- b. Mandatory use of digital and traditional addressing in the registration documents.
- c. National digital address planning (development National Digital Addressing Plan).
- d. Protecting digital and non-digital addressing infrastructure.
- e. Mandatory usage of digital addresses by the government, local government, all service providers, and citizens.
- f. Mandatory usage of digital addresses by all mobile network operators, internet service providers (ISPs), and all other digital infrastructure service providers, including cell towers and submarine cable landing sites.
- g. Mandatory usage of digital addresses by all banks and financial institutions, including ATMs and bank agent posts.
- h. Mandatory usage of digital addresses by all postal, courier, and delivery services.
- i. Mandatory usage of digital addresses by all media entities, including television, radio, print media, online media houses, and others.
- j. Mandatory identification and labeling of buildings, places of habitation, and places where people can congregate, visit, or reference for location purposes.

The legal and regulatory framework should include the use of digital and traditional (non-digital) addresses by the **Ministry of Justice** for registration and oversight of the following: **leases; assignments; conveyances; mortgages; caveat; memorandum of deposit; deeds of release; partnership deed; transfer of shares; vesting deed; powers of attorney; lease contracts; deed of rectifications; deed of gift.**

The legal and regulatory framework should include the use of digital and traditional (non-digital) addresses by **the Ministry of Justice** for registration and overseeing the following: companies (private limited liability companies, companies limited by shares, companies limited by guarantee, public limited liability companies and branch of a foreign company/external companies); partnerships (limited partnership, general partnerships, firms); sole proprietorships (sole trader, individual entrepreneurship or proprietorship); and charitable bodies (charitable organizations, associations & foundations).

To ensure effective enforcement of Plus Codes to be part of registration processes of institutions such as banks, ISPs, general hospitals, immigration departments, police stations, and fire and rescue services.

The legal and regulatory framework should include the use of digital and traditional (non-digital) addresses by **The Gambia Revenue Authority** for registration and oversight of the following: *taxpayer and* taxpayer Identification Number (TIN), which is mandatory to do business with GRA and other entities; specific tax type. In addition, the legal and regulatory framework should include using digital and traditional (non-digital) addresses by **The Gambia Revenue Authority** for enforcement and debt management process for the following: collection by distress and sale; seizure of goods; temporary closure of business.

The legal and regulatory framework should include using digital and traditional (non-digital) addresses by **The Gambia Immigration Department** for an address for the registration of citizens and residential permits. The legal and regulatory framework should include using digital and traditional (non-digital) addresses by **the Police** for investigations, processing calls, and going to the place of an incident or road accident.

The legal and regulatory framework should include using digital and traditional (non-digital) addresses by **The Gambian Government** for registration documents and by the Judiciary for service of court processes to defendants.

CHAPTER 5: MONITORING AND EVALUATION

This Policy has been designed to meet all its objectives in five years. A monitoring and evaluation framework has been developed to manage the monitoring and evaluation of the Policy. **The Policy shall be subjected to short-term annual reviews, a middle review during the third year, and a long-term review at the end of the five years.**

The MoCDE shall monitor and evaluate the Policy implementation together with other relevant stakeholders as mentioned in the implementation framework of the Policy.

5.1 Monitoring and evaluation framework

No.	Objectives	Outputs	Baseline	Target	Output Indicators	Data collection method
1.	Provide a Policy, Legal and Regulatory Framework necessary to support development of a Digital Addressing System for The Gambia	Plan for the development and adoption of a legal framework to provide a conducive environment for the national rollout of the Digital Addressing System.	0	1	Existence of developed plan	Quantitative
		National Digital Addressing Plan.	0	1	Existence of developed plan	Quantitative
		Financing plan to mobilize funds both from government and development partners for the implementation of the Policy.	0	1	Existence of developed financing plan	Quantitative
		The adopted legal framework to provide a conducive environment for the adoption and enforcement of the Digital Addressing System.	0	1	Necessary legal framework was developed and adopted	Qualitative
2.	Promote national rollout of digital addressing infrastructure based on up-to-date information technologies	Six digital addressing pilot projects rolled out in regions and Banjul.	1	7	Number of pilot projects rolled out	Quantitative and qualitative
		The rollout of the national digital addressing infrastructure is monitored and evaluated.	3	All regions	Quality of Digital addressing systems developed	Qualitative
		Assigning digital addresses.	90 000	240 000	Number of assigned Digital Addresses	Quantitative

3.	Promote a national and regional digital addressing databases and portals that are fully integrated, reliable and secure to share information seamlessly	National digital address database developed, deployed and sensitized.	0	1	Existence of a developed and implemented National digital address database	Quantitative
		Local digital address databases developed, deployed and sensitized.	0	6	Number of implemented local digital address databases	Quantitative
		National digital address portal developed, deployed and sensitized.	0	1	Existence of a developed and implemented National digital address portal	Quantitative
		Local digital address portals developed, deployed and sensitized.	0	6	Number of implemented local digital address portals	Quantitative
4.	Promote human resource capacity development and innovation in Digital Addressing technologies	Local leaders at all levels in the country are trained in digital addressing.	Local leadership trained	All relevant local leaders countrywide	Number of local leaders trained	Quantitative
		Implemented Digital Addressing education curricula at primary and post-primary levels.	0	All relevant students countrywide	Number of students trained	
		Forum for incubation of innovations developed and marketing latest ideas and products developed based on digital addressing.	0	4	Number of innovations developed	Quantitative
		Training programs are conducted for all officers responsible for producing, assigning, and verifying digital addresses.	0	All relevant technical officers countrywide	Number of technical officers trained	Quantitative
5.	Engage all stakeholders and promote and ensure the development and availability of a unified and coherent national digital addressing system.	Sensitization of local leaders carried out in regions and Banjul.	Local leadership trained	All relevant local leaders	Number of local leaders sensitized	Quantitative
		Sensitization of masses carried out in regions and Banjul.	Sensitization carried out	All masses in all four regions of The Gambia	Number of people sensitized	Quantitative

Engage all stakeholders and promote participation in developing postcode and addressing systems for The Gambia.	Sensitization of the business community carried out in regions and Banjul.	0	All relevant business in all regions of The Gambia	Number of businesses sensitized	Quantitative
	Conducting donor's conference towards mobilization of funds.	0	3	Number of donor's conferences	Quantitative
	Establishing local cooperation networks and partnerships.	Establishing carried out	All relevant local partnerships	Number of local partnerships	Quantitative