



GOVERNMENT
OF KENYA



COUNTY GOVERNMENT
OF KIAMBU

KIMENDE TOWN INTEGRATED STRATEGIC URBAN DEVELOPMENT PLAN 2020–2030



VISION

A FUNCTIONAL AND WEALTHY ADMINISTRATIVE TOWN
THAT PROMOTES AGRO-BASED GROWTH AND
TOURISM DEVELOPMENT

Report Prepared for:



MINISTRY OF TRANSPORT,
INFRASTRUCTURE, HOUSING &
URBAN DEVELOPMENT

*Nairobi Metropolitan Services Improvement
Project (NaMSIP)*



County Government of Kiambu
People of Kimende Town

APPROVAL

Certified

I certify that the plan has been prepared as per the Physical and Land Use Planning Act, 2019, the County Governments Act, 2012 and Section 110 on Planning standards and guidelines.

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Recommended

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COUNTY EXECUTIVE COMMITTEE MEMBER IN CHARGE OF PHYSICAL AND LAND USE PLANNING

Approval

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Signature: _____

Date: _____

H.E THE GOVERNOR

FOREWORD



The Kenya Constitution 2010 assigns the function of county planning to the County Governments within its Fourth Schedule. The Kimende Town Integrated Strategic Urban Development Plan (ISUDP) is a ten years geographical information-based database system plan that will guide the spatial development of the Town from 2020 to 2030.

This development blueprint is a statutory requirement, as outlined in Section 111 of the County Governments Act, 2012(CGA). Section 36 (1) of Urban Areas and Cities Act (UACA) further states that ISUDP shall be basis for development control; preparation of environmental management plans; preparation of valuation rolls for property taxation; provision of physical and social infrastructure and transportation; preparation of annual strategic plans for an urban area; disaster preparedness and response; and overall delivery of service including provision of water, electricity, health, telecommunications and solid waste management

This ISUDP forms part of the Nairobi Municipal Services Improvement Programme (NaMSIP) which is a World Bank funded project. This Integrated Strategic Urban Development Plan reflects the desired spatial form for Kimende and the desired land use zoning within the 2020-2030 plan period. The desired patterns of land use have been synchronized to other existing regional, national and other county plans. Indeed, the plan reflects the objectives and aspirations of the County as outlined in the second County Integrated Development Plan (CIDP) for the 2018-2022 Plan period.

The ISUDP provides strategies for conservation, use and management of natural resources. In addition, the spatial structure of the population, existing infrastructure, economic activities and human settlements have been mapped. Similarly, the challenges and opportunities for tapping into these resources have been identified. I also take note that the Town Plan has identified areas where priority strategic intervention and funding is required. Equally important, the Plan has considered the rights of all special groups within the County within the constitutional requirements for participatory planning and development.

I am aware that the preparation of this Integrated Strategic Urban Development Plan was carried out through a participatory process as per the requirements of the County Governments Act 2012. The process involved representation from the general public, the County Government and the National Government through the Nairobi Metropolitan Services Improvement Project- NaMSIP.

I believe that this Plan will be an important pillar in stimulating agricultural production, infrastructural and social economic development in Kiambu County towards the desired Vision. I am confident that in the renowned true spirit and tradition of the hard working Kimende people, this plan will become an important guide for investments in the county. I therefore take this opportunity to rally the people of Kimende to support the implementation of this Town Plan as part of the County Spatial Plan in line with our desired transformation agenda of our County and hereby commit myself to appropriate funding for its implementation.

Signature: _____

PLAN. JAMES MAINA MITAMBO,

County Executive Committee Member, Housing and Physical Planning Kiambu County.

ACKNOWLEDGEMENT

Kimende Town Integrated Strategic Urban Development Plan (ISUDP) 2020 -2030 is a tool for efficiently controlling and managing the use of space in Kimende Town over the next ten years, in a sustainable manner. The Plan will also serve as a base for all future physical development plans with the area. The Plan also aims to help coordinate implementation of sectoral projects and programs, especially to reduce wastage of scarce resources and to avoid the duplication of efforts.

The preparation of this ISUDP has been as a result of a concerted effort by many players. I wish to thank the County Executive and staff, led by H.E. Dr. James Nyoro for their goodwill and support during the preparation of this Plan.

I wish to acknowledge efforts of staff of the Nairobi Metropolitan Services Improvement Project- NaMSIP, for initiating, supervising and supporting the entire preparation of this Plan. Special thanks go to the NaMSIP Project Coordinator, Engineer Benjamin Njenga, Planner Ann Mugo (Project Supervisor) as well as Planner Esther Muthoni. Special thanks goes to the planners from Kiambu County; Planner Nicholas Waweru (deputy director planning), Plan. Wallace Mochu, Planner Christine Kamau, Planner Charles M. Mwangi, Plan. Bryan Njeru, Plan. Onesmus Ng'ang'a, Plan Hilda Mwai, Plan Rehema Nyambuga, Plan Christine Njeru, Plan. Judith Nyamongo, Plan. Alex Waweru, and Plan Esther Waweru.

The consulting team from ALPEX Consulting Africa Ltd (ACAL), EcoPlan Kenya and BC Gildenhuys and Associates CC (South Africa), worked tirelessly with the Department of Planning at the County level in data collection and analysis. The draft was subsequently discussed at the technical level and in a stakeholder's workshop. I would like to acknowledge the technical expertise and team spirit provided by the team of consultants led by Planner Geoffrey Njoroge, Aron Kecha, Planner Hellen Njoki, Brian Murage, Dr. Samuel Gichere and David Mathenge. Finally, I wish to thank the people of Kimende Town for sharing their proposals through the stakeholder forums that were held. It is for them that this Plan has been prepared.

PLAN. JANE WANJIKU MWANIKI,

County Director of Physical Planning

Department of Lands, Housing and Physical Planning, Kiambu County.

EXECUTIVE SUMMARY

This report presents the Kimende Town Integrated Strategic Urban Development Plan (2020 -2030), a product of a process undertaken by the Government of Kenya through Nairobi Municipal Services Improvement Programme (NaMSIP) in collaboration with the County Government of Kiambu. The process was executed by a consortium led by ALPEX Consulting Africa Ltd (ACAL) and BC Gildenhuys & Associates in consultation with the stakeholders.

This plan strived to contribute towards achieving the national and local development aspirations as enshrined in the Sustainable Development Goals and elaborated in the Kenya Vision 2030. The preparation of the plan has been identified as an important aspect in the realisation of the county's development goals and is also a step in achieving the Vision of the County Government of Kiambu to be the most recognized, modernized and well-organized county with equal opportunities and high standards of living for all.

The ISUDP has been prepared in the spirit of the Constitution of Kenya, which in Article 60 directs that land in Kenya shall be held, used and managed in a manner that is equitable, efficient, productive and sustainable. The fourth schedule further mandates the county governments to plan and develop their areas of Jurisdiction. Besides the Constitution, the County Government Act 2012 and Urban Areas and Cities Act. The proposed interventions were inspired by the universal Sustainable Development Goals (2015-2030), the Kenya Vision 2030, the National Spatial Plan (2015-2045), The Governments Big Four Agenda and the Kiambu County Spatial Plan.

The plan, which covers the entire town, provides a spatial framework to improve quality of life, achieve optimal land resource utilization, environmental sustainability, balanced and equitable development, and enhance socio-economic competitiveness of the town and creating efficient network of functional human settlements. It defines an optimal land use pattern, sets out basic land management system guidelines, guides infrastructure investment, establishes urban hierarchy, delineates urban limits and identifies projects for development.

Kimende Town is one of the main towns in the County of Kiambu County and covers a total land area of approximately 601 Ha. The analysis done shows that Kimende Town is endowed with diverse resources that can be leveraged to transform its socio-economic landscape. The town has high potential for agriculture owing to the fertile soils, ground and surface water resources, warm and temperate climatic patterns. Owing to its diverse climate the Town produces various products such as maize, dairy products, tomatoes, french beans and green vegetable and a range of crops grown for domestic and commercial use. The Town is also suitable for agro-industrial developments.

One of the main obstacles to the development of Kimende Town is the lack of a physical development plan. This is manifested by the increasing land use conflicts, narrow roads, poor drainage, inadequate public amenities, depreciation of investments, environmental degradation, loss of aesthetics and the general lack of spatial order. It is on the background of these challenges that the planning of the Town and its environs was given priority.

The plan provides a spatial framework to guide developments of the Town. The spatial framework is accompanied by development guidelines and a zoning plan that details the various users and densities to be allowed in the Town. Further, the plan gives various development policies to ensure the developments taking place are responding to the identified development vision for the Town. A detailed plan is provided for the CBD which has been identified as an Action Area whose immediate development will spur the development of other areas and sectors. The plan and policies are then complemented by the development of an implementation framework which outlines the phasing of projects, the actors, the costing of major projects, and a monitoring framework. It is proposed that the plan will be due for a comprehensive review at the end of the planning period.

The preparation of the plan also required formulation of several planning policies intended to guide the development of various sectors. Other components of the plan are the preparation of various planning strategies focusing on transportation, housing, environment and economic investment. It is believed that

the plan proposals address most of the major planning and development challenges of Kimende Town. Its implementation is expected to provide solutions to most of the concerns that have become critical to development in Kimende. It is therefore hoped that the plan will be given appropriate support by the various actors.

The preparation of Kimende Town Integrated Strategic Urban Development Plan relied on the Kenya Constitution 2010, Kenya Vision 2030, and relevant policies and legislations for spatial development such as the National Spatial Plan, National Land Use Policy 2018, National Land Policy 2009) and the Kiambu County Integrated Development Plan (2018-2022). The preparation process was also informed by various Acts of Parliament including the County Government Act (2012) the Physical Planning Act (Cap 286, 1996), the Urban Areas and Cities Act of 2011 (and the Amendment, No. 3 of 2019), the Environment Management and Coordination Act (Cap 387 of 2012), the Water Act (Cap 372 of 2012), the Land Act (No. 6 of 2012), the National Land Commission Act (No.5 of 2012) and the Forest Conservation and Management Act (No. 34 of 2016), among others.

For this multi-disciplinary undertaking, different types of data from primary and secondary sources were collected and collated. This data was studied in detail to identify the development issues and gaps within different urban and rural sectors. The various spatial development opportunities and challenges in the county informed the development of goals, objectives, and proposed implementation of the spatial development vision.

Three scenarios were considered in the preparation of the Kimende Town Plan, namely agricultural, industrial and conservation-led development. The development model that was eventually selected was a hybrid of the three development trajectories, integrating agro-industrialization, within a well conserved environment. The main strategies developed to bring the vision of the Plan alive included: an agro-industrialization strategy,

The land use plan provides a framework that sets out strategic planning policies in terms of space. A structure plan comprises three elements – namely a physical zoning map, land management policies, and land use standards. Overall, the spirit of any structure plan is environmental conservation. The Environmental Strategy synthesizes the opportunities and constraints presented by geological, water, forest, energy, land, and wildlife resources. Water resources strategies cover the protection of riparian reserves, wetlands, and underground water sources by restricting development and introducing innovative changes in surrounding areas (such as better and cleaner farming practices and appropriate tree planting schemes). Forest protection strategies include participatory forest conservation projects, restrictions on development within forests or in their immediate vicinity, agro-forestry plans, and promotion of alternative energy sources. Within the wildlife and scenic resources strategy, promotion of eco-tourism would develop wildlife resources.

The ISUDP provides an economic strategy that uses agricultural development as the basis upon which the county is to grow. The plan identifies diversification of agricultural products, increased production, agro industries and marketing as key features to ensure the county reaps economic growth from agriculture. To this end, the plan proposes the setting up of agro industrial zones and various processing industries for fruits, vegetables, dairy and fish. The economic strategy is fused with the environmental strategy where the plan proposes ways to ensure sustainable utilization of the numerous natural resources within the county such as the Aberdare water tower, water resources, wildlife and minerals.

For the implementation of the Town Plan, the plan proposes a two-tier implementation team having both the County Government team and the team from other development stakeholders. The implementation team is proposed to be holding consultative forums at least once every two years to keep track of the progress of the implantation. A capital investment plan is provided showing the cost of the major projects which total to about 50 Billion Shillings within the entire plan period.

LIST OF ACRONYMS

CBD	Central Business District
EMCA	Environment Management and Coordination Act
GoK	Government of Kenya
ISUDP	Integrated Strategic County Development Plan
KeNHA	Kenya National Highway Authority
KURA	Kenya Urban Roads Authority
MDGs	Millennium Development Goals
MTIH&UD	Ministry of Transport, Infrastructure, Housing and Urban Development
NMED	Nairobi Metropolitan Development
NaMSIP	Nairobi Metropolitan Services Improvement Project
NEMA	National Environment Management Authority
NGOs	Non-Governmental Organizations
NMR	Nairobi Metropolitan Region
NMT	Non-Motorized Transport
SEA	Strategic Environmental Assessment
WRMA	Water Resources Management Authority
WSPs	Water Services Providers
WSS	Water and Sanitation Services

GLOSSARY OF TERMS

Corridors: A corridor is a linear strip of land or area, connecting large activity nodes, traversing urban or inter-urban areas, surrounding a major transport facility or facilities providing an appropriate regional level of mobility and accessibility to adjacent areas. It constitutes a high concentration of population and mixed land uses” and “... accommodate major linear transport routes like heavy and light rail and/or freeways, large shopping concentrations, etc., social, cultural and sporting facilities as well as a large amount of residential accommodation”.

Density: The number of units per unit of land area, e.g. dwelling units/ hectare. There are five measures of density:

Population density: people / hectare.

Gross dwelling unit density: dwelling units / total land area of a project or suburb including roads, public open space and non-residential land uses.

Net dwelling unit density: dwelling units/land occupied by residential plots only.

Building density: area of buildings/hectare.

Settlement density: (dwelling units / total land occupied by settlement) also known as average gross dwelling unit density.

Densification: Densification is the increased use of space both horizontally and vertically within existing areas/ properties and new developments, accompanied by an increased number of units and/or population threshold.

Efficiency: Development that maximises development goals such as sustainability, integration, accessibility, affordability, and quality of living, relative to financial, environmental, and social costs, including on-going and future costs.

Infill Development: Development of vacant or underutilised land within existing settlements to optimise the use of infrastructure, increase urban densities and promote integration.

Kernel density calculates the density of features in a neighbourhood around those features. The result is a smooth surface indicating the intensity of an attribute (buildings, schools, settlement, social facilities, etc.) over the study area.

Land Use Management: Establishing or implementing any measure to regulate the use or a change in the form or function of land and includes land development.

Land Use Management System: A system used to regulate land use, including a town planning or zoning scheme, or policies related to how land is used on a plot-by-plot basis.

Nodes: Nodes are focused areas where a higher intensity of land uses, and activities are supported and promoted. Typically, any given area would accommodate a hierarchy of nodes that indicates the relative intensity of development anticipated for the various nodes, their varying sizes, and their dominant nature.

Spatial Planning: Planning of the way in which different activities, land uses, and buildings are located in relation to each other, in terms of distance between them, proximity to each other and the way in which spatial considerations influence and are influenced by economic, social, political, infrastructural and environmental considerations.

Spatial Development Framework: A Spatial Development Framework (SDF) is a core instrument in spatially expressing the economic, sectoral, social, institutional, environmental vision. In other words, it is a tool for moving towards a desired spatial form for the planning area.

Sector Plans: This refers to plans for different functions such as biodiversity conservation, housing, transport, local economic development and disaster management. They may also be geographically based, for example, a sub-region, settlement within an area or a component of that settlement.

Stakeholders: Agencies, organisations, groups or individuals who have a direct or indirect interest in a development intervention or its evaluation.

Urban–rural transect (continuum): A cut or a path, a gradient or a geographical cross section of a region that can be used to reveal a sequence of environments

Urban Edge: The urban edge is defined as an indicative boundary within the planning area with the sole purpose of containing physical development and sprawl and re-directing growth towards a more integrated, compact and efficient urban form.

Zoning Scheme: A legal instrument for regulating the use of land regarding county or national legislation (see Land Use Management System.)

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PART I: INTRODUCTION & PLANNING CONTEXT

1 CHAPTER ONE: BACKGROUND

1.1 Background

The Kenya Constitution 2010 assigns the function of county planning to the County Governments within its Fourth Schedule. The schedule allocated all Counties the responsibility of preparing County Spatial Plans as the basis of spatial planning. It is in line with this provision that the Government of Kenya initiated the Nairobi Metropolitan Services Improvement Project (NaMSIP). The NaMSIP aims at strengthening urban services and infrastructure in the Nairobi metropolitan region. In addition, the project aims at building capacity of County Governments through investing in local infrastructure (roads, markets, street lighting, bicycle and pedestrian pathways, drainage, and the like). Equally important is supporting improvements in integrated solid waste management and sewerage collection and disposal. The project also targets improvement of service delivery by strengthening the current and future entities responsible for service delivery, including the central ministry and the current local authorities of the County Governments, utilities and other service providers, and possible future metropolitan authorities responsible for planning, transport, and other services thus reducing the chaotic, unplanned developments that are associated with town planning in most Counties..

This document presents the **KimendeTown Integrated Strategic Urban Development Plan, 2020 – 2030**(K-ISUDP). The plan was prepared with the assistance of ALPEX Consulting Africa Ltd (ACAL) and BC Gildenhuys & Associates under a contract agreement issued on 24th June, 2014 with the Government of Kenya (GOK) through the then Ministry of Land, Housing and Urban Development. The consultants were supervised by the Nairobi Municipal Services Improvement Programme (NamSIP) officers in the Nairobi Metropolitan Development (NMED) section of the then Ministry of Land, Housing and Urban Development. In undertaking the assignment the Consultants worked very closely with the Country Government of Kiambu, relevant National Agencies and Authorities and ensured full participation of all key Kimende town stakeholders.

1.2 Purpose of The Project Plan

An **Integrated Strategic Urban Development Plan** (ISUDP) is an integrated development framework giving a spatial depiction of the social and economic development programme of an urban area. ISUDP is provided for in section 111(2) of the County Governments Act, 2012 (CGA) which stipulates it is an instrument for development facilitation and development control within the respective urban centre. ISUDPs are meant to guarantee optimal use of land to achieve sustainable development by addressing development challenges and exploiting opportunities in key areas that have spatial dimension and should be reviewed every five years. ISUDP should develop strategies, proposals, programmes as well as standards and regulations to enhance efficiency and equity, inclusivity and sustainable development.

An Integrated Strategic Urban Development plans (ISUDP) identifies urban functional spaces in an integrated way, and considers how land-use, transportation planning, and infrastructure and services provision must be coordinated to contribute to a competitive, economically robust, socially liveable, and sustainable urban centres, that guarantees people's welfare, ensures prosperity in their livelihoods and stimulates community development while safeguarding environmental and natural assets.

Urban planning is integrated and strategic in nature, the primary focus being to structurally position an urban centre for growth and competitiveness within a broader county and regional setting. It provides strategies for a land use management system and capital investment framework including an assessment of the environmental impact of the spatial development framework. Planning and development measures are intended to convey a negotiated vision or consensually agreed perspective towards an urban area's growth aspirations in spatial terms. Consequently, the plan has an inherent flexibility allowing for continual discussion and reformulation as and when realities portend.

The ISUDP shall contain strategies, proposals and programmes intended to achieve the desired vision of an urban area through an integrated spatial development framework as set out in Section 36 (1) of the Urban Areas and Cities Act, (UACA). Section 36 (1) of UACA further states that ISUDP shall be basis for development

control; preparation of environmental management plans; preparation of valuation rolls for property taxation; provision of physical and social infrastructure and transportation; preparation of annual strategic plans for an urban area; disaster preparedness and response; and overall delivery of service including provision of water, electricity, health, telecommunications and solid waste management.

The purpose of this Plan, therefore is to:

- a) Define a vision for future growth and development of Kimende Town over the next 10 years;
- b) Indicate anticipated patterns of land use and set out basic standards and guidelines for a land use management system designating desirable urban settlements, functional spaces and management of natural resources within Kimende Town;
- c) Provide an overall strategic and integrated spatial framework for the location and function of development and the resultant urban growth within Kimende town;
- d) Provide a framework to guide infrastructural development and service provision within Kimende Town and revitalize housing, industries, trade and commerce to spur economic development;
- e) Provide development guidance based on optimum location and nature of development within Kimende Town and enhance environmental protection and conservation;
- f) Determine the effective urban boundary for Kimende township and develop a smart urban system in Kimende Town;
- g) Interpret and align National, Regional and County Development policies and strategies and reflect them as development programmes in Kimende Town and establish better development coordination and implementation mechanism;
- h) Provide a basis for coordinated programming of development projects and budgeting within Kimende Town, thereby serving as a downstream management tool guiding public and private investment on key urban infrastructural projects and programmes; and
- i) Improve transport and communication networks and linkages and identify opportunities for job creation and employment;
- j) Improve transport and communication networks and linkages and identify opportunities for job creation and employment;

The KimendeTown Integrated Strategic Urban Development Plan, is a GIS-based development framework that shall guarantee public participation in the planning process, facilitate more rational decision-making by policy makers and promote information flow to the public and key stakeholders thereby promoting good governance and progressive investment in Kimende Town.

1.3 Planning Challenges

The lack of an Integrated Master Plan for Kimende Town had hampered harmonious and co-ordinated development of the town and led to some key problems manifesting in the town. The Planning challenges facing KimendeTown as at the time of preparing this Plan include, but are not limited to the following:

- a) To provide a basis for infrastructure and service provision for present and projected population over the plan period;
- b) To determine demographic changes in the last ten years and those expected over the life of the plan for each town, and how these relate to economic changes, welfare and administrative shifts;
- c) To identify environmental issues and concerns affecting Kimende town
- d) To identify development potentials of the planning area (social, economic and environmental profiling);
- e) To provide a basis for development control and investment decisions;
- f) To allocate sufficient space for various land uses to ensure efficient function and convenience of users and accommodate future growth;
- g) To provide adequate land for recreation and open spaces;
- h) To enhance and promote safety and security;
- i) To uphold innovative civic and urban design that enhances the character and form of the town;
- j) To develop plans implementation and monitoring framework.

1.4 Vision of the Plan

A negotiated and agreeable vision for Kimende town from stakeholder's visions was arrived at as:

To be Functional and Wealthy Administrative town that Promotes Agro-Based Growth and Tourism Development.

1.5 Mission Statement

“To Guide Development Within Kimende Town Into A Well Planned Administrative Centre That Enables Agro-Based Investment And Tourism Promotion.”

1.6 Objectives

The main objective of the Kimende Town Integrated Strategic Urban Development Plan (ISUDP) is **to provide an overall Urban Integrated Development framework for KimendeTown**. Though the Plan will have a 10-year time-horizon, it shall provide a basis for long-term sustainable development within Kimende Town.

The specific objectives of the Plan include:

- ✓ **To conduct participatory planning exercises** in Kimende town to identify citizens' issues, opportunities, priorities and vision for the town;
- ✓ **To delineate the effective Town boundary of KimendeTown** in consideration of projected requirements for urban land within the plan period;
- ✓ **To analyse Kimende town's demographic changes** in the last ten years and those expected over the life of the plan and how these relate to economic changes, welfare and administrative shifts;
- ✓ **To identify development constraints, potentials and challenges of Kimende Town** (social, economic, infrastructure and environmental profiling) and propose strategies to address them;
- ✓ **To identify environmental issues and propose strategies for effective environmental management** including, amongst others, climate change adaptation and disaster risk reduction and management measures;
- ✓ **To prepare an Integrated Strategic Urban Development Plan**, showing current and proposed land use, growth in trade and investments, infrastructure and utilities improvements (such as transport, water, sewerage disposal, solid waste management etc.), enhanced social services (such as education, health, housing, etc.), and safeguarding of cultural and environmental assets;
- ✓ **To uphold innovative civic and urban design** that enhances the character and form of the Towns;
- ✓ **To provide a basis for development control and investment decisions** by prepare short, medium term plans to guide compact urban development, including action area plans, advisory or zoning plans and regulations and other reference materials;

1.7 Scope of the Plan

Kimende is situated in the central-southern part of the Kiambu County in the Lari Sub-county that borders Limuru, Kikuyu and Lari Sub-counties. There are four sub-locations within the planning area with a total population of approximately 5,827 persons with a total area of approximately 4.822Km². Locational Coordinates are 0°58'53.10"S, 36°37'50.21"E.

The Kimende Town Integrated Strategic Urban Development Plan (K-ISUDP) covers a detailed analysis of the sectoral and spatial structure of the entire area of Kimende.

The Plan is a medium term spatial urban development framework with a planning horizon of ten (10) years from 2019-2030 and shall be subject to five (5) year reviews. It appraises the current situation in the town highlighting the sectoral and thematic constraints manifesting in the town that inhibit the economic vibrancy, environmentally sustainability and community development in the town. It also assesses the potentials and opportunities inherent in the town and covers the key planning and development challenges experienced in the Town and proposes robust strategies with pragmatic sectoral programmes and investments to solve the identified constraints. The plan analyses these relevant factors and generates significant development concepts and specific yet detailed

sectoral programs and investment proposals for Kimende town which shall be used to guide the future growth of the Town.

The Plan offers the Integrated Strategic Urban Development Plan (ISUDP) for Kimende Town that depicts all existing physical features, spatially illustrates development projects in the Town and guides physical development activities in Kimende Town. It aims to address pertinent issues such as human settlement patterns, urban development, utilisation of natural resources, transport and infrastructural development and attracting suitable investment in Kimende Town. The Plan aims to comply with the strategies, policies and objectives of the Vision 2030, the National Spatial Plan (NSP), the Metro 2030 Strategy, the Metropolitan Spatial Plan, and complement the programmes identified in the Kiambu County Spatial Plan 2018-2028. It shall also seek to mainstream contemporary issues of Climate Change Adaptation, Disaster Risk Reduction, utilisation of Green Renewable Energy and gender parity.

The Plan purposes to facilitate its full implementation and therefore includes a comprehensive plan implementation framework detailing realistic programmes, their respective estimated costs and time frames and appropriately matched with institutional responsibility with an applicable Monitoring and Evaluation (M&E) framework for implementing the proposed programmes and investments.

The demarcated planning area includes the whole of the town as well as portions of its peri-urban hinterland. The study area covers 161.14 ha. The boundaries of the planning area were drawn to coincide with physical features such as roads and watercourses, or cadastral boundaries where such physical features are not present.

1.8 Deliverables of the Plan

The significant output of this assignment is the Kimende Town Integrated Strategic Urban Development Plan (K-ISUDP) that provides the structural blueprint guiding development of Kimende Town. The (K-ISUDP) was prepared in various complementing phases which generated the following outputs:

- i. **Asituational analysis** of the current socio-economic, physical, environmental and cultural characteristics of Kimende town;
- ii. **An appropriate and widely accepted vision** stating the desired growth and development of Kimende Town;
- iii. **Vital Kimende Town sector development strategies** including Transportation Strategy, Infrastructure and Services Development Strategy, Environmental and Resource Management and Protection Strategy, Human Settlement Strategy, Economic Development Strategy and Agricultural Development Strategy;
- iv. **A comprehensive Town Spatial Development Framework** depicting specific land use and zoning standards and regulations; and
- v. **A practical Implementation Matrix** with investment strategies and financing/ revenue enhancement strategies and associated realistic costs and responsibilities for implementation of agreed sector wise prioritized programs.

1.9 Terms of Reference

The Terms of Reference (ToR) to this project give a background of the Nairobi Metropolitan Service Improvement Project (NaMSIP) as an initiative of the Kenya Government with the support of the World Bank under the Country Partnership Strategy (CPS). It notes that NaMSIP is intended to improve services in the metropolitan area which are critical for economic development, which include: solid waste management, transport systems, storm water management, water supply and sanitation, disaster management, security/street lighting etc. In addition, the implementation of the project will give the national Directorate of Nairobi Metropolitan Development an opportunity to build its human resource and technical capacity in carrying out metropolitan wide activities.

The ToR describes the problem statement facing the Nairobi Metro region noting the main challenge in the region being rapid population growth, against a skewed rural urban development in favour of urban areas which are experiencing rapid growth and development that is unplanned, uncoordinated and uncontrolled. It highlights the

purpose, objectives of preparing the Integrated Urban Strategic Development Plans (ISUDPs) as a means to addressing the identified urban challenges and gives the scope and tasks in preparing the ISUDPs.

The ToR recommends key principles and strategies in developing relevant ISUDPs giving clear achievements and outputs expected from the planning process. It requires the presentation of a detailed work plan to be agreed by the client tasking the Consultant to submit relevant progress and planning reports within agreed timelines and while highlighting services to be provided by the client to ensure successful completion of the planning process. The terms of reference are Annex 1 of this report.

1.10 Organization of the Plan

The **Kimende Town Integrated Strategic Urban Development Plan (K-ISUDP)** consists of narrative and graphical interpretations of the contextual aspects as well as the existing character and proposed spatial structure of Kimende Town. It is hereby presented in four (4) parts that rationalise a logical flow of chapters as follows:-

Part I: Introductory and Planning Context

- i. Chapter One: Background- covers the purpose of the plan, Planning challenges in the Town, objectives, scope, deliverables of the plan, and the organizational structure that presents the plan
- ii. Chapter Two: Planning Context- Describes the National, Regional and Local context of Kimende Town, the policy and legal framework guiding the K-ISUDP process, provides linkages to other relevant plans i.e. CIP and previous planning interventions in the town and explains the methodology and approach employed in preparing the K-ISUDP.

Part II: Situational Analysis

- iii. Chapter Three: discusses the physiographic characteristics of Kimende Town with focus on terrain, slope, geology, soils, hydrology, vegetation, and how they affect Development:
- iv. Chapter Four: discusses the population and demographic characteristics of the town; focusing on population size and structure, population projections, morbidity and mortality, poverty levels as well as employment data for the town.
- v. Chapter five: Analyses the Land uses in the planning area, land tenure details, land administration arrangements and well as land suitability analysis for the planning area.
- vi. Chapter six: Analyses the environment with focus on key natural resources found in the planning area, as well as environmentally fragile areas within the area. The chapter also looks at environmental challenges related to waste management, as well as climate change.
- vii. Chapter seven: Analyses housing and human settlements within the planning area, with focus on settlement patterns for rural and urban areas, housing typologies, housing demand, as well as housing materials used with the planning area.
- viii. Chapter eight: Analyses the physical infrastructure systems within the planning area, with focus on transportation infrastructure, water and sanitation supply infrastructure, Waste management infrastructure, Energy as well as communication infrastructure within the planning area.
- ix. Chapter nine: Analyses the social infrastructure, looking at Education facilities (primary, secondary and tertiary), health facilities, recreation, administrative, as well as religious facilities.
- x. Chapter ten: analyses the economic characteristics of the planning area, looking at key economic drivers (agriculture, industries, trade and commerce, mining among others)
- xi. Chapter eleven: Analyses the governance and administrative framework that is relevant for the implementation of this plan, and what is required for effective implementation of the plan.
- xii. Chapter twelve: This chapter synthesizes all the issues discussed with the aim of laying the framework for the plan formulation process

Part III: Plan Formulation

- xiii. Chapter Thirteen: The chapter analyses the different scenarios for achieving the vision of the plan, looking at nil intervention scenario against scenarios for economic development, green growth as well as integrated approach to development.

- xiv. Chapter Fourteen -presents the spatial development propels in the form of a structure plan, presenting the different land se options recommended for attainment of the vision. The Chapter also presents the zoning plans to guide the spatial development proposals outlined in the structure plan. It also presents action are plans within the structure plan.
- xv. Chapter Fifteen: Development proposals strategies and measures.
- xvi. Chapter sixteen: provides the sectoral implementation matrix detailing proposed projects, timeline, and identifies specific responsible to implement the proposed projects as well as prescribing monitoring and evaluation tools and indicators.

2 CHAPTER TWO: PLANNING CONTEXT

2.1 Geographic Location and Size

Kimende town is the administrative headquarter of Lari Sub-County which is located in the Western part of Kiambu County. The town lies between Latitudes 36°37'50.21"E and 36°37'51.63"E, and Longitudes 0°58'53.10"S and 0°59'2.69"S at an elevation of about 2,450 metres above sea level. It is found only 50Km North West of Kenya's capital city of Nairobi, 100Km Southeast of Nakuru Town (a Rift Valley regional hub), and 500Km from Kenya's coastal city of Mombasa all along the A104 Nairobi-Malaba International Trunk Highway to Uganda.

The town has a projected population of approximately 7,103 people calculated from the 5,827 base population noted in the 2009 Population and Housing Census and a 4.4% National Urban Annual Growth Rate¹. However, when the official 2019 National Population Census Data will be released officially, these figures might increase a little bit.

2.2 National Context

Kimende lies between latitudes and longitudes 36°37'50.21"E and 36°37'51.63"E , 0°58'53.10"S and 0°59'2.69"S respectively. It is situated approximately 50Kms South of Nairobi, the Capital City of the Republic of Kenya. It is located approximately 112Kms to Nakuru town and 16Kms to Limuru town. The town is situated in the North-Western part of the Kiambu County in the Lari Sub-county that borders Limuru and Gatundu South Sub-counties.

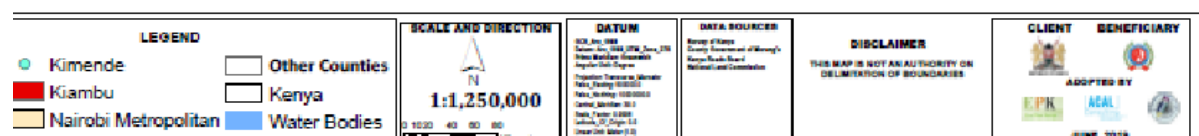
Kimende Town is strategically located along the A104 Nairobi-Malaba International Trunk Highway and the Kenya-Uganda Railway which gives the town a national and global advantage linking it to various cities and towns. It has linkages to the City of Nairobi, Nakuru, Limuru, Naivasha and Kikuyu Towns which positions the town as an opportune commercial centre. However, the town is a slow-growing administrative and economic township despite its close proximity to Nairobi City and having a rich surrounding agricultural hinterland. It is also a "dormitory" town within the larger Nairobi Metropolitan Region as some business people in Nairobi City reside in KimendeTown and make daily commutes to Nairobi for work.

1

Map 2-1: National Context Map



KIMENDE INTEGRATED STRATEGIC URBAN DEVELOPMENT PLAN 2020 - 2030

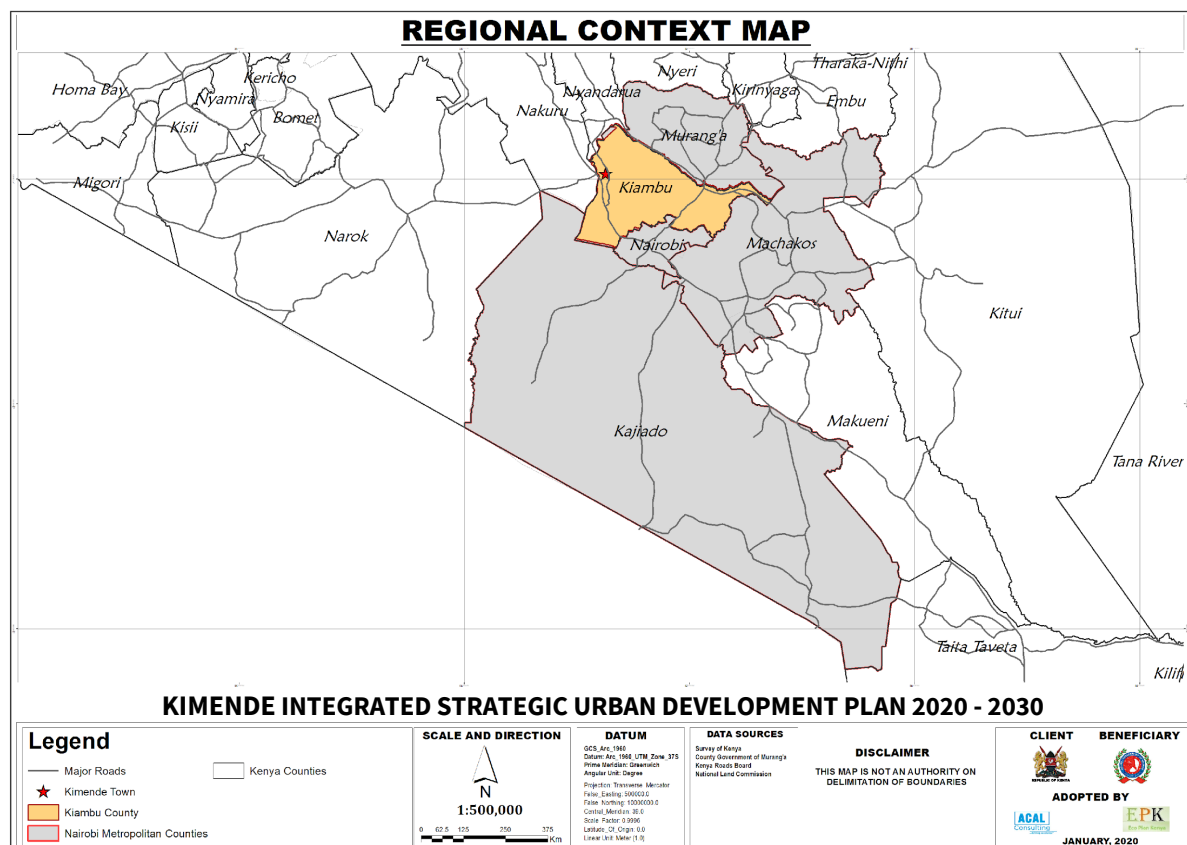


Source: ACAL & BC Gildenhuys, 2020

2.3 Regional Context

Kimende is located in the Central region of Kenya, Kiambu County. It is among the main urban and commercial centres in Lari Sub-County. It has direct road connections to the various economically active towns within the region such as Limuru and Kikuyu. The strategic location of this town along the Nakuru-Nairobi Highway gives it an advantage and opportunity towards economic growth. With good commercial, agricultural potential and road network development in future, it could act as an agro-industrial and tourism hub.

Map 2-2: Regional Context

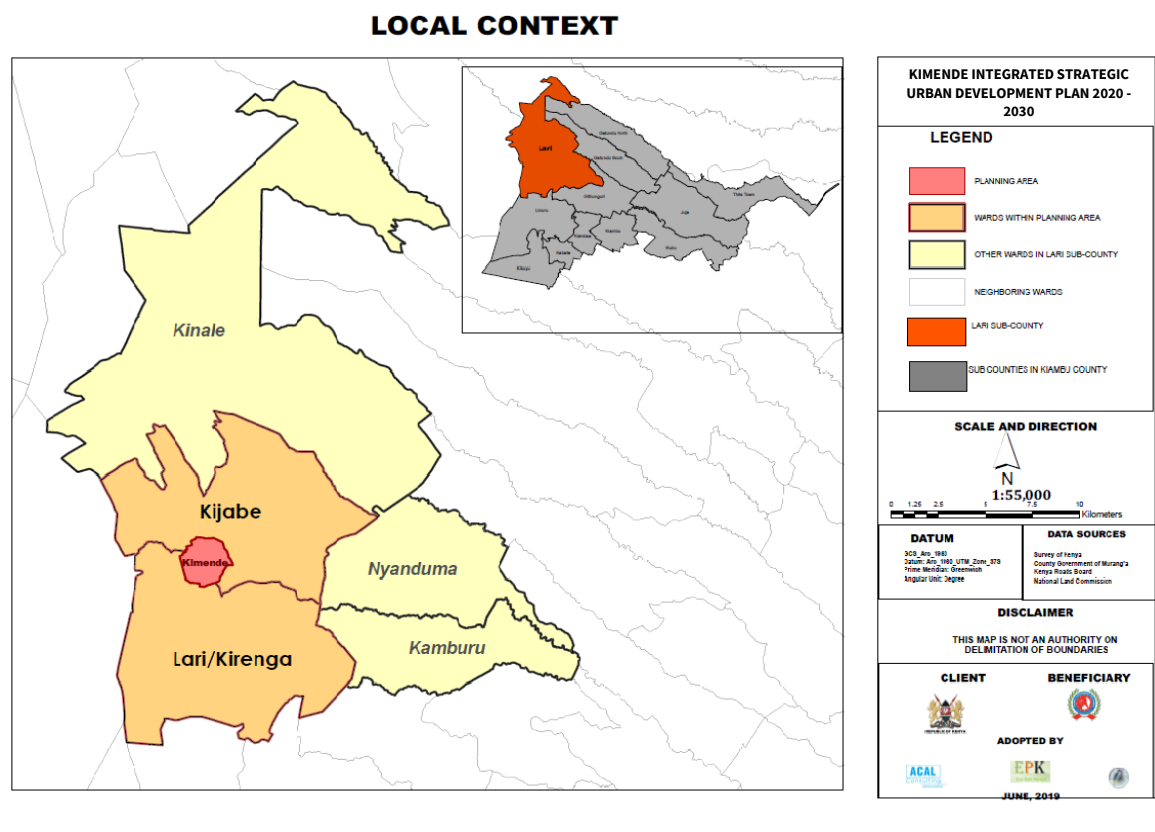


Source: ACAL & BC Gildenhuys, 2020

2.4 Local Context

Kimende town provides commercial, administrative and civic centre serving the local area. The planning area is traversed by 3 wards, Kijabe, Kirenga and Kinale. The future role of the town is to be a functional administrative town that promotes agri-based investment and tourism promotion. It has a good road network to other towns within the County though some feeder roads are in poor condition and they need to be rehabilitated and widened. It is centrally located and radially connected to county towns such as Limuru, Kikuyu and Kinoo among many others and it is therefore important to plan for the town to boost capacity, growth, provide infrastructure and services and encourage investments.

Map 2-3: Local Context



Source: ACAL & BC Gildenhuys, 2020

Historical Development of the Town

During the 19th century Lari was a back-up grazing ground for the Maasai Community. Due to its cold nature, the area used to be green throughout the year. The Maasai community used to frequently graze in the lands during the dry seasons at the base of the Rift Valley. Kimende developed as an administrative town for Lari district, as it served as an administrative town for the British during the Mau-mau war.

Lari Massacre

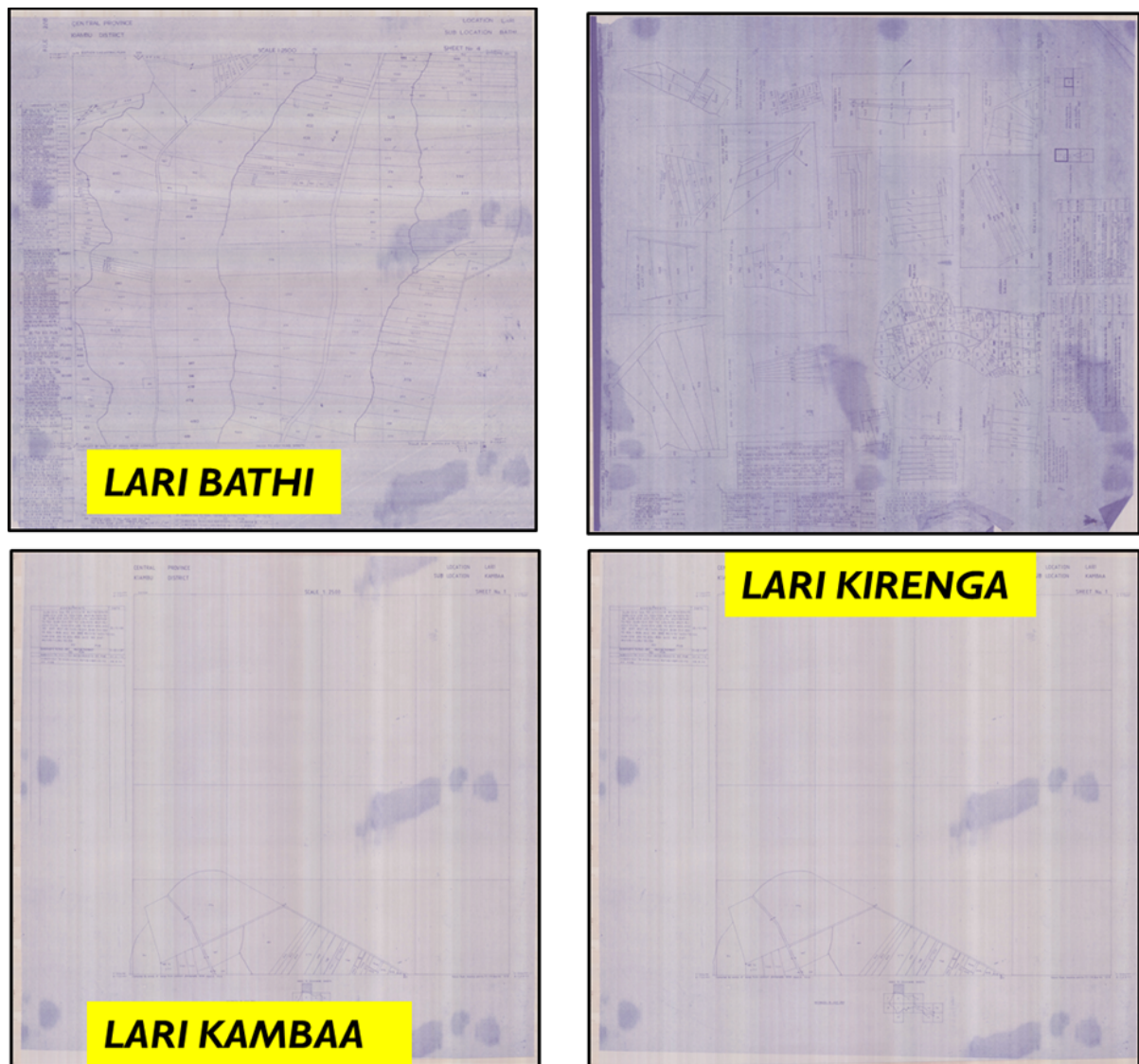
Lari Massacre is also referred to as 'The Night of the Long Knives'. The event happened in March 1953 where Mau Mau combatants attacked and killed about 100 colonial administration loyalists in this area. Among those Killed were Chief Luka and 97 other loyalists who were murdered on 26 March 1953. Among the victims were 13 of Chief Luka's immediate family members. What followed was more bloodshed as the British administrators hunted Mau Mau in the area.

Kereita Forest in Kimende, bears the distinction of being the site of mass graves where over 5000 victims of revenge attacks on the local population by the British colonial administration were buried. That is how Kimende town came to be.

2.5 Previous Planning Interventions

Previous planning efforts were done during the preparation of the Kimende plan for Bathi Market Town plots developed in 1975. That existing outdated plan and lack of a holistic plan that covers the entire urban centre justifies the need to carry out a Development Plan at this time, to guide both current and future developments upcoming in Kimende. Refer to map 0-4.

Map 2-4: Previous Planning Efforts



2.6 Planning Methodology

In undertaking this assignment, the team adopted an integrated and inclusive approach that would yield a relevant, effective and implementable Integrated strategic Urban Development plan. A mixed method approach allowing active participation of the mapped stakeholders was utilized as part of the process taking into account guidelines provided in various statutes including the Constitution of Kenya 2010, Physical and Land Use Planning Act of 2017, the County Governments Act 2011 and the Urban Areas and Cities Act 2012. This was necessary in order to ensure that the processes and the final products are legally compliant. The planning methodology was also in line with the existing regulatory framework. The methodology is summarized in figure below;

Figure 2.1: Planning Methodology



Source: ACAL & BC Gildenhuys, 2020

The process had five major phases namely inception phase, awareness and mobilization, data collection and situational analysis, preparation of draft plans and the final plan preparation. All the Phases were followed in a participatory manner and were validated through technical working groups and stakeholder workshops.

(a) Inception Phase

This phase basically involved project commissioning. Preliminary discussions were held between the client, project beneficiaries and project consultants on 2nd June 2015. The main aim was to build consensus on the planning area, defining the methodology and work plan. The Terms of Reference were also defined to regulate the project and its outputs.

On 19th June 2015 a kick off meeting was called by the project beneficiary for purposes of notifying key players and stakeholders of the intention to prepare the ISUDP and confirmation of the planning boundaries. Thereafter, a County Introductory Meeting was convened to introduce the planning team to the county officers. Reconnaissance surveys were conducted for the consultants to familiarize with the project area

(b) Awareness and Mobilization Phase

Pursuant to the Constitution of Kenya and Urban Areas and Cities Act, 2012, public participation was a key component of this project. In this regard, stakeholders to be engaged in this project were identified through consultation among various actors including project managers at the Ministry of Lands, Housing and Urban Development, County Government of Kiambu, and Consultants. Also entailed in this phase was the

formation of a technical working group at the county Level. The general public was also informed of the intention to plan through a public notice.

(c) Data Collection Phase

The data collection process for the project began in August 2016, soon after which the situational analysis began.

The data used for the preparation of this ISUDP was obtained from both primary and secondary sources. Primary data was obtained through field surveys and visits. Methods involved; Land use surveys, where each plot within the planning area was identified in the satellite imagery and its land use mapped. Other attributes of the individual parcels were collected and filled in a mapping sheet. The consultants also held Focus Group Discussions and conducted key informant interviews for purposes of acquiring first-hand information.

Secondary data collection was achieved through desktop survey. Secondary sources reviewed included various policy and legal documents, previous plans and maps for various towns among other credible and authoritative sources.

Following data collection, an assessment of physical and social infrastructure was undertaken alongside the population demand. This was in an effort to determine the needs of the population. Also, an environmental and natural resource evaluation was undertaken. This was aided through various computer programs such as ArcGIS for spatial analysis.

The findings of the situational analysis were validated during workshops forums.

(d) Draft Plan Preparation

The existing situation was a key consideration in this phase. Preparation of the draft plan involved formulation of structure plan models, detailed plans; local area plans and sector plans. The draft plan proposals report was prepared and submitted to the client for review before being subjected to stakeholders for validation.

(e) Final Plan Preparation

The process will commence soon after the draft proposals are reviewed by the client and validated by the stakeholders

(f) Public Participation

Various methods were used to enhance public participation as follows;

- Public Notices

To sensitize and attract the involvement of the greater public, notices were published in daily newspapers. This was in the Standard and Daily Nation dated 30th July, 2015. The notices were also simultaneously placed at strategic notice boards within the local area

- Stakeholders

Actors from different agencies were involved. As evident, actors were drawn from the National Government, the County Government, opinion leaders, Civil society including NGOs, Churches, professional groups, businessmen, farmers, land owners, resident associations and the general public. The actors were identified in collaboration between the County Government, the ministry of Lands and Urban Development and the Consultants.

- Workshops

The design of the project envisaged two workshops for the project. One for visioning and validation of situational analysis and a last one for validation of plan proposals. The visioning and situational analysis validation workshops were held in all the planning areas between 2nd and 6th May 2018.

- Methodological Framework

The methodological framework involved the contextual analysis of the development trends using the National, Regional and Local context maps. The situational analysis involved the current features and activities such as the physiographic features, population and demographic characteristics analysis, land uses analysis, social and physical infrastructure and governance analysis. Land use planning was used to prepare land use proposals with an implementation plan and strategies to realize the proposals.

The phases included:

- a. Preparatory Phase

The preparatory phase involved preparation of a preliminary base map which entailed acquisition of satellite images, acquisition and digitization of PIDs and RIMs and the preparation of a map showing the existing situation. Transect surveys were undertaken to appreciate the planning area, ground truth and prepare a final base map. Stakeholder identification and analysis was critical in the planning process to identify the right stakeholders that would be engaged and develop a strategy for communication during the planning process. Data needs assessment was undertaken to identify the correct information that would be required and develop a data acquisition, storage and analysis strategy.

- b. Sensitization Phase

Participatory approach was used that ensures that a consultative, inclusive and appropriate representation is upheld during the planning process. The projects involved stakeholders' participation, advertisements, multi-disciplinary workshops, field surveys, and public engagement through newspapers and gazette notices. During this phase, identified stakeholders were engaged to provide information about the preparation of the plan, and receive their feedback on the same. The stakeholders also provided additional information required for planning.

Stakeholder consultative workshops were held. The stakeholder workshops included the presentation of visioning and objective setting, validation of data collected and validation of draft plan proposals.

- c. Investigative Phase

In this phase investigation was undertaken to enhance understanding of the area's social, economic and environmental dynamics through desktop and field studies.

The outcome of the investigation as well as the stakeholder engagement formed a basis for the formulation of intervention measures of the plan.

Among the studies that were undertaken include;

- Needs assessment,
- Demographic analysis,
- Land use and land suitability analysis,
- Human settlement trends and patterns analysis,
- Infrastructure gap analysis,
- Environmental profiling, etc.
- Plan Formulation Phase

Based on stakeholder concerns, feedback on concept plan and findings from investigation an integrated strategic urban development plan was formulated.

- d. Plan Approval Phase

After the stakeholder validation process that entails presentation workshop for discussion of the draft plan, notice of completion of the plan in newspapers and Kenya gazette, circulation of plan to stakeholders, the plan shall be amended accordingly to capture all stakeholder concerns. The amended draft shall be submitted to the County Government of Kiambu for Approval.

2.7 Policy and Legal Framework Context

The legal, policy and institutional framework form the anchor to which the ISUDP lies on. The legal, policy and institutional framework also guide the implementation of the plan, hence making it important to the planning preparation process.

2.7.1 Global/Policies

(a) Sustainable Development Goals (Goal 11)

The Sustainable Development Goals (SDGs) define global sustainable development priorities and aspirations for 2030 and seek to mobilize global efforts around a common set of seventeen goals and targets. SDG 11 aims to make cities and human settlements inclusive, safe, resilient and sustainable.

(b) New Urban Agenda

The New Urban Agenda provides a roadmap for building cities that can serve as engines of prosperity, inclusion and centres of cultural and social well-being while protecting the environment. The Agenda also provides guidance for achieving the SDGs and provides the underpinning for actions to address climate change. Additionally, the Agenda provides a framework for urban policies, urban planning and design and urban governance, rules and regulations to enhance municipal finance.

2.7.1.1 The Constitution of Kenya

The Constitution of Kenya, 2010 gives every Kenyan the right to a clean and healthy environment. Other provisions of the Constitution that will guide formulation of the Kimende ISUDP include:

- Article 60 (1) - provides that land in Kenya shall be held, used and managed in a manner that is equitable, efficient, productive and sustainable and in accordance to principles such as equity in access to land, security of land rights, sustainable and productive management of land resources, transparent and cost-effective management of land, sound conservation and protection of ecologically sensitive areas.
- Article 61 (1) (2) - describes land classification in Kenya
- Article 63 - guarantees the rights of communities to their lands and territories. It states that community land consists of land lawfully held, managed or used by specific communities as community forests, grazing areas or shrines and that it includes ancestral lands
- Article 66 (1) - states that the state may regulate the use of any land or right over land in the interest of public safety, order, health or land use planning
- Article 69 - envisions the achievement and maintenance of a tree cover of at least ten per cent of the land area of Kenya.
- Article 174 - outlines principles of promoting socio-economic development and provision of proximate and easily accessible services which equally depend on proper planning, development and management of utilization of resources.

2.7.1.2 National Policies

National Land Use Policy (Sessional Paper No. 1 of 2017)

- Provide legal, administrative, institutional and technological framework for optimal utilization and productivity of land related resources in a sustainable and desirable manner at national, county and community levels.
- Categorization of land uses in the country.
- Advocates for the development of land use plans for the country with full participation of all stakeholders and strict adherence to them enforced.
- Promoting environmental conservation and preservation

National Land Policy (Sessional paper No. 3 of 2009)

The National Land Policy guides the country towards a sustainable and equitable use of land. It aims at providing a framework for undertaking land use planning and development control in all administrative levels i.e. national, county and town level. It also calls for immediate actions to address environmental problems that affect land such as degradation, soil erosion and pollution.

2.7.2 Legal Framework

Physical and Land Use Planning Act No.13 of 2019.

The Act Advocates that planning is undertaken to ensure orderly development through land use planning and development control procedures as well as detailing the contents of local physical development plans. The Act also provides guidelines on how the public should be notified upon commencement of the planning process and upon completion of preparation of any physical development plan.

County Government Act, 2012

The Act gives mandate to the County Governments, with the role of county planning according to the Constitution of Kenya. No public funds will be appropriated to counties without preparation of spatial plans. The Act requires the County Governor to promote and facilitate citizen participation in the development of policies and plans, and delivery of services in the county. In addition, the Act provides that all plans prepared for a county be approved by the respective county assembly.

Other sections of the Act relevant to the formulation of the Kimende ISUDP include:

Sec 102 (c) and Sec 103 (f) - protect and integrate rights and interest of minorities and marginalized groups and communities and integrating under-developed and marginalized areas to bring them to the level generally enjoyed by the rest of the Country.

Sec 103 (i) - achievement and maintenance of a tree cover of at least ten per cent of the land area of Kenya as provided in Article 69 of the Constitution.

Urban Areas and Cities Act, 2011

The Act establishes a legislative framework for classification of areas as urban areas or cities, governance and management of urban areas and cities and participation by the residents in the governance of urban areas and cities.

Urban Management Boards are established by the Act with the function to oversee the affairs of urban areas. This Act was amended through the

Urban Areas and Cities Amendment Act reclassifying urban areas as follows:

- A city should have a resident population of 250,000 residents
- A municipality should have a resident population of at least 50,000 residents,
- Every headquarters of a county government shall be conferred the status of a municipality, whether it meets the criteria for a classification as a municipality.
- A town should have a resident population of 10,000 residents
- A market centre should have a resident population of 2,000 residents and have an integrated urban area development plan

The National Land Commission Act, 2012

States the functions, powers of the NLC such as; to monitor and oversee responsibilities over land use planning throughout the country. In addition, this Act provides for the management and administration of public, private and community land in accordance with land policy principles. It provides a linkage between the commission, county government and other institutions dealing with land.

Land Act, No. 6 of 2012

The Act provides power to revise, consolidate, and rationalize land laws as well as provide for the sustainable administration and management of land and land-based resources.

Environmental Management Coordination Act, 2012

EMCA provides for the establishment of an appropriate legal and institutional framework and procedures for management of the environment. It provides regulations for the conservation and sustainable use of resources on wetlands, river banks and land for the benefit of the people and communities living in the area. This Act also offers preliminary provisions for the regulation of solid waste, industrial waste, hazardous wastes, pesticides and toxic substances, biomedical wastes and radioactive substances.

Water Act, 2002

This Act provides for sustainable management, conservation, use and control of water resources.

Agriculture Fisheries and Food Authority Act, 2013

This Act provides for the establishment of an Agriculture Fisheries and Food Authority. It also provides for the development of policy guidelines by the authority on preservation, utilization and development of agricultural land and related matters.

Energy Act, 2006

This Act promotes the generation and use of renewable energy and energy efficient technology.

2.8 Other Plans & Strategies

This plan attempts to actualize policies and strategies of higher level development plans affecting Kimende town. Furthermore it relates to County/Sub-county wide and sectoral development plans meant to improve the socio-economic welfare of people living in Kimende. It therefore provides linkages to the following plans;

2.8.1 Vision 200

Vision 2030 is the blueprint for Kenya's long-term national development. It is anchored on three main pillars: Economic, Social and Political. The Kimende ISUDP should be linked to the Vision 2030 so as to be part of Kenya's transformation into *"a newly industrializing, middle income Country providing a high quality of life to all its citizens in a clean and secure environment"* through improvement of key thematic sectors such as Infrastructure; Energy; Security; Tourism; Agriculture; Wholesale/Retail Trade; Manufacturing; Financial Services; and Business Process Outsourcing.

2.8.2 The National Spatial Plan

The NSP defines the general trend and direction of spatial development for the country by providing a framework for better national organization and linkages between different activities within the national space hence informing the future use and distribution of activities.

The national spatial plan seeks to provide a framework for functional human settlements, enhanced agricultural productivity, planning and managing natural resources and the environment, providing a framework for infrastructure provision, promoting industrial and commercial development and the enhancement of good governance.

2.8.3 Big Four Agenda

From December 2017, the national government announced the Big 4 Agenda that would be prioritized in resource allocation. The four sectoral areas mentioned included:

- Affordable Housing.
- Food Security
- Manufacturing, and
- Universal Healthcare

2.8.4 Nairobi Metropolitan Strategies

In 2008, the National Government prepared the Nairobi Metro 2030 Strategy aimed at making the Nairobi metropolitan region '*A World Class African Metropolis*' which is safe, secure, and prosperous. The Strategy forms part of larger national plans such as the Kenya Vision 2030 document. Due to the dominance of the Nairobi Metro, the overall Strategy has national and regional development implications specifically for surrounding counties such as Kiambu, Thika, Kajiado, Machakos and Murang'a. Sustainable development that focuses on social (liveability), economic (competitiveness) and environmental sustainability underpin the Strategy.



GOVERNMENT
OF KENYA



COUNTY GOVERNMENT
OF KIAMBU

PART II: SITUATIONAL ANALYSIS

3 CHAPTER THREE: PHYSIOGRAPHIC CHARACTERISTICS

3.1 Overview

This Chapter broadly discusses the context in a base map and its physiographic characteristics. The physiographic features are presented according to the sectors under analysis. These sectors are: Topography, Geology and soils, Landforms, hydrology and drainage, vegetation, wildlife and Climate.

3.2 Base Map

A base map is the graphic representation depicting baseline reference information at a specified scale and forms the background setting for a map. The baseline reference information may include landforms, rivers, roads, landmarks, and political boundaries. The main function of a base map is to provide background detail necessary to orient the location of the map, though they also add to the aesthetic appeal of a map.

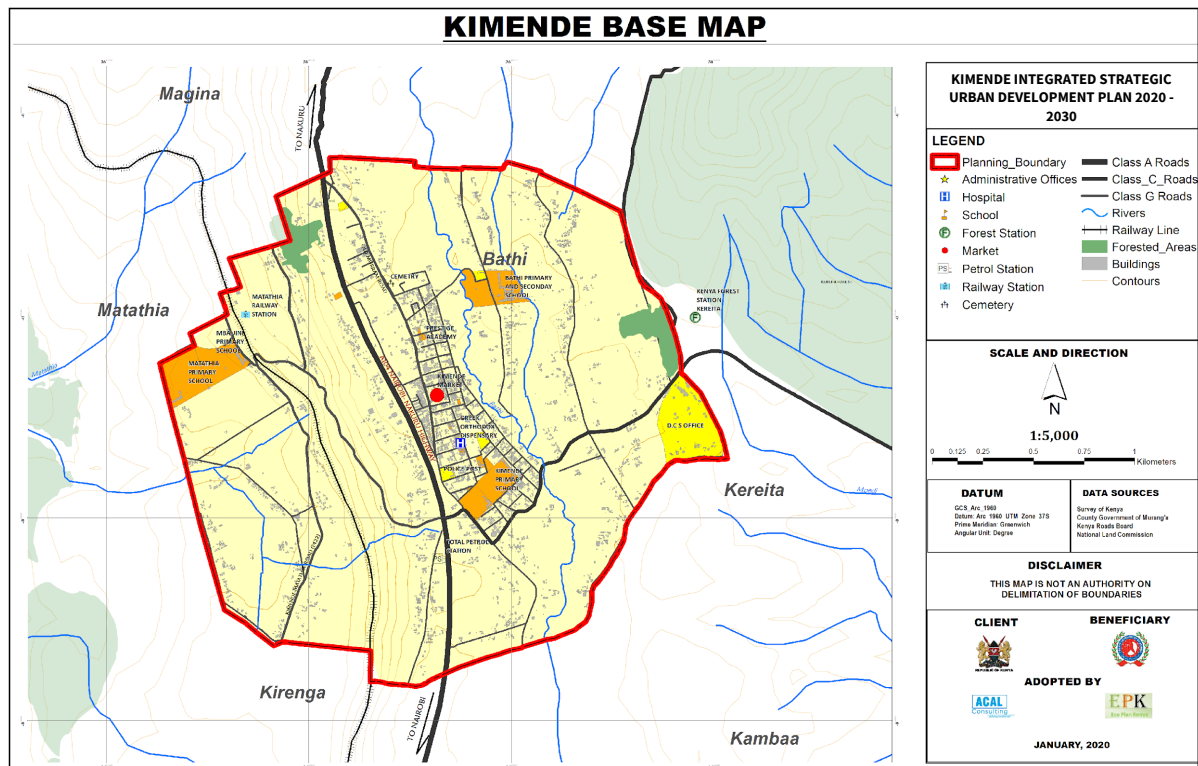
The Kimende Town base map was prepared in a GIS environment that enabled digitisation of an overlay of the Town's aerial imagery, development plans and cadastral layout. This facilitated the digitisation of the Town's boundary, cadastre, natural features, structures as well as main infrastructure including Roads, Markets and public utilities.

The Kimende Town base map was prepared using the following key steps:

- ✓ Accusation of hard copy Registry Index Maps (RIM) from the Survey of Kenya (SoK) and Kimende Town Development Plans (DP) from the Kiambu County Physical Planning offices;
- ✓ The hard copy RIMs and Plans and were scanned and geo-referenced using GIS (ArcGIS) to bring them to a common coordinate system i.e. Universal Transverse Mercator (UTM) projection on Arc 1960 datum;
- ✓ An acquired ortho-corrected aerial image of Kimende Town was also digitised and provided a digital base map of the Town.
- ✓ Once proper geo-referencing was done, development plans (DP) was digitized from the georeferenced DPs and overlaid with the digital site base map as developed from the aerial photograph;
- ✓ After integrating the DP with the digital area map, the settlement site boundary corner coordinate data was extracted from the digital site plans for ground verification of the draft Base Map;
- ✓ The Base Map Ground Truthing was then conducted with the help of local informants seconded to the team by respective County Ward Administrators. This exercise facilitated the confirmation the spatial extent of the town's built-up area, and the determination of significant cadastre attributes, i.e. existing Land Use and type of developments per plot;
- ✓ The verified and picked Town Boundary and cadastre attributes were plotted on to the compiled base maps. Where coordinate systems between the maps and the boundary were different, necessary coordinate transformation were carried out to harmonize the coordinates to the UTM system. The boundary was plotted on the aerial photographs acquired for mapping the settlement.

The Kimende base map has been applied as a canvas backdrop in the analysis of the several sectoral thematic maps including Transport Networks and Connectivity, Human Settlement Patterns, Infrastructure and Services Provision, and Problem and Opportunities Maps.

Map 3-1: Kimende Base-Map

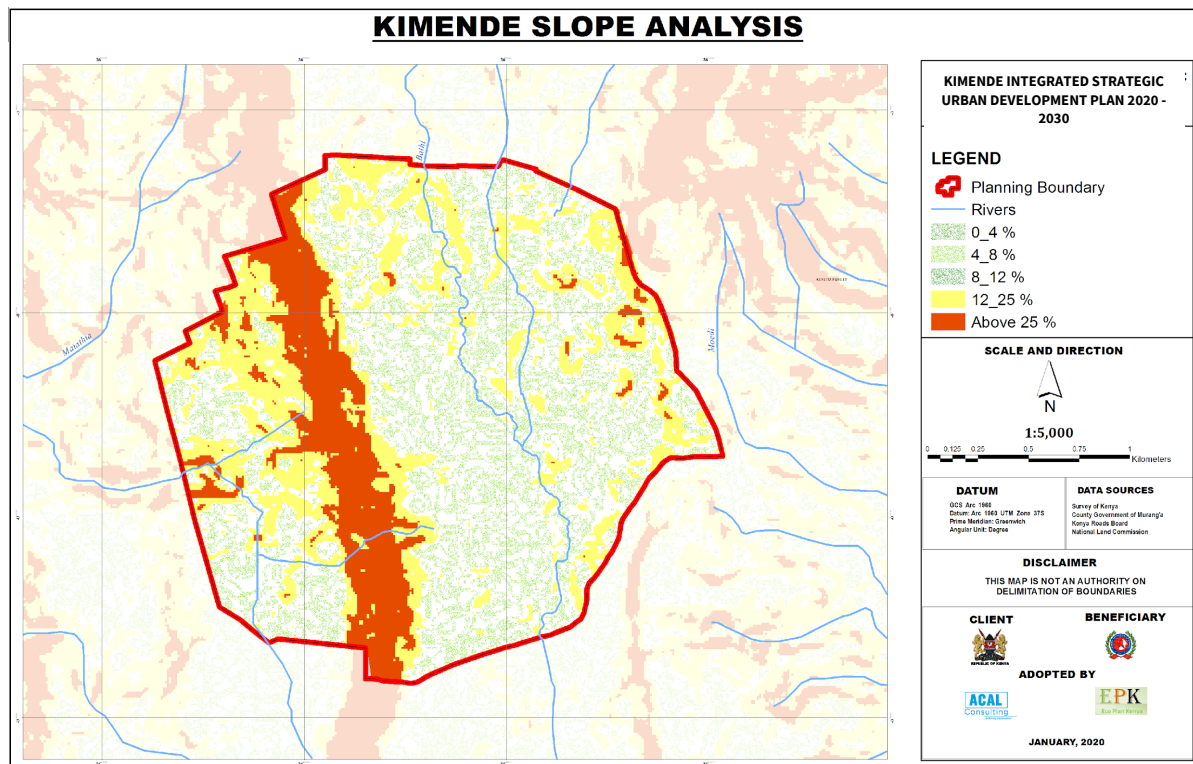


Source: ACAL & BC Gildenhuys, 2020

3.3 Topography

Kimende town is on the Upper Highland Zone and it is an extension of the Aberdare ranges that lies at an altitude of 1,800-2,550 metres above sea level which is dominated by highly dissected ranges and it is very wet, steep and important as a water catchment area (CIDP, 2018). Kimende (slope analysis in relation to the map). The ridges depicts that the development dominance will be on the flatter parts of the planning area.

Map 3-2: Slope Analysis Map

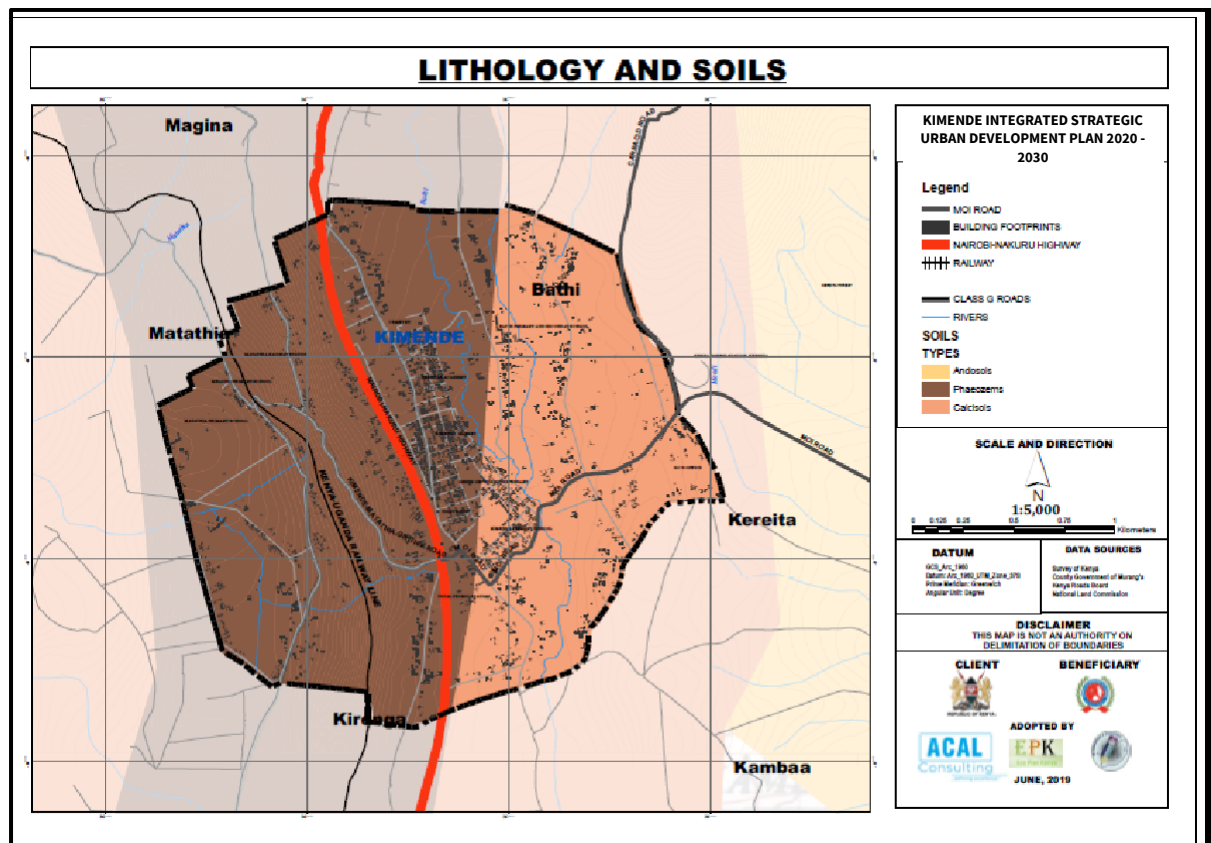


Source: ACAL & BC Gildenhuys, 2020

3.4 Geology and Soils

Kimende planning area is roughly split in half by two types of rocks. The western section is made of pyroclastic unconsolidated rock these means that it is well drained, very deep, dark reddish brown to dark brown, very friable and smeary, silty clay loam, with humid topsoil while the eastern section consists of undifferentiated volcanic rocks (mainly basalts) these means that it is well drained, very deep, dark reddish brown to very dark greyish brown, friable and slightly smeary clay, with humid topsoil.

Map 3-3: Kimende Lithology



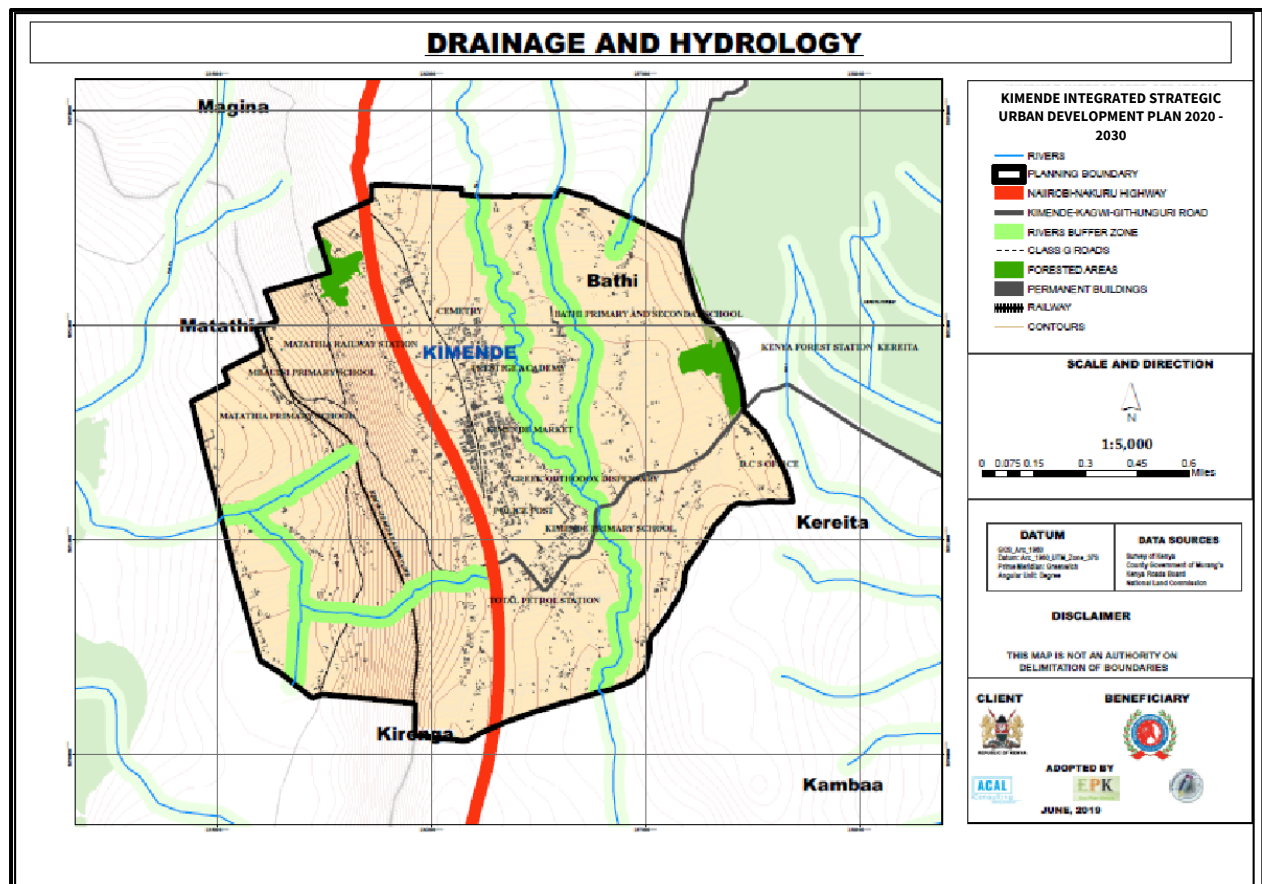
Source: ACAL & BC Gildenhuys, 2020

3.5 Hydrology and Drainage

Kimende town is supplied water by mainly River Bathi, River Matathia and River Moedi. The Rivers mainly drain from North (Aberdare Ranges) toward the south. These rivers are permanent throughout the seasons. There are small river streams that channel the water towards the town hence indicating that the town has adequate supply of water. .

Despite the water resources, there is a shortage of surface water in Kimende.

Map 3-4: Hydrology

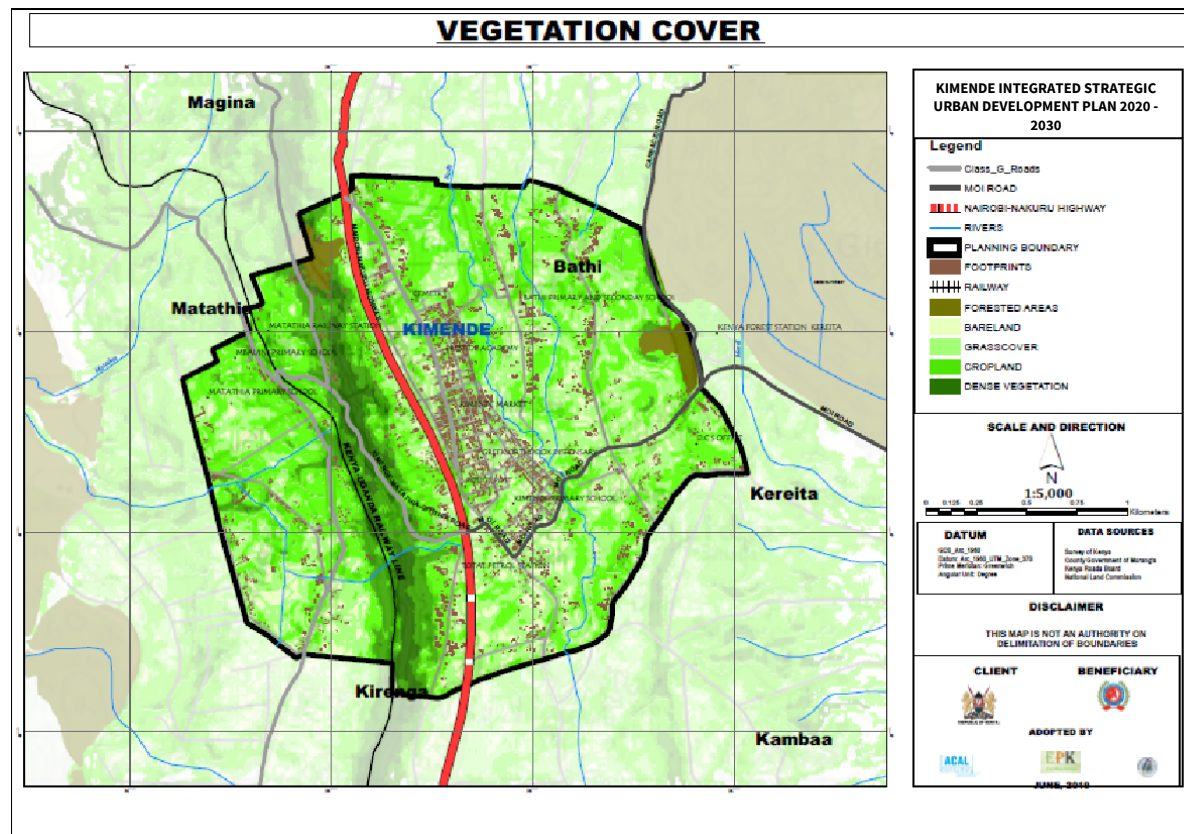


Source: ACAL & BC Gildenhuis, 2020

3.6 Vegetation

Kimende area has a good broad overview of land cover and hence the impact of human activities on land. Natural vegetation is limited, and the extent of human activities is evident. Although the map shows specific areas as 'urban' the building footprint on the map indicates that it does not necessarily reflect the intensity and extent of human settlement. What is made clear from the map is the linear development of the town along the A104.

Map 3-5: Vegetation



Source: ACAL & BC Gildenhuys, 2020

The map below shows the detail of selected vegetation which is the result of human intervention and activities in Kimende. The limited number of big trees and thickets reflects on large-scale environmental degradation. A large number of hedges shows the extent and intensity of human development and settlement.

The area is dominated by rain-fed herbaceous crops. The crops are a mix of various subtropical crops and include Sukuma wiki, Spinach, Cabbages, Dairy farming, Maize, Beans, Carrots and Irish potatoes. The rain-fed herbaceous crops are only broken by scattered patches 'of very open trees' and strips of 'open trees' that form along the cliff that represents the beginning of the rift valley.

Plate 3.1: View of the rift valley illustrating the common vegetation of the area



Source: Field Survey, 2019

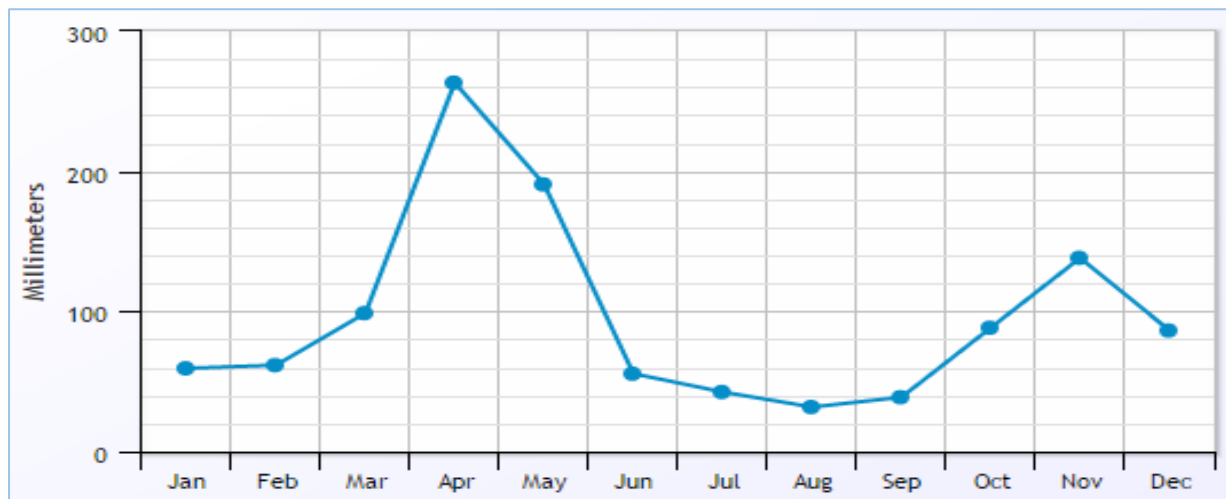
3.7 Climate

Kimende town has different climatic conditions and it is described broadly in the amount of rainfall experienced in the area, the rainfall patterns, the wind influence, the altitude, the temperature and humidity of the area.

3.7.1 Rainfall

The monthly rainfall ranges between 30mm and 2600mm throughout the year, with an average of 1155.5mm per annum. The figures below show the annual distribution of average rainfall. Long rains are in March, April and May. The Highest Rainfall is recorded in the months while short rains are in November and December. Highest rainfall was recorded in April and was 286 mm. Precipitation follows a similar pattern as temperatures and peaks in April and November with June to October being the drier months.

Figure 3.1: Average monthly rainfall



3.7.1.1 Altitude

This refers to the height of an object or point in relation to sea level or ground level. Kimende urban area lies at 2400m above sea level.

3.7.2 Temperature

Temperature differences between high and low temperatures are moderate with peaks in March and October. June to August is the coolest period. Highest temperatures are recorded in March. While the lowest are experienced in July.

However, Kimende is extremely cold because of its location on the windward side of the cold Aberdare Ranges.

3.7.3 Wind

The average maximum wind speed ranges between 10-13Km/Hour. The velocity of the winds is strong on the higher grounds a potential to be tapped for wind energy.

3.7.4 Humidity

This refers to the amount of water vapour in the atmosphere or in a gas. The western region of the county covering Kimende, is generally wet and humid due to its proximity to the Aberdare Ranges. Mean relative humidity of Kimende town is 77%.

3.8 Emerging Planning issues

	Opportunities	Constrains
Topography	<ul style="list-style-type: none"> Southern part of the site has more even topography. This would be appropriate for a residential development. 	<ul style="list-style-type: none"> Steep slopes in parts of the planning area that make development difficult and, more importantly, restrict movement between parts of the town; The irregular movement network due to the slope that results in weak or absent linkages in certain parts of the town (in particular relating to north-south movement).
Hydrology	<ul style="list-style-type: none"> There are is well drained by permanent rivers The several watercourses that run through the study area in a west-east direction serve as water sources for the people in the town hence need to be protected. 	
Geology and Soils	<ul style="list-style-type: none"> Stable geology which can support high density development. The area has well drained volcanic soils suitable for agriculture 	
Vegetation	<ul style="list-style-type: none"> 	Reduced vegetation cover due to environmental degradation
Climate	<ul style="list-style-type: none"> Climate can support agriculture productions and human settlements 	

4 CHAPTER FOUR: POPULATION AND DEMOGRAPHY

4.1 Overview

Population and demographic analysis are important elements in town planning as it gives the basis to how resources, infrastructure and management and organizing of a town's economic sector can be done effectively, the population also provides a basis for projecting land demand. This chapter seeks to analyse the demographic characteristics of Kimende town and its peripheries" population in order to understand the dynamics in terms of "how old", "how many" among other traits and the influences on the social and economic aspects of the region.

4.2 Population Size and Density

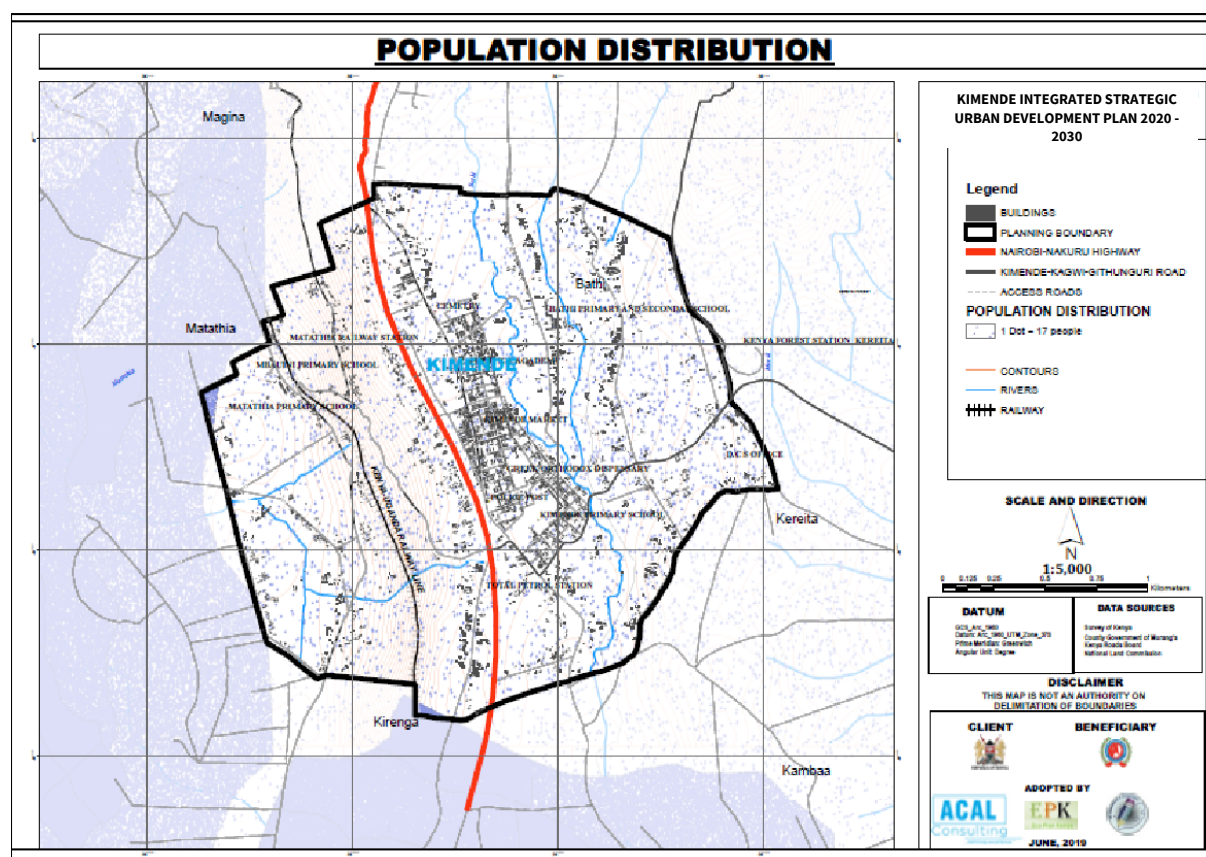
Lari sub-county had a population of 123,895 persons and density of 280 persons per Km² as per the 2009 population census. Kimende town is one of the high population growth points in the area. This can likely be attributed to the benefits of accessibility provided by the A104. There are four sub-locations within the planning area with a total population of approximately 5,827 persons with a total area of approximately 4,822Km². The table below shows population sizes per sub-location in the planning area;

Sub-Location	Density	Area Km ²	Population
Magina	1742	2.216	3860
Bathi	968	1.9	1840
Escarpments	221	0.356	79
Kambaa	135	0.350	48
Totals			5827

Source: KNBS, 2009

Magina is the most populated area followed by Bathi, Escarpments and lastly Kambaa. Population in Kimende is concentrated around A104 Road and around the CBD. Map 12 below shows the spatial distribution of population between 2015 and 2015. The least densely populated constituency is Lari with 307 persons/Km², mainly due to the fact that a considerable part of the constituency is covered by forests.

Map 12: The spatial distribution of population growth



Source: ACAL & BC Gildenhuys, 2020

4.3 Population Projection

Planning area in Kimende had a population of approximately 5,827 persons according to the 2009 population census. It's estimated that the town will have approximately 14,382 persons by the year 2030 at a growth rate of 4.4% p.a.

Map 4-1: Population Projections

Year	2009	2010	2015	2020	2025	2030
Population	5,827	6,083	7,543	9,354	11,599	14,382

Source: KNBS, 2019

4.4 Demography

Demography is the study of human populations – their size, composition and distribution across space – and the process through which populations change.

4.4.1 Indicators of well-being and Human Development

The human development approach emerged in response to the growing criticism of the use of economic development as a measure in the standard of living. The approach examines broader human development issues and is concerned with both building up human capabilities and with using those human capabilities

fully. According to 2013 Kenya Human Development Report, the HDI for the country is estimated at 0.52. The HDI estimate for Kiambu County is 0.56² which is above the national HDI.

4.4.1.1 Literacy

Kimende town has adequate education facilities which registers high literacy levels. The percentage of people within the county who can read stands at 95.6 percent while 3.8 percent of the total population cannot read. Also, 95.2 percent of the total while 4.2 percent cannot write. About 95.4 percent of the total population within the town can read and write while 4.6 percent cannot read and write. Those who can read and write stand at 95.4 per cent. The high literacy rates are as a result of continued investment in the education sector.

4.4.1.2 Fertility rates

In 2014, Kimende town registered fertility rate of 2.7 which is low due to the high literacy levels of the women in the town. From the health sector, the average number of children per woman is 2.7 which are lower than the national average of 3.9 children per woman.

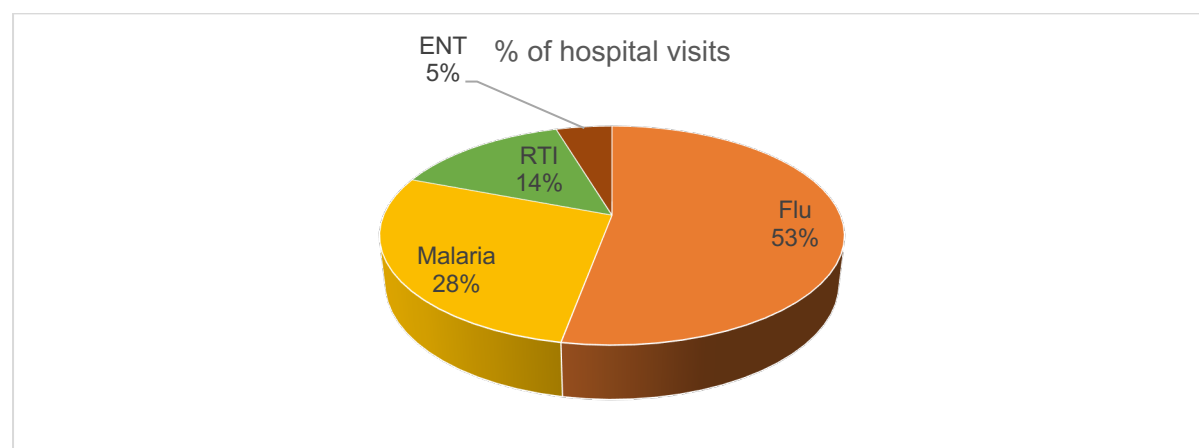
This increase indicates a need for intensive family planning campaigns in the county to address the high population growth rates. There is need to have health facilities which are well equipped and with adequate staff who are knowledgeable about family planning methods and techniques

4.4.1.3 Mortality

Kiambu county does not have serious health problems which trickles down to Kimende Town and this is indicated by low infant mortality rate, which stands at 48/1,000 and under five mortality rates, which stands at 58/1,000. Due to the high rate of delivery at health institutions which stands at 80.4 per cent, children's health is fair and data available for stunted growth is negligible.

4.4.1.4 Morbidity

The most prevalent diseases in Kimende Town are flu which accounts for 35.3 percent of the total hospital visits, malaria accounts for 18.6 percent of the total hospital visits, Respiratory Tract Infections (RTI) at 9.7 percent, and Ear Nose and Throat (ENT) infections account for 3.1 percent of hospital visits.



4.4.1.5 Life Expectancy

Life expectancy in the Kimende Town is at 56.3 years with infant mortality rates of 33.9 per every 1000 live births whereas the under 5-year mortality rate is at 72 per 1000. Fertility rate is at a low of 3.4 children and the average household size is 3.85 people.

4.4.1.6 Income levels

² Kiambu county Annual development plan 2019/2020

Kabete constituency has been ranked the least poor constituency out of the total 210 constituencies nationally. The constituency has the lowest percentage of people living below the poverty line in the district at 18%. Despite being the least poor, Kabete is also the most unequal constituency in the country.³

Among the population, 51.6% are wage earners and 31% are self-employed. The labour force in the county was 961,261 people in 2009, which comprised of 475,149 males and 486,112 females translating to 59.2 percent of the population. It was projected to rise to 1,036,128 in 2012, 1,116,826 in 2015 and 1,174,087 people at the end of 2017. The county's labour force comprises 59.2 percent of the total population. Due to high rate of population growth estimated at 2.81 per cent, the labour force is growing rapidly, while existing resources remain the same. Unemployment rate is high with 17 percent of the population unemployed.

This indicates the need to create job opportunities and expand the job market.

4.4.1.7 Gender Inequality Index

It measures gender inequalities in three important aspects of human development—reproductive health, measured by maternal mortality ratio and adolescent birth rates; empowerment, measured by proportion of parliamentary seats occupied by females and proportion of adult females and males aged 25 years and older with at least some secondary education; and economic status, expressed as labour market participation and measured by labour force participation rate of female and male populations aged 15 years and older.

Kiambu County has a gender inequality index of 0.57⁴ ranked 6th as the most gender equal county in Kenya.

4.4.1.8 Culture and Religion

Majority of the residents within Kimende Town are from the Kikuyu community, and largely born within the area. Majority of the population are Christians due to the evidence of many churches in Kimende. There is also Mosque at Lower Kabete that Muslims in the area use for religious purposes

Marginalized and Minorities

There is a high increment in gender-based violence especially among women and other criminal cases of rape especially among the elderly women thus the need for social protection and enforcement of women rights in the society.

4.5 Emerging Planning Issues and Opportunities

	Opportunities	Constrains
Population Structure	<ul style="list-style-type: none"> Youthful population will provide the much needed labour 	<ul style="list-style-type: none"> High dependency ratios due to dominance in the 0-4 years and 20-24 years population hence inadequate resources for the development of the town due to more people being dependent on the scarce resources.
Population Size and Density	<ul style="list-style-type: none"> Population growth rate is higher than the county average. High population guarantees availability of labour 	<ul style="list-style-type: none"> High population density of 4,577 persons per sq. km compared to 952 persons per sq. km for the entire county
Population distribution	<ul style="list-style-type: none"> Population evenly distributed within the planning area 	<ul style="list-style-type: none"> Population mostly concentrated along transport routes.

³ 2007 Kabete Constituency Strategic Plan

⁴ <http://hdr.undp.org/en/content/gender-inequality-index-gii>

Population projection	<ul style="list-style-type: none"> Steady increase on the population 	<ul style="list-style-type: none"> Increase in population will exert pressure on existing facilities thus the need for expansion.
Demography	<ul style="list-style-type: none"> Low infant mortality rate compared to the national average. High income levels 	<ul style="list-style-type: none"> Illiteracy as some people cannot access education facilities. This reduces the quality of the available human resource and eventually affects the economy of the town. High income level disparity
Social Analysis	<ul style="list-style-type: none"> Achievement in the key dimensions of Human development including health, education and income indicates high sustainability levels. This generally benefits the economic prosperity of local residents and businesses. 	

5 CHAPTER FIVE: LAND USE ANALYSIS

5.1 Overview

Land is one of three major factors of production in classical economics (along with labor and capital) and an essential input for housing and commercial undertaking especially in urban areas as well as food production. Thus, land use is the backbone upon which most economies are anchored and it provides substantial economic and social benefits. Land in the study area is put under diverse uses these include industrial, agricultural, commercial, wetland forest and public land where we have public utilities and amenities.

5.2 Classification of Land

Land in Kimende is classified as Public and Private Land. There is no registered community land in Kimende. Public land in Kimende is mainly occupied by the Government Institutions and the Open spaces. Public land in Kimende is owned by the National and County Government which includes: Public schools, Health facilities, Administrative Offices. Leased plots have owners holding lease Certificates especially in town.

5.3 Land Tenure

Most of the land owners in Kimende have title deeds to their land and there are no recorded cases of incidences of landlessness. The remaining few are yet to receive title deeds which are being processed. There has been a high rate of subdivisions, most of which are not registered. There are instances reported of double allocations within the area. Freehold land is found within the hinterlands of Kimende on agricultural land use while leasehold tenure is located within the town with commercial, residential and public land uses.

5.4 Land Use

5.4.1 Land Use Patterns

Kimende has various concentrations of land uses ranging from residential to industrial uses. The following section describes the main land use categories in the town. Residential use, in its various forms, creates the backbone of any town, by fulfilling the need for housing, certain home industries as well as creating a market for other local and regional economic activities. The residential uses are typically located within the main linear development of the town and tend to surround other uses like commercial and education. Apart from agriculture, residential land use makes up the largest use in both number and area of parcels. The residential buildings consist mainly of two and three storey walk-ups. The rest of the housing occurs on agricultural holdings located on the periphery of the CBD. There are no major noticeable industrial plots (four small industrial plots) within the planning area.

Kimende serves as a trading centre, with the market forming the commercial heart of the town. Smaller business and commercial uses concentrate around the market, located along the A104. The town is home to several schools, which are scattered throughout the planning area. There are also several parcels marked as 'public purpose', including several churches. The predominant land use in the area is agricultural, which, as mentioned above, also serves a dual function of being residential due to the relatively small size of the land parcels.

Plate 5.1: Retail businesses along Nairobi-Nakuru highway

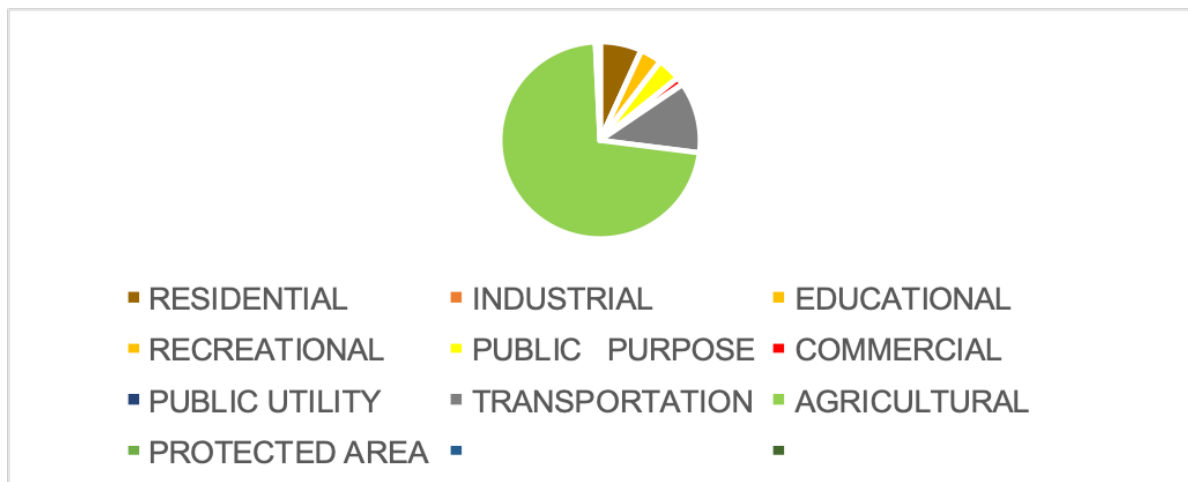


Source: Field Survey, 2019

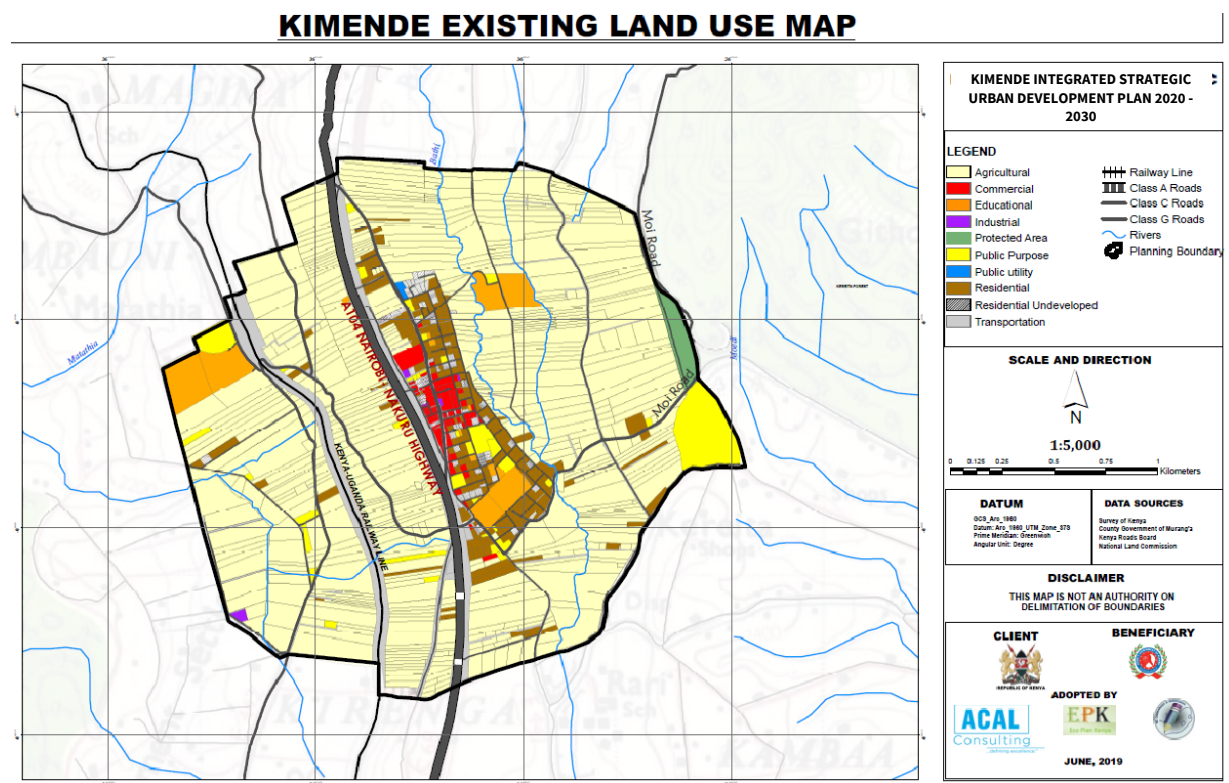
Land Use Distribution

Agricultural land occupies the largest portion at 72.23% in land use distribution with recreational being the least at 0%.

Figure 5.1: Land Use Distribution



Map 5-1:Current land use in Kimende



Source: ACAL&EPK, 2019

5.4.2 Land Administration and Management

Land administration is done through the registry and ministry of lands through the set instruments of land subdivision and amalgamation. Kimende town lacks an approved zoning policy and regulations to guide land subdivision and management. There has been an uneconomical land subdivision which requires guidance from the land administrators in its management. The map below illustrates Uneconomical subdivisions measuring 13.79M *186.44M near Bathi Primary School.

Map 5-2: Uneconomical land subdivisions



Source: ACAL & BC Gildenhuys, 2020

There are an estimated 1 200 land parcels in the area. The average size is only 2 514m². It is worth noting that the most densely developed areas are the areas with the smallest land parcels. This also further helps to confirm the town's urban areas as parcels larger than 2000m² tend to only be found along the main linear development of the town. Of some concern is the small land parcels in the agricultural areas of the town. These small parcels are less able to support livelihoods.

5.4.3 Land Availability and suitability

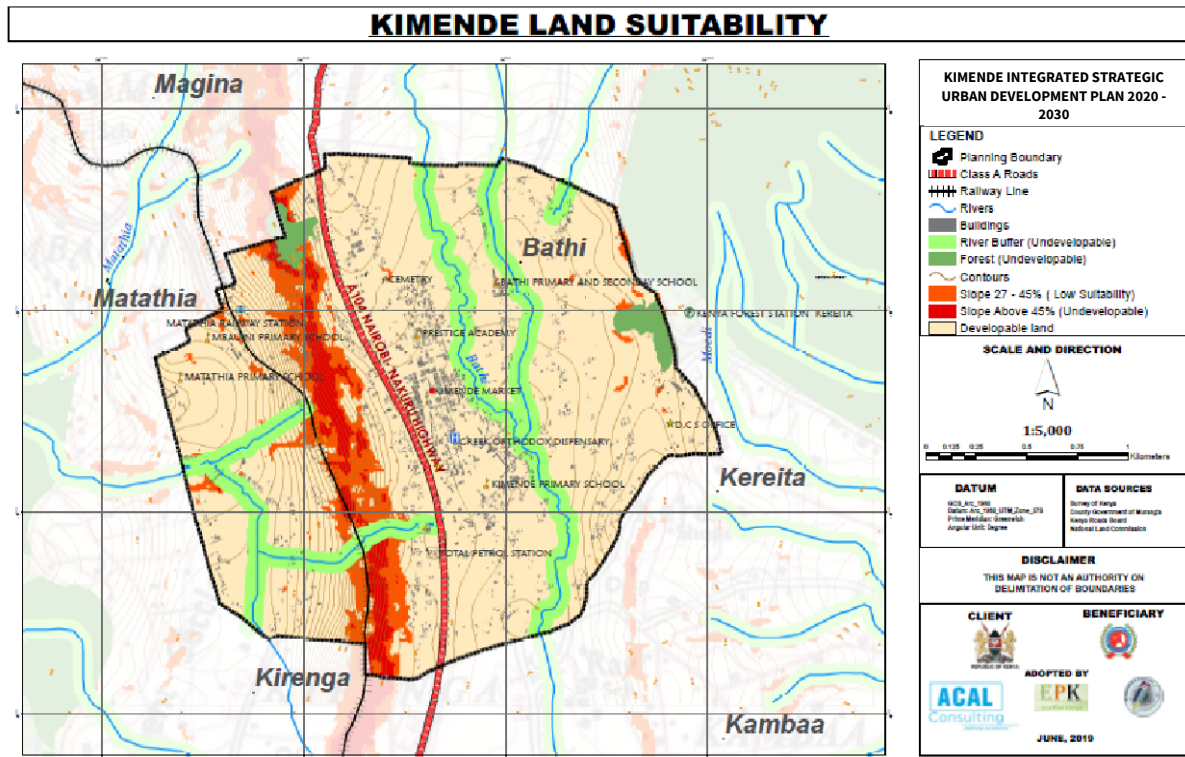
Most of the land is privately owned with some being public land where the civic and administration offices are located. Land is scarce in Kimende and this calls for land acquisition for public amenities and utilities. Majority of land in Kimende is ancestral which affects its availability in the land market hence affecting the demand and supply. The land availability informs future planning policy development and will assist in the monitoring of adequate supply of deliverable land.

There are an estimated 1200 land parcels within the planning area, most of which are under agricultural use. The land in Kimende Town is gradually being fragmented as the population grows. The parcels of land under residential use measure about 0.12 Ha in area on average. The parcels under commercial use measure about 0.0522Ha in size. The parcels in the periphery are however larger than those in the urban core, at an estimated average of 0.5973 Ha each, which is a threat to agricultural productivity and land capability. Currently it's estimated about 72% own land below 0.4Ha, 12.8% of land is below 0.045Ha. The maximum land size is up to 9.1267 Ha in Kimende Planning area. Large parcels are under agricultural and institutional use. eg Bathi and Kimende Primary. The land available for further development is mainly located to the periphery of the urban centre although it's not suitable for urban development. The land suitable for urban

developments is in the gentle sloping areas within the urban centre while the steep areas of more than 25⁰ are left for agriculture and conservation. Soils in the area support agriculture farming.

Map:

Map 5-3: Land Suitability



Source: ACAL & BC Gildenhuys, 2020

5.4.4 Land Values/Market

The management and operation of land markets is governed by the private sector, with little public sector intervention. The proximity to Limuru town has played a major role in the increase of value of the land in Kimende. Many investors have started purchasing for speculation and for development.

6 CHAPTER SIX: ENVIRONMENT AND NATURAL RESOURCES

6.1 Physical Environment

The area has rivers including Bathi, Matathia and Moedi rivers within Kimende town. The rivers form part of the structuring elements of the town. The presence of natural forests such as Kereita and Kinale forests serve as water catchment areas as well as maintaining the cool and wet climate of the area. They as well serve as a tourist attraction sites with Bathi dam being a major water source for Kimende.

Plate 6.1: Tourist Attractions Sites



Source: ACAL & BC Gildenhuys, 2020

6.2 Urban Greenery, Open Spaces and Recreational Areas

Green spaces in urban areas are vital for human well-being. Studies have shown that green urban areas offer many mental health benefits such as reduced stress that can lead to increased physical well-being.

Recreational areas refer to land that is designed, constructed, designated, or used for recreational activities. Examples are national, state, county, or city parks, other outdoor recreational areas such as golf courses or swimming pools and bodies of waters (oceans, lakes, rivers, and streams) when used by the public for fishing, swimming, or boating. Public and private areas that are predictably used for hunting, fishing, bird watching, bike riding, hiking, or camping or other recreational use also would be considered recreational areas.

Kimende town lacks designated open grounds for sporting activities. There are also no recreational areas in the town.

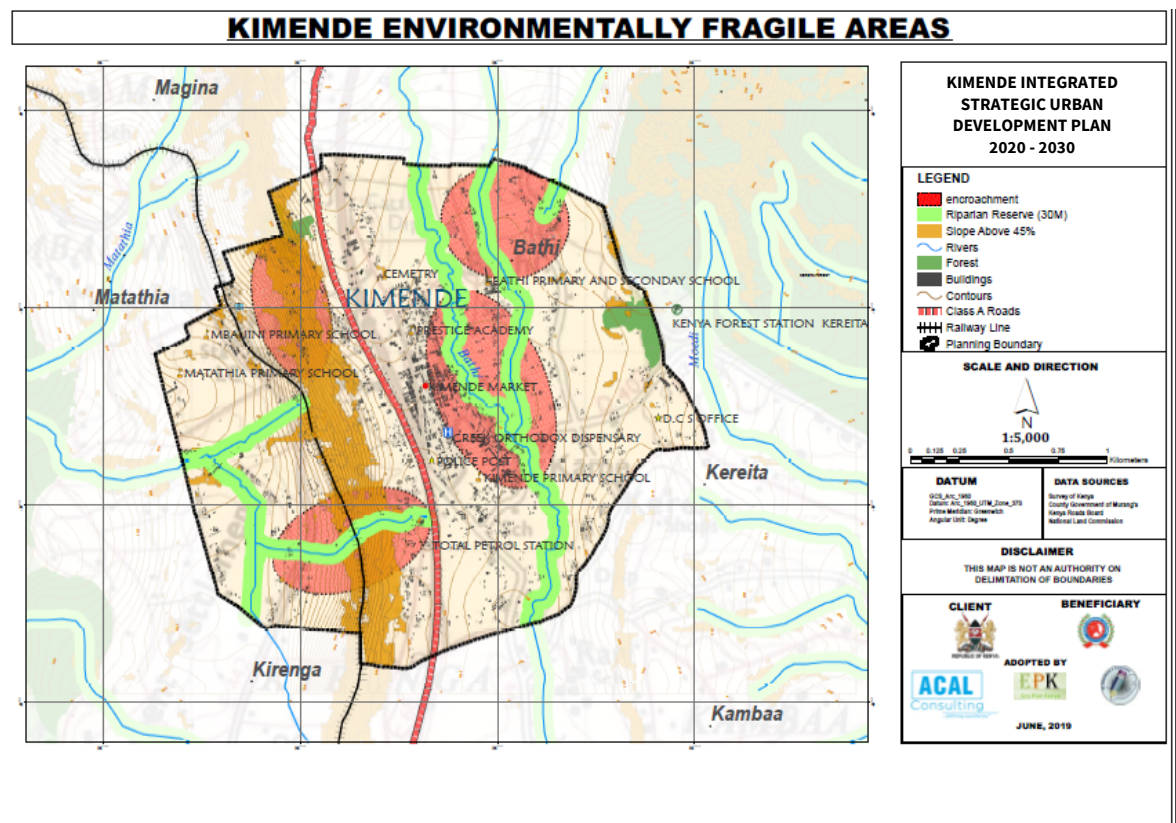
The only playgrounds available in Kimende are attached to public schools.

6.3 Ecological Sensitive Areas (ESA)

These are areas that need special protection because of their landscape, wildlife, forests or historical value.

The ecological sensitive areas in Kimende are the escarpments, Kimende Dam and rivers which have been encroached by urban developments. The Map below shows environmentally sensitive areas in Kimende town.

Map 6-1: Environmentally fragile areas



Source: ACAL & BC Gildenhuys, 2020

6.4 Natural Resources

The main natural resources in the area are Kikuyu escarpments that comprise part of Kireita forest that is within our planning area. Kireita forest ecosystem constitutes of dense forest with wildlife including elephants, hyenas, bush baby, baboons, colobus monkeys, dik-dik, bush pigs, tree and ground squirrels, porcupines, many species of birds such as weaver, guinea fowls, sparrow among others. Other natural resources include Gatamaiyu forest, Gatamaiyu fish camp & Riverine Walk. Features outside the planning area but important to the planning area include, Kereita cave and waterfalls. The forest is the main source of forest products for the residents supplying medicinal plants, fuelwood, charcoal, timber, building and fencing poles, grazing ground, wild fruits, manure and important places for traditional practices.

6.5 Solid Waste Management

This is the discipline associated with control of generation, storage, collection, transport or transfer, processing and disposal of solid waste materials in a way that best addresses the range of public health, conservation, economics, aesthetic, engineering and other environmental considerations.

Kimende town doesn't have a central waste management centre and waste transfer stations to handle solid waste. This has led to haphazard waste disposal within the planning area.

6.6 Emerging Issues, Opportunities and Challenges

Table 6-1: Emerging issues, opportunities and challenges

	Opportunity:	Constraints:
a) Urban greenery	<ul style="list-style-type: none"> The immediate areas outside the town offer good greenery 	<ul style="list-style-type: none"> There is no provision for urban parks in the town
b) Ecologically sensitive areas	<ul style="list-style-type: none"> These areas provide ecological services such as water provision and scenic views 	<ul style="list-style-type: none"> Encroachment of riparian reserve Farming on steep terrains Soil erosion
c) Waste management	<ul style="list-style-type: none"> Predominance of organic waste that is biodegradable. Opportunities for composting to support organic farming 	<ul style="list-style-type: none"> Lack of a waste disposal site

7 CHAPTER SEVEN: URBANIZATION, HOUSING AND HUMAN SETTLEMENTS

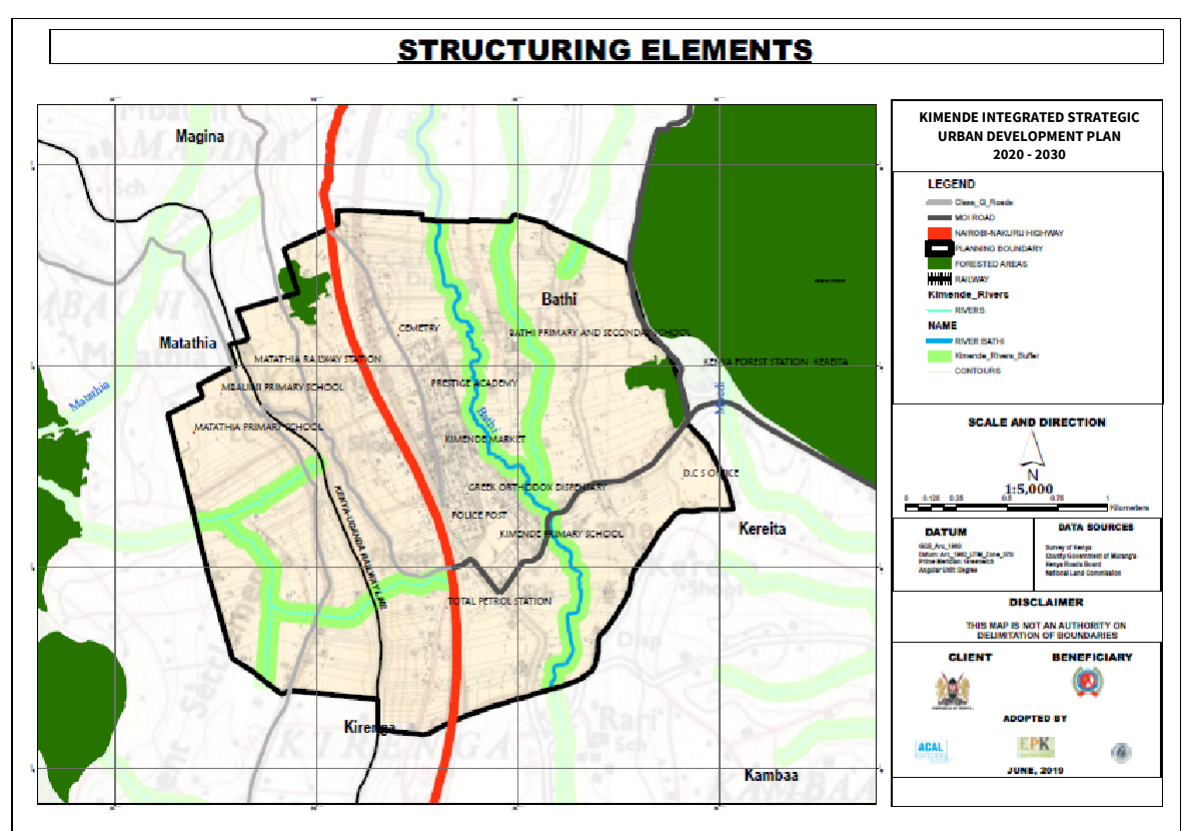
7.1 Overview

This chapter analyses human settlements with focus on the patterns of and character of the human settlements, the typologies of housing, material used in housing and the demand for housing.

7.2 Patterns and Trends of Human Settlements

Land use patterns and trends along the A104 road create a linear settlement pattern with nucleated settlements in the hinterland of the planning area as illustrated in the map below. The availability of both the railway and road transport has led to the settlement along these networks for ease of mobility.

Map 7-1: Structuring Elements and Settlement patterns

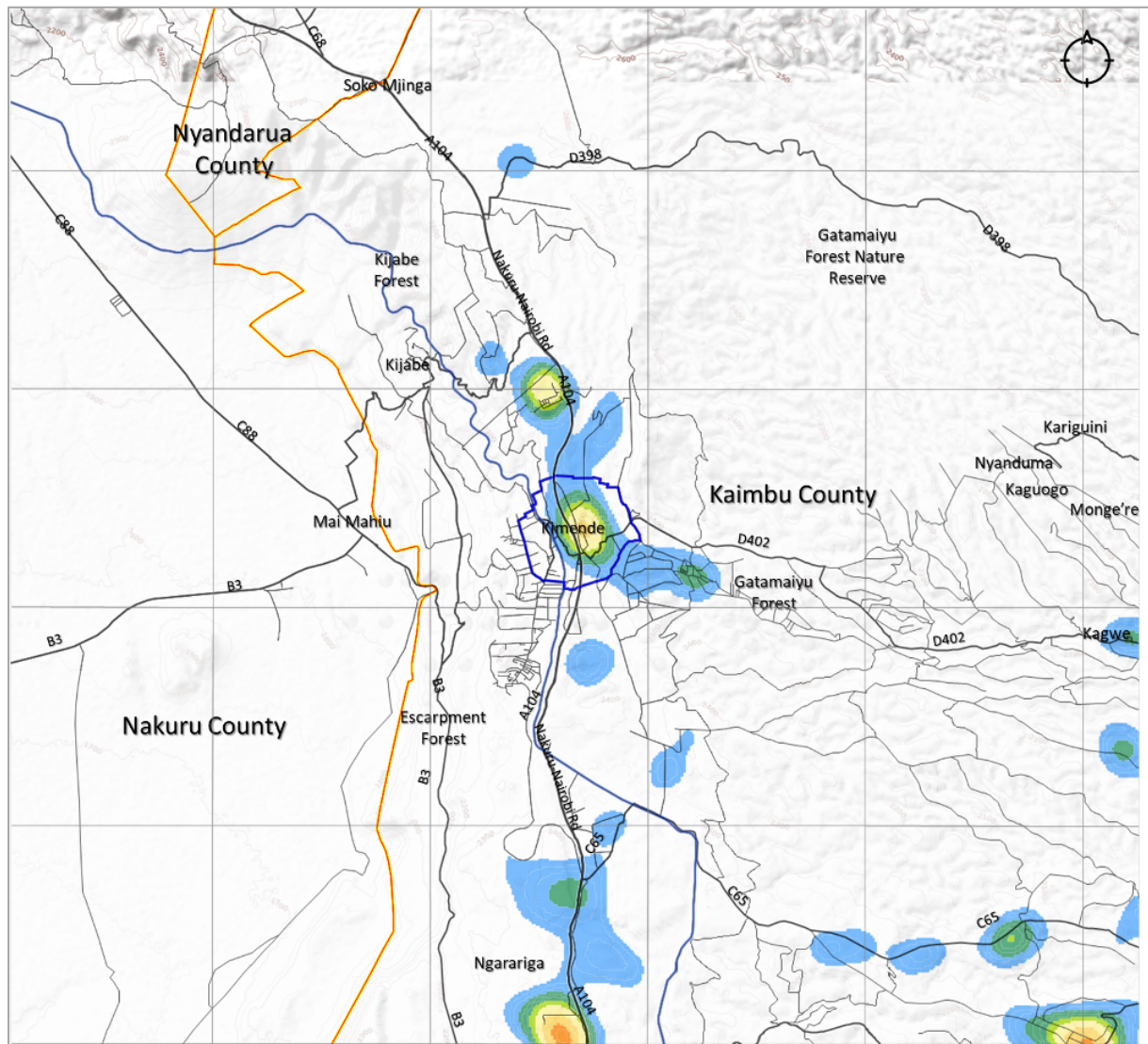


Source: ACAL & BC Gildenhuys, 2020

Local settlement

The map below shows the settlement intensity in the planning area.

Map 7-2: Structure density at 1km kernel



Regional Structure Density: 1 km Kernel*

LEGEND

Planning area

Structures within a 1 km kernel:



Source: Mapable® 2018

*Kernel density calculates the density of features in a neighbourhood around those features. In this case the neighbourhood is a radius of 1km and each dwelling. The result is a smooth surface indicating the intensity of settlement over the study area.

Grid size: 5km

<http://maps.mapable.co.za/link.asp?g=8781>

NamSIP: IUSDP
Kimende



Nairobi Metropolitan Services
Improvement Programme

Ministry of Transport, Infrastructure, Housing
and Urban Development

Mapable®
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Email: info@mapable.co.za

Source: ACAL & BC Gildenhuys, 2020

The emerging density profile confirms the linear form of the town. However, it does show an area around the market where there is a higher density and confirms the position of the CBD in the town.

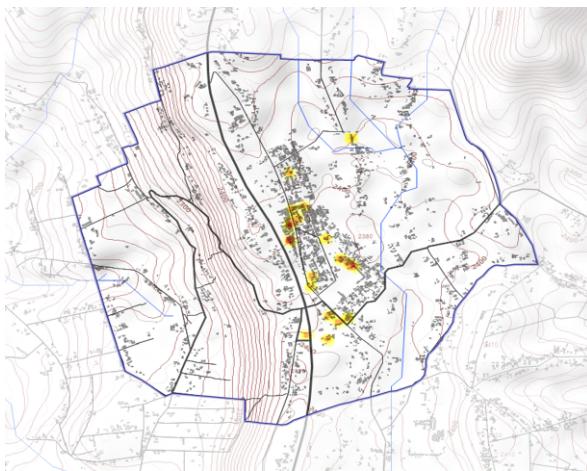
The remainder of the area is predominantly utilised for small-scale agriculture and the associated dwellings, concentrated along the roads.

Business development areas

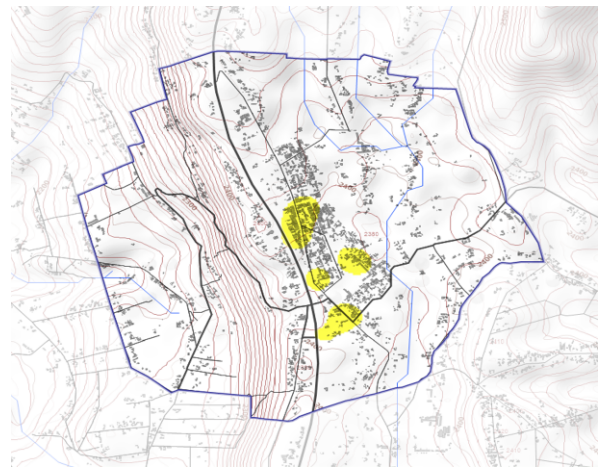
Given the undefined nature and often very mixed nature of development, it is important to establish the focal areas for business development. Like most development, businesses, formal and informal, tend to develop in a linear way along all the main routes. This trend makes it difficult to demarcate and define core business areas with any level of certainty. A density assessment was done based on points of interest. The figure below shows the patterns that emerged.

Map 7-3: Focus areas of business development

Points of Interest Density: 50 m Kernel



Points of Interest Density: 150 m Kernel



Source: ACAL & BC Gildenhuys, 2020

At the level of 150m kernels, distinct areas start to emerge. The first is the area around the towns market, which also coincides with the high-intensity development area identified in the previous sections. The second is a smaller node near the post office to the south of the market. These are also evidence of a small corridor starting to develop along the Nakuru-Nairobi road. The third is the area around the Kimende Primary School. There is a fourth node that is focused around the churches to the south of the study area. These nodal elements linked to the agricultural patterns and residential focus area provides a robust and well-defined framework for the long-term development of the town.

7.3 Rural Settlements

The settlement pattern in Kimende rural and peripheral areas is characterized by dispersed settlements. This is informed by the nature of livelihoods which is predominantly agriculture resulting in bigger chunks of land compared to the urban centre. The settlements are built using available local building materials which include mud, wood and iron sheets. They are both permanent and semi-permanent in nature.

7.4 Formal and Informal Settlements

Formal settlements comprise the housing topologies that have a mix of high-rise buildings, both commercial and residential land uses, townhouses and row housing as illustrated below. The buildings are both permanent and semi-permanent in nature. The town lacks a uniform urban character and morphology.

Building materials used for construction of walls are mainly stones, timber and iron sheets and roofing being mainly iron sheets.

Informal Settlements

Informal settlements are temporal structures along Nairobi-Nakuru highway on road reserves

7.5 Emerging Planning Issues, Opportunities and Challenges

Table 7-1: Emerging issues on Human settlements

Patterns and trends of Human Settlement	
Key Highlights	Opportunities
<ul style="list-style-type: none"> Settlement concentrated on relatively flat areas, along. Main concentration is in the urban core Linear pattern of sprawl along main transport corridors 	<ul style="list-style-type: none"> Existing defined pattern of growth can guide planning activities
Urban Form	
Key Highlights	Opportunities
The concentration of activities is within the CBD area and sprawls outwards along the main transport corridors	Opportunity for compact growth within the two nodes
Urban Edge	
Key Highlights	Opportunities
Key structuring elements defining urban edge are the main junctions and terrain	Ease of planning guided by structuring elements
Housing and Housing Demands	
Key Highlights	Opportunities
<ul style="list-style-type: none"> No public housing scheme in the urban No adequate land for public housing schemes No well-defined housing typology with the urban. Old dilapidated buildings 	<ul style="list-style-type: none"> Opportunities for urban renewal through planning

Source: ACAL & BC Gildenhuys, 2020

8 CHAPTER EIGHT: PHYSICAL INFRASTRUCTURE

8.1 Transportation

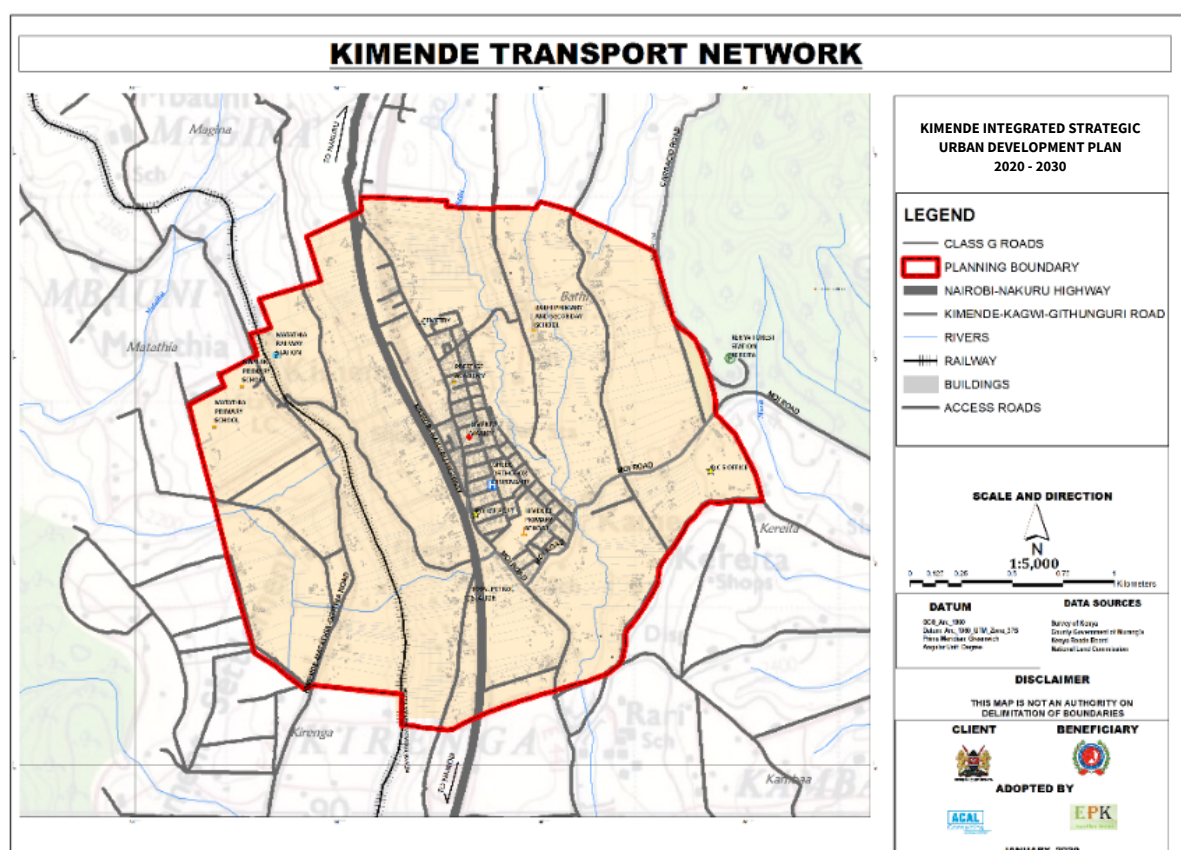
Transport infrastructure consists of fixed installations including roads, railways, airways, waterways, canals and terminals such as airports/strips, railway stations, warehouses, trucking terminals, refuelling depots etc. Transport system is the circulation system of any given area which maximizes accessibility through essential movements between linked activities. The circulation of the transport system should always consider safety, comfort, affordability, amenity and environmental effects.

8.1.1 Regional Connectivity

The area is well served with transportation networks with both rail and road transport. Other than the main access route, the A104, (Nairobi-Nakuru road), the remainder of the road network has no clear hierarchy. The general pattern of the main urban area is that of a linear grid, running in a north-west to south-east direction. Beyond the main urban section of the town there are no other discernible patterns in the road network. The rest of the network serves to provide general access to farms.

Pedestrian movement is mostly informal. However, there is a general lack of pedestrian facilities resulting in pedestrians mixing with different modes of transport. A railway line runs north-south through the western part of the planning area and includes Matathia train station.

Map 8-1: Kimende road network



Source: ACAL & BC Gildenhuys, 2020

Plate 8.1: Road Conditions in the town



Source: Field Survey, 2019

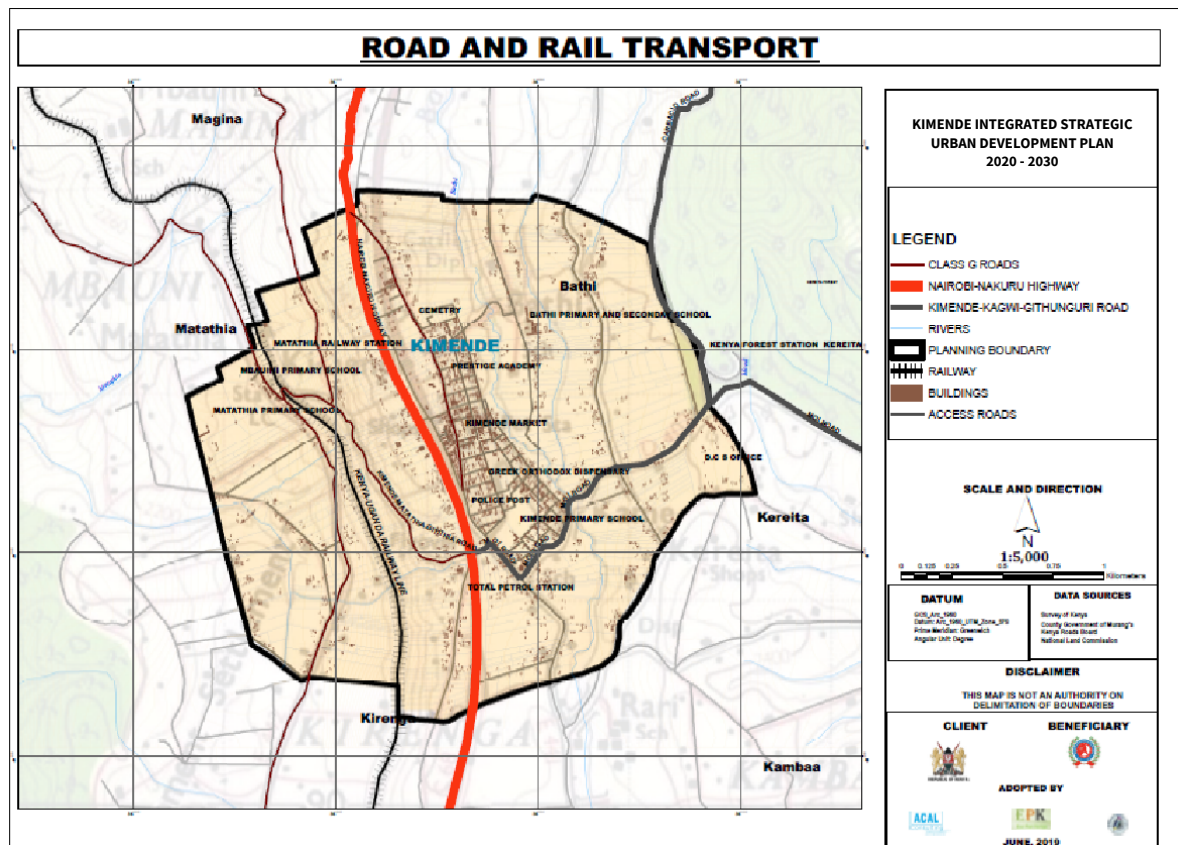
Table 8-1: Major Roads in the Planning Area

Road	Class	Carriage way (Metres)	Road Reserve	Carriageway surface type	Length (km)	Condition
Nairobi-Nakuru Road	A104	10	60	Paved	2.65KM	Good
Nyambari-Kimende Road	C558	6	12	Graveled	4.72KM	Good
Kirenga Road	G22662	3	7	Earth	0.75KM	Fair
Gathumuri chief's office – Equity Bank (Old town Road).	G22710	7	10	Gravel	1.8km	Fair
Kimende-Magina	G22722	6	12	Gravel	2.45KM	Fair
Kimende-Town roads	-	-	-	-	3km	Ongoing Construction

8.1.2 Interconnectivity and Intra-connectivity

The Kimende town is well served with internal roads and external roads which are both tarmac and murram roads. Some of the earth roads are impassable during the rainy seasons which make transport of agricultural products to the market centre and movement to the urban area to get services, goods and farm inputs. However most of the roads are in poor state.

Map 8-2: Interconnectivity and intra-connectivity



Source: ACAL & BC Gildenhuys, 2020

Kimende has a well-distributed transport network. It is critical to note that no major road passes through the planning area. The highest road Class is D415 (Muruka-Kimende Road) which links the C70 to C68. The tarmac roads are in good condition; however the connector roads are poor with regards to quality, width. Terrain hugely influences the road network. The main challenge is the lack of pedestrian walkways which are not sufficient and no designated parking area, limited motor-bike stands and lack of a bus-park in Kimende.

8.1.3 Means of Transport

The main means of transport are vehicles, walking, motor-bikes and bicycles.

However, there is a general lack of pedestrian facilities resulting in pedestrians mixing with different modes of transport. There is the Nairobi-Nakuru railway line passing through the planning area.

8.1.4 Trip Generation

Trips generations are mainly to work and shopping areas. Kimende town attracts people from the hinterland to the urban areas to access commercial services, farm inputs and transport raw materials to the markets and industries.

8.1.5 Traffic Management

Trip generation is mainly to work and shopping areas. Kimende town attracts people from the hinterland to the urban areas to access commercial services, farm inputs and transport goods to the markets and industries. The design of the roads as utilized currently need improvement to be able to cater for this traffic.

8.1.6 Non-Motorized Transport (NMT)

Non-Motorized (NMT) includes; head loading, bicycles, motorcycles and animal transport. NMT is an important means of transport both in urban and rural areas. NMT is important to people in Murang'a town as it helps them have access to employment, health, education and recreation facilities.

It is also majorly used because most vehicles cannot enter most of the settlements, due to the narrow roads and its poor condition. Non-motorized transport in the town is composed of bodaboda, bicycles and walking which are widely the main form of transport in the town. The road network within the town needs to be expanded to accommodate the pedestrians and cyclists (bodaboda). Increase in the number of motorcycle users as a more recent development in transport poses the need for planning for non-motorized transport in the town.

8.2 Water and Sanitation

Water supply and network is a critical resource for sustaining all forms of life, as well as economic and social activities in a country.

8.2.1 Demand and Supply

Kimende town is served by Limuru Water and Sanitation Company. Limuru water and Sanitation Company has a capacity of supplying 25000M³. Current water demand in Kimende town is 60,000M³. Only 653 households are connected to piped water. Other completed water projects in the area are; Rehabilitation of Kimende water network under Water Service Trust Fund and Bathi Dam Treatment plant which has capacity of 4000m³. There are also plans of basing Bathi Dam. Other sources of water in Kimende town are: Bathi Dam, Boreholes, shallow wells and Rivers. (Source: Limuru water and sanitation company, 2017)

There is no conventional sewer system in Kimende town. Majority of residents rely on pit latrines and soak pits.

8.2.2 Emerging issues on water

- Majority of the residents use shallow wells
- Encroachment of the Kinale wetland by farmers
- Water is not pumped at night. This is because farmers steal water for irrigation purposes.
- Existing pipes are old hence need for replacement.
- There is an urgent need to increase the old reticulation system pipes from 2 inches to around 6 inches.
- Use of pit latrines poses a threat to underground water quality.

8.3 Solid Waste Management

Solid-waste management refers to collection, treating, and disposing of solid material that is discarded because it has served its purpose or is no longer useful. Improper disposal of solid waste can create unsanitary conditions, and these conditions in turn can lead to pollution of the environment and to outbreaks of vector-borne disease—that is, diseases spread by rodents and insects.”

The County Government of Kiambu is mandated to undertake solid waste collection which it has not been able to control and manage to the satisfactory. The main challenge is lack of refuse collection points, receptacles and transfer stations. Solid waste from the town is disposed of at Kamuchege Dumpsite which is located outside the planning area. Lack of proper solid waste management has led to haphazard solid disposal in town. Due to lack of conventional waste management infrastructure, residents have resulted in burning, composting and heaping the waste leading to detrimental impacts. Burning of waste which is common in urbanized areas contributes to air pollution. Roadside and open fields dumping compromise sanitation ethics. Plate 8 below shows poorly disposed solid waste.

Plate 8.2: Haphazard solid waste disposal



8.4 Energy

Energy is power derived from the utilization of physical or chemical resources, especially to provide light and heat or to work machines. Reliable energy is important for economic and social progress.

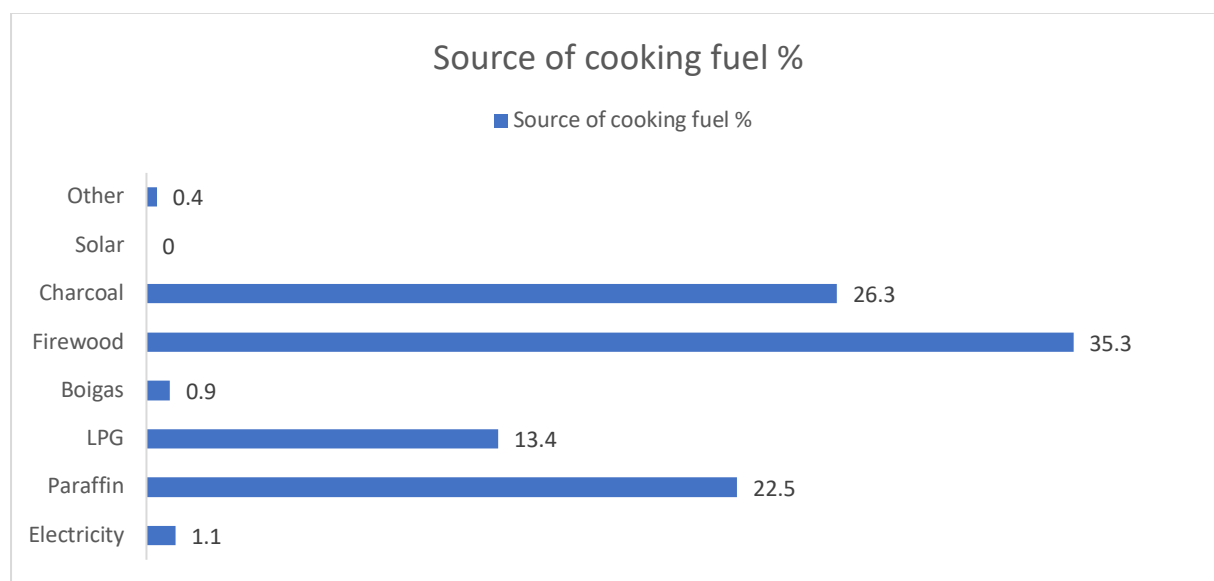
The need for reliable and affordable energy is more fundamental in that it supports expanded industry, modern agriculture, increased trade and improved transportation. These are the building blocks that help people escape poverty and create better lives.

8.4.1 Sources

Kenya Power is the main supplier of electricity which is the main energy used in the area. There is a high power connection within the urban and rural settlement areas. At household level electricity is mainly used for lighting. The common energy sources for cooking are firewood, charcoal and Kerosene. Another source of energy in the area is solar though it is underutilized.

Firewood is the main source of cooking fuel in Kimende followed by charcoal and paraffin as shown in the table below.

Figure 8.1: Source of cooking fuel in Lari Sub County



Source: KNBS, 2013

8.5 Information, Communication and Technology (ICT)

Accessibility and reliability to ICT services is vital for economic and social development of a town. Kimende town is well covered with telecommunication networks. The town has high mobile network coverage of about 97% of the area with Safaricom, Equitel, Jamii Telkom, Airtel Kenya, and Telkom Kenya as the main service providers. There are boosters to support the network efficiency. The town is served by all national mainstream TV and Radio stations. There is also a post office in Kimende town.

8.6 Emerging Planning Issues, Opportunities and Challenges

Table 8-2: Emerging issues, opportunities and challenges

	<i>Opportunities</i>	<i>Constrains</i>
<i>Transportation</i>		<ul style="list-style-type: none"> ▪ The town has no conventional bus terminus ▪ Most of the access roads are in a bad condition ▪ Narrow access road thus limiting their expansion
<i>Connectivity</i>	<ul style="list-style-type: none"> ▪ The Town has good internal and regional connectivity. 	<ul style="list-style-type: none"> ▪
<i>Water</i>	<ul style="list-style-type: none"> ▪ Potential to engage in rain water harvesting since this area receives heavy rainfall at intervals throughout the year. ▪ Due to presence of permanent stream there is potential to create dams for water harvesting and storage. 	<ul style="list-style-type: none"> ▪ Poor water distribution within the planning area. ▪ Water shortage due to overreliance on ground water. ▪ Pollution of water courses from agricultural activities ▪ Inadequate Water supply (for consumption and irrigation)
<i>Sanitation</i>	<ul style="list-style-type: none"> ▪ Waste collection, separation and recycling can be streamlined to be an income opportunity for the residents of Kimende 	<ul style="list-style-type: none"> ▪ There is no conventional sewerage system serving Kimende Town. ▪ Reliance of Septic tanks and pit latrines which are not sustainable means of waste disposal. ▪ The topography will make the laying of trunk sewer to be very expensive.
<i>Energy</i>	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ The study area is well-covered by the electricity network

9 CHAPTER NINE: SOCIAL INFRASTRUCTURE

9.1 Overview

This chapter highlights the social infrastructure in Kimende town and how it has contributed to the growth and development of the town. The social infrastructure in Kimende planning area includes; Education Facilities, Health Facilities, Culture and religious Facilities, Fire stations, Cemetery, Slaughterhouses, Security facilities, Administrative facilities and Recreational facilities.

9.2 Education Facilities

Education institutions are well distributed within the planning area. The area has ten primary schools of which three are public and seven are private. There are three public secondary schools in the area. It was observed that there is no higher educational institution within the planning area. However, some schools especially the private schools have inadequate land sizes and others lack proper sanitation facilities.

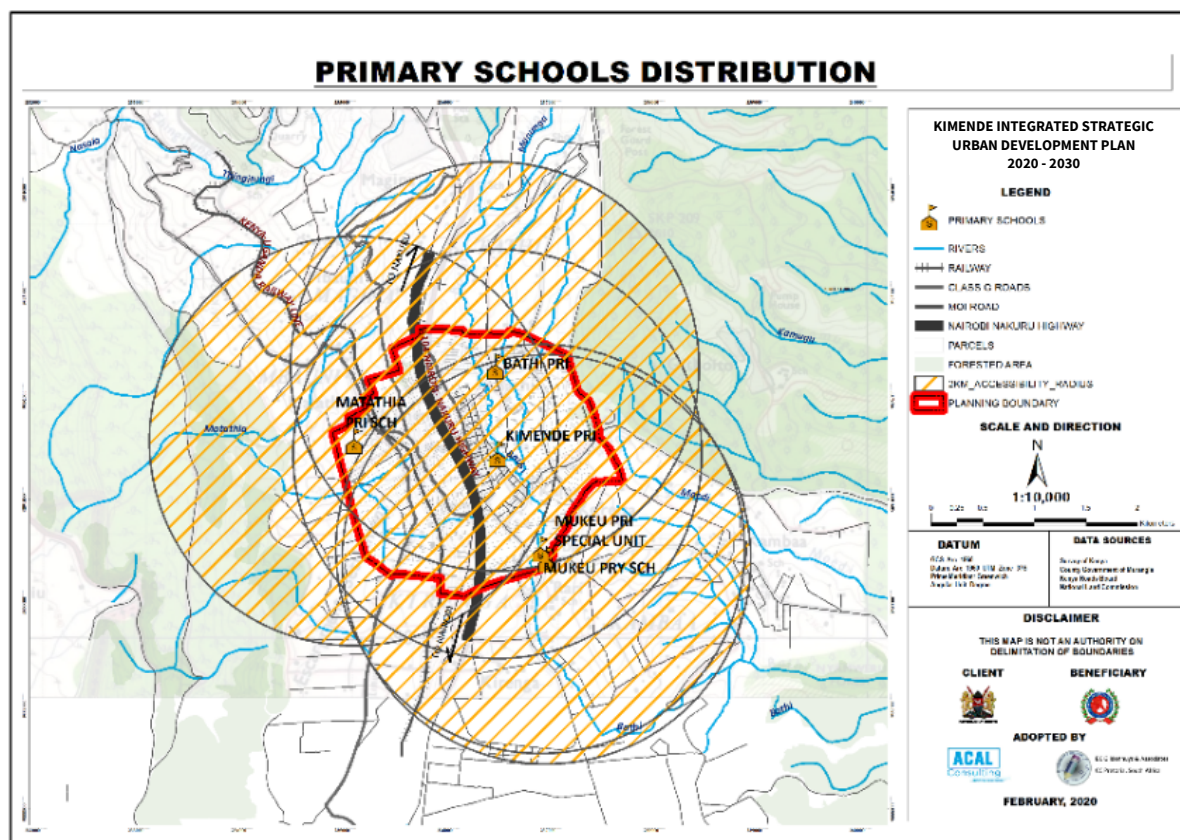
9.2.1 Pre –Primary Schools/ Nursery Schools

There are 7 private ECD centres namely; KAG Nursery school, Bridge International Academy, Faith Nursery school, Gloria Academy, St Paul's Academy and Bright Vision Academy.

9.2.2 Primary Schools

There exist ten primary schools in the planning area as shown in the map below;

Map 9-1: Primary Schools in the planning area



Source: ACAL & BC Gildenhuys, 2020

The public primary schools and their respective ECD Centres that are in the Kimende planning area are: Matathia Primary School, Kimende Primary school and Bathi Primary school.

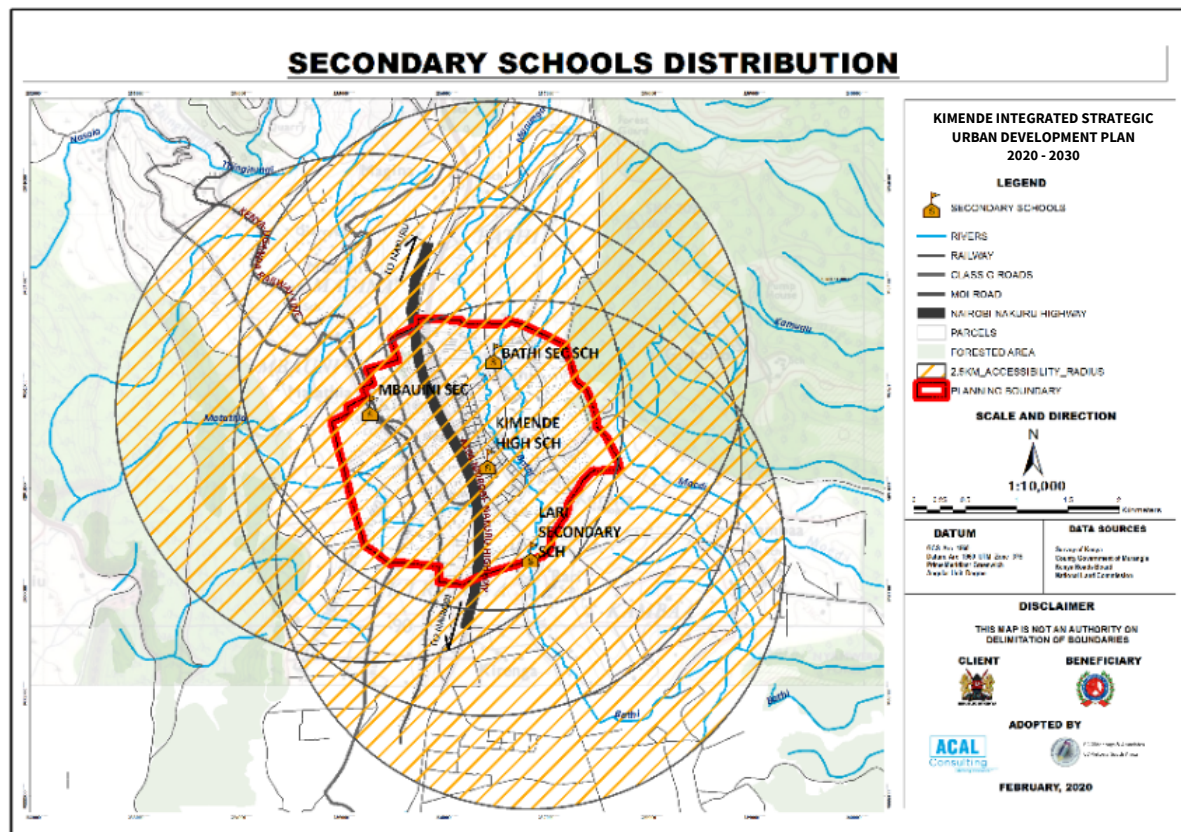
The maps on distribution of schools illustrate that the planning area meets the access criteria for primary schools. No area, except the lowly populated agricultural area to the south-west of the main town, is more than 2000m from a primary school. The same applies to secondary schools.

9.2.3 Secondary Schools

There are three public secondary schools in the planning area namely: Kimende Secondary, Bathi Secondary, and Mbauni Secondary Schools.

There is no private secondary school in the area.

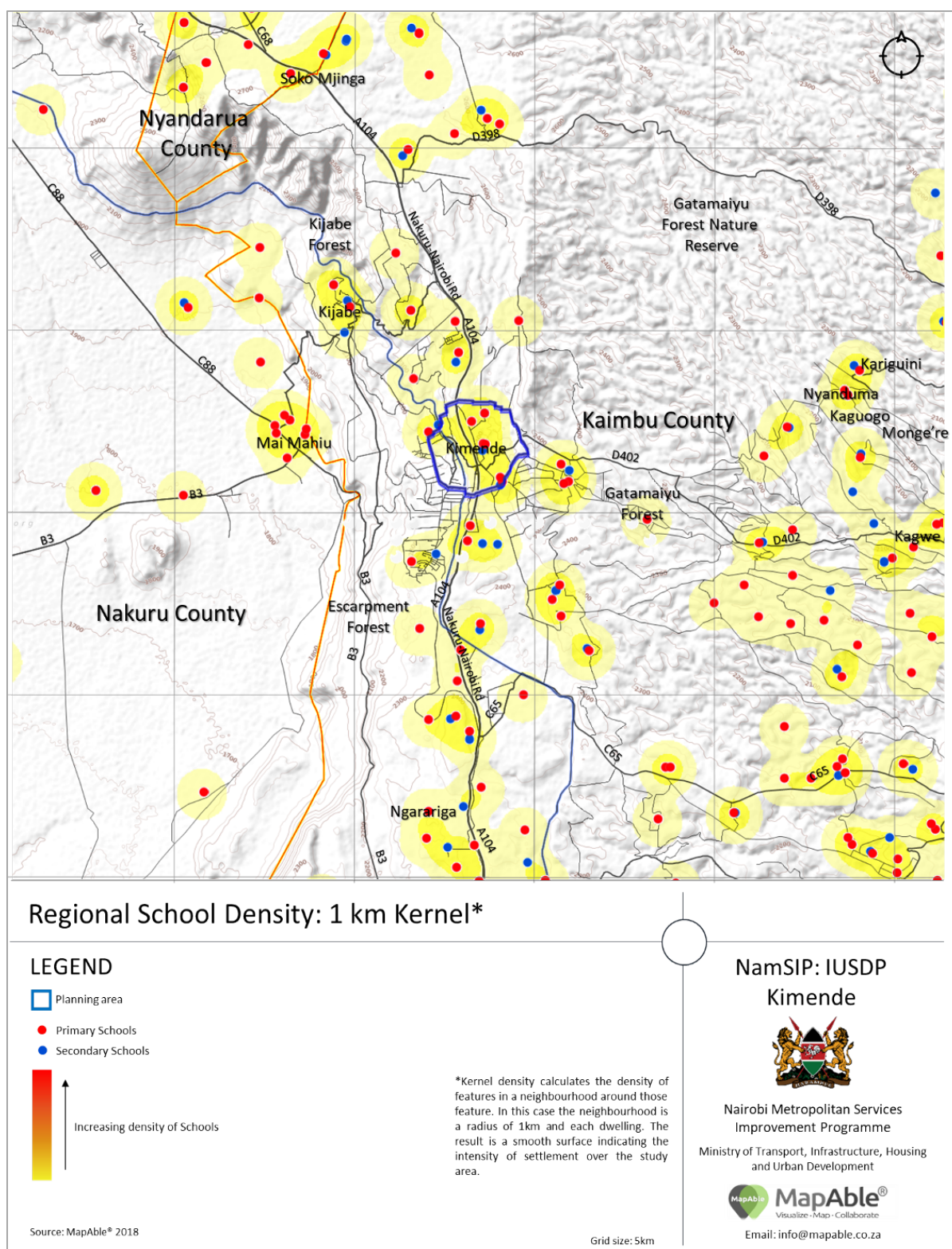
Map 9-2: Public secondary schools in the planning area



Source: ACAL&EPK, 2019

Map 9.3 below shows the location and clustering of primary and secondary schools in and around Kimende. As expected these schools cluster along main roads and in the denser areas. Access to schools is important.

Map 9-3: School locations and densities



Source: ACAL & BC Gildenhuys, 2020

9.2.4 Tertiary Institutions

There is no tertiary institution in the area.

Emerging Issues on Education

- Some schools are located on small plots way below the required minimum standards e.g. Prestige Academy, Faith Nursery and Bright Vision Academy.
- Some private schools are not registered.
- High student teacher ratios e.g. Kimende primary school has 785 students and 19 teachers only.

9.2.5 Health Facilities

Kimende is well covered by health facilities. There is one public health facility (Kiirita forest dispensary), one faith-based facility (Kimende Greek Orthodox Mission Health Centre and Maternity Home and lastly a private facility called Emmanuel Christian Medical Centre. The Lari Sub county Hospital, which is a level 4 Facility, is just 2 km from our planning boundary at Rukuma Shopping Centre and serves the residents of Kimende as well.

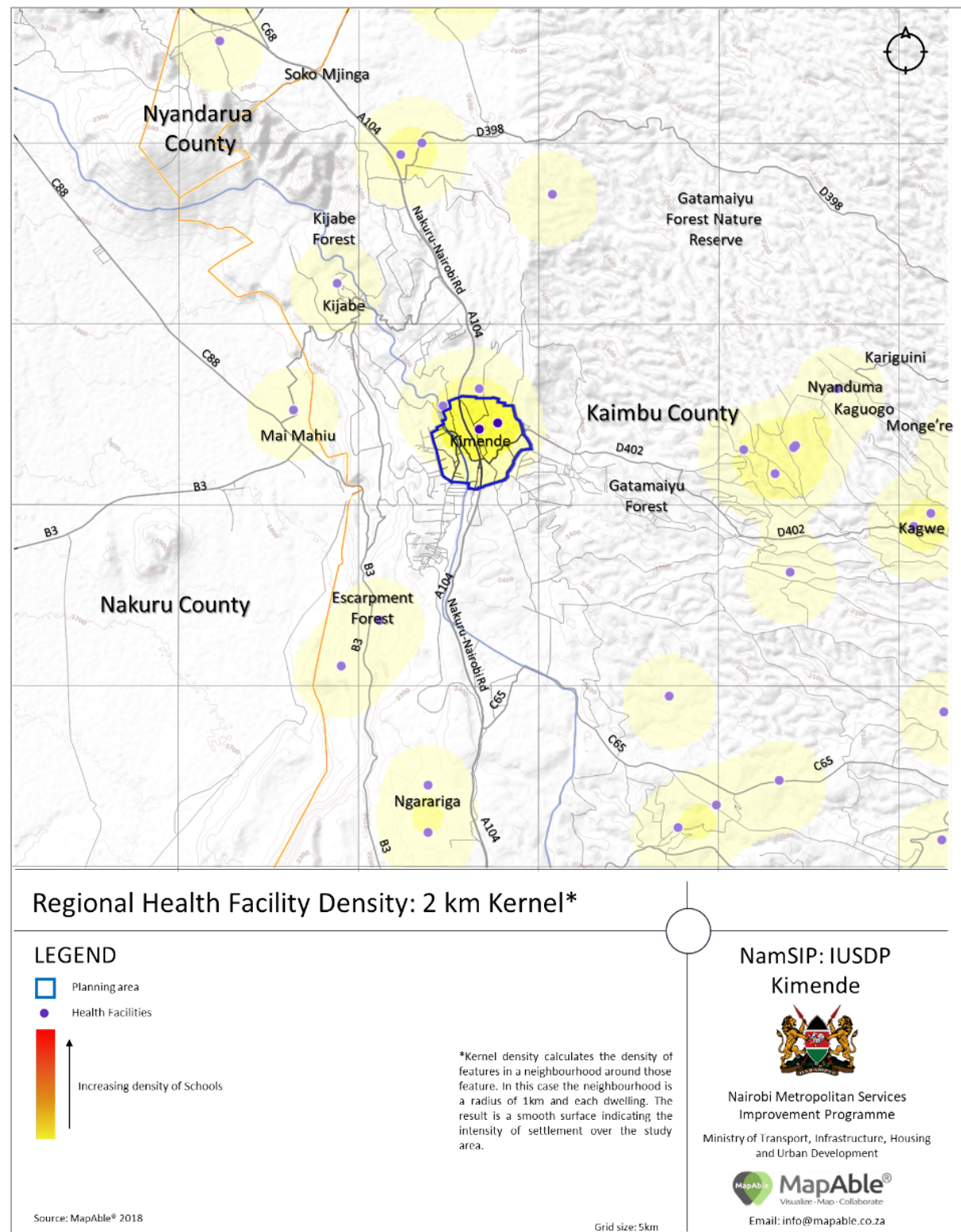
Table 9-1: Distribution of Health Facilities

Health Facility	Ownership	Type	Status
Kiriita Forest Dispensary	Public	Out-patient	operational
Greek Orthodox Mission Health Centre and Maternity home	Private (Faith based)	Out & in patient Maternity	Operational still under construction
Emmanuel Christian Medical Centre	Private	Out-patient	Operational
Lari Subcounty Health Centre	Public	Out & in patient Maternity	Operational
Mbauni Dispensary	Public	Out-patient	Operational

9.3 Health Indicators

Kimende town has one health centre situated along the main artery for accessibility. The common diseases reported are Diarrhoea, Upper Respiratory Infection, Chicken Pox, Eye and Ear Skin infections.

Map 9-4: Distribution of Health facilities and densities



Source: ACAL & BC Gildenhuys, 2020

9.4 Cultural and Religious Facilities

There are numerous churches and number mosques in Kimende area.

9.5 Fire Stations

There are no fire stations.

9.6 Cemetery and Crematoriums

There exists a cemetery which is not fenced in Kimende area.

9.7 Slaughterhouses

There is no slaughterhouse in the area.

9.8 Law and Order-Security Facilities, Courts, Prisons

There are 2 police posts; one at Kimende Kwa DC and Mbauini Escarpments

9.9 Libraries

There is no Public Library in Kimende

9.10 Administrative Facilities

Administrative Centre exists in Kimende with offices that provide services at the local level.

9.11 Recreation-Social Halls, Stadia, Theatres, Community Playgrounds etc.

Education and health services are the focus for development. Other community facilities that exist in the planning area are the Kimende Social Hall at Gathumuri Chief's Office, a post office at Matathia, a cattle dip in Bathi and the public cemetery along the old Town road. Some of the safety and security facilities include the two police posts one at Kimende in Lari sub county offices, and one at Mbauini escarpments.

9.12 Public Realm

Public realm are areas to which the public has access (such as roads, streets, lanes, parks, squares and bridges and open spaces). They also include the publicly available space between buildings, along with the spaces and the buildings or other structures that enclose them.

Plate 9.1: Public realm and civic spaces in Kimende



Source: Field Survey, 2019

9.13 Emerging Issues

Table 9-2: Emerging issues on social infrastructure

Education Facilities	
Key Highlights	Opportunities
<ul style="list-style-type: none"> Planning area well covered with education facilities (primary, secondary) Lack of public tertiary institutions. 	<ul style="list-style-type: none"> Improvement of existing infrastructure within the education facilities Tertiary education facility can act as a driver for growth
Health	
Key Highlights	Opportunities
No public health facility within the planning area	Need to plan for a health Centre to serve the area
Social Infrastructure	
Key Highlights	Opportunities

<ul style="list-style-type: none"> ▪ No public recreation facilities within planning area ▪ Presence of a wide scope of social facilities such as government offices, security facilities and religious facilities ▪ There is no public library in Kimende. 	<ul style="list-style-type: none"> ▪ Opportunity for development of a public park ▪ Opportunity for further investments in missing social facilities such as library
--	--

Source: ACAL & BC Gildenhuys, 2020

10 CHAPTER TEN: ECONOMIC ANALYSIS

10.1 Agriculture

The predominant land use in the area is agriculture. The major crops in Kimende are; sukuma wiki, spinach, cabbages, maize, beans, carrots and Irish potatoes. Dairy farming is also practiced in Kimende i.e. Sheep and Cattle rearing, green house farming. The crops are not only grown for small scale for subsistence use but also for selling to generate income. Small scale farms dominate the landscape with other uses located between the farms. The small-scale farms cultivate a variety of crops. There are no large-scale farms within the area.

Plate 10.1: Agriculture Activities



Emerging Issues in Agriculture

- Growing of fruits called Peppinos.
- Herbs and species production.
- Solar drying of vegetables.

Major Projects Launched through County Government Intervention.

- Green house project in every Sub-county.
- Water harvesting in households.
- Extension services to Farmers.

The County's economy is agriculturally based. It is not possible to isolate the agricultural activities in the planning area from the activities in the County as a whole. Assessing the economy focuses of the County and the role of Kimende therein, is derived from its function as a service and trading centre. Kimende functions mainly as a trading centre with the market, residential rentals and supporting services forming the heart of the town's economy.

Challenges Facing Agricultural Activities

- Uncontrolled subdivisions which will eventually lead to land fragmentation and hence food insecurity.
- Use of recycled seeds has lowered production for instance Sukuma wiki.
- High cost of inputs increases production cost.
- Very slow adaption to improved technology and techniques.
- Climate Change -stream shrinking in volume flow.

10.2 Tourism and Hospitality-Tourism

There is only one significant tourism facility in Kimende planning area, which is a small portion of Kereita forest. Its ecosystem constitutes of Dense forest with elephants, hyenas, bush baby, baboons, colobus monkeys, dik-dik, bush pigs, tree and ground squirrels, porcupines, Many species of birds such as weaver, guinea fowls, sparrow among others. (Kiambu Spatial Plan 2018-2022). Although there are viewing points nearby to look at the rift valley e.g. Viewpoint at Rukuma shopping centre Industrial Activities

10.2.1 Industrial development

The County as a whole has industries mostly located in Thika and Ruiru Constituencies. These industries act as a primary source of employment and serve as market outlets for agricultural and non-agricultural products both for domestic use and export. Industrial development in Kimende consists mainly of small service industries serving the local market. Examples of these industries include Kiriita farmers' dairies that act as a milk collection and cooling centre. Other small light industrial activities present are motorcycle repairs, metal welding, and motor vehicle garages which are informal. The Carbacid Kenya plant is a significant industry in Kimende but just outside the planning area extent which is well-known for mining of carbon dioxide.

10.3 Trade and Commerce

The County's labour force comprises 59.2% of the total population. Due to the high rate of population growth, the labour force is growing rapidly, while existing resources remain the same. The unemployment rate is high at 17%. Due to unavailability of regular jobs in the County, most of the people are self-employed. Self-employment contributes to 31% of households' income.

Formal businesses and informal trading are significant features of the town, with informal traders along most of the streets. Some of these operate from formal market stalls while other stalls are makeshift and temporary in nature. Examples of the informal activities in Kimende are street vending, hawking and groceries stores.

Plate 10.2: Small businesses supporting development



Source: Field survey, 2019

10.4 Others

10.4.1 Employment-Earnings, Distribution, Public service, private sector, informal sector

The main employment and economic earnings are obtained from the agriculture sector with a few percentages of people employed in public and private sectors. The area lacks informal industrial activities which ought to be promoted within the commercial centres.

10.4.2 Municipal Enterprises

Kimende town relies on revenue streams including fees from licences, land rates, market fees, penalties, parking fees, liquor license, plan approval, advertisements, house rent/stalls, slaughter fees, impounding, coffee cess, education and polytechnics, fire, self-help groups, land subdivision and transfer, hospitals, public health, livestock (A.I), meat inspection, veterinary clinical services, fisheries, weight and measures, water and among others. This boosts in raising funds for expenditure and running County Government affairs.

The following table shows revenue by municipal enterprises for the financial year 2018/2019 by economic categories.

Table 10-1: Revenue by management units for Lari sub county

	LARI
Management Unit Description	Amount (Ksh)
Agriculture Livestock & Fisheries Management Unit	630,366.40
Physical Planning Management Unit	3,843,012.96
Business Permit Management Unit	8,794,610.72
Cess Management Unit	3,772,452.00
Education Culture ICT & Social Services Unit	-
Health Services Management Unit	5,220,584.76
Housing Management Unit	127,589.80
Land Rates Management Unit	2,266,879.96
Market Management Unit	3,479,154.80
Others	279,411.68
Roads Transport Public Works Management Unit	231,607.20
Slaughter House Management Unit	1,292,057.68
Trade Tourism Industry & Cooperatives Unit	210,855.80
Vehicle Parking Management Unit	2,027,176.80

Water Environment & Natural Resources Mgt Unit	449,586.80
Liquor Licences Management Unit	5,127,400.00
Direct Transfers	
Total:	37,752,747.36

10.4.3 Forestry and Agro-Forestry

Kerita/Kamae forests are part of the great Aberdare forests that are gazetted forest reserves and are home to a number of elephants, which can be seen along the Flyover - Gatundu road. The Kereita Cave and Waterfall are located in Kereita Forest at the southernmost end of the Aberdare ranges. The forest is a designated Important Bird Area. One of these trails, the Carbacid trail, leads to Kereita Waterfall on the Gatamaiyu River, and the adjacent cave that is home to a small bat colony.

With regards to its economic potential, Kerita is getting traction from tourists both local and foreign tourists labelled the adrenaline junkie spot. Activities in the forest include;

- Zip lining with a seven line course approximately 2.4km long and standing at 92m high that takes 90minutes to complete.
- Hiking: you get to explore Kereita forest, one of the calving area for Aberdare Elephants
- Mountain Biking: Cycling in the woods on marked and graded trails

Picture 10-1: Tourist potential in Kimende town



Source: The Forest Facebook page, 2019

10.5 Emerging Issues

Table 10-2 Emerging Issues, Economy

Agriculture	
Key Highlights	Opportunities
<ul style="list-style-type: none"> ▪ Dominant economic activity is agriculture, both subsistence and commercial ▪ Limited value addition of agricultural produce in the area 	<ul style="list-style-type: none"> ▪ Potential for high value crops such as macadamia, pineapples, avocados and coffee

<ul style="list-style-type: none"> ▪ Land fragmentation a threat to agricultural sustainability 	<ul style="list-style-type: none"> ▪ Potential to modernize farming to increase yield ▪ Potential in other sectors such as aquaculture and apiculture
Industries	
Key Highlights	Opportunities
	Value addition of agricultural produce can drive industries in the area
Trade and Commerce	
Key Highlights	Opportunities
<ul style="list-style-type: none"> ▪ Town has grown as an important trade Centre driven by the market ▪ Town located along a major transport corridor, Nairobi Nakuru Highway thus making movement of goods easy 	<ul style="list-style-type: none"> ▪ Potential to enhance the commercial function through expansion of market, and provision of support infrastructure ▪ Strategic location of town can be harnessed to model the town as an agricultural and tourism hub

Source: ACAL & BC Gildenhuys, 2020

11 CHAPTER ELEVEN: GOVERNANCE AND INSTITUTIONS

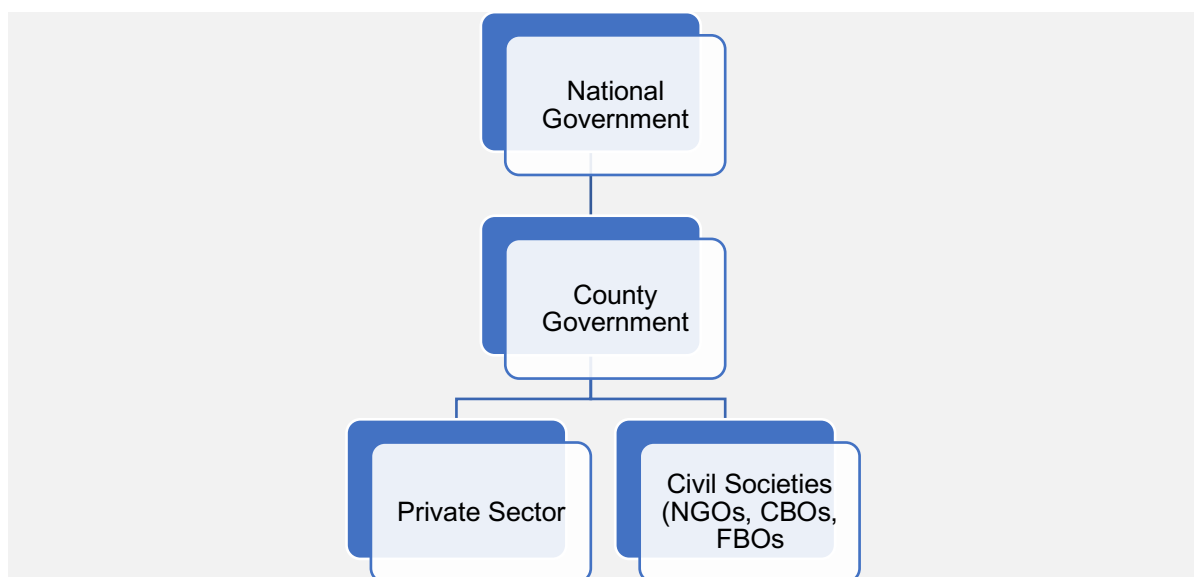
11.1 Overview

Governance in Kenya has been devolved into 47 counties headed by a county Governor. The system of governance includes the National and the County Governments. This devolved system has assisted in planning for several regions in the country and increased transparency in governance and institutions frameworks. For achievement of smart development, effective governance and institutional frameworks are a very crucial need. Institutions are established in the event of an economic, social, cultural, environmental gap in society and to tackle functional problems in society. With subsidiary and transparency in place by the government, then the people being planned for will be able to interact with the government in airing problems affecting them and the government responding effectively.

11.2 Existing Institutional Framework

Institutions are agents of plan implementation; a sound institutional framework can make or break a plan's implementation. An analysis of the governance capacity to implement the Kimende IUSDP becomes important to the planning preparation process. Figure 11-1 illustrates the main institutional actors in the governance of Kiambu County.

Figure 11-1 Institutional actors



Source: ACAL & BC Gildenhuys, 2020

The National Government and the County Government play a major role in the governance of the County and guides the roles of other actors like the private sectors and civil societies.

11.3 National Government

11.3.1 Roles

The National government provides the funds for projects in the County, making it a major institutional player in the success of the IUSDP. The National Government is also mandated with the construction of international roads that may pass by the town, educational facilities except ECD's and village polytechnics within the County. The role of the National Government is also to ensure budgetary allocation in the County and facilitate national statistics and data on population, the economy and society in general.

11.3.2 Collaboration with NaMSIP

The national government through Nairobi Metropolitan Services Improvement Programme (NaMSIP) has the role of strengthening urban services and infrastructure. According to the World Bank, this will be achieved by investing in local infrastructure (roads, markets, street lighting, bicycle and pedestrian pathways, drainage, and the like). Equally important is supporting improvements in integrated solid waste management and sewerage collection and disposal. Through the collaboration with NaMSIP the National Government will ensure improvement in service delivery by strengthening the current and future entities responsible for service delivery, including the central ministry, current local authorities and Kiambu County Government, utilities and other service providers, and possible future metropolitan authorities responsible for planning, transport, and other services.

The population will benefit from better planning and a reduction in the chaotic, unplanned development that has plagued the greater metropolitan region. In particular, they will benefit from the project's support for planning and public infrastructure in the areas surrounding the commuter rail stations. They will also benefit from increased access to urban infrastructure and services under the project, such as access roads, street and security lighting, sanitation services, and solid waste collection and disposal.

11.3.3 Financial Capacity

It is constitutionally required that the revenue raised nationally is shared equitably among the National and County Governments. Among the National Government revenue, 43% is transferred to the County Governments. Additional allocations from the national government's share of the revenue, either conditionally or unconditionally can be added to the County Governments (CRA, 2014).

The County government of Kiambu financial projections for the year 2019/2020 is ksh 15.63B constituting Ksh 2.96B own source revenues and 12.6B allocations from the National government. All projects involving NaMSIP will be funded by the World Bank and non-bank sources. The resources required are outlined in every project to ensure implementation.

11.3.4 Challenges

- Inadequate funding,
- Lack of comprehensive budgets from the County governments and
- Controversies between the distinct functions of the County government and National government.

11.4 County Government

11.4.1 Roles

The Constitution confers powers on the County Assemblies to receive and approve plans and policies. These plans and policies affect the management and exploitation of the County's resources. They also affect the development and management of County infrastructure and institutions.

Leadership and governance of towns is at the County level and guided by the Acts of parliament: County Government Acts and the Urban Areas and Cities Act. The multi sectors such as infrastructure and public works, health and other social facilities are guided by the various departments existing within the County level. Therefore, the County government has the role of construction of necessary infrastructure and facilities like transport facilities, storm water drainages, pre-primary education facilities, and polytechnics.

The County government has a role of ensuring environmental protection is observed in the County. It is also the duty of the County government to ensure maximum public participation in the development projects within the County.

The effective implementation of the Kimende IUSDP requires the appointment of a competent town/urban management committee for the urban areas. The function of the urban management committee is to oversee the affairs of the town, formulate and implement integrated development plans, and control land use, land subdivision, land development, and zoning. Such a committee also promotes and undertakes infrastructural

development, implements applicable national and County legislations, collects rates, taxes, levies, duties, fees, and surcharges on fees, and promotes a safe and healthy environment.

11.4.2 Financial Capacity

11.4.2.1 Revenue Collection and Sources

The main sources of revenue for Gatundu North Sub County where the planning area lies can be summarised in table

The main source of revenue includes health services at 9.5m, business permits at 6.2m. Other sources include, plot and land rates, market fees and building materials and other cess. The others include license penalties and land rates penalties.

11.5 Actors and Framework for ISUDP Implementation

The County Government Act 2012 provides the legal framework for plan implementation. This is vested in the Town Management Board.

11.5.1 Town Management Committee

The management of Kimende town shall be vested in the county government and administered on its behalf by— (a) a town committee constituted in accordance with section 31 of the Urban Areas and Cities Act. Section 31. (1) states that the management of a town shall be vested in a town committee comprised of five members which shall be constituted as follows

- a. the county executive committee member responsible for urban areas and cities or his representative;
- b. two members appointed competitively by the county governor;
- c. a cluster representing registered associations of the informal sector; and
- d. a cluster representing the business community.

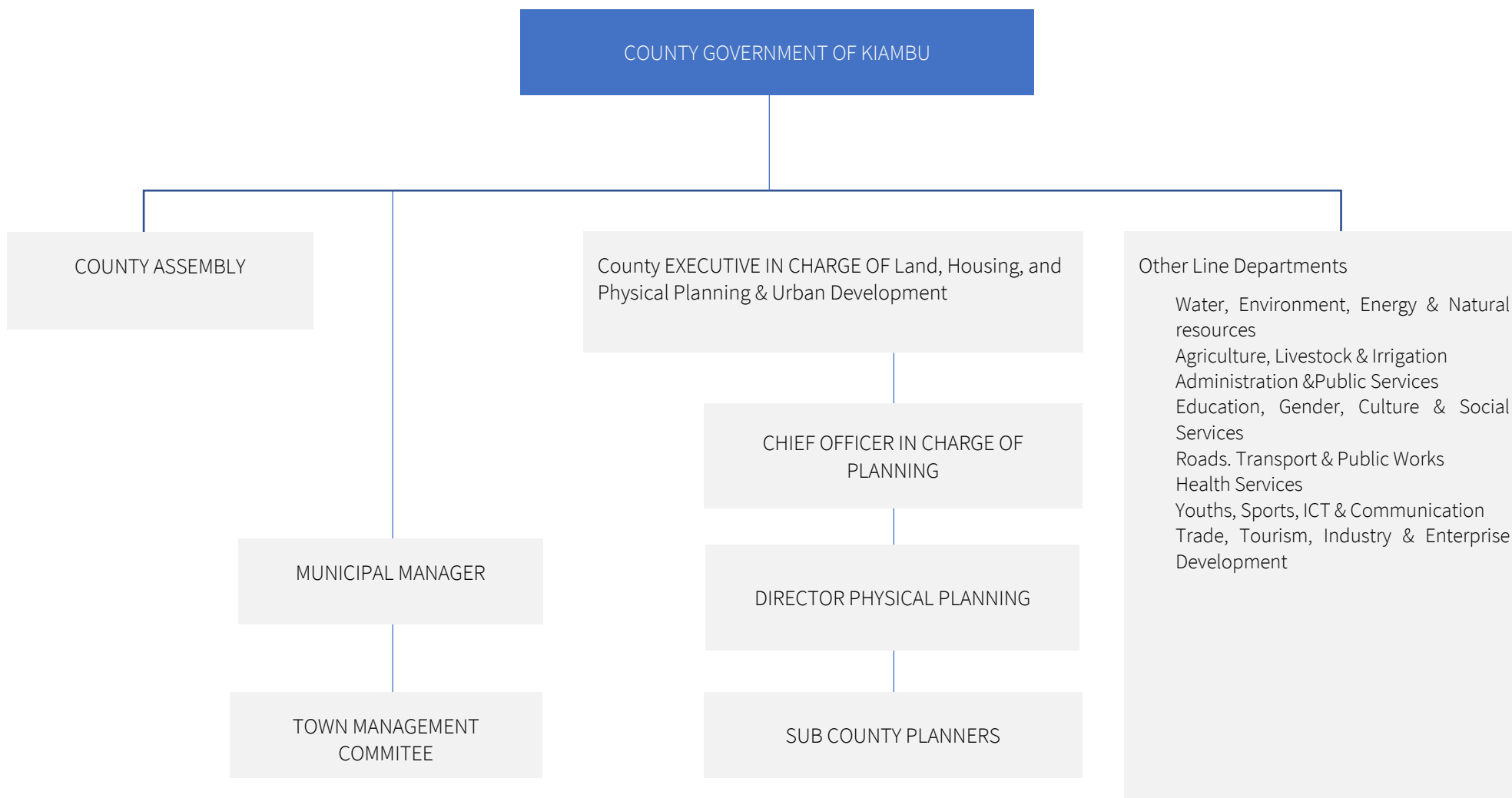
(2) The members of the town committee specified under subsection (1) shall be appointed by the county governor with the approval of the county assembly.

11.5.2 Steering Committee:

ISUDP proposes formation of a permanent Steering Committee of the Town Management committee headed by the Sub county planner Manager, to have meetings monthly to oversee implementation of ISUDP and all development works within the town.

11.5.3 Citizen Committees for Plan Implementation:

The involvement of community members in the plan implementation process will ensure fulfilment of legal requirements of citizen participation in implementation of plan. Therefore, ISUDP proposes a Citizen Committee consisting of the different zones within the planning area, coordinated by the Ward Administrator, whose members will either be elected or nominated by residents' associations. These Committees will work with the Steering Committee in ensuring plan implementation.



Source: ACAL & BC Gildenhuys, 2020

11.6 Private Sector

11.6.1 Roles

The private sector plays a major role in the County development. The private sector within the planning area includes financial institutions, service providers, small and medium-size enterprises (SMEs), educational institutions, transport and communication companies, credit and savings societies, and manufacturing companies.

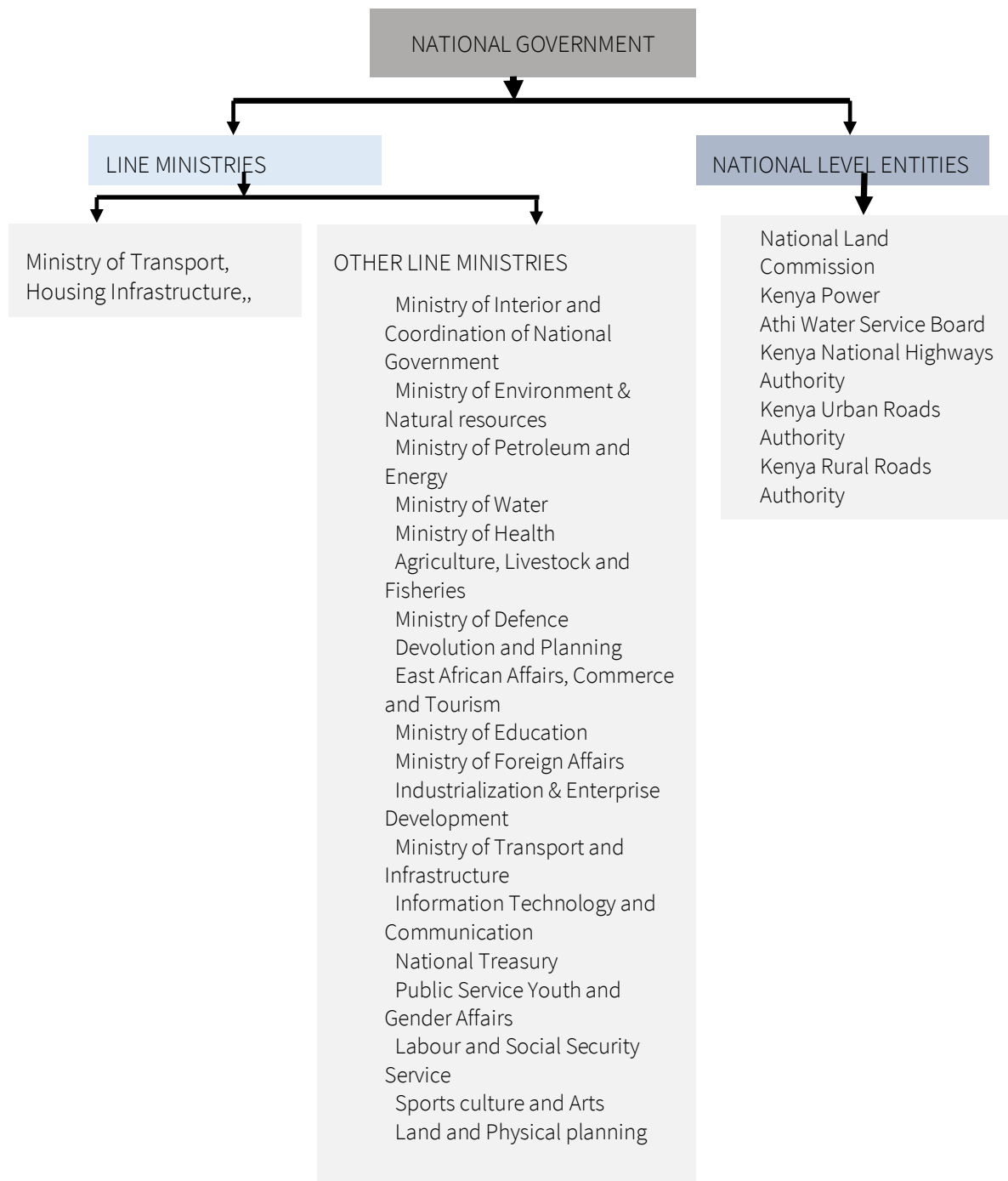
The private sector is important in formulation and implementation of the Kimende IUSDP through formation of Private-Public Partnerships that are a source of funds for projects proposed in the CSP. The private sector also plays a role in the training and employment of the residents in the County thus reducing unemployment. They are also expected to carry out various projects not limited to provision of services including health, education, ICT and industries. This sector is therefore fundamental in achieving material growth in KimendeTown.

11.7 Civil Societies

11.7.1 Roles

Civil work is considered one of the most important means of the County's progress. This has become more important with the widening gap between the resources and population's necessities, which is why civil organizations should be considered the County's partner in sustainable development, and in providing the necessary needs. Civil society is direct supervisory power of the people on the rulers and authority's performance. Through civil societies, the people in Kimende are catered for in terms of welfare and societal well-being. Through them, the people participate in the development of their residences and the County at large.

With serious and vital consideration of civil societies in development, Kiambu County will increase its rate of development and reduce corruption levels in governance, and this guarantees one of the most basic foundations of development.



Source: ACAL & BC Gildenhuys, 2020

12 CHAPTER TWELVE: SYNTHESIS

Analysis of the biophysical, environmental and social conditions in Kimende reveals several opportunities across the different sectors. This can be summarised as follows

12.1 Geographic Location

The town is strategically located on a main transport corridor Nairobi Nakuru Highway. The town is further surrounded by rich agricultural hinterland that supports various horticultural crops, potatoes, milk and peas and tourist destinations. There is therefore need to improve circulation by opening up new connections with the hinterland, and investing in circulation within the town.

12.2 Physiographic Characteristics

Topography and Slope: The planning area is characterized by a series of ridges running parallel to each other and converging in deep valleys. Rivers and streams are found at the bottom of the valleys. The ridges therefore have an influence on transportation networks and settlement patterns. Settlements are linear along the ridges, following the road networks. The nature of the terrain means there is limited connectivity along the ridges. Access in some parts is hampered by the harsh terrains.

However, the terrain has shaped the settlement pattern and can be used to inform and guide planning recommendations. The slopes offer opportunities for water and sewerage supply via gravity. The physiographic characteristics also offer an opportunity to tap into the scenic views for tourism

Soil and Geology: The rich soils are ideal for different forms of agriculture, supporting a wide variety of crops

12.3 Population and Demography

Population Size and Structure: The population of the area will have doubled from the base population in 2009 by the year 2030. The planning area has the bulk of the population within the ages 16-64.

The youthful population presents adequate labour to support development activities. However, if not well managed, the population presents a challenge in terms of generation of adequate gainful employment.

Well Being: The sub county has lower poverty levels (21% compared to national average of 36%). Majority of the population are engaged in agricultural activities as the main livelihood source. There are therefore numerous opportunities within the agricultural sector to generate opportunities through farming, and through value addition of produce.

12.4 Land Use Analysis

Agriculture remains the dominant land use within the planning area. Commercial land use is dominant within the CBD, while public purpose and commercial are dominant in the administrative node. Residential land use is scattered contributing to sprawl along the road corridors.

There is no provision for public recreation spaces within the planning area. Land subdivision is a key threat to agriculture land use. The traditional subdivisions system (narrow strips of land fronting both the road and the river) is a threat to the economic viability of the land parcels.

12.5 Environment and Natural Resources

The area has good vegetation cover consisting of both trees, shrubs and food crops. The Planning area borders Kereita forest which modifies the climate of the area. Environmentally sensitive areas in the planning areas include the steep slopes (>25%) and riparian areas.

12.6 Housing and Human Settlements

Settlement Patterns: Human settlements are largely influenced by the terrain and circulation networks. Settlements densities are higher in the CBD and declines outwards. Pockets of human settlements are also concentrating on main junctions forming small nodes that can act as market centres.

Housing Stock and Typology: There is no well-defined housing typology in the urban areas. Row houses are very common, with flats coming up in certain parts.

The bulk of the building stock in the town are ageing depicting urban decay.

Space utilisation is also not optimized due to the dominance of low rise typologies. Sprawl is eating into existing agricultural land thus a threat to agriculture production.

12.7 Physical Infrastructure

Regional connectivity in the planning area is good. However, local level access roads are not well developed. Some areas lack access roads while others have narrow roads of up to 6m width. The good regional connectivity makes the town an ideal location as a dormitory town to serve the growing demand for housing in the metropolis

Transportation: Road is the main form of transportation, supporting both motorised and non-motorised transport. However, the town lacks provision for terminus facilities. The town also lacks adequate provision for infrastructure to support non-motorised transport.

Water and Sanitation: access to piped water and sewerage is very low in the planning area. Majority of households rely on protected wells, and on rivers and streams for water. Onsite sanitation facilities dominated by pit latrines are common. The water reticulation system by Gatundu Water and Sanitation Company has low coverage, and dilapidated infrastructure thus unreliable water supply.

As the population grows, the onsite sanitation facilities will become a threat to the environment due to the risk of pollution. There is therefore a need to invest in proper water supply and sewerage systems. Opportunities also exist in household rain water harvesting

Energy: The sub county is a beneficiary of universal coverage to electricity. However, for heating and cooking, biomass remains the dominant energy source.

The electricity can be tapped to drive light and medium industries in the area. Biomass based clean energy such as biogas can also be tapped.

12.8 Social Infrastructure

Education facilities: the area has good coverage of schools (primary to secondary). All parts of the planning area can access schools within 2km radius for primary and 5 km radius for secondary). There are no public tertiary learning institutions in the planning area.

Opportunities exist in modernizing and improving infrastructure with the education facilities.

Administration: As a sub county headquarter, the area is an administrative Hub with facilities such as police station, administration offices etc. the service function can be harnessed to enhance the status of the town.

12.9 Economic Analysis

Agriculture remains the main economic homestay of the area. However, this is being threatened by continuous land subdivision

Trade and commerce is largely centred on Kimende market. The market attracts produce and products from a large catchment area forming the hinterland of the town. Both formal and informal traders dominate the retail sector.

Tourism: the Town is strategically located near most tourist destinations. This potential can be harnessed to attract more investment into the town.

Industries: No major active industry exists in the planning area. However, agro based industries can be easily sustained by the agriculture sector in the hinterlands.

12.10 Governance

The county has a well-developed planning infrastructure supported by the executive in charge of land and physical planning. Each sub county has a sub county planner employed by the county government.

Opportunities exist within the urban areas and cities act that provides for formation of town management committees for a town of Kimende status. The county can therefore go ahead to form and gazette the town management committee that will play a key role in implementation of the plan.

12.11 Synthesis of Stakeholder concerns

During the stakeholder worker shops several concerns were raised in regard to the preparation of the Plan. The stakeholders were drawn from the business community, Government Agencies, Education Institutions, and Religious Leaders, Local Leaders (Members of Parliament, Members of County Assembly), Non-Governmental Organizations (NGOs) and community residents. The outcomes of the meeting were assessed in terms of the relevance of the issues for the planning process. The following issues were raised during the meeting;

Table 12-1: Social Facilities

Issues	Comments stakeholders
Health	
Lack of enough personnel at Lari sub county Hospital.	Increase specialized doctors and health personnel at the hospital.
Poorly maintained infrastructure at Lari Sub-County hospital	Improve the medical infrastructure and related facilities in the hospital.
Infrastructure in the present health facilities are inadequate.	Facilities and equipment required in a level 4 hospital to be put up.
Lack of wards in Lari sub county hospital.	Wards to be constructed so as to complement the finished theatre.
Lack of an Ambulance.	Ambulance to be provided for emergency services.
Lack of rehabilitation centre.	A rehabilitation centre to be prioritised to cater for mental illness and drug addicts.
Education	
Inadequate public schools at primary and secondary level.	The government to initiate the construction of public schools at primary and secondary level.
Unapproved Private schools located on multi dwelling residential and on very small parcels of land.	Regulation of private schools that are located on very small sizes of land.
Lack of Tertiary and vocational Educational Training Institutions within the planning area.	The government to initiate the construction of Tertiary and vocational Educational Training Institutions.
Other Social Issues	
Lack of a fire station.	Construction of a fire station in the town.
Poor state of existing cemetery and the space is inadequate.	Erect a boundary wall to buffer the cemetery Construct a social hall Proper management of the cemetery to be put in place.

Table 12-2: Land Use

Issues	Comments stakeholders
Government public land not put into good use e.g. Cattle dip	Government land to put under optimal use.
Illegal Encroachment into public land and road reserves	Enhance compliance and enforcement by the county administration officers.
High rate of illegal Subdivision	Enhanced processes by the County Government on land administration and Management
Lack of adherence to physical planning and the building code	Enhance compliance and enforcement of the building code by the County Building Inspectors especially persons with disability (PWD).
Poor town management practices e.g. lack of parking facilities.	County Roads and Public works department to provide parking facilities within the town.
Grabbing of public land	National Land Commission to carry out investigations to reclaim grabbed public land.
Lack of a proper inventory on public land.	Creation of an inventory/register on public land by the county Government and Nation Land Commission (NLC).

Table 12-3:Markets

Issues	Comments stakeholders
Poor state of the existing market.	Construction of a spacious modern open-air market.
Poor day to day running/administration	County Trade Revenue and Finance Department to improve the day to day running of the markets
Increased informal trading/hawking along the town roads causing congestion	Enhance compliance and enforcement by the county administration officers Set aside space for informal traders
Lack of public toilets within the market	Construction of public toilets
Poor collection of market fees and charges from traders resulting to income leakage by the County Government.	Deploy automated system of revenue collection in the market...

Table 12-4: Urban Aesthetics

Issues	Comments
Lack of public open spaces and greenery.	Plans to be made on how beautification of the town is to be carried out.

Table 12-5: Water

Issues	Comments
The town does not have an adequate supply of water.	The County Government to pursue alternative sources of water to supplement the current source.
Prevalence of waterborne diseases as a result of contamination of groundwater.	Supply of Clean piped water needs to be prioritised to solve issues of underground water contamination
Lack of Company to manage water supply and distribution in Lari.	County Government to spearhead the formation of water and sewerage company
Unregulated Private Water Vendors	County Government to encourage the formation of Co-operatives by the private water vendors
No storm water drainage system in town and its environs.	County Government to construct a proper drainage network within the town and its environs. County Government to facilitate the maintenance of waterways through regular unblocking especially during rainy seasons

Table 12-6: Solid and Wastewater management

Issues	Comments
There is no conventional sewerage system in Kimende town.	County Government to set up a proper sewerage and treatment plant.
Poorly constructed Septic Tanks and Pit Latrines (decentralized system of waste water management) resulting in spillage and thus contamination of water.	County Government to ensure regular inspection of decentralized wastewater management systems.
Lack of designated dumpsite within the town	County Government to set aside an ideal site for a dumpsite within the town environs.

Table 12-7: Urban Economy

Issues	Comments
Lack of investments in agro-processing industries e.g. Pig industry	County Government to create an enabling environment for investors to enhance value addition for agricultural products.
Lack of market for agricultural goods/products.	County Government to set aside land for a market for agricultural products.

Table 12-8: Disaster response and management

Issues	Comments
Lack of disaster mitigation and management centre	County Government to establish a disaster response unit within the sub county.

Table 12-9: Urban Governance

Issues	Comments
Partial presence of National and County Government offices within the Sub-County	More govt offices to be brought in Kimende e.g. NHIF, NSSF, Huduma centre
Youth and Employment	Creation of an ICT hub to create employment opportunities for the youth.

12.12 Vision and mission statement

The stakeholder processes helped to identify the issues in the planning environment as perceived by the stakeholders involved. These statements of issues and concerns were wide-ranging and supplemented the technical analysis done by the consultant.

From the analysis, a vision and a mission statement were crafted to guide the development of a planning framework and implementation strategy in the next two phases of the process.

VISION STATEMENT

To be a vibrant, agro-based, commercial and tourism Hub

Mission Statement

To promote high quality production and innovation in agriculture, trade and conservation tourism.



GOVERNMENT
OF KENYA



COUNTY GOVERNMENT
OF KIAMBU

PART III: PLAN FORMULATION

13 CHAPTER THIRTEEN: SCENARIO BUILDING AND CONCEPTUAL FRAMEWORK

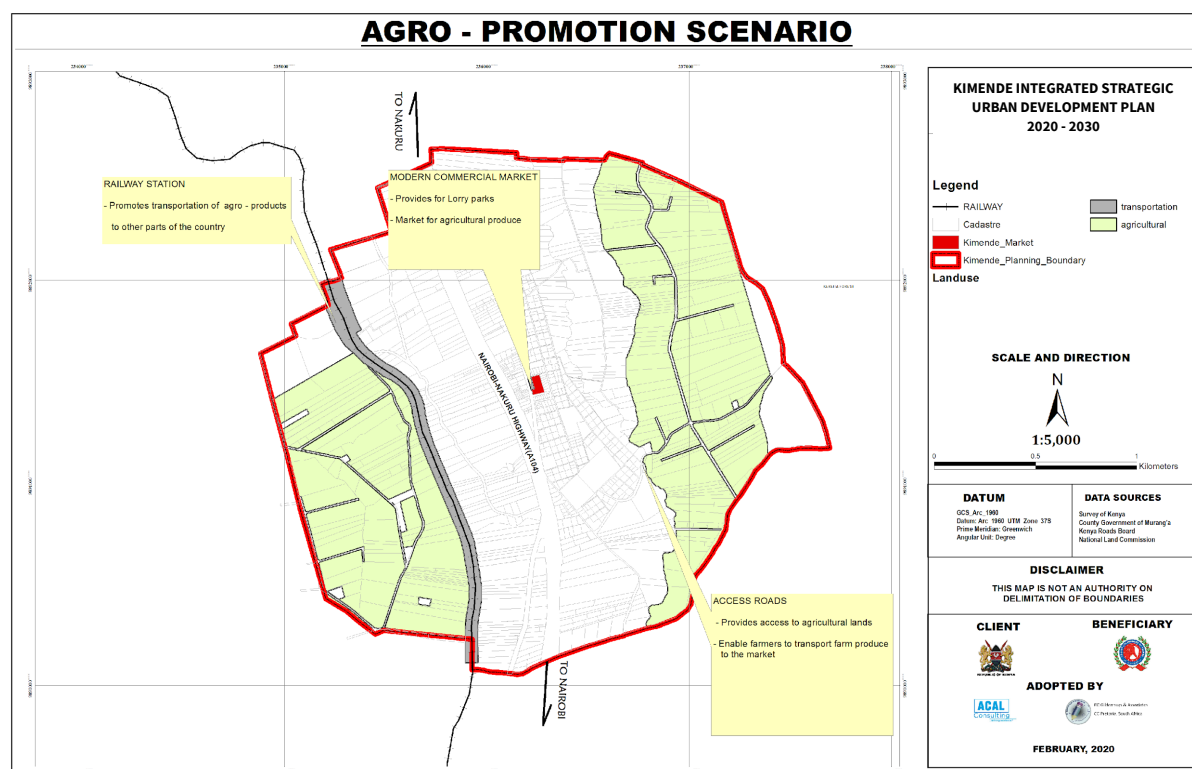
13.1 Overview

The following Chapter describes the various scenarios that informed the formulation of the plan.

13.2 Scenario One: Agro Promotion Scenario

The planning interventions deployed should aim to make Kimende town an agro-based hub. The major intervention will be to control land fragmentation and sub-divisions to protect agricultural land. This proposal is cognisant that Kimende planning area enjoys good climatic conditions and has good soils that support modern agriculture. The proposal also enhances the agri business by connecting the areas of production and the market. To make the town an agro based there will be need to invest in industries for value addition of the agricultural produce. The map shows the graphical representation of the scenario.

Map 13-1: Agro Promotion Scenario



Source: ACAL & BC Gildenhuys, 2020

Advantages

- Will lead to job creation and subsequently wealth creation.
- To connect the agricultural farm lands and the market there will be to improve the transportation network.
- This scenario will lead to reduction in land fragmentation by setting a minimum land size.

Disadvantages

- The scenario will not solve some of the urbanization challenges faced in Kimende town such as; poor housing, congestion in the built up area, informal settlement, uncontrolled urban sprawl, lack of adequate public facilities and linear development.

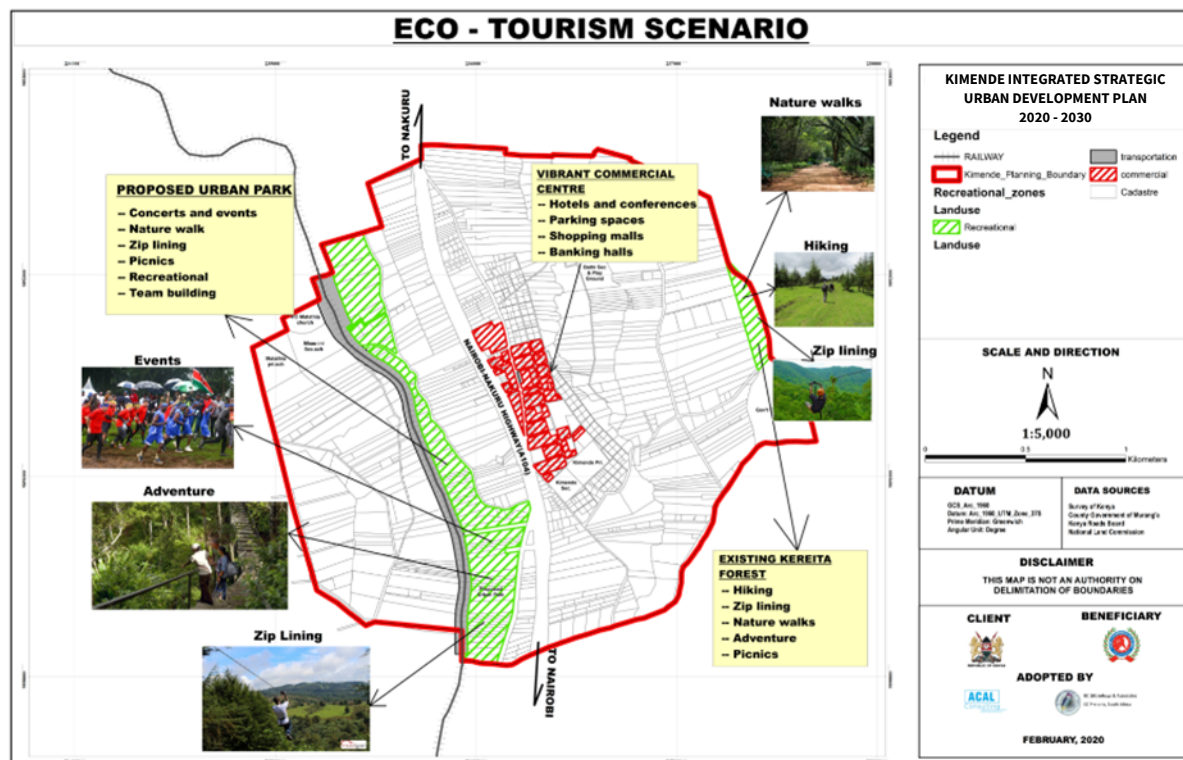
13.3 Scenario Two: Eco-Tourism Scenario

Tourism is a major component in the model. Kimende has profound untapped potential in tourism development which can be a major income earner for the county. The forests of Kinale, Kireita and Mai Mahiu Escarpments some of the major attraction sites within the planning area.

The scenario environs a Kimende town where there is an operational urban park. The urban park will have leisure activities which are able to attract local tourists.

To be a tourist destination the town has to have tourist hotels and resorts to offer accommodation. To achieve this there is a need to increase the density of the commercial area and provide efficient infrastructure within the commercial area. The map below shows a representation of the scenario.

Map 13-2: Eco Tourism Scenario



Source: ACAL & BC Gildenhuys, 2020

Advantages

- Development of recreational facilities.
- Increased investment opportunities
- Revitalization of the existing commercial zone
- Protection of fragile areas

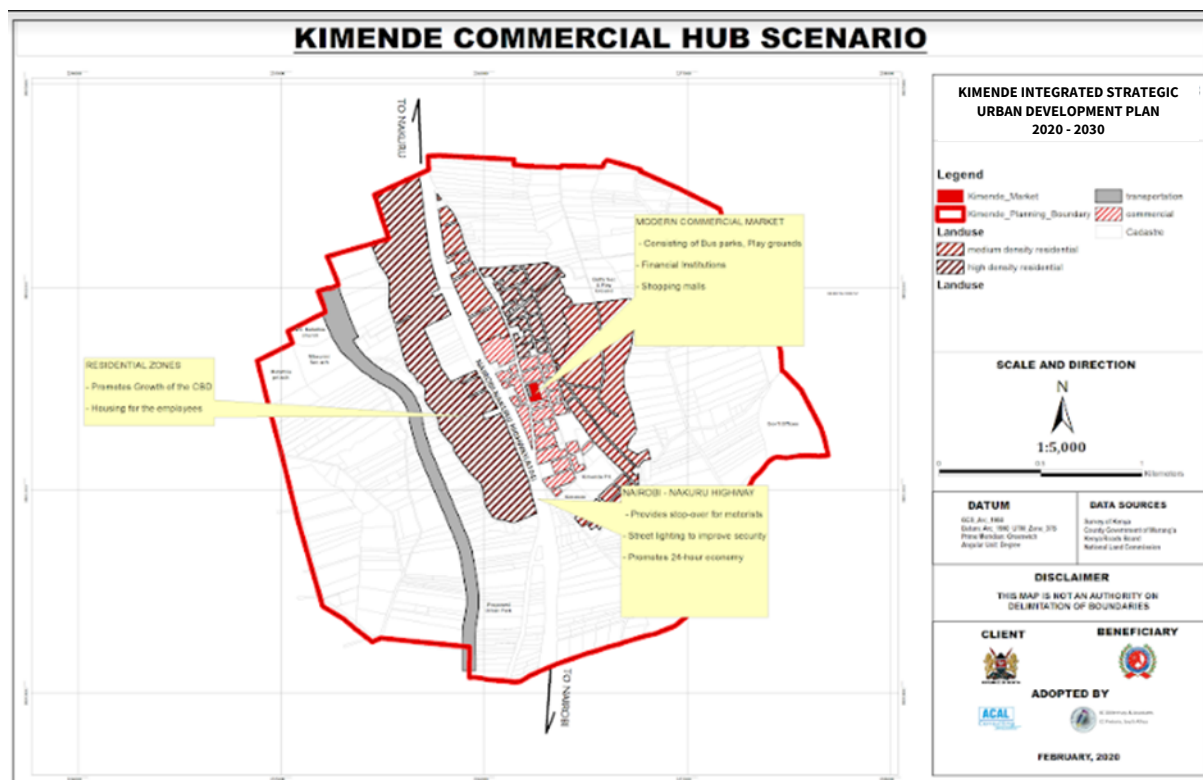
Disadvantages

- This scenario will attract foreign investment thus and fail to solve the issues affecting the residents of Kimende

13.4 Scenario Three: Commercial Hub

This model is aimed at revitalizing the urban core. It proposes to have a defined CBD and improved market area. This scenario revolves around construction of a new modern market, provision of efficient transport infrastructure and delineating the residential zones. For the commercial sector to thrive it must be supported by a rich population. The urban population will need to access administrative services thus this scenario calls for enhancement of existing administrative facilities. The map below shows a representation of the scenario.

Map 13-3: Commercial Hub Scenario



Source: ACAL & BC Gildenhuys, 2020

Advantages

- Ease of access of administrative services
- Enhanced commercial activities
- Improved transportation infrastructure
-

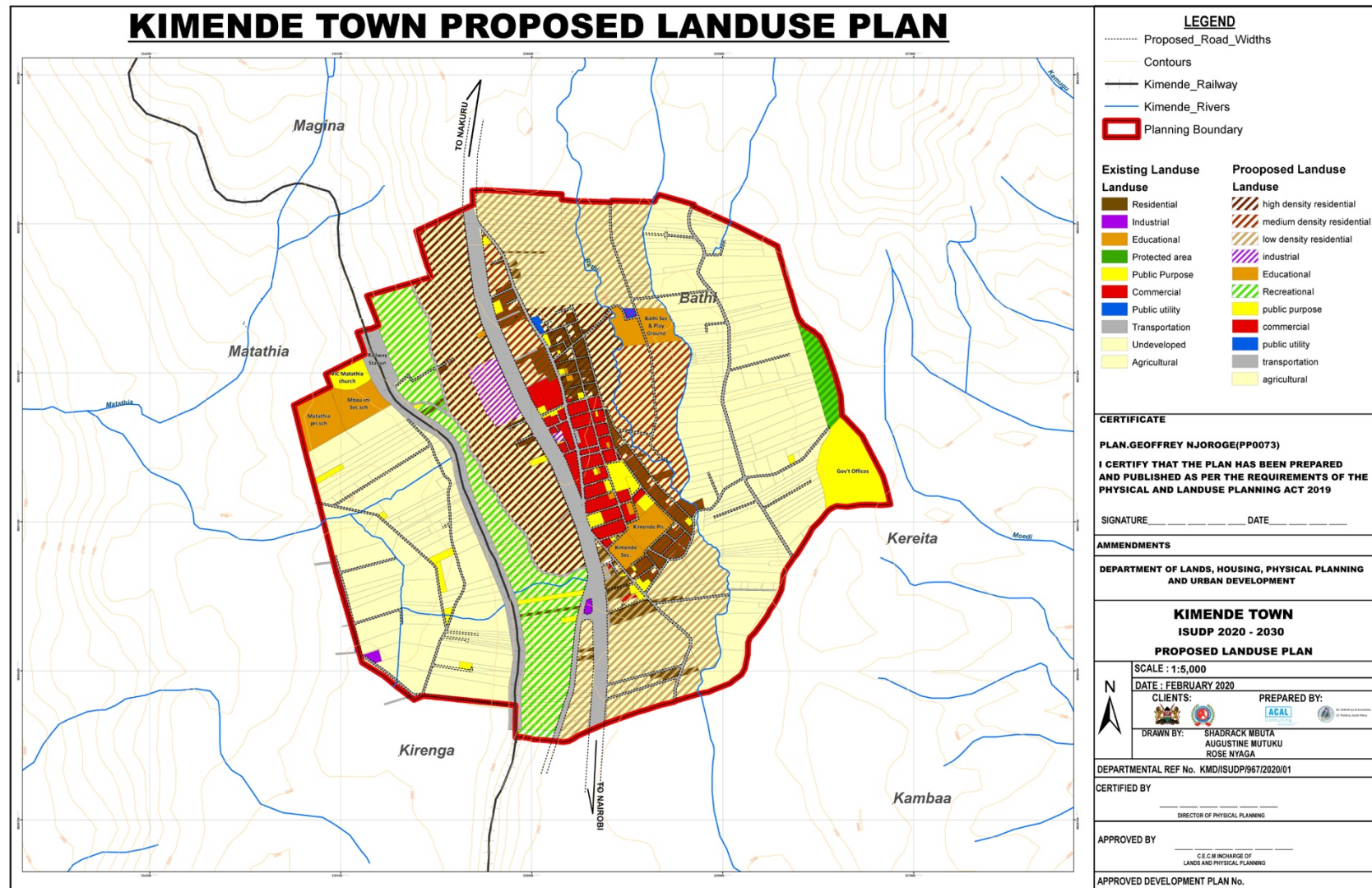
14 CHAPTER FOURTEEN: SPATIAL PLAN PROPOSALS

The detailed analysis and synthesis of the primary and secondary data identified various problems and opportunities inherent in Kimende town that if purposely addressed would ensure the County Capital is well planned and guarantees a high standard and quality of life to its residents. In order to bring sustainability, Compatibility, equity and optimize the economies of scale in Kimende town among other desired aspects. This chapter systematically presents these interventions.

14.1 Structure Plan

The Proposed structure plan for Kimende is based on the preferred model (Agro-Based Commercial and Tourism Hub). The plan also takes into consideration the existing land uses. Currently, the structuring element of Kimende is the Nairobi – Nakuru Highway. The emerging growth pattern of the town is along Kimende-Kagwi-Githunguri Road, Kimende-Magina-Kijabe Road and Kimende-Nyambari (Uplands)-Limuru.

Map 14-1: Structure Plan



Source: ACAL & BC Gildenhuys, 2020

14.2 Land Use Budget

The structure plan proposed the residential (High, medium and low-density zones) commercial, industrial, educational, public purpose, recreational and transportation land uses. This compact and agro-based development model controls urban sprawl and encourages mixed use development that advocates for shorter distances for liveable communities with residential, work and living environment that encourages pedestrianization and non-motorized transport modes as opposed to reliability on motorized transport.

Table 14-1: Summary of the land use budget:

Code	Zone	Area (Ha)
0	Residential	177.4
0 ₁₋₁ – 0 ₁₋₂	High Density Residential	56.69
0 ₂₋₁ – 0 ₂₋₂	Medium Density Residential	39.48
0 ₃₋₁ – 0 ₃₋₄	Low Density Residential	81.23
1	Industrial	5.54
1 ₁	Proposed Light Industry	4.73
1 ₂	Proposed Milk Processing	0.29
1 ₃	Existing Total Petrol Station	0.22
1 ₄	Existing Shoe Making Industry	0.29
2	Educational	16.93
2 ₁₋₁	Existing Kimende Primary	2.72
2 ₁₋₂	Existing Matathia Primary	4.5
2 ₂₋₁	Existing Kimende Secondary	1.69
2 ₂₋₂	Existing Bathi Sec. & Play Ground	4.50
2 ₂₋₃	Existing Mbau-ini Secondary	3.52
3	Recreational	46.42
3 ₁	Proposed Urban Park	42.07
3 ₂	Existing Forest	4.35
4	Public Purpose	10.62
4 ₁ & 4 ₃	Existing Government Offices	10.11
4 ₂	Existing Police Post	0.51
5	Commercial	19.68
5 ₁	Existing Kimende Market	0.42
5 ₂ - 5 ₃	Existing Commercial Zones	19.26
6	Public Utility	0.31
6 ₁	Existing Cemetery	0.31
7	Transportation	14.63

7 ₁	Existing Railway Reserve	14.5
7 ₂	Proposed Integrated Central Terminal	0.13
9	Agricultural	199.73
9 ₁ - 9 ₃	Existing Agricultural Zones	199.73

Source: ACAL & BC Gildenhuys, 2020

14.3 Structure Plan Conceptualization

1. Residential Zone

a) HDR- High Density Residential

In Kimende, there is provision of 2 High Density residential zones with an acreage of 56.69 Ha. The projected housing demand for high density residential is 53.0 Ha by the year 2030. To meet To meet this demand, this plan therefore proposes densification of the zone to up to 4 level storey buildings with minimum lot size being 0.05 Ha. This area allows for schools and public facilities.

b) MDR- Medium Density Residential

The medium density residential covers two zones in the planning area. MDR 1 covers 39.48 Ha with the minimum parcel size being 0.05 Ha. Land demand for MDR for the planning area is projected to be 26.7 Ha by the year 2030. The housing typology for this area is a proposed densification of up to two storey buildings. The second MDR covers 14.68 Ha with the minimum parcel size being 0.01. Housing typology for this area is also a proposed densification of up to two storey buildings. This area does allow for schools and public facilities.

c) LDR- Low Density Residential

This plan proposes a low density area which has a minimum acreage of 0.2 Ha. The plan has proposed a total acreage of 81.23 Ha in total. The demand for this category is 8.9Ha which is superseded by the existing use. The area is allowable for bungalows and maisonettes. The area does also allow for community facilities schools and recreation.

2. Commercial Zone

The plan proposes the central business district proposal is to densify and compact the structures to high rise buildings exclusively for commercial purposes like businesses, shops and offices. The proposal is to have an additional population catered for to house the day population who come to the market and don't reside within the planning area as well as provision of services like sufficient water supply and urban resources (street lighting, walkways and bike lanes). Increase in density within the commercial zone is to be accompanied by improvement of transport infrastructure.

3. Agricultural Zone

The economic activities in the planning area are cultivation of crops such as Kale (Sukuma Wiki), Irish potatoes and Carrots. Other economic activities in the area revolve around markets and commercial activities in the CBD. However, the existing market is in bad condition forcing the traders to sell their products on the road reserves. The existing market occupies a total area of 0.04Ha approximately. This plan therefore proposes modernization and densification of the existing market. The proposed modern market will integrate other businesses like shops, restaurants, banking agents and so on. The proposed 4 level market will accommodate the following;

- The Vegetable Market,
- A clothes section,
- A Meat Market
- Fishmongers
- Hawking

- General Shops
- Restaurant

The support services in the modern market will include the following but not limited to:

Parking slots: 10 cyclist bike slots, 3 disabled parking slots, 18 normal car parking slots and 5 slots for lorries in the service bay. There shall also be open areas with street furniture covering 0.135 acres which will have multi-functional amenities for children and adults. There are also proposed public toilets, banking facilities/services, eateries and security offices/revenue collection office.

TRANSPORT

A104 (Nakuru-Nairobi Highway) is the major road serving Kimende town. Other roads serving Kimende are Kimende-Nyambari road, Escarpment-Kereita road and Kimende- Magina road.

The A104 poses a potential to the town since it is national road linking major towns in the country i.e. Malaba, Eldoret, Nakuru, Voi and Mombasa. It is recommended that Kimende-Nyambari road, Escarpment-Kereita road and Kimende- Magina road be equipped with the following facilities

- Pedestrian walkways
- Drainage channels
- Street lighting
- Pedestrian crossings
- Cyclist lanes
- Disabled friendly crossings and parking.

For the effective function of transportation in Kimende, there should be a limit on street parking along Escarpment-Kereita road and A104 to avoid obstruction. Introducing park and ride services within the market to reduce traffic congestion around the market.

Recreational

The area has no specific garbage collection points; it is served by private garbage collectors. The main dumpsite is Kamuchege serving Lari sub-county. The environmentally fragile areas have been mapped out and set aside for conservation which also includes the riparian reserves.

1. INFRASTRUCTURE & SERVICE PROVISION

There is a proposal of street lighting along all roads at intervals of 20 meters apart. All roads in the CBD should be paved and the road reserve landscaped and provided with street furniture. Sewerage conduits should be laid in the planning area to serve the existing population.

14.4 Land Use and Management Policies

The County Government to formulate policies on land administration and management with broad guidelines on subdivision, parking requirements, size of access roads and length to serve various land uses. This will facilitate efficient sustainable urban development that is commensurate to existing urban infrastructure.

Table 14-3: Land Use policies and principles to guide the urban growth of Kimende town

Table 14-3: Land Use Policies

Sector:	Proposed Policies:
ENVIRONMENT	<ul style="list-style-type: none"> ▪ Restriction of development around rivers and streams ▪ Restriction of development to approved uses only along immediate boundaries of fragile site buffers ▪ Control of development on steep slopes to reduce soil erosion

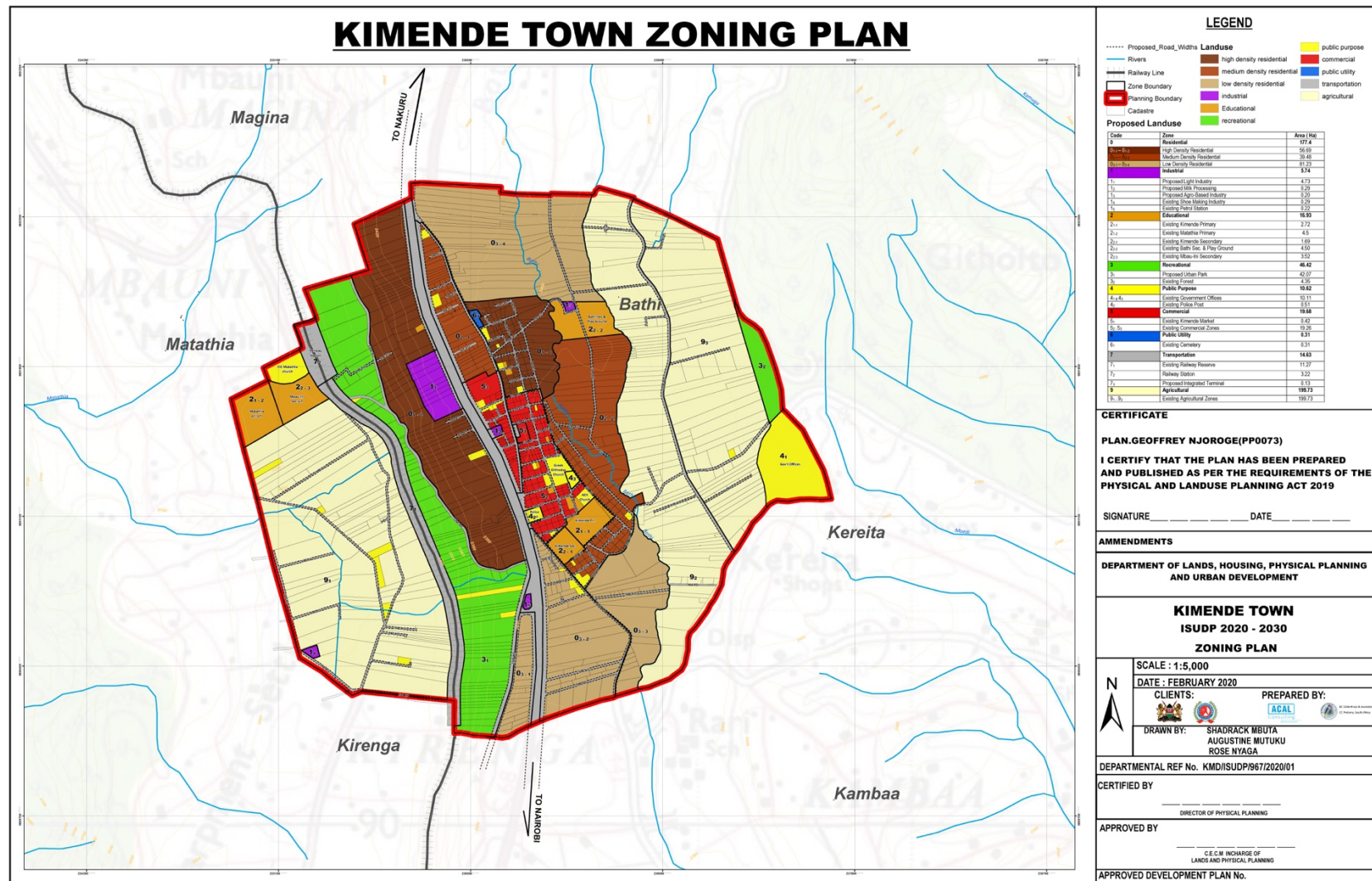
	<ul style="list-style-type: none"> ▪ Increase in forest cover
TRANSPORTATION	<ul style="list-style-type: none"> ▪ Appropriate transportation networks provision per zone as per the structure plan. ▪ Non-approval of encroachment/ encroaching use on transportation way-leaves.
INFRASTRUCTURE	<ul style="list-style-type: none"> ▪ Non-approval of encroachment/ encroaching use on infrastructure way-leaves. ▪ Restriction of development to approved uses within the vicinity of social infrastructure facilities.
AGRICULTURE	<ul style="list-style-type: none"> ▪ Curbing land fragmentation through restrictions on uneconomical sub-division of agricultural land. ▪ Non-approval of encroachment/ encroaching urban settlements use of the highly capable agricultural land areas. ▪ Promotion of intensive agriculture in prime agricultural zones. ▪ Prevention of soil erosion
TRADE AND INDUSTRY	<ul style="list-style-type: none"> ▪ Development of a designated markets ▪ Allocation of space for artisans ▪ Encouraging compact market development
TOURISM	<ul style="list-style-type: none"> ▪ Restriction of development around scenic sites to eco-tourism developments only.
URBANIZATION	<ul style="list-style-type: none"> ▪ Compacting of the urban core to prevent urban sprawl and town convergence. ▪ Enforcement of the urban fringe/ edge using agricultural belts.
PUBLIC LAND	<ul style="list-style-type: none"> ▪ Immediate inventorying and periodical review of the state all public land in Kandara town. ▪ Retention of all public lands under the respective government ownership unless their disposal will serve an overarching County/ national interest.

Source: ACAL & BC Gildenhuys, 2020

14.5 Zoning Regulations

Zoning regulations will guide development applications to control urban sprawl and control excessive land subdivisions and fragmentation to uneconomical plot sizes. (See zoning plan and zoning regulations table below).

Map 14-2: Kimende Zoning Plan



Source: ACAL & BC Gildenhuys, 2020

Table 14-4: Zoning Regulations

Zone:	Neighbourhood:	Plot Ratio:	Ground cover:	Development Allowed:	Service:
0 ₁₋₁ – 0 ₁₋₂ HIGH DENSITY HOUSING	Identified Zones	1:5	75%	Multi-storeyed apartments (minimum 5 floors)	<ul style="list-style-type: none"> ● Sewer is provided. ● Minimum 12-meter road reserve. ● Minimum setbacks (front: 4m, rear: 4m, side 3m (excluding eaves) and 9m where balconies overlook the side boundary). ● Minimum communal open space: 20% of site area, at a minimum of 25 m². ● Parking provided for every 100 m².
0 ₂₋₁ – 0 ₂₋₂ MEDIUM DENSITY HOUSING	Entire town	1:4	60%	Multi-storeyed apartments (up to 4 floors)	<ul style="list-style-type: none"> ● Sewer is provided. ● Minimum 9-meter road reserve. ● Minimum setbacks (front: 4m, rear: 4m, side 3m (excluding eaves) and 9m where balconies overlook the side boundary). ● Minimum communal open space: 20% of site area, at a minimum of 25 m². ● Parking provided for every 100 m².
0 ₃₋₁ – 0 ₃₋₄ LOW DENSITY HOUSING	Agricultural hinterland	1:3	50%	Maisonettes; Bungalows	<ul style="list-style-type: none"> ● Minimum 9-meter road reserve. ● Minimum setbacks (front: 4m, rear: 4m, side 3m (excluding eaves) and 9m where balconies overlook the side boundary).
1 ₁₋₁ 1 ₂ INDUSTRIAL		1:4	60%	Medium and heavy Industrial plants, warehouses, go-downs,	<ul style="list-style-type: none"> ● Sewer is provided. ● Minimum 12-meter road reserve. ● Parking provided for every 100 m². ● Minimum land size per industry is 2 ha (medium) and 20 Ha (heavy).
2 ₁₋₃ EDUCATIONAL	Proposed Zone	1:5	75%	Education facility	<ul style="list-style-type: none"> ● The minimum land requirement for an ECD centre should be 3.9 Ha. ● The minimum land requirement for a primary school centre should be 0.15-0.25 Ha. ● The minimum land requirement for a secondary school centre should be 3.4- 4.5 Ha (depending on the number of streams). ● The minimum land requirement for a university should be centre should be 50 Ha.

31 RECREATIONAL	Entire town	-	-	Urban park	<ul style="list-style-type: none"> ● Provided with public access of 9m in width at minimum.
	Riparian reserves	-	-	-	<ul style="list-style-type: none"> ● A minimum of 15 metres of land on each side of a watercourse (both seasonal and perennial rivers). ● Planting of appropriate vegetation.
41-410 PUBLIC PURPOSE	Entire town	-	-	Churches, etc.	<ul style="list-style-type: none"> ● Minimum plot size 0.1 ha.
52 - 53 COMMERCIAL	CBD	-	-	A minimum of 8 floors allowed Commercial offices and flats	<ul style="list-style-type: none"> ● Sewer is provided ● 9m service lane ● Minimum plot size 0.1 ha ● Developments along 15 m roads and below should have a building line of 4m in front and 3m in rear ● Provide a carpark for every 100m².
61 PUBLIC UTILITY	Entire town	-	-	Public utility	<ul style="list-style-type: none"> ● A protection belt of 100m shall be zoned from the proposed garbage collection site.
71-72 TRANSPORTATION	Entire town	-	-	-	<ul style="list-style-type: none"> ● No direct access to the A104 road ● Provision of NMT facilities within the town
91-93 AGRICULTURAL		-	-	Agriculture related activities	<ul style="list-style-type: none"> ● Minimum land size is 0.45 Ha ● Construction of bungalows/ maisonettes of a maximum one floor is permissible (with a ground coverage of 25%).

Source: ACAL & BC Gildenhuys, 2020

14.6 Action Area Plan

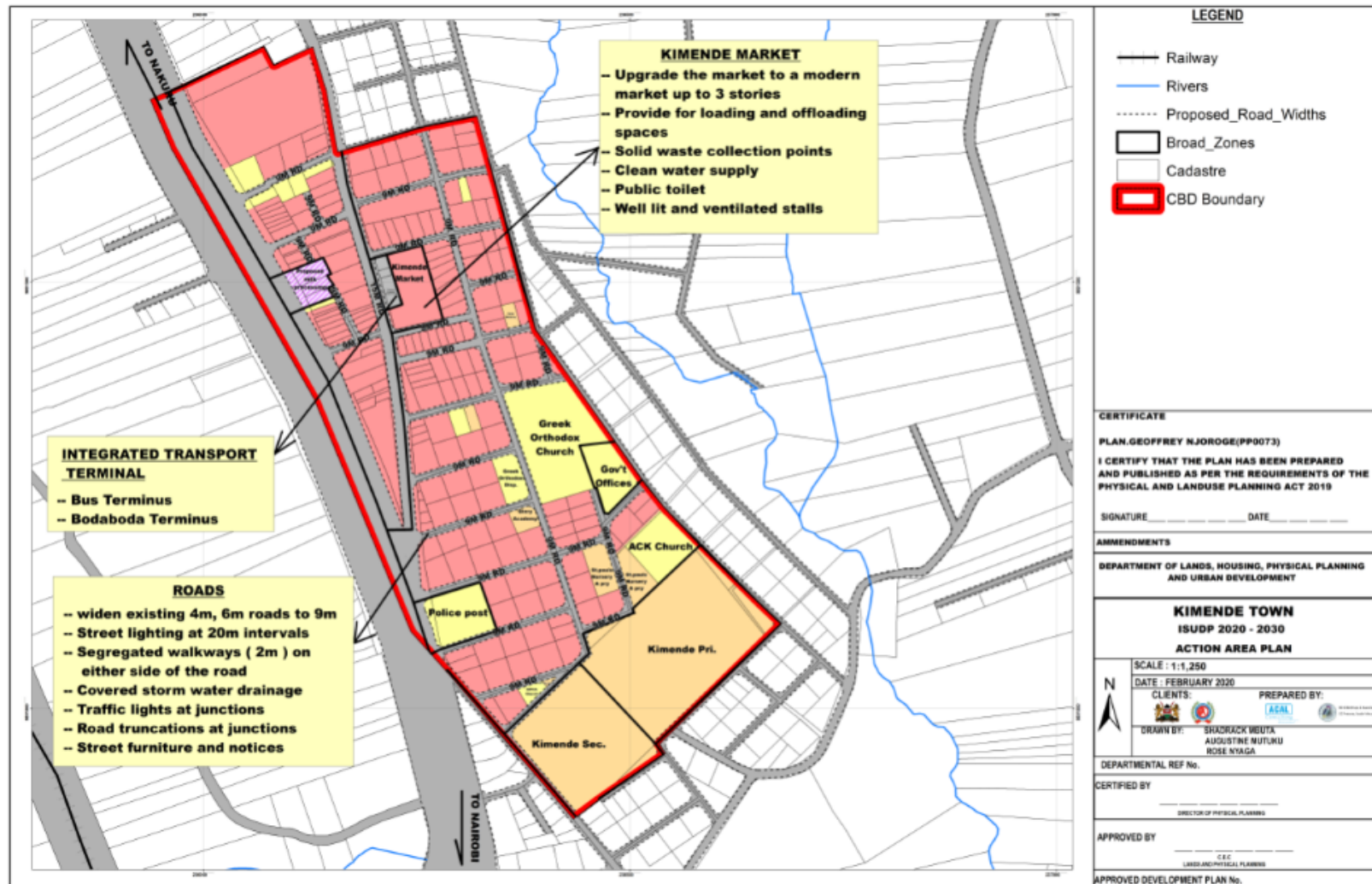
14.6.1 Modernization of Kimende Market

Kimende air market is located in the CBD. The market occupies an area of 0.04Ha approximately. Currently the market is in a poor condition. However, if it is well managed the market would attract more businesses and change the face of Kimende town.

Issues:

- Poor management of the market
- Lack of supporting facilities such as public toilets.
- The existing market is in poor state hence underutilized.

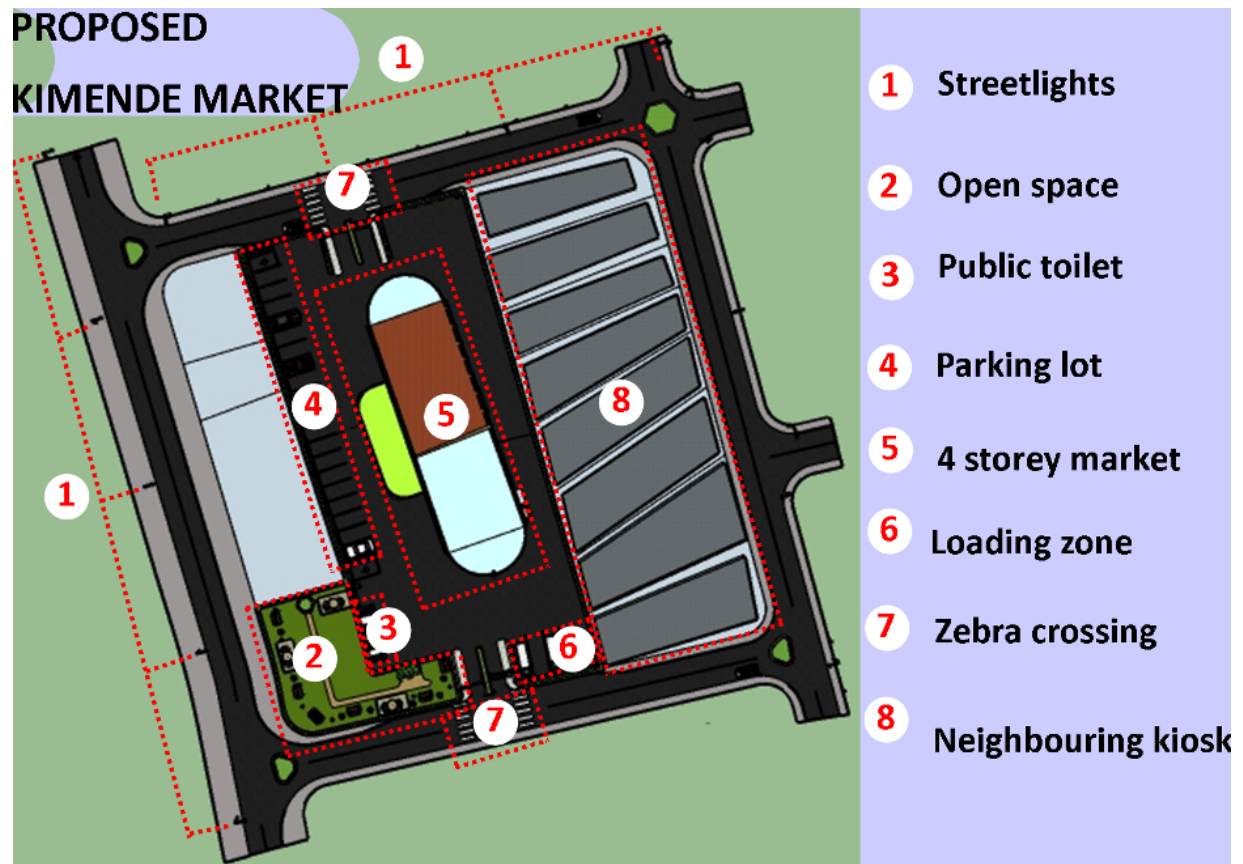
Map 14-3: Kimende Action Area Plan



Source: ACAL & BC Gildenhuys, 2020

Interventions

Construction of a 4 storey modern market



The proposed market comprises of;

- ✓ Ground floor will be used for selling of perishables
- ✓ 1st floor will be occupied by hawkers
- ✓ 2nd floor will be used for selling of clothes
- ✓ 3rd floor will be stalls
- ✓ 4th floor will be used for administrative offices and restaurant.

Other facilities provided in the proposed modern market are;

- ✓ Loading and off loading zone
- ✓ Parking slots
- ✓ Waste collection point

16 CHAPTER FIFTEEN: STRATEGIES AND MEASURES

16.1 Transportation Strategy

The main objective is to improve internal and external connectivity, encourage movement and circulation, reduce traffic conflicts, provide public facilities and spur economic development in Kimende Town.

The Strategies include the following:

- Surrender of land for road widening in the township from 4m to 9m.
- Improve all urban roads to Bitumen status.
- The major town spine roads to be expanded to at least 15m.
- Upgrade all the connector roads (..... within the planning area to enable accessibility to markets.
- Provide for stormwater drainage networks
- Provide for Non-motorized transport facilities (pedestrian sidewalks and cycle lanes) in the planning area
- Acquire land to construct a modern bus park
- Upgrade township road reserves to provide for parking facilities
- Provide for urban greenery along the road reserves/islands.
- Upgrade the Kijabe airstrip to spur tourism development in Kimende
- Improve the railway station at Matathia to encourage movement for the people and goods and promote tourism
- Designate spaces for construction of Boda boda shades.
- Construction of acceleration and deceleration lanes (service lanes) along Nairobi-Nakuru Highway into Kimende town.
- Construction of a footbridge on the A104 near the Bus park to encourage interaction and promote growth towards Matathia.
- Construction of a footbridge linking the bus park to the proposed modern open air market.
- Pedestrianization of some streets to encourage movement and make the town vibrant.

16.2 Physical and Social Infrastructure & services Strategy

16.2.1 Enhance accessibility of health facilities and services.

Activities to support the Strategy;

- Facilities and equipment required in a level 4 hospital to be put up at Lari sub-county hospital.
- Increase specialized doctors and health personnel at Lari sub county hospital.
- Equip the theatre at the hospital.
- Wards to be constructed so as to complement the finished theatre.
- Physiotherapy services to be prioritised at the hospital.
- Additional ambulances for emergency services.
- A rehabilitation centre to be prioritised to cater for drug addicts.
- Expand, upgrade, maintain and equip other existing health facilities in the sub-county.
- Provide support infrastructure such as water, sewer, and electricity among others to all health facilities.

16.2.2 Improve Educational Standards

Activities to support the strategy;

- a) Acquire 5.64ha of land for expansion of public primary schools to cater for projected population by the year 2030.
- b) Acquire 2.52ha piece of land for expansion of secondary schools by the year 2030.
- c) Ministry of education to deploy adequate staff in existing public schools to a recommended teacher pupil ratio of 1:40.
- d) Provide support infrastructure such as water, energy, roads among others.
- e) Private schools on small sizes of land should acquire more land to meet minimum standards.

16.2.3 Improvement of other social infrastructure

Activities to support this strategy;

- Provide 0.8ha piece of land for a fire station in the planning area.
- Acquire 0.4 ha land for community centre.
- Acquire 0.4ha land for ICT/Library.
- Allocate land for a slaughter house within the planning area.
- The western part of the planning area to be used for recreational purposes.
- Maintain existing cemetery by erecting a perimeter wall around it; also construct a hall on-site where people can hold funeral services before burying their loved ones.

16.3 Environmental Management and Conservation Strategy

This strategy seeks to protect and conserve the environment in the planning area. The issues of focus include; riparian reserves, water sources, waste management, forests and soil erosion.

16.3.1 Protection of Environmentally Sensitive Areas

Activities to support this strategy;

- Provide 30m riparian reserve to all rivers in agricultural areas.
- Buffer Kimende Dam to prevent encroachment and pollution of the dam.
- Clearly define, document and protect boundaries of the Kiriita and Aberdare/Kinale forests.
- Farmers cultivating escarpments to be advised to plant crops that prevent soil erosion e.g. Napier grass.
- County government to provide seedlings of indigenous trees for planting along riparian reserves to discourage planting of Eucalyptus.

16.3.2 Improve Solid Waste Management

Activities to support the strategy;

- Garbage collection point at the market to be properly constructed and maintained.
- Also provide more garbage collection points in town.
- Provide street bins at strategic locations in the centre town.
- Acquire land for establishment of solid management
- Establish garbage collection points in residential neighborhoods.
- Privatize waste collection in order to increase waste collection coverage and frequency.
- Formulate and enforce by laws to discourage haphazard waste dumping.
- Encourage Public Private Partnership in solid waste management.
- Involve public in clean-up activities as an effective way in solid waste management
- Create an autonomous waste management department to improve waste collection systems, supplying it with appropriate easy to service equipment and recruiting qualified personnel.

16.3.3 Enhance Landscaping, Beautification and Greening.

Activities to support the Strategy;

- Integrate street furniture along the town streets.
- Sitting of outdoor advertisement billboards and signs boards to be approved and regulated by County's Physical Planning Department.
- Control illegal structures and building materials.
- Enhance greenery and town beautification.

16.3.4 Improve Sanitation Standards in the Area.

This strategy provides mechanisms to reduce/eliminate diseases caused by poor sanitation.

Activities to support the Strategy:

- Establish public toilets within the CBD.

- Enforce by laws that focus on health, hygiene and general sanitation.
- Initiate public education and awareness campaigns on safe methods of solid waste disposal and handling at production points.
- Conduct regular public cleaning campaigns alongside promotion of waste minimization techniques such as recycling.
- Collection of garbage for disposal at Kamuchuge dumpsite to be done on a regular basis.

16.3.5 Liquid Waste Management

Activities to support the strategy;

- Construct storm water drains along all roads within the planning area.
- Provide sewer reticulation to cover the entire planning area.
- Fence and buffer around the shallow wells to protect them from pollution.

16.4 Residential Housing Strategy

The objective of this strategy is to ensure that various housing needs of diverse socio-economic groups are met.

16.4.1 Zoning and Densification:

Activities to support the Strategy.

- a) Earmark areas for high density residential development with minimum plot sizes of 0.05Ha.
- b) Earmark areas for medium density residential developments with minimum plot sizes of 0.1 Ha.
- c) Earmark areas for low density housing with minimum plot sizes of 0.2 Ha.
- d) Regulate sub-division of agricultural land within the sub-county to minimum plot size of 0.4Ha.

16.4.2 Provide and enhance infrastructure and services in residential zones

Activities to support the Strategy;

- e) Provide coverage of sewer and electricity in in all areas within the CBD and in high and medium density residential areas.
- f) Provide piped water and construct storm water drainage system.
- g) Establish waste collection points in neighbourhoods.
- h) Open up and pave access roads within neighbourhoods

16.4.3 Increase the affordable housing supply.

Measures to support the Strategy:

- i) Provide adequate land in high and medium density zones for affordable housing delivery.
- j) Provide more affordable housing through public private partnership.
- k) Use locally available low-cost building materials for cheap and affordable housing.
- l) Undertake speedy development approvals to attract developers and reduce cost of development.

16.5 Economic Development Strategy

There is need to unlock the potentials of the local economy of Kimende town in order to make the town vibrant and promote employment opportunities and incomes to the local people and the region.

16.5.1 Develop markets to promote farming

Activities to support the Strategy:

- Modernize the existing Kimende market.
- Provision of an Integrated transport terminus within the town.
- Provide support infrastructure and services such as public conveniences, solid waste management.
- Small scale farmers to be helped to form cooperatives for better marketing of their farm produce.

- Sensitize local farmers on modern agricultural technologies that are suitable for intensive farming.
- County government should subsidize farm inputs as incentives to the farmers.
- Improve access roads for accessibility to the market area.

16.5.2 Promote Industrial Value Addition through establishment of Agro-Based Industries.

There's need to exploit fully and efficiently the industrial potential of the town and its hinterland in order to promote industrial development.

Activities to support this strategy;

- Acquire 3.56ha of land for the establishment of agro-based industries.
- Improve road linkages to promote export market for agricultural products.
- Provide support infrastructure such as water, energy among others on the planned and designated site for agro-based industries.
- Provide financial services to investors as a start-up through partnership between entrepreneurs and other financial institutions.
- Establish a favourable environment for industrial investors through public-private partnership and through improved financial support.

16.5.3 Promotion of tourism

- a) Activities to promote this strategy;
 - Invest in development of recreational facilities and games in Aberdare escarpments to attract tourists.
 - Market tourists' attraction sites like Rukuma view point and nature trails in the forest.

17 CHAPTER SIXTEEN: PLAN IMPLEMENTATION MATRIX.

17.1 Implementation Matrix

The implementation Plan for Kimende ISUDP defines how the plan will be implemented over the 10-year planning period. The plan contains the various plans and projects to be implemented and institutions responsible for implementing the various projects.

The time period for implementation of the various projects will be implemented along with list of County Government department responsible for implementation.

The sector-wise implementation schedule along with listing of institutions responsibility is shown below;

Table 16-1: Implementation Matrix

Sector:	Strategies:	Projects:	Actors:	Outcome:	Time frame:		
					0-3 years	4-7 years	8-10 years
Agriculture	Promote agriculture development	Establish agro-based industries; provide incentives to farmers, markets for farm produce.	Department of Agriculture				
Land	Land banking, Secure all public land.	Set aside land for expansion of education facilities, fire stations and parking etc.	Department of lands and physical planning				
Economy	Zoning and densification.	Acquire land for establishment of formal and informal sectors such as agro-industries and juakali sheds. Modernize existing Kimende Market.	Department of Economic Planning.				
Transport & Infrastructure	Widening and upgrading roads in Kimende and integrating it with NMT Improve access to infrastructure services and facilities. Promote infrastructure planning and development.	Widen all narrow roads to a minimum of 9m. Tarmac Roads in the CBD. Connecting the entire Kimende town with piped water. Create awareness on recycling and water harvesting techniques such as dams, water reservoirs,	Department of Roads. Kiambu County Water and Sewerage Company. Development Partners such as World Bank Department of Water, Environment and Natural Resources.				

		tanks and construction of communal water points.					
Housing and Human Settlements	Promote industrialization	Zoning and densification for high and medium. density residential neighbourhoods. Servicing the undeveloped land to attract investment by the private sector.	Departments of Housing and Lands & Physical Planning.				
Environment	Conservation and protection of environmentally fragile areas. Improve solid waste management.	Prohibit developments on riparian reserves by providing adequate riparian reserves for all rivers in the planning area. Acquire land for construction waste collection centre. Provision of waste collection bins in all neighbourhoods and in CBD. Conducting public awareness on recycling of waste. Enforcing county by--laws on waste collection and disposal. Increasing the number of sub county waste collection trucks .	WARMA Department of Environment.				

17.2 Capital Investment Plan

This includes the main capital projects which the county government can implement in partnership with other key stakeholders.

Table 16-2: Capital Investment Plan

Project:	Quantity:	Unit:	Cost:	Funding Agency:
Construction of a modern market	0.04Ha piece of land 4 storey market	40,000	64 Million	County Government of Kiambu & Development partners.
Upgrade urban roads to bitumen standards	20km	10,000,000	200 Million	County Government of Kiambu.
Acquire land for a solid waste management centre.	1Ha	30,000,000	70 Million	County Government of Kiambu.
Acquire land and allocate funds for construction of Jua-kali shades.	1 Ha	30,000,000	70 Million	County Government of Kiambu.
Sensitization of farmers on diversification of farming and modern methods of farming	1No Solid collection centre	-	200 million	County Government of Kiambu.
Pedestrianization of all streets	All streets in the CBD		600 million	
Establish recreation centre at the foot of Aberdare ranges.	1.No recreation centre		500 million	Private investors

17.3 Monitoring, Evaluation and Reporting

Monitoring and evaluation systems assess effectiveness of implementation of the ISUDP. Monitoring and evaluation will be used to assess the progress, challenges encountered during the implementation and also provide for any adjustments needed during the implementation. Monitoring and evaluation systems are used to ensure timely implementation of the project and also give indicators of the expected output. The table below gives the expected impacts and indicators during the monitoring and evaluation process.

Table 16-3: Monitoring, Evaluation and Reporting

Sector	Expected outcome	Indicators
Environment	<ul style="list-style-type: none"> Protection and conservation of the natural environment i.e. Rivers and steep slopes, forests. Establishment of a solid waste collection centre. Establishment of litter bins at strategic points in the CBD. 	<ul style="list-style-type: none"> Establishment of riparian reserves and buffer zones. Construction of solid waste collection centre. Presence of litter bins at strategic points in the CBD.
Physical Infrastructure	<ul style="list-style-type: none"> Affordable, reliable and accessible physical infrastructure. 	<ul style="list-style-type: none"> Household water connections. Presence of improved drainage channels along Roads. Presence of public toilets.
Social infrastructure	<ul style="list-style-type: none"> Well-equipped hospitals, provision of land for construction of community centre. 	<ul style="list-style-type: none"> Presence of more medical staff in health facilities. Well-equipped and staffed educational facilities. Presence of emergency ambulance in health facilities.
Transportation	<ul style="list-style-type: none"> Integrated and efficient transportation system 	<ul style="list-style-type: none"> Tarmacked roads Safe crossing zones Constructed modern bus park

18 Annexes

18.1 ANNEX 1: NOTICE OF INTENTION TO PLAN