



**INTEGRATED STRATEGIC  
URBAN DEVELOPMENT PLAN  
2018 - 2038**

## **Executive Summary**

This report presents the Integrated Urban Development Plan for Rongo town, a product of the process undertaken by the County Government of Migori, Consultants and other stakeholders. The process was executed by a consortium led by Clear Ridge Capital in consultation with the County Government of Migori and other stakeholders. The process was participatory and ensured public participation through various modalities such as public consultation meetings, workshops and administration of household interviews to the residents and other stakeholders in the area.

This plan strives to contribute towards sustainable urban growth in Rongo town as well as vibrant social and economic developments. It was prepared after an in-depth analysis of the existing development challenges and potentials in the town and meant to be a framework from which the various stakeholders can be given a guide contributing to sustainable growth and provision of high living standards for the residents.

Rongo town being among the dominant urban areas in Migori County, is positioned as a junction town with a rich agricultural hinterland. The potential for agribusiness in the town and agro-industrial developments is immense but has not been fully realized. The position of the town at a junction is also an opportunity to enhance the growth of the town as a major trading point. However due to the lack of a proper plan structuring these developments and organizing the town to optimally tap to the opportunities, Rongo town has not fully benefited from the various opportunities around it. It is on this background that this plan was prepared to provide a spatial plan to guide sustainable development in Rongo town.

This report presents the outputs of the strategic urban planning process including a Summary of the Situational Analysis, an Analysis of the planning challenges, thematic maps, guiding principles to the development of the plan, plan proposals and the Structure Plan. It also details planning policies and standards, plan implementation framework, monitoring and evaluation strategy.

## Endorsements, Certifications & Approval

*I Certify that this Plan has been prepared, Circulated and published as per the requirements of the Physical Planning Act Cap 286.*

Signed



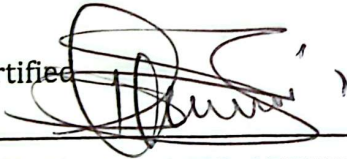
**PLN. WEYUSIA D. ZINNY**

Reg. Physical Planner, Principal Consultant

09/10/2020

Date

Certified

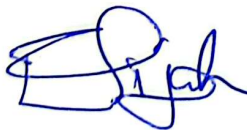


**COUNTY DIRECTOR OF PHYSICAL PLANNING**

16-11-2020

Date

Approved



**COUNTY GOVERNMENT OF MIGORI  
LANDS & PHYSICAL PLANNING**

07-12-2020

Date

## Table of Content

### Table of Contents

Executive Summary .....	2
List of Acronyms .....	1
CHAPTER 1: INTRODUCTION .....	2
1.1 Background .....	2
1.2 Purpose of ISUD Plan .....	3
1.3 Objectives .....	3
1.4 Scope of Work .....	4
1.5 Duration of Study .....	4
1.6 Vision .....	4
1.7 Methodology .....	5
a) Data Collection .....	5
b) Data Analysis and Interpretation .....	7
1.8 Stakeholders Consultations .....	7
1.8.1 Identification of Stakeholders .....	8
1.8.2 Stakeholder Consultation .....	9
CHAPTER 2: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK.....	10
2.1 Preamble .....	10
2.2 Legal Framework.....	10
2.2.1 The Constitution of Kenya (2010) .....	10
2.2.2 The Physical Planning Act (Cap 286) .....	11
2.2.3 The Urban Areas and Cities Act (2011) .....	11
2.2.4 The Land Act (2012) .....	11
2.2.5 The County Government Act (No. 17 of 2012).....	12
2.2.6 Water Act, Cap 372 (2012).....	13
2.3 Policy Framework .....	13
2.3.1 Environmental Management and Coordination Act (EMCA), 1999 .....	13
2.3.2 Kenya Vision 2030 .....	14
2.3.3 National Land Policy .....	15
2.3.4 The National Housing Policy (2004).....	15

2.3.5 National Spatial Plan .....	16
2.3.6 National Urban Development Policy.....	16
2.3.7 National Environmental Policy, 2012 .....	17
2.3.8 Sustainable Development Goals.....	17
2.3.9 The New Urban Agenda .....	18
2.4 Governance and Institutional Framework.....	18
2.4.1 Preamble .....	18
2.4.2 The Structure of Governance in Kenya .....	18
2.4.3 County Government Structure .....	19
CHAPTER 3: PHYSIOGRAPHY AND HUMAN SETTLEMENTS.....	22
3.0 Preamble .....	22
3.1 Location and Regional Linkages .....	22
3.2 Historical Origin of the Town.....	24
3.3 Physiographic and Natural Conditions.....	25
3.3.1 Topography.....	25
3.3.2 Geology and Soils.....	28
3.3.3 Vegetation.....	29
3.3.4 Climatic Conditions.....	29
3.3.5 Ecological Conditions.....	30
3.4 Administrative Units.....	31
3.5 Demographic Features.....	31
3.5.1 Population Composition and Size .....	31
3.5.2 Population Projections .....	32
3.5.3 Population Density and Distribution.....	32
3.6 Economic Profile.....	34
3.6.1 The formal Sector .....	34
<b>b) Financial Institutions</b> .....	35
<b>d) Poverty Level</b> .....	36
<b>f) Commercial Activities</b> .....	37
<b>g) Agriculture</b> .....	38
3.6.2 Mining.....	40
3.7 Tourism and Heritage.....	40

3.7.1 Tourism .....	40
3.7.2 Heritage.....	41
3.7.3 SWOT Assessment: Town profile .....	42
CHAPTER 4: SITUATION ANALYSIS AND SYNTHESIS .....	43
4.1 Introduction.....	43
4.2 Growth Trends and Patterns.....	43
4.2.1 Existing Land Use .....	46
<i>Emerging Issues</i> .....	48
4.2.2 SWOT Assessment: Land Use and Spatial growth .....	48
4.3 PHYSICAL INFRASTRUCTURE.....	49
4.3.1 Transportation System .....	49
4.3.2 Water Supply .....	56
4.3.3 Sewerage and Sanitation.....	60
4.3.4 Storm Water Drainage.....	62
4.3.5 Power Supply .....	63
4.3.6 Solid Waste Management.....	65
c) Waste Transportation .....	67
d) Waste Disposal .....	67
<i>Emerging Issues</i> .....	67
4.3.7 Information and Communication Technology .....	67
4.3.8 Fire Safety .....	68
<i>Emerging Issues</i> .....	68
4.4 SOCIAL INFRASTRUCTURE AND SERVICES.....	68
4.4.1 Introduction .....	68
4.4.2 Educational Facilities.....	69
<i>Emerging Issues</i> .....	71
4.4.3 Health Facilities.....	71
<i>Emerging issues</i> .....	73
4.4.4 Recreation and Sports Facilities .....	73
4.4.5 Police Stations/Posts .....	73
Emerging Issues.....	73
4.4.6 Religious Facilities .....	74

<i>Table 9: Other Social Facilities</i> .....	74
4.5 HOUSING AND LAND .....	75
4.5.1 Introduction .....	75
4.5.2 Residential Housing.....	75
4.5.3 Housing Characteristics.....	75
4.5.4 Availability of Housing.....	77
4.5.5 Land Values .....	77
<i>Emerging Issues</i> .....	77
4.5.6 SWOT Assessment of Housing and Informal Settlements.....	78
CHAPTER FIVE: THE ISUDP PROPOSALS.....	79
5.1 Introduction .....	79
5.2 Design Conceptual Framework.....	79
5.3 Summary of Findings.....	79
5.4 Structuring Elements.....	81
5.5 Guiding Principles .....	82
5.6 Proposed Projects .....	82
5.7 Previous Planning Effort .....	84
5.3 Plan Proposals and Implementation Framework.....	85
5.4 Zoning Standards and Guidelines .....	97
CHAPTER SIX: SECTOR STRATEGIES AND ACTION PLANS.....	111
6.1 Introduction .....	111
6.2 Rongo Town Water Supply .....	111
6.3 Recreation.....	112
6.4 Public Utilities & Public Purpose.....	112
6.5 Infrastructure.....	113
6.6 Environment.....	114
6.7 Enhancing Local Economy .....	115
6.8 Housing .....	115
6.3 Disaster Management.....	115
<i>Figure 48: Seismic Distribution/Hazard Map</i> .....	118
CHAPTER 7: CAPITAL INVESTMENT PLAN .....	119
7.0 Introduction.....	119

7.1 Project Identification .....	119
7.2 Sector Investment Needs for 2035 .....	119
7.3 Phases of Investment for 2018.....	120
7.4 Identification and Listing of Projects .....	120
7.4.1 Projects on Water Supply .....	121
7.4.2 Estimated Investment for Sub-Projects on Storm Water Drainage, Sewerage and Sanitation and Solid Waste Management.....	121
7.4.4 Projects on Electricity.....	123
7.4.5 Estimated Investment for Sub-Projects on Road and Transportation	123
7.4.6 Projects on Health and Environment.....	124
7.4.7 Estimated Investment for Sub-Projects on Housing and Social Infrastructure .....	124
7.4.8 Estimated Investment for Sub-Projects on Economic Development...	125
References.....	126

## List of Acronyms

---

<b>BAT</b>	<i>British American Tobacco</i>
<b>BOG</b>	<i>Board of Governors</i>
<b>CBD</b>	<i>Central Business District</i>
<b>CGM</b>	<i>County Government of Migori</i>
<b>DTM</b>	<i>Digital Terrain Model</i>
<b>ECD</b>	<i>Early Childhood Development</i>
<b>EIA</b>	<i>Environmental Impact Assessment</i>
<b>EMCA</b>	<i>Environmental management and coordination Act</i>
<b>GDP</b>	<i>Gross Domestic Product</i>
<b>HIV</b>	<i>Human Immunodeficiency Virus</i>
<b>ICT</b>	<i>Information Communication Technology</i>
<b>ISUDP</b>	<b><i>Integrated Strategic Urban Development Plan</i></b>
<b>KeNHA</b>	<i>Kenya National Highways Authority</i>
<b>KeRRA</b>	<i>Kenya Rural Roads Authority</i>
<b>KURA</b>	<i>Kenya Urban Roads Authority</i>
<b>LPG</b>	<i>Liquid Petroleum Gas</i>
<b>NEAP</b>	<i>National Environmental Action Plan</i>
<b>NEC</b>	<i>National Environment Council</i>
<b>NEMA</b>	<i>National Environment Management Authority</i>
<b>NLC</b>	<i>National Land Commission</i>
<b>NMT</b>	<i>Non-Motorized Transport</i>
<b>PPA</b>	<i>Physical Planning Act</i>
<b>PPP</b>	<i>Public Private Partnerships</i>
<b>PTA</b>	<i>Parents Teachers Association</i>
<b>SoK</b>	<i>Survey of Kenya</i>
<b>UNEP</b>	<i>United Nations Environmental Programme</i>
<b>UTM</b>	<i>Universal Traverse Mercator</i>
<b>WARMA</b>	<i>Water Resources Management Authority</i>

---

## CHAPTER 1: INTRODUCTION

### 1.1 Background

The Preparation of Integrated Urban Development Plan for Rongo Town' is part of the efforts by the County Government of Migori to ensure spatial order within its towns and other urban areas. The County Government aims to improve urban service delivery as well as identify priority programmes and projects that make for well-planned, urban living and working environment that can attract investments for enhanced revenue collection, growth and development. This will be achieved by reforming frameworks for urban governance, strengthening of planning mechanism, financing and capacity building, investment in infrastructure and service delivery improvements in the town. The project also creates an avenue for full exploitation of opportunities industrial development, and strengthening of rural-urban linkages.

However, Kenya's urbanization is characterized by numerous development issues and challenges that include but not limited to the following:

- *Lack of development plans thus unplanned growth of urban settlements,*
- *Urban sprawl*
- *Lack of infrastructure and utility services including water supply, sanitation, electricity, recreational facilities, parking facilities, housing, etc.,*
- *Illegal sub-division of land and violation of byelaws that guide development process,*
- *Growth of informal markets and informal settlements*
- *High rate of unemployment and inadequate employment opportunities*
- *Increase in crime and social distress*
- *Inadequate coordination among various agencies working in the urban settlements,*
- *Inadequate capacity of urban authorities in terms of staff, technology, equipment and space to deal with the fast urban expansions*

To address the above mentioned issues, there is need to integrate physical, economic, social, cultural, and environmental as well as institutional aspects and utilize potentials of the towns. This Integrated Urban Development Plan (IUD Plan) is required to meet the above needs through making well-planned urban living and working conditions besides becoming a tool to attract investments for enhanced revenue collection and for an overall growth and development of the towns.

## 1.2 Purpose of ISUD Plan

The purpose of the Integrated Urban Development Plan is to:

- Provide an overall integrated physical framework for urban growth of the town.
- Define a vision for future growth and development of the areas over the next 20 years.
- Provide a basis for coordinated programming of projects and budget, thereby serving as a downstream management tool.

## 1.3 Objectives

The specific objectives of the assignment are to:

- To set a base for the proposed new developments and role of the town
- To provide a basis for provision of modern infrastructural services
- Define a vision for future growth and development of the area over the next 10 years
- To formulate measures for environmental conservation/improvements and aesthetics
- To mitigate urban sprawl and forestall emergence of informal settlements and slums
- To prepare digital cadastral layers in the same system as the digital topo maps.
- To conduct participatory planning exercises in the town to identify citizens' priorities.
- To prepare short, medium term plans to guide urban development, including action area plans, subject plans, advisory or zoning plans and regulations
- To prepare integrated structure plans, showing current and proposed land use and infrastructure (such as transport, water, drainage, power, e.t.c), housing settlements and environmental assets.
- To prepare a monitoring and evaluation strategy to assist the planning department in reviewing and updating the plan in line with the ever-changing trends of the towns.

## 1.4 Scope of Work

The scope of work includes Mapping and Preparation of Integrated Urban Development Plan for Rongo town, covering an area of 29 km<sup>2</sup> respectively as per the Terms of Reference given.

The plan should address the following broad areas of concern:

- *Physical and social Infrastructure development*
- *Environmental management*
- *Housing and settlement upgrading*
- *Local Economic development*
- *Urban transportation and mobility*
- *Urban design and aesthetics*

## 1.5 Duration of Study

The project study has been planned to be completed in eighteen (18) months as stipulated in the contract. The project was completed as per the work plan.

## 1.6 Vision

The visioning process took perspective of broad national and county development agenda and adopted them to suit the needs of Rongo Town. The vision was formulated after an intensive SWOT analysis of the town, identification of development challenges, and coming up with development proposals where the stakeholders proposed the following vision statements for Rongo town.

- i. A town with good infrastructure (housing, roads, lighting, recreational facilities e.tc)
- ii. A town with adequate industries to employ people.
- iii. A well-managed town
- iv. An prosperous economic hub within the region
- v. A regional epitome of a well-planned town and clean

The stakeholders then developed a vision statement that stated as follows..... ***A well planned and managed town with good infrastructure and services, clean environment and opportunities for employment, investment and residence.***

## 1.7 Methodology

In working to realize the project's objectives as outlined in the detailed Terms of Reference (TORs) for this assignment, the methodology adopted here was guided by the policy and legal provisions for planning in Kenya. These includes but not limited to the Land Policy, Vision 2030, the Constitution of Kenya (2010) and various acts of parliament particularly the Physical Planning Act Cap 286, the Physical Planners Registration Act, the County Governments Act and the Urban Areas and Cities Act among others. Further, relevant modifications of the methodology are guided by the outputs expected. These include the Inception Report, Feasibility Studies Report, workshop reports and the Integrated Strategic Urban Development Plan for Rongo.

The preparation of this plan was based on primary and secondary data collection methods. The methods employed ensured delivery of outputs that were prepared with validation by the relevant stakeholders throughout the entire process.

### a) Data Collection

This stage-involved preparation of data collection tools, training of field staff, secondary and primary data collection.

#### i. Preparation of Maps

The data collected in this phase was used for the preparation of the base map. The process required the surveyor to provide reliable digital maps of the planning area. During this phase, the data search was achieved through the following:

- i. Existing Topographical Sheets covering the project area for base information*
- ii. Triangulation stations and national benchmarks*
- iii. Existing survey information and*
- iv. Aerial photographs.*

The consultant reviewed the existing mapping and cadastral data available for the study area. In addition, other data collection techniques used in the process were; establishment of ground control points, positioning with GPS, survey reconnaissance, GPS computations, ground control reporting, aerial triangulation and field verification. These data collection and recording techniques aided the presentation of final maps.

The following information was captured as shapefiles to give important information for planning purposes:

- i. Physical infrastructure*
- ii. Social infrastructure*
- iii. Resource mapping*
- iv. Water resources and drainage systems*
- v. Land uses/economic activities*
- vi. Depiction of terrain characteristics*
- vii. Names and annotations*

## **ii. Secondary Data**

Secondary data collection involved reviewing of the policy and legal framework related to planning. Policies included the Vision 2030, the National Land policy, Kenya Wildlife and Conservation policy among others.

Legal framework documents included the Constitution of Kenya (2010), Physical Planning Act, the Environmental Management and Coordination Act among others.

Previous plans were reviewed to understand the various existing boundaries, land uses, and their implementation status. The plans included Local Physical Development plans.

## **iii. Primary Data**

This method involved collection of data directly from the field. They include:

### **i. Observation**

The planning team observed and familiarized themselves with the general conditions of the planning area. This involved direct observation from reconnaissance time to the actual field survey.

### **ii. Traffic Survey**

These involved random sampling of five major roads within the planning area assessing the traffic flow to and from Rongo town. Traffic assessment was done to establish vehicular flow and NMT movement in the planning area in order to plan for transportation.

### **iii. Household Questionnaires**

The analysis report was based on a sample data of Rongo residents interviewed through household questionnaires. The data was coded and entered into SPSS version 20 system for analysis. These analysis were presented inform of Descriptive statistics such as frequencies, means, tables and percentages. Chi-square statistic and correlation were also computed to determine association between various variables under study.

### **iv. Focus Group Discussions (FGDs)**

This involved identification of different focus groups with relevant information. The groups commented and gave proposals on various issues such as land use, physical environment and infrastructure among others.

### **v. Key Informant Interviews**

Key informant interviews were conducted to guide the consultants and participating agencies have a good understanding of the existing situation. The data formed a sound basis for understanding the planning area, its developmental problems, and challenges prior to formulation of the development proposals.

## **b) Data Analysis and Interpretation**

This phase involved analysis of the collected data in various categories. Spatial and non-spatial data were analyzed using SPSS, Excel, and ARCGIS. SWOT analysis was undertaken for various sectors such as physiography, land use, land values, housing, economic, population, environment, infrastructure, transportation, water and sanitation and social services. This was done to identify different characteristics within the planning area, the challenges and opportunities. It also aimed at realizing the competitive advantages of different parts of the planning area.

The key milestones of the process are outlined below indicating the summary of the project stages (deliverables) coupled with activities and the list of outcomes. Although the stages as described below occur in order, a number of planning activities will be undertaken concurrently while some are cyclical.

## **1.8 Stakeholders Consultations**

The Constitution of Kenya 2010 provides rights for citizens regarding participation in public affairs, and duties on behalf of Counties and urban governments to share information and seek the views of citizens. With regards to

physical planning, stakeholders' participation through face to- face meetings, discussion and focus groups provides planners with insights and information regarding community needs, and promotes public understanding and ownership of the project.

The main purpose of the stakeholder consultation process is to build consensus among key Stakeholders' on planning process and outcome; to determine positive qualities and assets of the town and to develop a vision statement, which best articulate the desires of the citizens about the future of the town. This is done through workshops, focus group discussions, one to one meetings and interviews to gauge their views etc.

The Planning Team made an assessment of stakeholders to:

- a) Identify the key stakeholders and their interests (positive or negative) in the plan;
- b) Assess the relative influence and importance of each stakeholder and their potential impact on the plan as well as the impact of the plan on each stakeholder; and
- c) Identify how best to engage stakeholders.

This was done to ensure a wider inclusion of all relevant stakeholders including local NGOs, FBOs, CBOs, political and community leaders, investors, businessmen, provincial administration, professionals, vulnerable groups e.t.c.

### **1.8.1 Identification of Stakeholders**

The stakeholders that were consulted during the plan preparation were identified using the following criteria.

- People with registerable interests
- Registered property owners
- Registered Faith-based, Community-based institutions, Non-Governmental operating in the area.
- Inter-Governmental Organizations
- Constitutionally elected leaders
- Defined vulnerable groups
- Business community
- Service Providers
- Government Line Ministries/Departments

The checklist and mobilization of stakeholders was undertaken in consultation with the county physical planning office.

### **1.8.2 Stakeholder Consultation**

The consultation with stakeholders included the following activities from where the information

generated was used to prepare and finalize the proposals:

- Inception Workshop
- Launch Workshop
- Focus Group Discussions
- Round Table Discussions
- Situation Analysis Stakeholder Validation Workshop
- Visioning Workshop
- Interim Report Validation Workshop
- Draft ISUDP Validation Workshop
- Final Draft ISUDP and Capital Investment Plan Validation Workshop

## **CHAPTER 2: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK**

### **2.1 Preamble**

This section provides an overview of the legal, policy and institutional framework for planning. It includes references to relevant Acts of Parliament, Policies and Guidelines. The mandate to carry on the preparation of the ISUDP is derived from government policy and legal statutes that provide for the need to prepare plans, content and procedure to be followed. This outlines the Government intent in enhancing order in the development process. This mainly entailed policy documents and legislations that guide Urban Planning and development such as Vision 2030, the National Housing Policy and National Land Policy; Sessional Paper no. 3 as it relates to urban planning, Physical Planning Act, County Governments Act (2012), Urban Areas and Cities Act (2011) and EMCA (1999).

The section also highlights the governance and institutional structure in the planning area which is important in that it notes the various stakeholders in development in the area and their roles. Further it presents an organogram of the County Government with the roles of each arm in development in Rongo town.

### **2.2 Legal Framework**

#### **2.2.1 The Constitution of Kenya (2010)**

The constitution recognizes the significance of land not only as a factor of production but also as a resource upon which all developments and investments will be anchored. Section 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 with the following principles—

- (a) Equitable access to land;*
- (b) Security of land rights;*
- (c) Sustainable and productive management of land resources;*
- (d) Transparent and cost-effective administration of land;*
- (e) Sound conservation and protection of ecologically sensitive areas;*

Section 66 (1) provides a basis for *planning* as it provides that the State may regulate the use of any land, or any interest in or right over any land, in the interest of defense, public safety, public order, public morality, public health, or land use planning.

Furthermore, article 43 (1) (b) provides that every individual has a right of access to adequate housing with very high standard of sanitation. This means that housing units need to have efficient waste management systems in fulfilment of this constitutional provision.

Part 2 of Chapter 5 on Environment and Natural resources article 69 provides for the need to ensure proper utilization of land and resources for purposes of ensuring protection and conservation of the environment. This plan will therefore ensure that environmentally sensitive areas such as wetlands, water catchment areas, forests, rivers and streams are protected.

In addition, chapter 11 of the constitution established the devolved systems of government (see first schedule) by establishment of County Governments with principles, functions and powers of these units. The most outstanding is the power to ensure development control and preparation of integrated and spatial development plans in their areas of jurisdiction.

### **2.2.2 The Physical Planning Act (Cap 286)**

The preparation of the Rongo ISUDP is primarily based on the provisions of the Physical Planning Act (Cap 286) as the principle legislation. The PPA defines the process of plan preparation, approval, typology, scope and content of the Plan. In essence, the PPA was formulated for the very purpose of ensuring order, harmony and the protection of public interest. The act also provides Counties with the mandate to plan and provides tools for development control within areas of their jurisdiction. As far as PPA is concerned, the following procedural aspects will be followed notice of intention to plan, public participation, publication of the plan, circulation, notice of completion of the plan and ascending to the plan.

### **2.2.3 The Urban Areas and Cities Act (2011)**

This Act gives guidelines on the management and governance of urban areas and cities in the country. Section 12 outlines that management of urban areas, city or municipality be administered by the county government. It also provides for the preparation of Integrated Development Plans as reference tool in the decision making to guide social, economic and spatial development of urban areas and cities and thus enhance the delivery of better services for the residents.

### **2.2.4 The Land Act (2012)**

This is an act of Parliament to give effect to Article 68 of the Constitution, to revise, consolidate and rationalize land laws; to provide for the sustainable

administration and management of land and land based resources, and for connected purposes. It provides the guiding principles to be observed by all stakeholders dealing in land and include:

- a) Equitable access to land and security of land rights;*
- b) Sustainable and productive management of land resources;*
- c) Transparent and cost effective administration of land;*
- d) Conservation and protection of ecologically sensitive areas;*

## **2.2.5 The County Government Act (No. 17 of 2012)**

This is an act of parliament that facilitated the repealing of the Local Government Act Cap 265 and provide for County Governments powers and functions in line with the new constitution. These include among others development planning and approval. Most notably, *Part XI* of the Act on County planning *Section 102* provides for the principles of Planning and development facilitation at the County level while *Section 103* provides for the objectives of County Planning that include:

- (a) Ensure harmony between national, county and sub-county spatial planning requirements;*
- (b) Facilitate the development of a well-balanced system of settlements and ensure productive use of scarce land, water and other resources for economic, social, ecological and other functions across a county;*
- (c) Maintain a viable system of green and open spaces for a functioning eco-system;*
- (d) Harmonize the development of county communication system, infrastructure and related services;*
- (e) Develop urban and rural areas as integrated areas of economic and social activity;*
- (f) Provide the preconditions for integrating under-developed and marginalized areas to bring them to the level generally enjoyed by the rest of the county;*
- (g) Protect the historical and cultural heritage, artifacts and sites within the county; (h) Make reservations for public security and other critical national infrastructure and other utilities and services in the county;*

*Section 104 (1) and (2)* gives the obligation to carry out planning to the Counties and that these plans prepared and approved by the County Assembly will be the

basis for expenditure of public funds as it states that no public funds will be appropriated outside a planning framework.

The act also provides for the establishment of structures for purposes of development control as outlined in *Section 104 (3)* where the County Government has to designate county departments (Physical Planning, surveying, public health), cities and urban areas, sub-counties and Wards as planning authorities of the county. Counties Governments have therefore replaced Local Authorities as legal agencies responsible for planning and development Control in Kenya.

## **2.2.6 Water Act, Cap 372 (2012)**

The Act makes provision for the improved management and more equitable use of ground and surface water resources, and the promotion of water conservation. The Water Act provides that no person shall, without authority under this Act -

- (a) Wilfully obstruct, interfere with, divert or obstruct water from any watercourse or any water resource, or negligently allow any such obstruction, interference, diversion or abstraction; or
- (b) Throw or convey, or cause or permit to be thrown or conveyed, any rubbish, dirt, refuse, effluent, trade waste or other offensive or unwholesome matter or thing into or near to any water resource in such manner as to cause, or be likely to cause, pollution of the water resource.

In this regard, the plan will map out all water resources including rivers, streams (both permanent and seasonal), boreholes, dams, lakes and water catchment areas, put in place strategies for efficient utilization, protection and management to avoid pollution and even construction works that are blocking and interfering with the water resources for sustainability.

## **2.3 Policy Framework**

### **2.3.1 Environmental Management and Coordination Act (EMCA), 1999**

The act provides that everyone is entitled to a clean and safe environment. This is an Act of Parliament that has been structured in such a manner as to protect both the natural and built environments from adverse effect of various development initiatives. To attain this, the Act provides that developments considered to have substantial negative impacts to the natural environment must undergo Environmental Impact Assessment and regular Environmental Audits and monitoring and the protection of environmentally sensitive areas such as

wetlands, rivers and catchment areas, hilltops and forests among other areas. The ISUDP must therefore seek to address such issues as congestion, pollution, waste disposal, deforestation and general environmental stress as a result of the current development trends.

### **2.3.2 Kenya Vision 2030**

The Kenya Vision 2030 is the sole government's long-term developments blue print to guide its development agenda for the next 20 years. The Vision foresees a Kenya that is globally competitive and prosperous with a high quality of life for all citizens by the year 2030." It aims at transforming Kenya into "a newly industrializing, middle income country providing *a high quality of life to all its citizens in a clean and secure environment*"

The vision also does recognize the significance of the environment. The Country aims to have towns that are clean, secure and sustainable environment by 2030. This will be achieved through:

- (i) promoting environmental conservation to better support the economic pillar's aspirations;*
- (ii) improving pollution and waste management through the application of the right economic incentives;*
- (iii) commissioning of public-private partnerships (PPPs) for improved efficiency in water and sanitation delivery;*
- (iv) Enhancing disaster preparedness in all disaster-prone areas and improving the capacity for adaptation to global climatic change.*

The vision also does recognize the significance of infrastructure where the government aims "to provide cost-effective world-class infrastructure facilities and services. Poor infrastructure is identified under Economic Recovery Strategy (2003) as a major constraint to development initiatives and doing business.

The Vision provides that the country needs to enhance capacity and access to infrastructure services such as transport, telecommunications, energy, water, sewerage and sanitation services. Moreover, the Vision takes cognizance of the current demographic trends in Kenya where the population is expected to be predominantly urban by 2030. Due to this, the Vision provides that ***the country must, therefore, plan for high quality urban livelihoods.***

The vision for housing and urbanization is "*an adequately and decently-housed nation in a sustainable environment.*" This will be attained through:

- (i) Better development of and access to affordable and adequate housing;*

- (ii) *Enhanced access to adequate finance for developers and buyers;*
- (iii) *Pursuit of targeted key reforms to unlock the potential of the housing sector;*
- (iv) Initiation of a nationwide urban planning and development campaign, starting with Kenya's major cities and towns.

It emerges clearly that the Vision 2030 acknowledges that *lack of planning is one of the major contributory factors for the clutter being witnessed as the rate of urbanization in Kenya* continues to surge. It therefore strongly advocates for planning as the very sure way of attaining all the aspiration contained in the vision 2030 across all sectors.

### **2.3.3 National Land Policy**

The National Land Policy (Sessional Paper No. 3) reconciles the many conflicting laws and mismanagement of land as a resource. The guiding principle is to guide the country towards efficient, sustainable and equitable use of land for prosperity and posterity. The overall objective of the National Land Policy is to secure rights over land and provide for sustainable growth, investment and the reduction of poverty in line with the Government's overall development objectives.

Specifically the policy offers a framework of policies and laws designed to ensure the maintenance of a system of land administration and management that will provide: an economically, socially equitable and environmentally sustainable allocation and use of land; and an efficient and effective utilization of land and land-based resources in both urban and rural areas as articulated in the Land Act. It is important to note however that this cannot be achieved if the development process is devoid of spatial planning.

### **2.3.4 The National Housing Policy (2004)**

Shelter is one of the basic human rights articulated in the bill of rights on the constitution of Kenya yet proper housing is one of the key challenges facing both urban and rural areas in Kenya. The Housing Policy on the other hand seeks to achieve sustainable human settlement, facilitate the provision of adequate shelter and a healthy living environment at an affordable cost to all socio-economic groups in Kenya.

This ISUDP has to adequately provide for the housing needs of the population through encouraging investments in the sector by way of Public Private Partnerships and structuring the town's human settlement strategy with low density, medium density and high density housing areas complemented with a

mix use residential neighbourhoods to help cut across the social stratum. This will enable the County address the housing shortage while ensuring that there is access to affordable yet decent housing.

### **2.3.5 National Spatial Plan**

The National Integrated Plan (2015-2045), is an integrated plan that strives to achieve a balanced and sustainable national development. The plan anchors its framework on vision 2030. The Plan provides comprehensive strategies and policy guidelines to deal with issues of rural and urban development. The plan also focuses on issues of modernizing agriculture, infrastructure, energy production, mining and industry, as well as sustainable human settlements. The specific objectives of the National Spatial Plan include: -

- a) To create a spatial planning context that enhances economic efficiency and strengthens Kenya's global competitiveness.
- b) To optimize utilization of land and natural resources for sustainable development.
- c) To create a liveable and functional Human Settlements in both urban and rural areas
- d) To secure the natural environment for high quality of life.
- e) To establish an integrated national transportation network and infrastructure system

The planning area is dominantly characterized agricultural practices in the hinterlands. The development strategies in the national spatial plan are well guided by established policies and acts. The Rongo ISUDP (2015-2035), similar to the NSP, focuses on SWOT analysis, ideal standards and the deficits as well as identifying the solutions to the challenges.

### **2.3.6 National Urban Development Policy**

The overall objective of the National Urban Development Policy is to provide a framework and inspiration for inclusive and sustainable urban development in the country and contribute to the achievement of broader national development goals as articulated in Vision 2030 and MTP (2008-2012). This ensures orderly, competitive and sustainable urban development that enhances physical, social and local economic development of the urban areas. The policy is key since it fosters urban-urban-and urban-rural linkages and improves livelihoods which are a core mandate in the preparation of Rongo ISUDP (2015-2035).

### **2.3.7 National Environmental Policy, 2012**

The Environmental Policy is one of the initiatives by the Government of Kenya to intervene in dealing with environmental issues in the country. It complements the Environmental Management and Coordination Act (EMCA). This National Environment Policy aims to provide a holistic framework to guide the management of the environment and natural resources in Kenya. It further ensures that the linkage between the environment and poverty reduction is integrated in all government processes and institutions in order to facilitate and realize sustainable development at all levels in the context of green economy enhancing social inclusion, improving human welfare and creating opportunities for employment and maintaining the healthy functioning of ecosystem. The goal of this policy is “a better quality of life for present and future generations through sustainable management of the environment and natural resources”. The policy provides a framework for an integrated approach to planning and sustainable management of environment and its natural resources. This will help guide in the conservation of the environmentally sensitive areas and ensuring optimum utilization of resources within the planning area.

### **2.3.8 Sustainable Development Goals**

Preparation of Rongo ISUDP (2015-2035) is anchored in the 11<sup>th</sup> sustainable development goal that aims at creating sustainable cities and communities. Sustainability in the communities and the cities will be characterized by economic growth, environmental sustainability, improved productivity and social development. The sustainable goals 3, 4, 6, 7, 8 and 12 will guide the development of Rongo ISUDP (2015-2035).

Goal number 11 target is to make Cities and Human Settlements inclusive, safe and resilient by the year 2030. This goal aims at making all human settlements and cities adequate, safe and affordable for all. This also entails provision of basic services and upgrading existing slums globally. The goal also aims at ensuring safe, affordable, accessible and sustainable physical and social infrastructure with special attention to the vulnerable groups, children and PWDs. The goal targets by achieving green public spaces and conserving the environment. By 2030, the goal aims at ensuring strong peri-urban, urban and rural interaction. This is the core SDG in the preparation of Rongo ISUDP (2015-2035). This is because the SDG 11 is crosscutting and entails all elements of ensuring sustainable residential settlements, commercial settlements, physical and social infrastructure as well as the environment.

### **2.3.9 The New Urban Agenda**

This is a 20-year framework that was adopted by UN-Habitat that provides for how cities should be best planned and managed. This is with the aim of promoting sustainable development. The framework is anchored on sustainable goal 11 that aims at achieving sustainable cities and communities. The new urban Agenda will be key in guiding the preparation of the action plans for the planning area. This is mainly because it provides for the guiding elements for the designing and planning of urban centres and cities. The urban planning and design component of the new urban agenda include:

- Integrated planning to ensure progressive economic growth
- Developing sustainable planning mechanisms that will mitigate against the short-term and long term hazards
- Inco operating residential neighbourhoods within the cities
- Reduced travel time between residential areas and workplaces.
- Clean air and greenery to ensure aesthetics enhancement.

## **2.4 Governance and Institutional Framework**

### **2.4.1 Preamble**

This section presents the existing institutional framework in the County responsible for provision of urban infrastructure services and facilities. Migori County is one of the 47 devolved government areas created under the constitution of the Republic of Kenya. Provision is made for urban governance under the Urban Areas and Cities Act 2011 concerning urban governance. These provisions are not applicable to Rongo town as it hasn't satisfied requirements of the Urban Areas and Cities Act in terms of population threshold and services.

### **2.4.2 The Structure of Governance in Kenya**

The constitution of Kenya outlines the structure of governance in Kenya as outlined the figure below. It outlines the two levels of governance which are, The National Government headed by the president and his deputy and the County Governments headed by governors and their deputies.

### **2.4.3 County Government Structure**

County government of Migori has adopted a centralized management structure. All county functions and provision of public services are managed by CEC members, Chief Officers and Directors from the County Headquarters. The Governor is the political head and chief executive of the County. The Deputy Governor deputizes for the Governor. The Figure 10.1 shows the broad organization structure of the County.

The Governor, with the recommendation of the County Public Service Board and approval of the County Assembly, appoints members to the County Executive Committee (Cabinet) of the county. The Governor determines departments of related functions and services (Ministries) and assigns them to the members of the County Executive Committee. CEC members ensure performance of their respective functions of the county and for the provision of related services to the people. Each CEC member is assigned a chief officer responsible for the administration of detailed operations of a county department/function. County chief officers are the authorized officers in respect of exercise of delegated powers. Chief Officers oversee staff deployed to execute county functions in the sub-counties and wards.

### **2.4.4 County Governor and Deputy County Governor**

The Governor is the political head and chief executive of the county. The Governor has constitutional responsibility to:-

- i. Perform such State functions within the county as the President may from time to time assign
- ii. Represent the county in national and international events;
- iii. Constitute the County Executive Committee (CEC) portfolio structure to respond to the functions and services assigned to the county;
- iv. With the approval of the county assembly, appoint / dismiss a member of the CEC.
- v. Assign to every member of the CEC responsibility to ensure the discharge of any function within the county and the provision of related services to the people;
- vi. Submit the county plans and policies to the county assembly for approval;
- vii. Consider, approve and assent to bills passed by the county assembly;
- viii. Conduct meetings of the county executive committee;

- ix. Submit to the county assembly an annual report on the implementation status of the county policies and plans;

#### **2.4.5 County Executive Committee**

The Governor establishes the county executive committee and ministries (functional departments) to respond to the demands of the functions and services assigned to the county. He appoints the county executive committee members (CECMs) and allocates to each responsibility to ensure performance functions of his or her duties and also to ensure provision of related services to the people.

#### **2.4.6 County Assembly and County Clerk**

The County Assembly is the legislative authority of the county. Its role is to ensure that all necessary bills are passed and implemented, (i.e. to initiate social and economic reforms through legislation and to play an oversight role in the county). The County Clerk is secretary and authorized officer of the County Assembly. The Clerk maintains a record of the proceedings of the County Assembly.

#### **2.4.7 County Executive**

The County Executive comprises the Governor, Deputy Governor, Members of the Executive Committee, and the County Public Service Board. The Executive supervises administration and delivery of services in the county and in all its decentralized units (Sub-counties, Wards and Villages).

The County Secretary is the head of the county public service and is responsible for arranging the business, and keeping the minutes, of the county executive committee, conveying the decisions of the county executive committee to the appropriate persons or authorities; and performing any other functions as directed by the Governor and County Executive Committee.

#### **2.4.8 Public Services Delivery**

The County Government of Migori is responsible for the provision of a variety of devolved public services in the whole county. These include the following: -

- Control and regulation of businesses (licensing.)
- Provision and management of public markets, motor vehicle parking, slaughterhouses, health care facilities,

- Provision and management of educational and vocational training institutions
- Social services (registration of women and youth groups, burial of the destitute, organization of national celebrations, sports, public play-grounds, social halls, recreational facilities, etc.
- Survey and land use planning and development control
- Conservancy, access pit exhauster service and other public health and sanitation awareness creation services
- Development and maintenance of rural and township access roads

## **CHAPTER 3: PHYSIOGRAPHY AND HUMAN SETTLEMENTS**

### **3.0 Preamble**

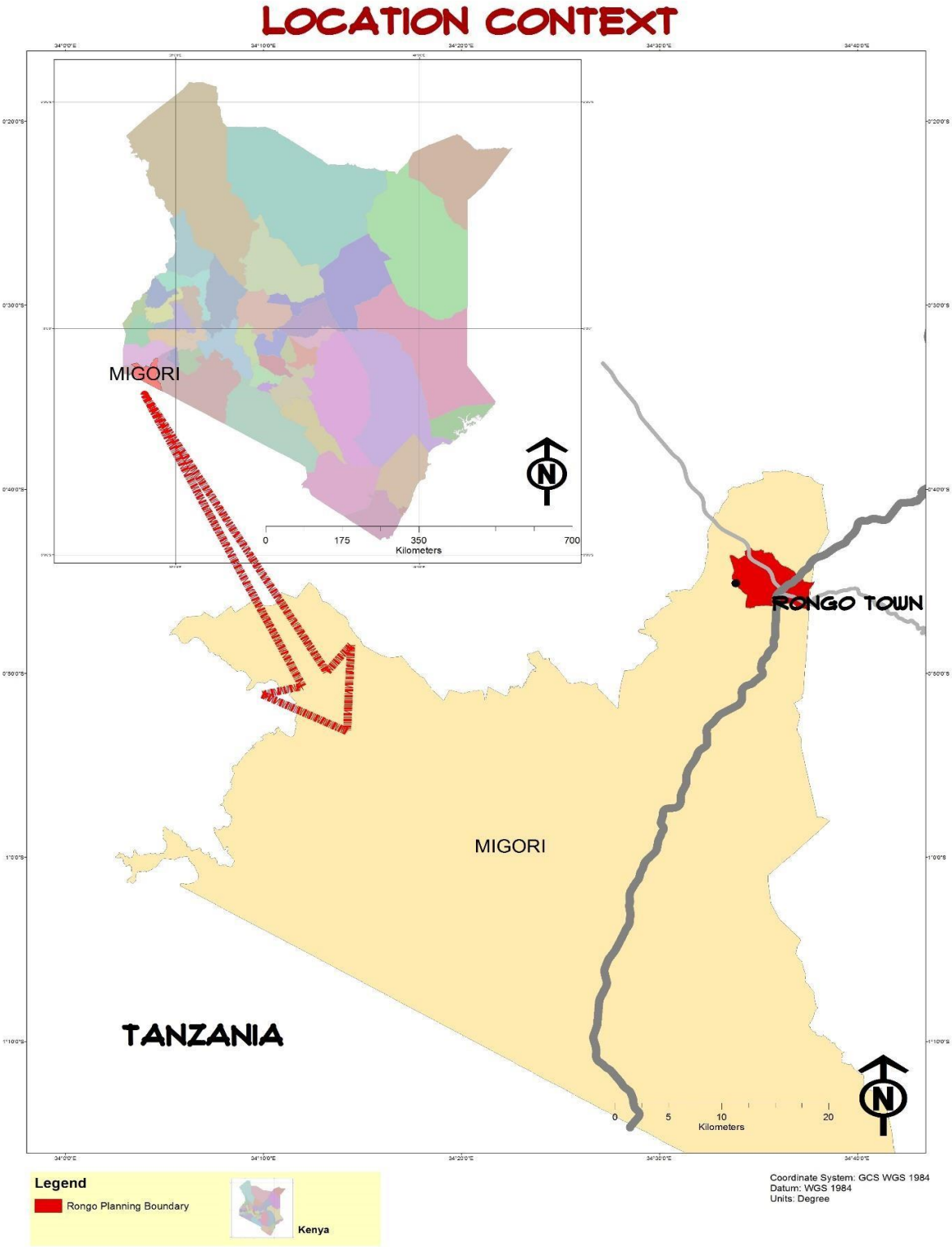
A detailed assessment and analysis of the regional location of a town, and its socioeconomic profile is a prerequisite for the preparation of a town development plan. This chapter attempts to highlight the profile of Rongo Town in its locational context, history, physiography, administration, demography and socio-economic aspects. Information provided here is, to the extent that it is available.

### **3.1 Location and Regional Linkages**

Rongo town is located on the northern part of Migori County which is one of the forty-seven counties in Kenya. The county is situated in the south-western part of Kenya within the former Nyanza Province. Migori County borders Homabay County to the North, Kisii and Narok counties to the East, the United Republic of Tanzania to the South and Lake Victoria to the West.

Geographically, Rongo town lies along the Kisii-Migori route at 0° 46' 11" S, 34° 36' 0" E. It is located at the junction to Homabay, and Riosiri/Rongo. The neighbouring major towns to Rongo town include Homabay 32.4km NW, Migori 42km SW, Kisii 21.0km NE and Oyugis 32.8km NE. The town is externally served by three main roads that radiate from it i.e. the Kisii-Rongo-Migori highway, Rongo-Homabay road and Rongo-Riosir road; internally, the town has a fairly well-maintained road network within the core urban but poor roads in the peripheral areas.

Figure 1: Locational Context Map



Source: Author

### 3.2 Historical Origin of the Town

The county has six sub-counties with the county headquarters situated in Migori town. Migori County with its present boundaries once existed as “Migori district” after the splitting of the former “South Nyanza district”. The then Migori district was further split into two i.e. Migori district and Rongo district. Migori district had its headquarters remain in Migori town whereas Rongo district had its headquarters in Rongo town.

The historical origin of Rongo town dates back to the colonial period. The place (currently Rongo town) originated as a meeting point between Africans and the colonial government officials. At the time, the colonial government had their regional base in Kisii town; they governed the entire South Nyanza region from here. Due to the vastness of the region, the colonial government officials would make frequent trips to the interior to meet the people. Rongo was one of the points where they would meet Africans. Its location was considered suitable since people from Homabay, Migori, Rongo and other ‘interior’ places would easily converge here.

The name ‘Rongo’ originated from the word “uongo”. “Uongo” is Swahili word that meaning ‘not true’. Due to language barrier, there were interpreters who helped in translating English to Dholuo and vice versa during the meetings. The interpreters were locally known as ‘ataptas’. At times, the interpreters (ataptas) would convey incorrect translations prompting the people to shout the word ‘rongo’ instead of ‘uongo’ in disapproval. The people believed that the colonial government officials understood little Swahili and therefore could note their disapproval of such translations. The repeated use of the word ‘rongo’ gave the place its current name ‘Rongo’.

The meetings were held under some three huge trees known with a local name of “Yadh bunde”. The trees stood at the present Rongo Law Court’s location. The frequent meetings between Africans and the colonial government officials culminated into formation of a cultural court whose proceedings were held in same place. The court has since evolved into the present law courts. The town therefore originated from this location.

The formation of a cultural court in Rongo was concurrent with the setting up of two market days, Wednesday and Friday. The market days were formed as a result of a break-away from the Nyamarambe barter trade market which was shared by Luos and the Abagusii. The Nyamarambe market was also held on Wednesdays and Fridays. The newly formed Rongo market was held at the

location currently occupied by St. Francis of Assisi primary school. The area is also known as the Free Market area.

The successful creation of the two market days in Rongo led to the establishment of the first commercial structures (shops) which were operated by Nubians. The structures were impermanent and were built around the market. As the market grew and so the town, more structures sprung up from the market place along the now Hospital-Posta road. The Hospital Posta road is therefore the first 'commercial spine' of the town

### **3.3 Physiographic and Natural Conditions**

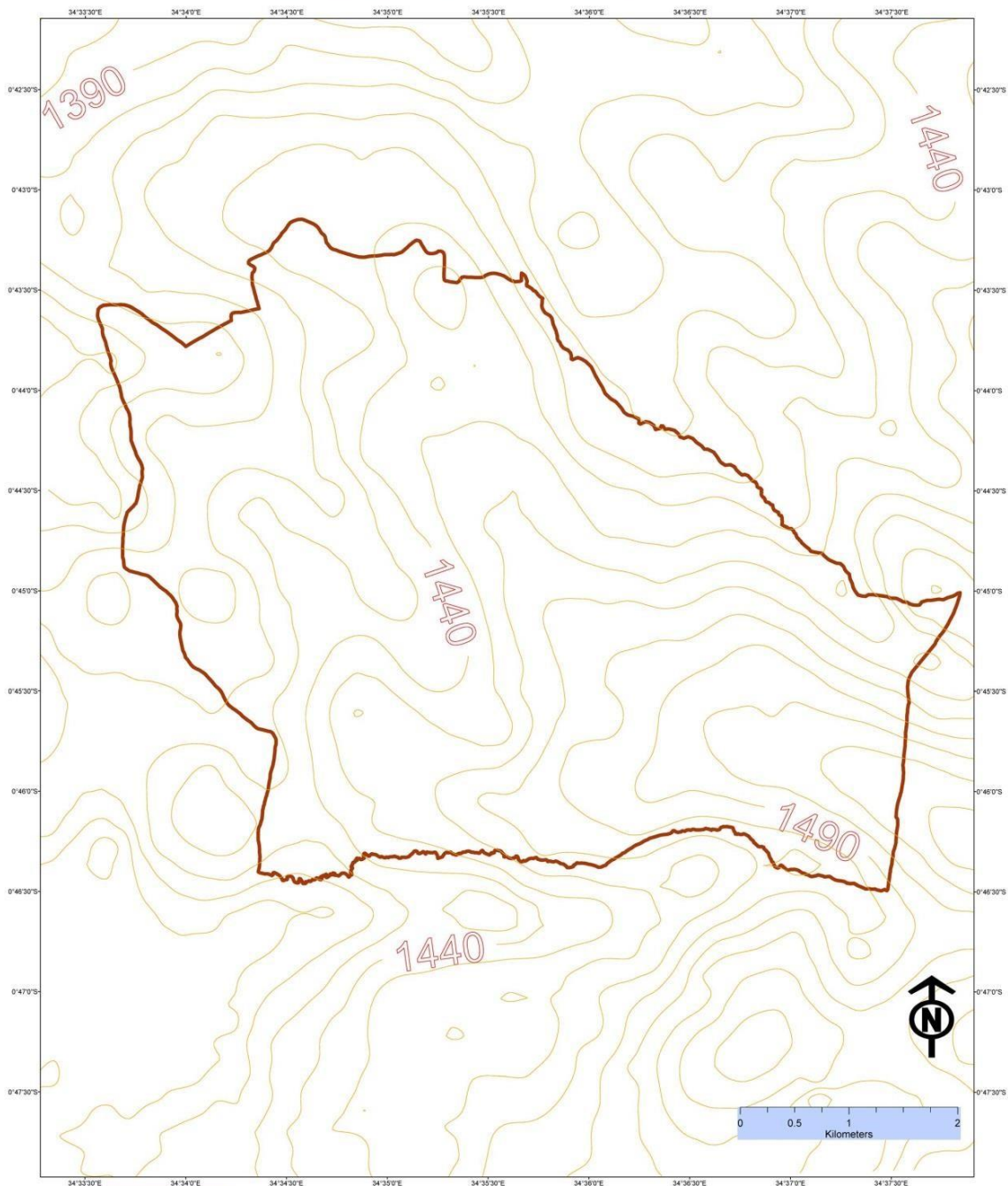
#### **3.3.1 Topography**

Migori County has an altitude varying between 1140m at the shores of Lake Victoria in Nyatike Sub-county (lowest point) to 4625m in Uriri Sub-county (highest point). Undulating hills covers most of the county with a few stretches of flat land. Rongo town sits of a 'rolling' terrain with a few stretches of flat land with the CBD sits at an altitude of 1483M above sea level. The planning area generally slopes from Riosiri area towards Nyamuga and Apondo areas. The CBD is situated on a 'plateau' like surface that rolls down into the two rivers on either sides of the town; the two rivers are River Misadhi and Nyamador.

There are a number of rivers and streams in the planning area, the main rivers include; River Misadhi, Nyamador and Odundu.

***Figure 2: Planning area Contour Map***

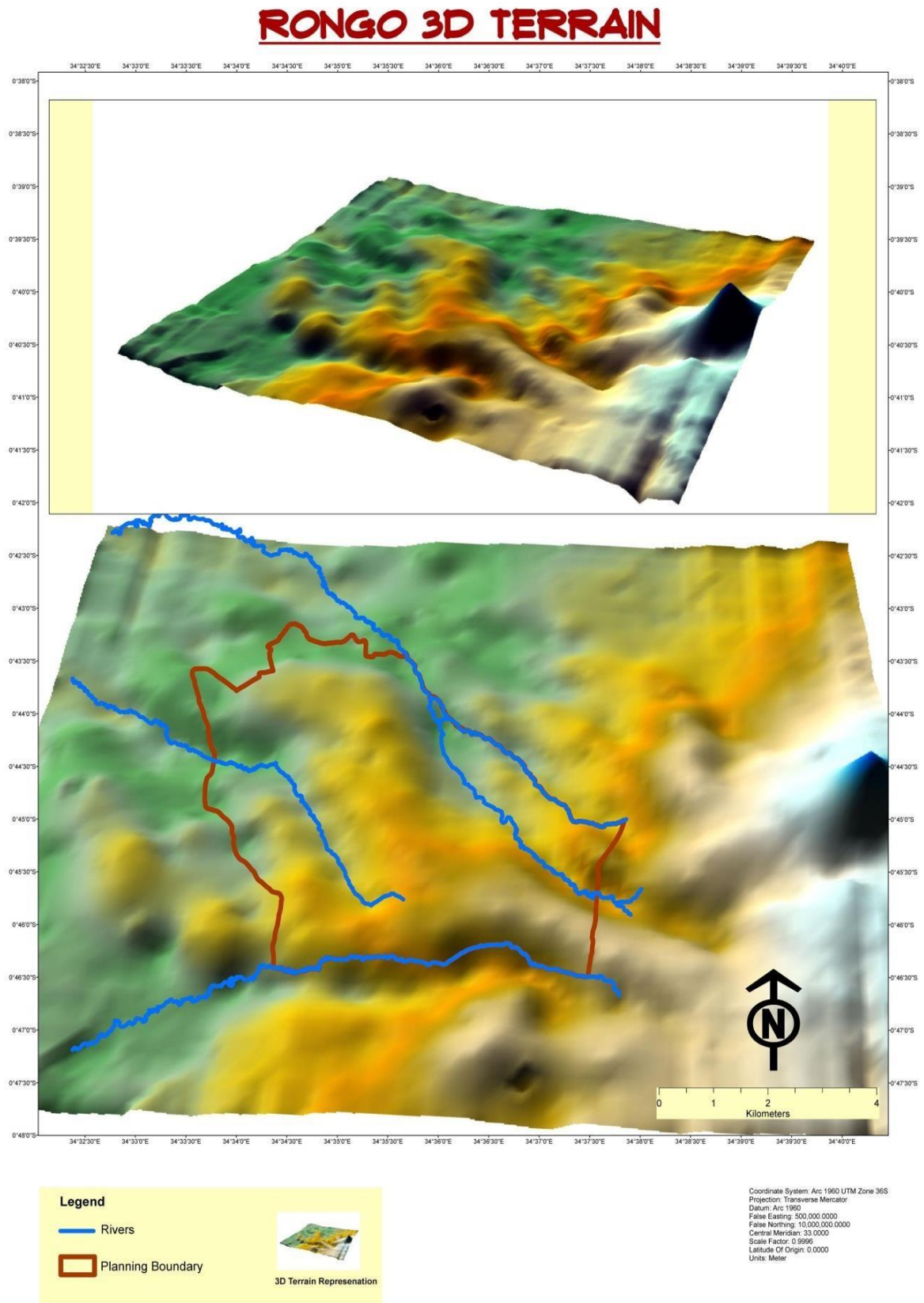
# RONGO CONTOURS



Coordinate System: Arc 1960 UTM Zone 36S  
Projection: Transverse Mercator  
Datum: Arc 1960  
False Easting: 500,000.0000  
False Northing: 10,000,000.0000  
Central Meridian: 33.0000  
Scale Factor: 0.9996  
Latitude Of Origin: 0.0000  
Units: Meter

Source: Author

Figure 3: 3D Terrain Map



Source: Author

### 3.3.2 Geology and Soils

The rocks in the area are Archaean in age; according to previous studies by geologists, they are estimated to be about 2.8 billion years old. They are referred to as the Migori granite-greenstone complex. The Archaean rocks of the Rongo area are known to contain gold which is being mined at small scale in some areas. There are few rock-outcrops around Nyamuga area. The planning area has predominantly red volcanic soil with traces of black cotton soil along the rivers.

Figure 4: Regional Soil Map

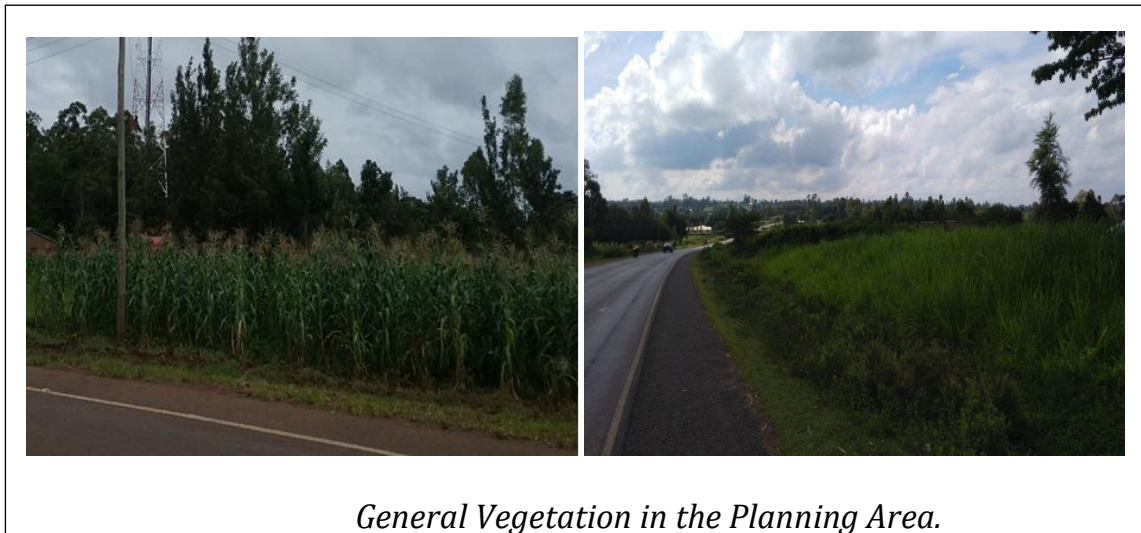


Source: Author

### 3.3.3 Vegetation.

The climate in Rongo is tropical with significant rainfall most months and a short dry season. The climate favors numerous types of vegetation. Most of the land is cultivated with the most common crops being maize, sugarcane, vegetables etc. A lot of tree planting has also been done along rivers. The area is generally ever green as shown below.

*Figure 5: Vegetation in the area*

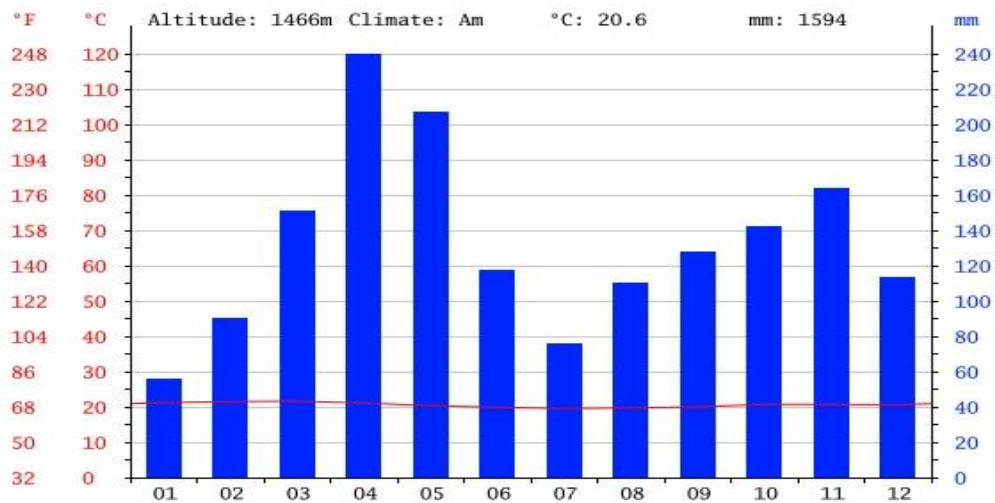


### 3.3.4 Climatic Conditions

The climate in Rongo is tropical with significant rainfall most months and a short dry season. Due to its location, the town's climate is affected by both Lake Victoria and Kisii highlands. Rainfall in the planning area is generally continuous with little distinction between first and second rains also known as the "short" and "long rains". The annual average temperatures are 20.6°C.

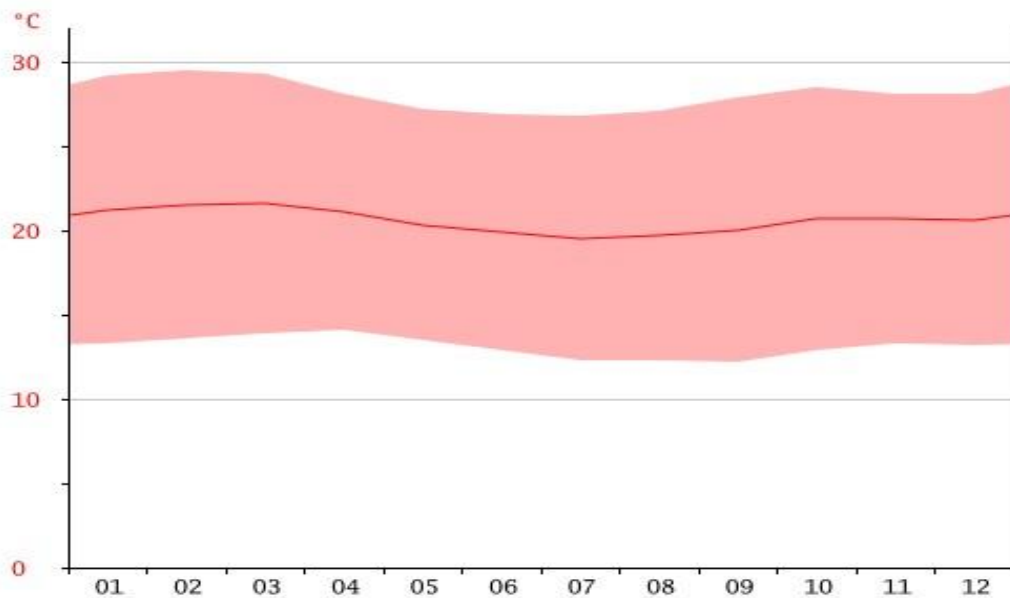
The driest month is January with approximately 56mm of precipitation. In April, the precipitation reaches its peak, with an average of 240mm. The "long rains" last from March/April to May/June whereas the "short rains" are from October to November/December. The average annual rainfall in Rongo town and its environs ranges between 900 mm and 1,800 mm per annum. The graphs below show the average annual rainfall and temperatures of the planning area.

Figure 6: Average annual rainfall of the planning area



Source: Kenya Meteorological department 2015

Figure 7: Average annual temperature of the planning area.



Source: Kenya Meteorological department 2015

### 3.3.5 Ecological Conditions

Agro-ecological zoning is the division of an area of land into smaller units, which have similar characteristics related to land suitability, potential production and environmental impact. The county has six agro-ecological zones ranging from

Upper Midland (UM) 1-4 covering Rongo, Kehancha and Ntimaru in Rongo, Kuria East and West sub-counties respectively to Lower Midlands (LM) 1-5 covering parts of Rongo, Migori and Nyatike sub-counties. The table 2 below illustrates the agro-ecological zones and the crops that are grown including the potential ones.

**Table 1:** Agro-ecological zones

Zone	Region	Crops grown
UM1	Eastern Rongo	Tea, coffee, sugar cane, maize, beans, tobacco
UM2-3	Uriri, Kehancha, Ntimaru and some parts of Kegonga	Maize, beans, tobacco, coffee, sweet potatoes, cassava and vegetables
LM1-2	Rongo, Uriri, Maberu, Kegonga	Maize, beans, tobacco, finger millet, coffee, sweet potatoes and rain fed rice
LM3	Suba East	Maize, beans, finger millet, sorghum, cotton
LM4	Nyatike, Karungu	Sunflower, sorghum, cassava
LM5	Western Nyatike, Muhuru	Cassava, sorghum, sesame

More than 80% of the total land in the county is arable farmed by smallholders. It's approximated that 85% of the arable land is put into use while 15% is left fallow

### 3.4 Administrative Units

Rongo the town falls within Rongo sub-county, formerly Rongo district. Rongo sub-county is one of the eight sub-counties of Migori County. The town is currently the headquarters of Rongo Sub County. The sub-county comprises of two divisions, seven locations, twenty-two sub locations and four county assembly wards; the town falls within Central Kamagambo ward

### 3.5 Demographic Features

#### 3.5.1 Population Composition and Size

According to the 2009 population and housing census, Migori County had a population of approximately 917,170 people. The planning area had a population of 81,968 according to the 2009 population census. The core urban area (Central

Kamagambo ward) had an estimated population of 27,756 people. Out of these, 12,355 people resided in the core-town (CBD) whereas the remaining live in the peri-urban areas. The population of the town and all other urban areas in County at large is expected to grow at a rate of 3.8 per cent per annum. This population is almost balanced in terms of gender composition.

### 3.5.2 Population Projections

From the projections in the table 3, it can be observed that in 20 years' time (2015-2035), the population of the town and the planning area shall increase by more than 100%. This therefore means that proper planning should be done to ensure adequate service delivery to the people all through.

In Rongo town, rapid population increase has been witnessed in the last 6 years. This can be attributed to the increase in number of tertiary education facilities in the town such as Rongo University College, St. Magdaline Teachers Training College, Kenya Institute of Financial and Applied Management among others. The town's strategic location to neighboring towns such as; Awendo, Migori, Kisii, Homabay, Rongo e.tc, has also contributed to the rise of its population as it serves as a "dormitory town" to these towns.

**Table 3:** Population projection of Rongo town

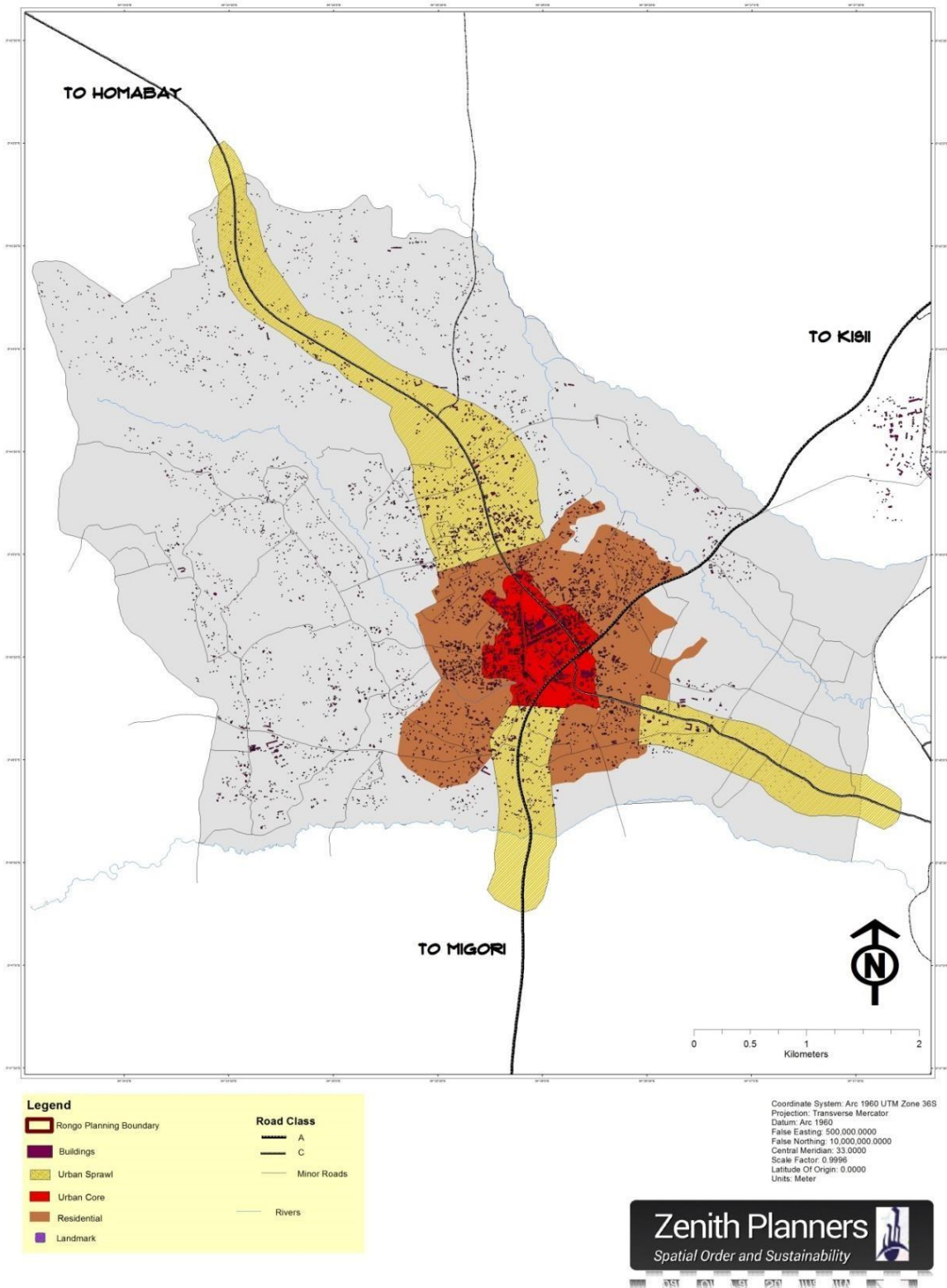
<b>2009</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
<b>81968</b>	99727	121333	147620	179602	218513

*Source: The Kenya population and housing census 2009.*

### 3.5.3 Population Density and Distribution

Rongo town has an average population density of 1,198 persons per km<sup>2</sup> with a majority of the people settled in the core-urban and along the main transport corridors. The peri-urban areas are sparsely populated with most of the land being cultivated. It was however observed that the town is growing into the rural hinterland. The good climatic conditions coupled with its strategic location account for the high population density in the town. The map below shows spatial distribution of population within the planning area.

**Figure 8:** Growth Trend & population distribution Map



Source: Author, 2015.

### 3.6 Economic Profile

The economic base of a town affects its prosperity and is critical in the overall sustainability of the development of a town. This section focuses on major economic activities and occupational patterns of the town.

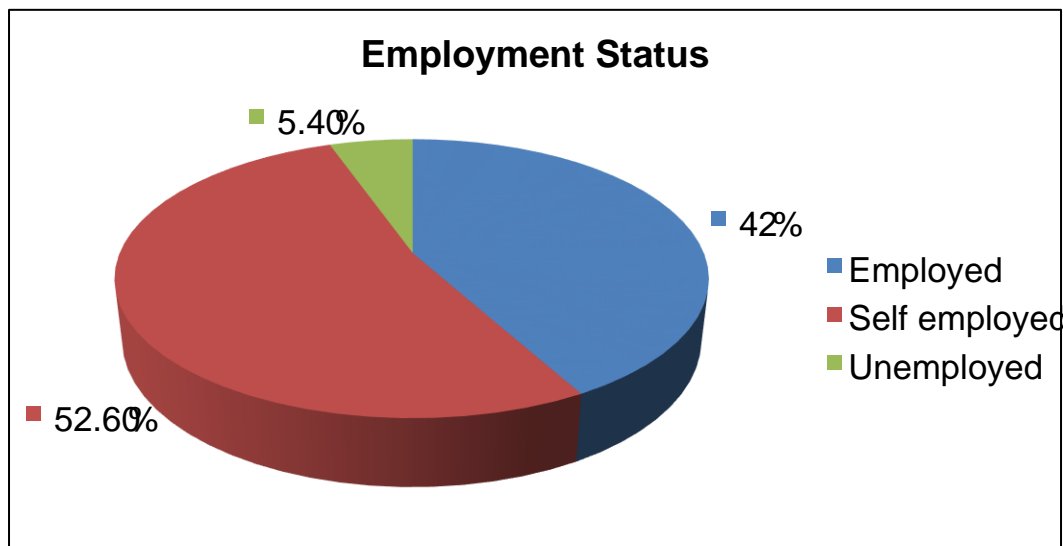
The plan will take note of the economic goals of Kenya Vision 2030. The Vision 2030 is anchored on three key pillars: economic; social and political governance. The **economic pillar** aims to achieve an average economic growth rate of 10 per cent per annum and sustaining the same till 2030 in order to generate more resources to meet the Strategic Development Goals and vision goals.

#### 3.6.1 The formal Sector

##### a) Employed Population

Deliberate efforts by the Government to accelerate economic growth coupled with devolution have led to increased job creation. The chart below shows employment status in Rongo town.

**Figure 9:** Employment status in Rongo town



*Source: Field survey, 2015.*

In Rongo town employment status is fairly good with more than half (52.6%) of all income earners being self-employed. Some of the strategies triggering growth in the job market include, the youth and women targeted programmes and the reservation of 30 per cent of all government procurement opportunities to the youth, women and persons with disability. Programmes such as the Uwezo Fund which provide youth and women with access to grants and interest-free loans to enhance set up of businesses impacted positively to the labour market.

Devolution of some services and functions to counties has increased economic activities impacting positively on employment creation.

### **b) Financial Institutions**

There is an improved presence of financial institutions within the town. There are two main banks in the town (bank branches) i.e. Kenya Commercial Bank and Cooperative Bank of Kenya. Other Microfinance Institutions are Kenya Women Finance Trust among other smaller financial agencies. The concept of Financial Services Associations is being encouraged and has already picked up in the town.

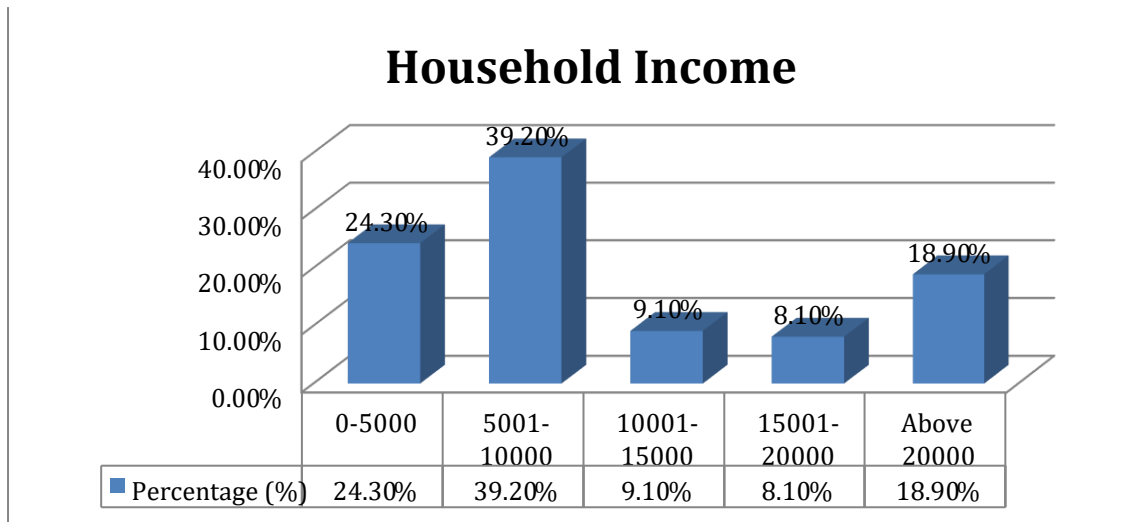
**Figure 10:** *Financial institutions in the planning area*



### **c) Household income**

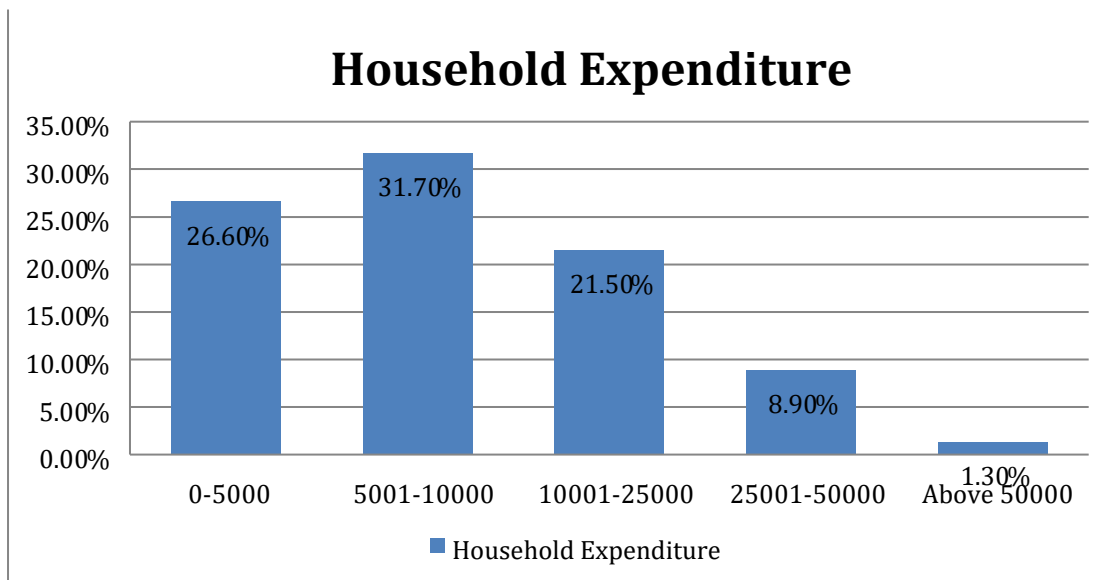
Majority of households at 39.2% earn a combined income of between Ksh. 5001 to 10,000 per month followed those earning less than ksh. 5,000 as shown in figure 11. Most household's expenditure also falls within the same ranges as shown in figure 11.

**Figure 11:** Income distribution in Rongo town



Source: Field survey, 2015.

**Figure 12:** Household expenditure



Source: Field survey, 2015

#### **d) Poverty Level**

In 2005, close to 17 million Kenyans (47 percent of the population) were estimated to be living in poverty. There has not been another nationally representative household budget survey since 2005 that enables poverty measurement (World Bank).

According to Migori County CIDP report 2013, 45.6% of the population is estimated to be living below the poverty line. This is also mirrored in the

household survey that indicate that a greater number of households earn and spend below ksh.10, 000.

Majority of the poor people/households however live in rural/peri-urban areas. In a county where majority of the people depend of agriculture as their main source of income, poor farming methods and unfavorable climate has often resulted into low yield and therefore low income.

### **e) Industries**

The main industrial activities in Rongo town and its environs are mainly agriculture based. The industries in the town are of small scale and are operated very informally. The only medium size industry in the town is the British American Tobacco whose operation has however been on the decline.

Some of the agricultural produce that are being processed into various end products include; groundnuts into peanut butter and sugarcane into jaggery. Apart from agricultural industry, gold mining is also a common activity in the planning area and its environs. The mining industry has been in existence for many years but has however remained informal and in small scale.

### **f) Commercial Activities**

There are numerous commercial activities in the CBD which include wholesale, retail trade, restaurant, banking, legal, education, hotels and sale of farm produce. Employment in this sector has been increasing over the years; this is attributed to the increasing population of the town which has created demand for such commodities.

The town has a number of informal commercial activities such as hawking of cheap, light commodities, sale of second hand clothes, food and vegetable kiosks on the street and in residential areas. The informal commercial activities provide earning to those who are not in formal employment. The CBD of town is full of trading activities and houses lot of commercial establishments.

***Figure 13: Commercial Activities in the town***



***Commercial Activities in the Town***

The biggest category of registered businesses in terms of numbers is shops followed by informal traders, restaurants/hotels, bars & lodges/guest houses, education and professional firms. In terms of potential revenue generation for the county the biggest category is shops, followed by hotels, bars & Lodges, guest houses. Data indicate that most of the economic activities in the town are related to trading and servicing, manufacturing activities are almost negligible.

### **g) Agriculture**

Kenya's economy is heavily dependent on agriculture, which contributes to rural employment, food production, foreign exchange earnings and rural incomes. The agricultural sector directly accounts for about 27 per cent of Kenya's Gross Domestic Product (GDP) and 30 per cent indirectly through linkages with manufacturing, distribution and other service-related sectors.

Rongo town is situated in a rich agricultural zone with most of activities within the planning area related directly or indirectly with agriculture sector. Agriculture contributes significantly to household income in the planning area and provides major employment to the rural population. Most of the activities are undertaken by small holder farmers with farm holdings ranging from 24 ha. The main food crops grown include maize, beans, sweet potatoes, cassava, and horticultural crops mainly kales, onions and tomatoes while the cash crops grown are sugarcane and tobacco.

**Figure 14:** Farming in the planning area



### 3.6.1 Informal Sector

The general view of the informal sector is that it comprises activities primarily of traders involved in such activities as selling of second-hand clothes, shoe shining, food selling and repair and construction; operating mainly from the streets of the main urban centres.

It can also be described as any unregulated activity generating income and profits, though on a small scale, typically using simple skills. Such activities include vegetable selling, street vendors, masonry, carpentry, etc.

In Kenya, the informal sector is referred to as 'jua kali' which means hot sun. The work involved is usually done under harsh conditions unsuitable for labour. The Kenyan informal sector usually operates on small-scale, locally and at or near subsistence level. In Rongo town the following activities constitute the informal sector activities:

- Selling fruits and vegetables in the markets and along roads
- Steel fabrication, Car repair, small scale manufacturing, production, construction and repair of goods
- Food items
- Selling clothes and shoes (new and second hand)
- Kiosks selling various items along roads
- Water kiosks
- Retailers or hawkers of cereals, home suppliers, fuels and other goods.

**Figure 15: Informal economic activities in the planning area**



### ***Informal Economic Activities in the***

#### **3.6.2 Mining**

There are numerous small-scale mining activities taking place in the planning area and its environs. They include gold mining, sand harvesting and quarry. However, these activities are not planned, monitored and or controlled because most of them are illegal.

#### ***Emerging issues on Economic profile***

The following issues/ observations emerged out during the preliminary analysis of the economy of the town:

- *The employment rate is relatively low in Rongo town.*
- *The CBD of Rongo is a commercial centre for the people of the town and surrounding hinterland*
- *The town functions mainly as an administrative, commercial, education and health centre to the local people and people from surrounding hinterland*
- *There has been an industrial decline due to lack of basic infrastructure in spite of potential for agro-processing industries*
- *Tourism is not a major contributor to the economy.*

### **3.7 Tourism and Heritage**

#### **3.7.1 Tourism**

Currently Rongo town is not a tourist destination for either local or international tourists. However, due to its strategic location, the town acts as a stop-over town for tourists on transit to various destinations such as Tanzania, Maasai Mara

National Reserve, Rusinga Island, Thim Lich Ohinga, Ruma National Park among others. It was also noted that the town lacks modern hotels to cater for the needs of tourists; however, there are a few reasonably good hotels in the town like Graca Hotel, Lasjona Complex Hotel, Treat Hotel, Merryland Motel among others.

### **3.7.2 Heritage**

#### **Cultural Heritage**

Cultural heritage includes tangible culture (such as buildings, monuments, landscapes, books, works of art, and artefacts), intangible culture (such as folklore, traditions, language, and knowledge), and natural heritage (including culturally significant landscapes, and biodiversity). Rongo Town is dominated by Luo Community/Culture, although due to its proximity to Kisii and Kuria communities, the town is well placed to harness the diversity in the cultural heritage vested in the three communities.

#### ***Immerging Issues***

- Lack of a structured tourism and heritage sector to attract the tourist as a stop over town to major tour designation to the south Nyanza region.
- Lack of a cultural and heritage centre to harness rich culture from the three dominant communities within near the Rongo town.
- Low investment in the hospitality industry within the town.
- Poor visibility of carving Arts (soapstone curving is done a few kilometres from Rongo town).
- Lack of recreation of a park to develop the culture of local tourism.

### 3.7.3 SWOT Assessment: Town profile

**Table 4: Town profile Swot Analysis**

Strengths	Weaknesses
<ul style="list-style-type: none"><li>• Good regional connectivity</li><li>• Rongo is a sub-county administrative centre and a major town in the entire county.</li><li>• Skilled workforce in Jua Kali industry</li><li>• Good literacy level</li></ul>	<ul style="list-style-type: none"><li>• Lack of basic infrastructure for industrial development</li><li>• Lack of demarcated industrial area</li><li>• Unorganized commercial areas</li><li>• Lack of advanced training facilities for Jua Kali artisans</li></ul>
Opportunities	Threats
<ul style="list-style-type: none"><li>• Rongo's strategic location to other towns</li><li>• Potential for agro-based industries due to the good agriculture and horticulture base</li><li>• Traditional skills of Jua Kali artisans</li><li>• A population to provide labour</li></ul>	<ul style="list-style-type: none"><li>• Competing towns will attract business and industries due to lack of basic infrastructure</li></ul>

## **CHAPTER 4: SITUATION ANALYSIS AND SYNTHESIS**

### **4.1 Introduction**

This chapter provides findings of the field surveys carried out for purposes of collection of data for this assignment. It details the existing situation and synthesis the information in terms of implications. This will inform decision making and also the kind of proposals that need to be put in place to address the development issues identified.

### **4.2 Growth Trends and Patterns**

Rongo town has developed over the years from a small agricultural centre to a major economic town within Migori County. This has been characterized by the increase in investments and in population as shown in the population statistics above. The following images illustrate the change in growth of the town's built up area since the year 2009.

Rongo is a junction town thus its radial growth over a period of time. The four radiating roads to Migori, Kisii, Homabay and Riosiri have formed the axes of the growth pattern.

There is also linear development along main roads but little along Kisii-Migori road as growth has been hampered by the steep slope along this road. Ribbon development is observed along the Rongo-Riosiri road and towards Nyarach area along Rongo-Homabay road which is comparatively flat and open. The map below illustrate growth pattern of the town.

*Figure 16: Aerial Image of Rongo Town -2009*

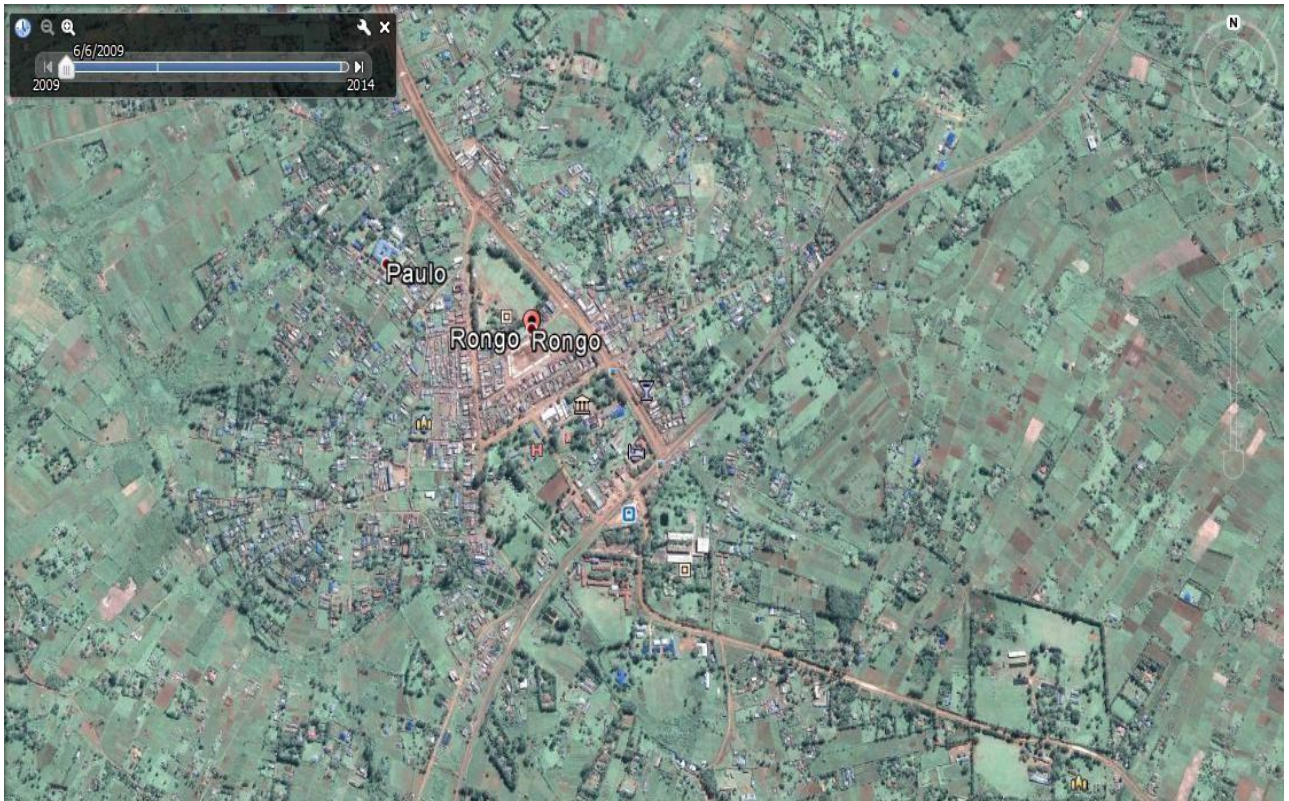
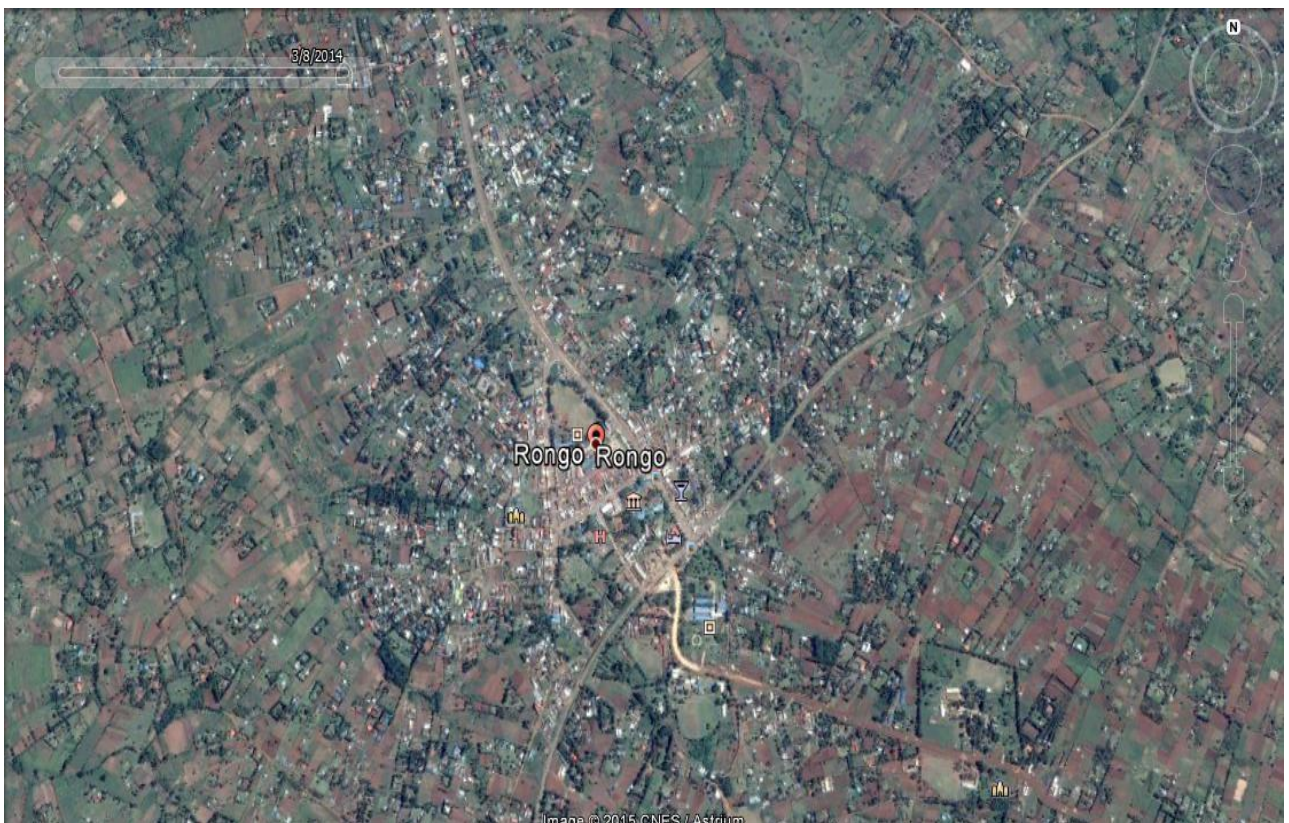
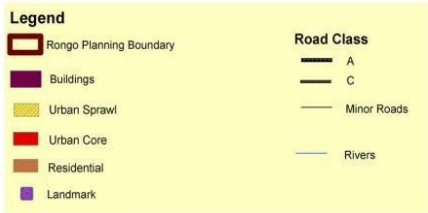
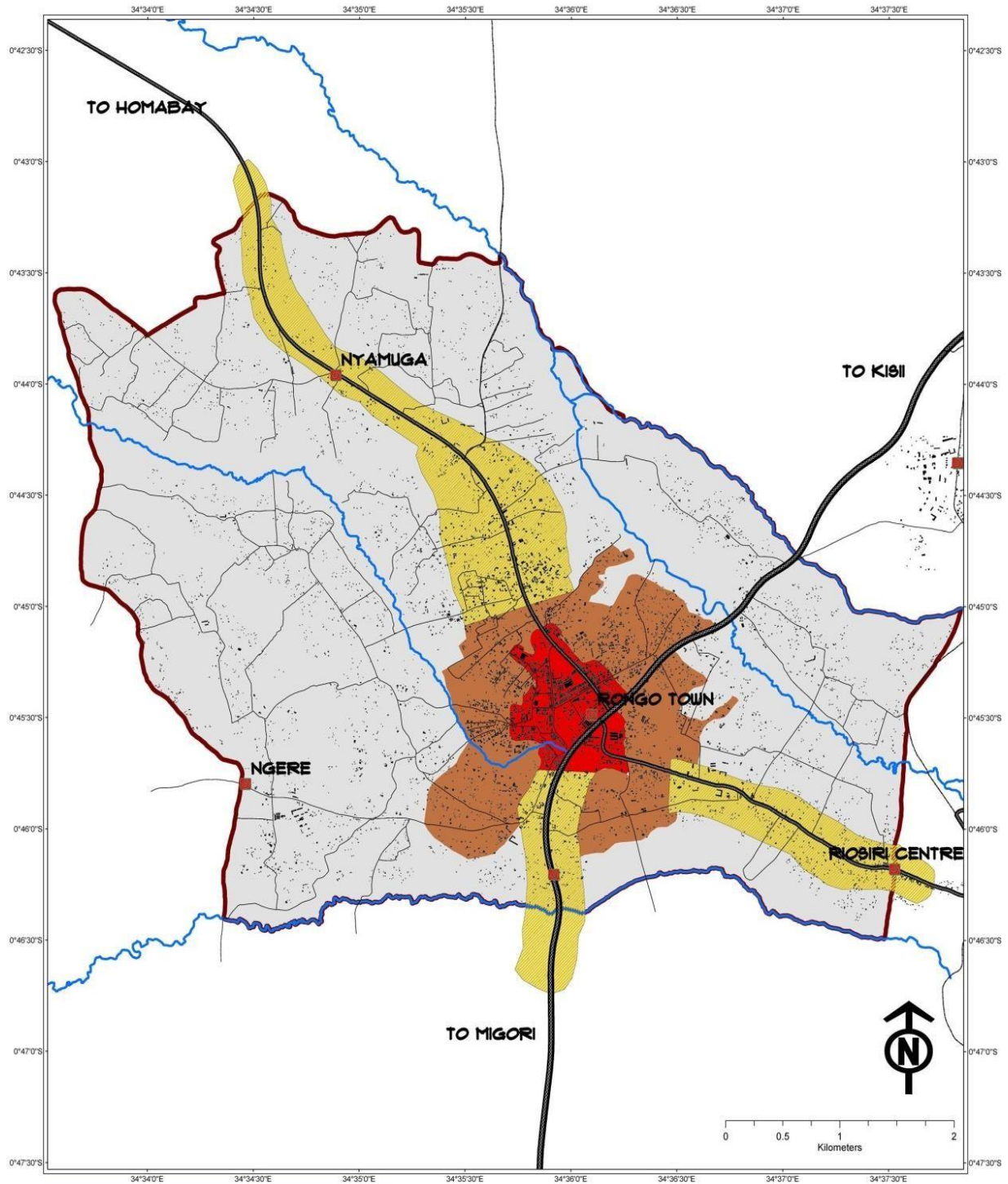


Figure 17: Aerial Image of Rongo Town-2014



Source: Google Map 2015

Figure 18: Growth Pattern Map



Coordinate System: Arc 1960 UTM Zone 36S  
 Projection: Transverse Mercator  
 Datum: Arc 1960  
 False Easting: 500,000.0000  
 False Northing: 10,000,000.0000  
 Central Meridian: 33,0000  
 Scale Factor: 0.9996  
 Latitude Of Origin: 0.0000  
 Units: Meter

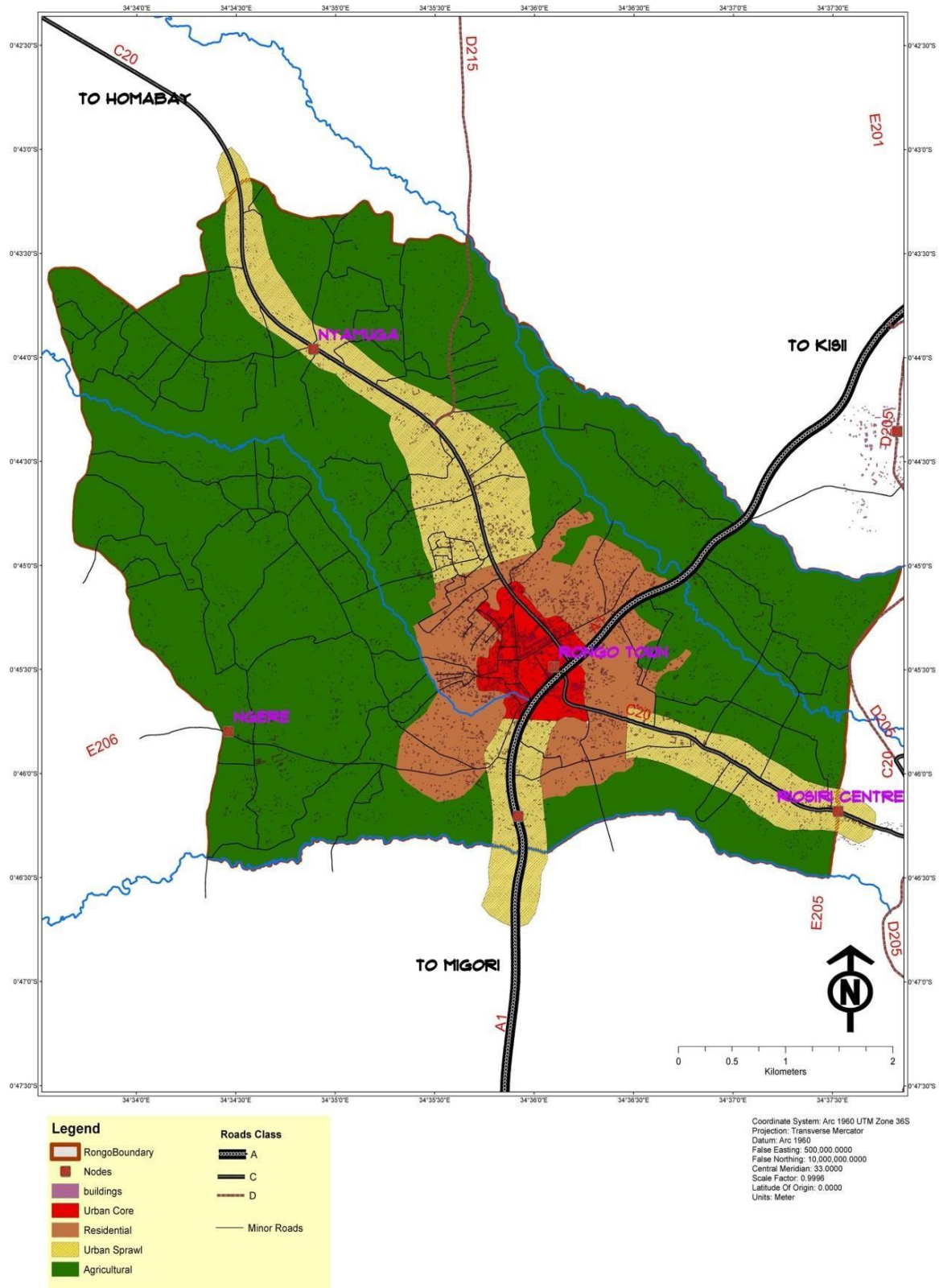
Source: Author

#### **4.2.1 Existing Land Use**

Existing land use has been mapped based on field surveys, topographical maps and satellite imagery, which has been put into a GIS mapping format. It may be noted that this process can only yield provisional data and there could be some errors in this land use map. The table and map below shows the existing land use of core town area.

**Figure 19: Existing Land Use Map**

## EXISTING LAND USE



Source: Author

**Emerging Issues**

- The growth of the town has been haphazard and unplanned
- There is lack of hierarchy of commercial spaces. Most of the commercial activities including wholesale and retail are concentrated in the CBD area. Beyond the CBD, commercial activities appeared to have developed without any planning
- There are residential development in riparian reserves where development should be strictly controlled
- Development control appears to have been weak
- Infrastructure and community facilities are not provided in a planned manner.
- Housing estates can be better planned to meet the growing need of the increasing population. As it is, there is no order and support services are inadequate or in deplorable state.
- Public land is very limited; it may be necessary to establish a land bank from private landowners.

**4.2.2 SWOT Assessment: Land Use and Spatial growth**

**Table 5: Land Use Swot Analysis**

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>• <b>Good regional connections</b></li> <li>• <b>Rongo town is a strategically located.</b></li> <li>• <b>Lot of land available for future development</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Haphazard and unplanned growth of the town</b></li> <li>• <b>A lack of hierarchy of commercial spaces</b></li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>• <b>The town’s proximity to neighboring towns can be utilized to develop it as a ‘dormitory town to these towns.</b></li> <li>• <b>Good climate and environment</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Weak development control leads to unplanned development</b></li> <li>• <b>Inadequate of infrastructure development causing poor living conditions</b></li> </ul>

## **4.3 PHYSICAL INFRASTRUCTURE**

### **4.3.1 Transportation System**

Rongo town is located at a major road junction of Migori-Kisii Road (A1) and Homa Bay -Rongo Road (C20). Therefore, transportation is a vibrant activity in the town. The dominant mode of transport in the planning area is road transport. Water, air and rail transport are not available in the town.

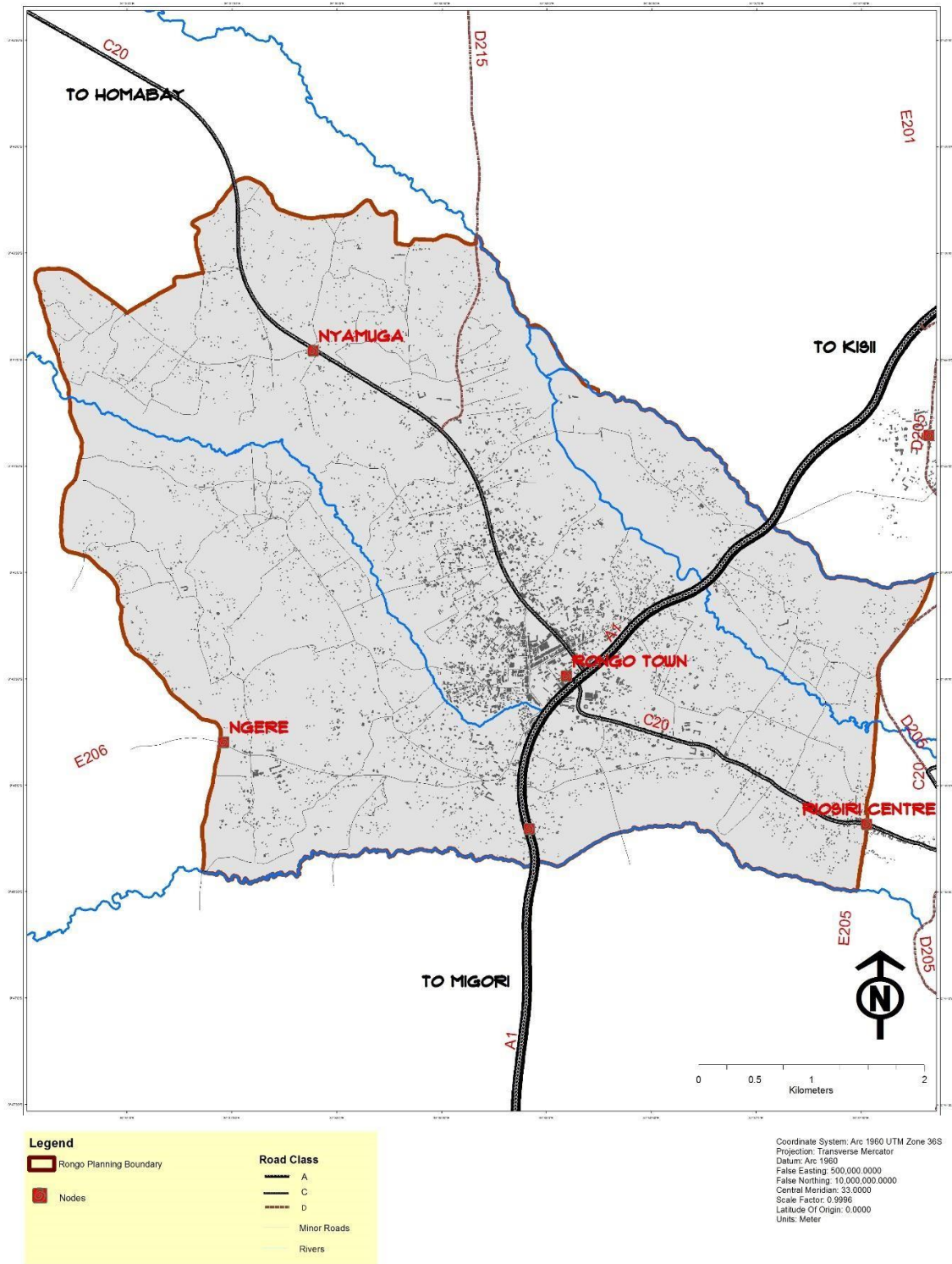
#### **i. Road Transportation**

##### **a) Road Network**

Migori County borders Tanzania and is traversed by 104.6 km of tarmacked road including class A1 road that links Kenya with Tanzania through Rongo town. The town is externally served by three main roads i.e. the Kisii-Rongo-Migori Road, Rongo-Homabay Road and Rongo-Rongo. Internally, the town has a fairly extensive road network comprising of bitumen, gravel, murrum and earth roads. The bitumen surfaced roads are mainly in the CBD area and the main roads into and out of the town, whereas the murrum, gravel and earth roads form the bulk of roads in the residential and peri-urban areas. The planning area has approximately 26 Km of classified roads.

Figure 20: Existing Transport Network in the Project Area

## TRANSPORTATION NETWORK



### b) **Condition of Roads in the Town:**

The roads within the CBD are in a fairly good condition; however most of them are congested due to encroachment by hawkers and other informal traders who place their stalls and items for display along the roads. Most earth roads are impassable during the rainy seasons and also too dusty during the dry seasons. Most roads especially the minor ones lack storm water drains, street lights and markings.

**Figure 21:** *Roads infrastructure*



***A Tarmacked Road***

***A Flooded Earth Road***

### c) **Parking and Terminal Facilities**

#### **Parking Facilities:**

The town has no designated parking areas; most parking is done along the streets. For example most taxis and matatus park along the Rongo-Migori and Rongo-Homabay Roads. Such road side parking often created conflict and even accidents during exit and entry into the road. Boda bodas also lack designated parking areas and the requisite facilities. They usually park along the main roads, close to the major commercial facilities and at the road junctions.

Lorries and tractors also park in the CBD along at the Rongo-Migori and Rongo-Homabay roads. Lorries and trucks on transit are also fond of parking along the Kisii-Migori road especially at the weigh bridge area.

## **Terminal Facilities:**

Rongo town has one designated bus park located along Kisii-Migori Road at the junction to Riosiri. The bus park is shared by buses, matatus and taxis and mainly serves the town for inter-town connectivity routes. Other activities like retail businesses, hotels among others business outlets also exist within the bus park to serve the high number of passengers and PSV operators. The terminus is in dilapidated condition, with poor surface, shades, drainage facilities and lighting. Other undesignated terminals exist within the CBD and along the main transport routes and are mainly used by boda boda and taxis. The photo below shows a section of the bus park.

***Figure 22: Rongo Bus Park***



***Existing Bus Park***

## **ii. Modes of Transport and Modal Split**

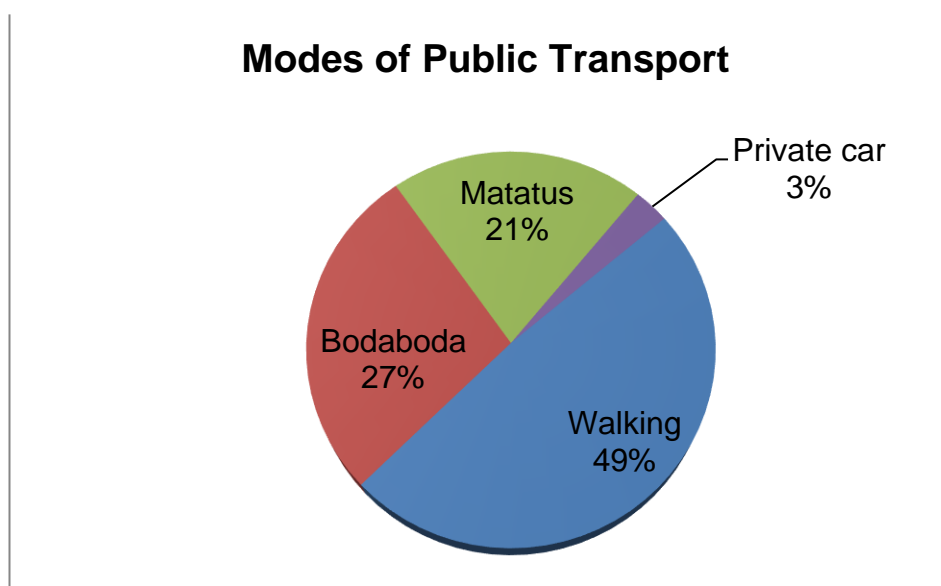
### **a) Modes of Transport:**

There are two main modes of public transport for goods and passengers namely; the motorized and the non-motorized. Motorized transport includes buses, matatus, taxis, motorbikes 'boda-boda' and Lorries whereas non-motorized transport includes bicycles, pedestrians walking, trolleys and handcarts. In Rongo town, people use both motorized and non-motorized transport to access service areas, markets, public amenities, institutions and the residential areas. [Chart 4.1](#) illustrates that walking is the common mode of

transport used (49%) and very few residents own private cars. Boda boda (27%) dominates motorized public transport followed by matatus/buses (21%) and private cars (3%). The boda boda are popular because they are more flexible, faster and cheaper. They however operate without defined routes causing high traffic congestion especially in the CBD.

Matatus and buses are mostly used for long distance transport between Rongo and the neighbouring towns such as Kisii, Migori, Homabay, Awendo, Rodi among others. Currently, matatus are facing stiff competition from bodaboda and taxis in movement of light goods and people within and out of Rongo town. Taxis carry fewer passengers and are more flexible and faster too than matatus and buses. Lack of proper parking spaces for these taxis has led to them operating and parking in disorderly manner.

Figure 23: Modes of Transport



Source: Field survey, 2015.

#### b) Modal Split:

Modal split is fairly good in Rongo town; accessing one mode from another is easy. There are matatus plying all major routes, boda-bodas, and taxis are also available and affordable.

The choices of mode in Rongo town are not restricted and are determined by: Socio-economic factors like income, car ownership, age and so on. Others include;

costs, destinations, capacities and frequencies of the modes together with the nature of the goods carried and their destinations.

### **iii. Non-Motorized Transport**

NMT includes any form of transportation that provides personal goods mobility by methods other than the motorized forms of transport. NMT modes of transport in the planning area include; walking, bicycles, handcarts/ trolleys, and portage.

#### **a) Walking**

Walking is the most common form of non-motorized transport in Rongo town. Roads within the CBD have adequate pedestrian walkways whereas those outside the CBD area lack pedestrian walkways. Roads catering for NMT include:

- *Rongo-Homabay road (entire stretch)*
- *From weighbridge to main bus park (0.3km)*
- *Old Homabay road (entire stretch)*
- *Posta to Health centre road (entire stretch)*
- *All roads surrounding the Rongo Modern Market (entire stretch though heavily encroached)*

Boda boda operators often use the pedestrian walkways causing congestion and accidents. Road encroachment has also limited walking in some areas of the town.

**Figure 24: Pedestrian Walkways**



**Existing Condition of Pedestrian Walkways**

## **b) Handcarts and Trolleys**

Handcarts and trolleys are mainly found around the market and outside business outlets. They are used to transport agricultural products and other commodities into and out of the market.

They are also used to for water vending.

## **c) Cycling**

Cycling is a convenient mode of transport as it gets passengers or goods right to the doorstep; it is also cheap. Cycling is however not very popular Rongo compared to the other form of nonmotorized transport. Its use has been undermined by bodaboda. Plate 1 shows various NMT in the planning area.

*Figure 25: NMT Modes*



*A resident cycling from Town*

*Handcarts Parked outside*

## **d) Portage**

Portage is an income generating activity involving movement of goods by people. These people (porters) carry these goods either on the back or on the head at a fee. They are often located at the markets, bus terminus, supermarkets, wholesale shops and other busy commercial sites. This form of transportation is however not very popular in Rongo town.

## **iv. Water Transport**

There is no any form of water transport in the planning area

## **v. Air Transport**

Migori County has three airstrips, namely: Migori at **Lichota, Macalder and Kehancha**. None of the airstrips has bitumen surface implying that they can only

accommodate relatively light aircrafts. These airstrips are expected to continue facilitating air transport in the county especially in the tourism sector. The planning area does not have any air transport facility; however the area can be served by Suneka Airstrip in Kisii County which is 15km away and Migori Airstrip which is also 25km away.

### ***Emerging Issues on Transport***

- Inadequate parking spaces for both public and private vehicles
- Poor road conditions in the peri-urban areas
- Unregulated boda boda operations
- Inadequate NMT facilities
- Poor traffic management

### **4.3.2 Water Supply**

The Vision 2030 in the water and sanitation sector is to ensure water and improved sanitation availability and access to all by 2030. The vision's goal is to attain 90% access to safe and reliable water for urban areas and 70% for rural areas. Rongo town being a rapidly growing urban centre, water supply is therefore key to its growth.

#### **Sources of Water**

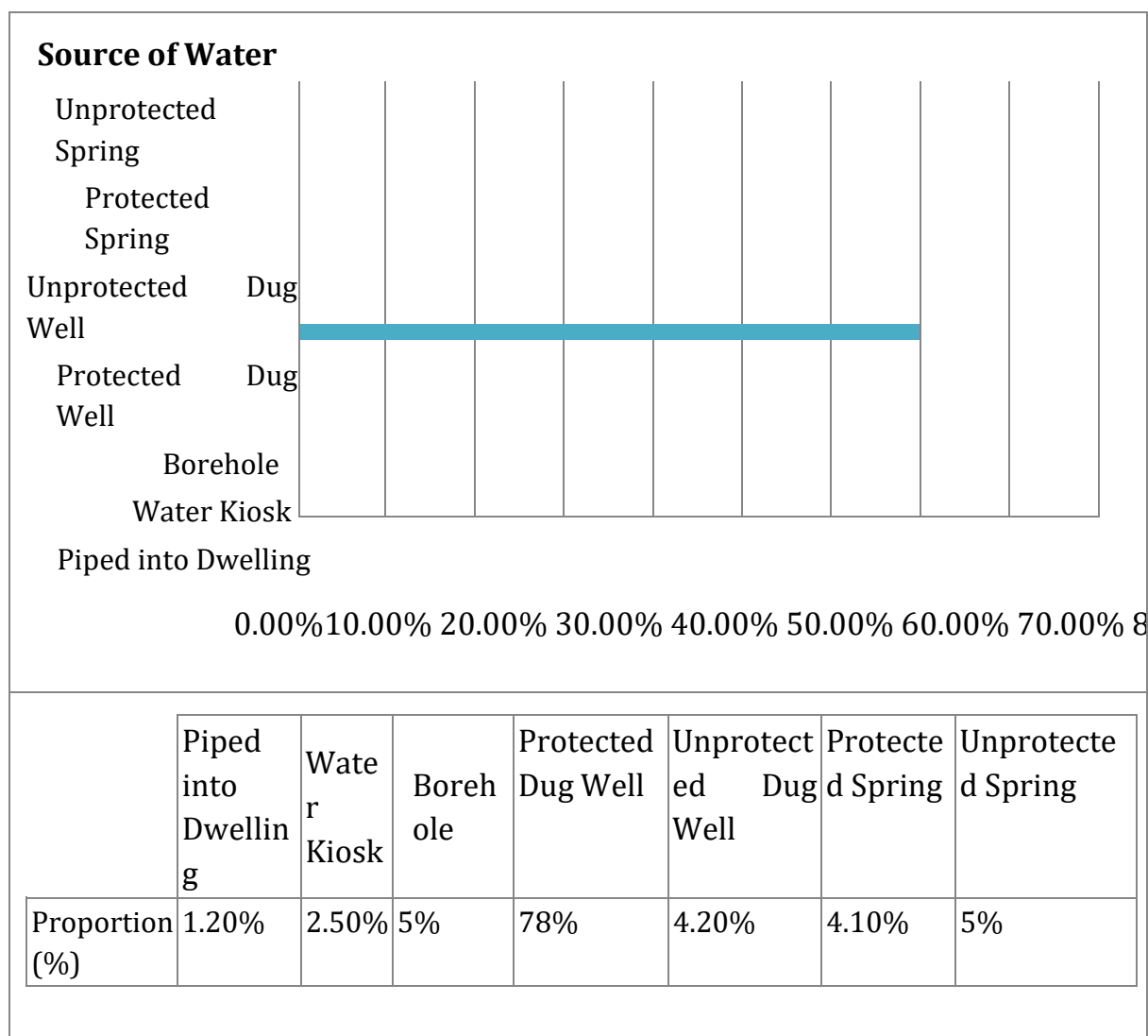
Rongo town has three main water sources i.e. ground water, surface water and rain water. These sources can further be categorised as rivers, shallow wells, boreholes and springs. The rivers namely River Misadhi, Nyamador and Odundu are permanent rivers. They however benefit mostly households who have direct access to them apart from the ones supplied with piped water. River Misadhi is the main source of piped water supplied in the area by Migori Kuria and Transmara Water and Sanitation Company (MIKUTRA). The town also sources water from 3 boreholes, shallow wells at household level and 6 rehabilitated springs.

#### **Access to Water Supply**

A household survey in the town reveals that majority of the residents use ground water in form of wells, boreholes and springs as shown in figure 26. Shallow wells are the main sources of water (82.2%) followed by natural water springs (9.1%). Access to piped water (1.2%) is limited in the town and also a preserve of

only those who can afford the connections. Water vending is common in the CBD due to limited access to piped water.

Figure 26: **Main Source of Household Water Supply**



Source: Field Survey 2015

### Availability of Ground Water

The planning area has good ground water availability. This is seen from the fact that a greater number of households in the town (core-urban and peri-urban) depend on ground water in form of wells, boreholes and springs for domestic use at an average of 40 metres deep. The survey also established that most households have access to either a personal well or a common well. Most of the wells and springs were protected, an indication of water safety. However there is still need to treat the water before use as this will make it much safer for use.

**Figure 27:** A well and borehole within the township



***A Protected Shallow Well***

***A Drilled Borehole within the Town***

### **Rain Water Harvesting**

The town is characterized by tropical climate with significant rainfall in most of the months throughout the year and a short dry season. There's little distinction between first and second rains also known as the "short" and "long rains". Rain water is therefore available and more effort should be put in place to harvest the water.

### **Coverage of Piped Water Supply:**

The total length of the distribution piped water is approximately 22km. This consists of; main trunk pipeline (7km) and distribution pipelines (15km). The distribution network consists of galvanized iron (GI) and PVC, most of which are broken, blocked or dilapidated.

There are 62 active piped water connections in the planning area, this account for about 0.025% of the households in the town. Piped water is only available within the core-urban and to major institutions. The town had 245 initial water connections; however the distribution pipeline has decayed over time.

### **Water Reservoirs**

One of the main challenges is the lack of adequate water reservoirs. This makes it difficult even storing rain water as an alternative water conservation method.

### **Water Quality and Water Treatment Site**

There is a new ongoing water project in Koderobara area along river Misadhi. The new water treatment plant has a larger capacity and is expected to adequately supply the entire town with piped water.

**Figure 28:** Water treatment works



**Current and Ongoing Water Treatment Plants**

### **Public Water Points/Kiosks**

There are about 7 public water kiosks within the planning area built to augment water supply and also supply water closer to the consumers without connections. However, only 3 out of the 7 water kiosks are operational. Scarcity of quality water for domestic use within the town especially the CBD has led to emergence of water vendors who transport the precious commodity using handcarts.

### **Emerging Issues**

- The town has inadequate water infrastructure hence inadequate safe water supply
- Majority of the households depend on ground water in form of wells
- The planning area receives fairly good amount of rainfall most months of the year
- Water treatment at individual house level is poor thus leading to occasional disease outbreak
- There is random digging of wells even in the CBD area.

### **Table 6: SWOT Assessment: Water Supply**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Availability of water for supply from Misadhi River by MIKUTRA</li> <li>• Availability of high demand and number of consumers as the town continues to grow</li> <li>• Land for expansion and development of infrastructure is available</li> <li>• Existence of goodwill from the County Government</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of adequate infrastructure for efficient and effective water supply</li> <li>• Culture and professional attitude which incapacitates the company's production and undertakings</li> <li>• Lack of capacity in terms of personnel conversant with the modern technology</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Expansion and the high growth of the town</li> <li>• Existence of willing partners who can work together with the company in improving its services</li> <li>• Existence of modern technology which the company can tap into to improve services</li> <li>• Existence of permanent water sources</li> <li>• Ground water availability</li> </ul>	<ul style="list-style-type: none"> <li>• The high rate of town growth and expansion</li> </ul>

### 4.3.3 Sewerage and Sanitation

Sewerage and Sanitation are part of the essential infrastructure of a town. Effective sewerage system management is essential for improving the environment through proper drainage and disposal of wastewater. The Kenya's Vision 2030 emphasizes that sewerage infrastructure coverage will have to rise in order to meet standards associated with middle income countries. It also aims to attain 40% and 10% sewerage access for urban and rural areas, respectively. The strategy aims to intensify Kenya's access to safe water and better sanitation using the national network of water services boards, and the private sector, where necessary.

#### Sewerage System

Despite efforts to supply piped water by MIKUTRA, the town doesn't have a sewerage system.

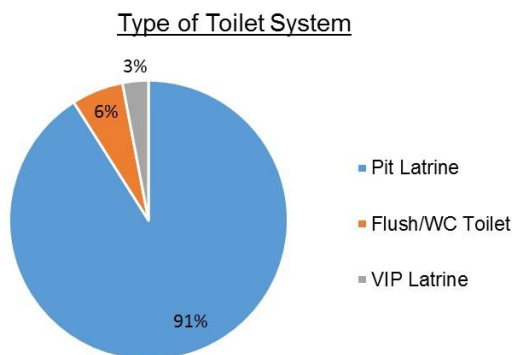
Waste water is either channeled to the roads, dump into open drains or splashed on open ground.

### Sanitation Services

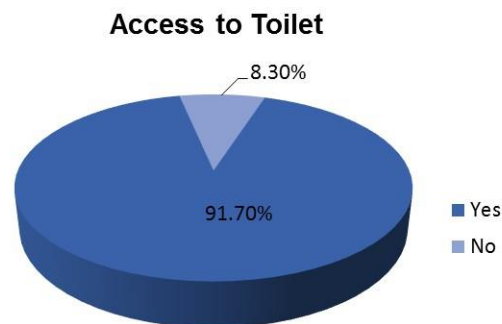
Household survey conducted by the consultant shows that 91.7% of the household in the town have access to toilets while 8.3% do not have access to toilets. The report further clarifies that 91% of households use pit latrines.

Other types of toilets used in the town include VIP latrines (3%) and Flush toilets (6%). Flush toilets are mostly used in multi-storey buildings and modern residential houses which are connected to septic tanks.

**Figure 29: Type of Toilet System**



**Figure 30: Household Access to Toilet Facilities**



*Source: Household Survey, 2015*

The high reliance on pit latrines and septic tanks in the town is attributed to lack of sewerage system. Pit latrines pose a great threat to ground water pollution in the town. There is therefore an urgent need to set up a sewerage system for proper management waste water and protection of ground water.

**Public Toilets:** Rongo town has an acute shortage of public toilets; the town has only 4 public toilets. Out of the four toilets, 3 are located in Rongo Modern Market while one is located in Rongo Bus terminus. The toilets are operated by the county government.

**Figure 31: Public toilets**



**Public Toilets in the Town.**

**Emerging Issues**

- Rongo town has no sewerage infrastructure
- Majority of the residents/households use pit latrines as the main mode of liquid waste disposal.
- The town has inadequate public toilets

**Table 7: SWOT Assessment: Sewerage and Sanitation**

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• <b>Availability of high demand and number of consumers as the town continues to grow</b></li> <li>• <b>Goodwill by the County Government</b></li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• <b>Tradition: most of the residents are used to pit latrines and may not easily embrace house/flush toilets.</b></li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• <b>Expansion and high growth of the town</b></li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• <b>The high rate of town growth and expansion versus the low financial and infrastructure capability</b></li> </ul>

**4.3.4 Storm Water Drainage**

Storm water drainage condition in Rongo town is fairly good. Surface drainage covers about 30% of the entire planning area. The drainage system comprises of

both the lined and unlined drainages. Extensive drainages cover the CBD area and major roads crisscrossing the town. Most residential areas are however not been well served with a proper drainage system. Drainage of the town is also boosted by the rolling terrain of the town. The main storm water drain outfalls for the town are at River Nyamador, Misadhi.

**Figure 32: Storm water infrastructure**



**A Paved Storm Water Drainage Channel**

**A Clogged Drainage Line**

### **Emerging Issues**

- Inadequate drainage facilities especially in the residential areas
- Poor maintenance of the existing drainages.

### **4.3.5 Power Supply**

#### **Electricity Supply**

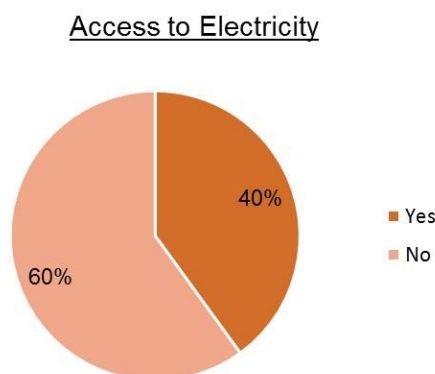
The Kenya Power and Lighting Company is the sole service provider of electricity in the planning area. Approximately 40% of households in Rongo town have electricity connection as shown in figure 35. The main challenge is frequent power blackouts which are attributed to lack of power substation in the planning area to constantly supply the town with power. There is a major ongoing power project by KETRACO to



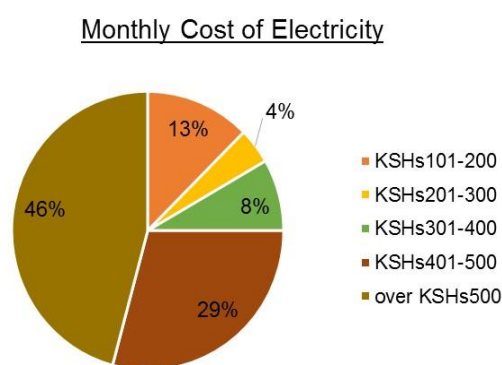
reinforce power supply in the region. The project is set to be completed in the year 2018. The project includes setting up various stations and sub-stations in the former South Nyanza region.

Figure 36 illustrates that majority (46%) of the households pay a monthly electricity bill of over kshs. 500 while the least pay a monthly bill of between kshs. 201 and 300.

**Figure 33: Household Access to Electricity**



**Figure 34: Household Cost of Electricity**



Source: Household Survey, 2015.

### Street Lighting

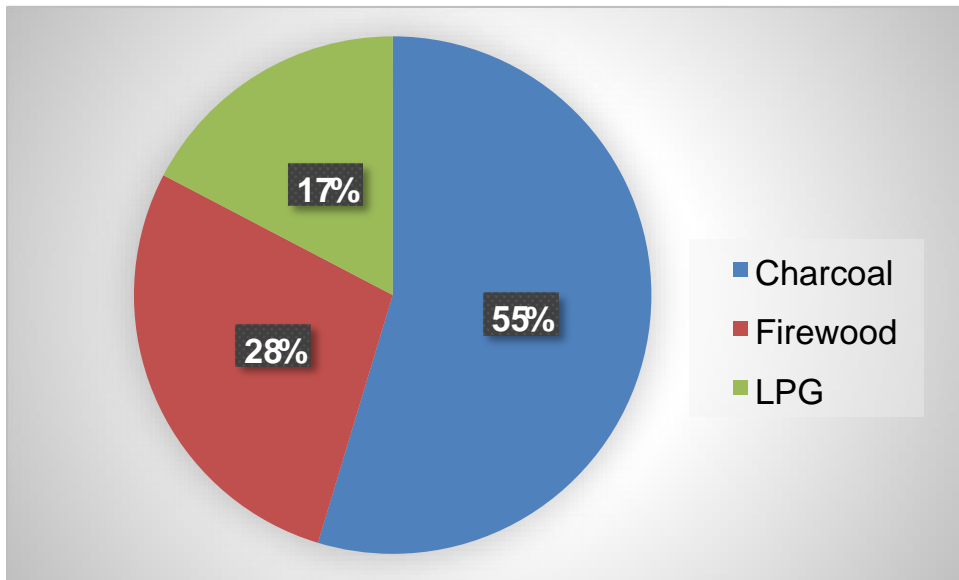
Street lighting in Rongo town is considerably poor. The entire town has only 23 street lights; they are a mixture of solar and electricity powered streetlights. They are distributed at a spacing of approximately 50m and are mainly found within the CBD area. It was however noted that not all of the street lights are functional. It was also established that there is an ongoing street lighting project by the county government



### Source of Energy for Cooking

The town residents use charcoal as main source of cooking energy i.e. 55%, firewood at 28% and LPG at 17% as shown in figure 38.

Figure 35: Sources of Cooking Energy



Source: Field Survey, 2015

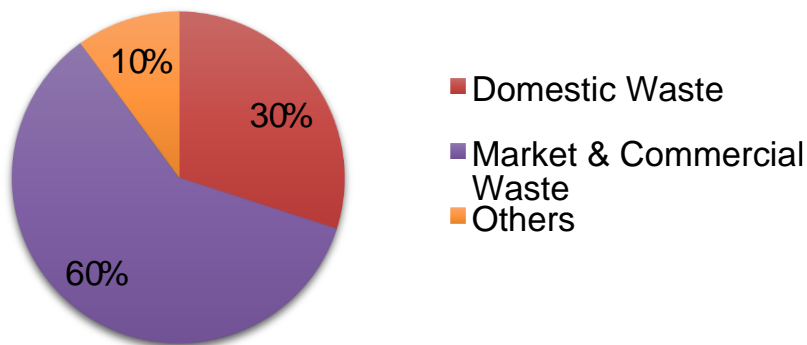
#### 4.3.6 Solid Waste Management

##### a) Solid Waste Generation

Solid waste management in Rongo town is very poor; the town generates approximately 15 metric tonnes of solid waste per day. However, its collection and disposal remain a big challenge. The main sources of solid waste in the town include:

- Domestic users produce 30% of all the waste generated
- Market and Commercial users produce 60% of the waste generated
- Others account for about 10% of the total waste generated.

Figure 36: *Main Sources of Solid Waste*



Source: Field Survey, 2015.

### b) Solid Waste Collection

Solid waste collection in the town is very poor. In the CBD area, most commercial outlets either burn their solid waste or dispose in storm water drains. Waste collection in residential areas is equally poor. The County lack capacity in terms of trucks and a reliable disposal area.

**Figure 37:** *Reckless dumping of solid wastes*



**Indiscriminate Dumping of Waste**

**Dustbins and Bulk Transfer Sites:** There are a few dustbins distributed within the CBD and one bulk transfer site within the Rongo Modern Market. The few dustbins are. Waste collection from the transfer station to the dumpsite is infrequently done thus creating huge heaps of waste.

**Figure 38:** *Waste Collection Points*



***Dustbin and Bulk Transfer Station in the town.***

### **c) Waste Transportation**

All the waste collected in the town is approximately 30% of the waste generated. The waste is transported mechanically using trucks/tractors of the County Government from the collection points to the dumpsite. Waste from the source to the collection points is done manually or by use of wheelbarrows. Rongo town does not have waste transportation trucks to transport their waste and therefore depends on trucks from the county headquarters or hires tractors for this purpose.

### **d) Waste Disposal**

Rongo town has no designated landfill or dumpsite. The waste collected from the town is dumped in hired (private) fields. Waste disposal is not done frequently therefore small heaps of wastes are often seen along streets and drainages in the town

### ***Emerging Issues***

- The town does not have a designated dumpsite.
- There are no adequate storage facilities for waste generated.
- The town has no waste transporting trucks.
- There is no treatment/processing of waste

### **4.3.7 Information and Communication Technology**

The ICT is a very vibrant sector in Rongo town. The sector is generating employment for hundreds of people in the town i.e. phone services and internet services provision. These services are not only widely available but also

affordable and reliable. The mobile service providers in the planning area include Safaricom, Airtel and Orange networks. Cyber cafes are spread out in the town.

Postal services are available in the town but have been on the decline with emergency of internet, mobile phones and private courier services. The town has one Post office located adjacent to Rongo Sub-county offices.

**Figure 39:** Rongo Post office



#### **4.3.8 Fire Safety**

Rongo town has no fire station. The town depends on equipment from neighbouring towns such as Kisii and Homabay which are relatively far.

##### ***Emerging Issues***

- Rongo town has no fire station/fire engine and depends on neighbouring towns in cases of fire outbreak.
- Fire outbreaks are rare
- The town also has no hydrants.

## **4.4 SOCIAL INFRASTRUCTURE AND SERVICES**

### **4.4.1 Introduction**

The quality of life in any urban centre is affected by the availability and quality of social infrastructure. Social infrastructure facilities include; health, education,

sports and recreation, security, cemetery/cremation facilities etc. This chapter discusses their availability and distribution within the planning area.

#### 4.4.2 Educational Facilities

There are number of educational facilities both public and private within the project area. They include pre-primary/ ECD schools, primary (14), secondary (10) and tertiary institutions (4). Most of pre-primary, primary and secondary schools are located within residential neighborhoods whereas tertiary institutions are mainly located close to or within the CBD.

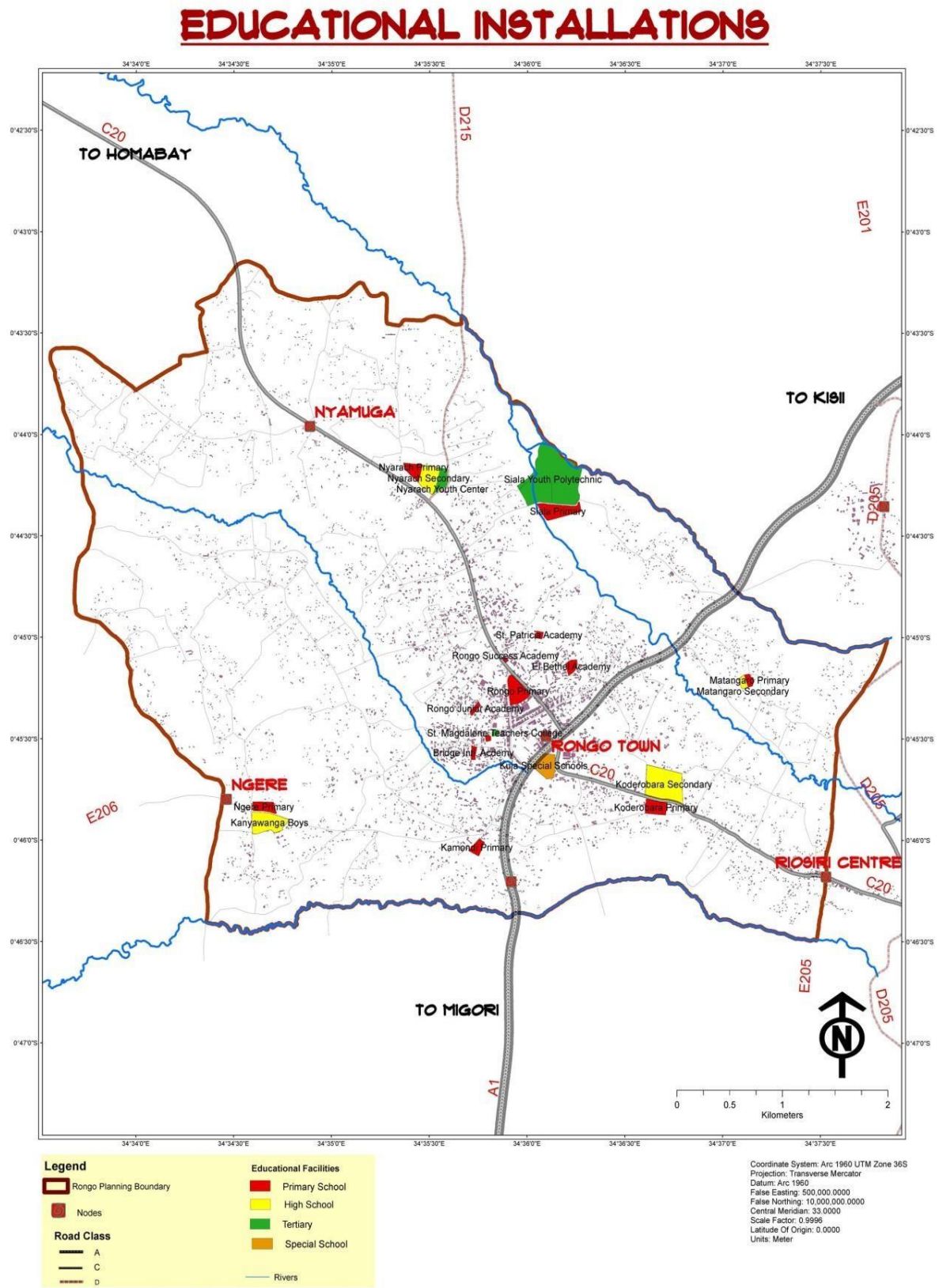
Educational land use covers approximately 0.77% of Rongo town planning area.

**Figure 40:** Education Facilities



**Existing Educational Institutions**

Figure 41: Educational Institutions



Source: Author 2015

## Education Gap Analysis

Rongo town has adequate educational facilities as illustrated in [Table 9 below](#). Emphasis/focus should therefore be put on infrastructure and quality of service in these facilities.

**Table 8: Gap analysis-Education**

Facilities	(1 per catchment population)	Current Number in Town (Field Survey)	Required No. of facilities 2035 (Pop. - 32,582)	Current Gap
Pre-Primary	4,000	20	9	0
Primary	4,000	14	9	0
Secondary	8,000	10	5	0
Special Schools	37,000	1	1	0

### Emerging Issues

With regard to education facilities, the following observations and issues were identified.

- The education facilities in the town are adequate
- There is a high number of private institutions (pre-primary, primary and secondary) in the town

### 4.4.3 Health Facilities

Health facilities are one of the most important in the daily lives of ordinary people. As far as availability of health facilities in Rongo town is concerned, there are four (4) main health facilities located in Rongo Town. They include; Rongo Level IV/Sub-county Hospital (public), Rosewood Nursing Home (private), Royal Nursing Home (private) and Ngere Dispensary (public).

**Figure 42: Private Health Facility**



**Royal Nursing Home**

Apart from these 4 main health facilities in the planning area, there are numerous private clinics in the town. There are also other health facilities in the outskirts of the town which are accessible to the town's residents.

It was established that there is none of the health facility in the planning area has a fully operational theatre, ICU and Emergency Units; this has lowered the capacity of these health facilities. Severe accidents and chronic illnesses are therefore referred to other health facilities which are far-off the town i.e. Kisii Level V Hospital among others.

Rongo Level IV Hospital which is the main public health facility in the planning area and therefore relied on by a majority of residents is not only ill equipped but also understaffed. The understaffing causes strain to the existing personnel and therefore a compromise on service delivery.

### **Prevalent Diseases**

The most prevalent diseases in the planning area include:

- *Malaria*
- *HIV/AIDS*
- *Diarrhoea*
- *Malnutrition*
- *Water borne diseases*

## ***Emerging issues***

Some of the main emerging issues include:

- Rongo Level IV Hospital is under-staffed and ill-equipped hence forcing people to travel as far as Kisii and Kisumu to seek treatment that would be rather offered locally.
- The town does not have a public mortuary; the residents therefore are obliged to seek morgue services at Rosewood funeral home which is a private facility.
- There is a high prevalence of preventable diseases.

### **4.4.4 Recreation and Sports Facilities**

Rongo town has one stadium popularly known as 'showground'; the facility is however in poor condition. There are also several other playing grounds in the town including those of some public school i.e. Rongo primary which are available to the public. The town has no park (s) or any other designated open spaces which can be used for this purpose. There is therefore a need to develop parks and open spaces and also rehabilitate the stadium.

### **4.4.5 Police Stations/Posts**

The availability of police services is required to maintain the security in the area. There is one police station in the town; Kamagambo police station which is located in the town (adjacent to Rongo Level IV hospital). However, a widely requested improvement to improve security is street lighting in all parts of the town since it will reduce the incidence of crime.

## **Emerging Issues**

- Inadequate street lighting to enhance security
- Most insecurity instances are not reported thus not well documented
- Other than the police station, there are no police posts and police offices in the planning area

#### 4.4.6 Religious Facilities

Rongo town is a multi-religious town. There are various religious facilities in Rongo town including churches and a mosque. The dominant religion in the area is Christianity.

#### 4.4.7 Other Social/Community Facilities

Other community facilities in the planning area are presented in the table below.

**Table 9: Other Social Facilities**

Social Facility	Availability status	Location/Site
Social Hall	Rongo town has no social halls	-
Banks & MFIs	The town is served by two commercial banks (branches) & some MFIs. There are also numerous mobile banking agencies in the town.	Within the CBD.
Formal Markets	The town has a formal market known as the 'Rongo Modern Market'. The market operates daily; however, Wednesdays and Fridays are the official market days.	Within the CBD
Informal Markets	The town has an informal market which operates daily along the streets in the CBD.	Along the streets in the CBD
Prison/Rehabilitation	The town has no prisons/rehabilitation facility	
Children's Homes	There are no children's home in the planning area.	-

*Source: Field Survey, 2015.*

## 4.5 HOUSING AND LAND

### 4.5.1 Introduction

The constitution of Kenya grants all citizens the right to accessible and adequate housing, as such in planning for housing, the government is to ensure that the available housing stock is adequate to accommodate the residents and of affordable cost. Housing is a basic need and an important determinant of the quality of life of people. This section highlights housing status of Rongo town in terms of availability and type of houses in the town.

### 4.5.2 Residential Housing

Residential housing types vary from estate to estate, they include; permanent, semi-permanent and informal housing units. Rongo town has a range of residential housing typologies, the most dominant housing typologies include; flats, bungalows and single rooms. It was observed that there new and upcoming residential flats in the town. This is an interesting trend as it is a deviation from the prevalent single dwelling residential housing. The choice of type of housing directly depends on household income.

*Figure 43: Residential houses in the town*



*Residential Buildings in the Town*

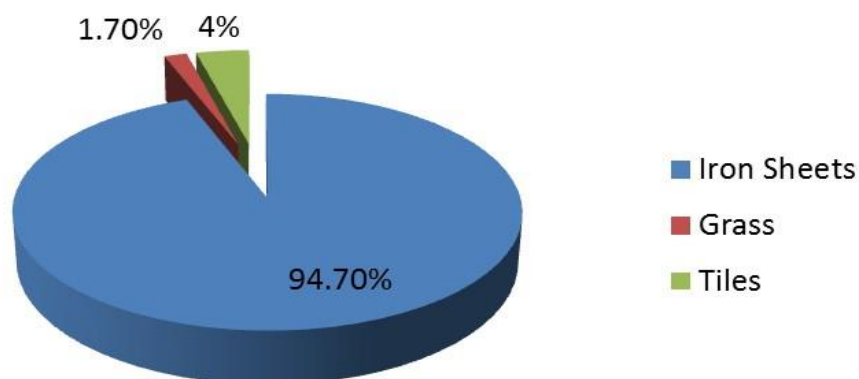
### 4.5.3 Housing Characteristics

#### Roofing Materials

As far as material used for roofing is concerned, the vast majority of houses across the planning area have permanent roof structure in form of corrugated

iron sheets 94.70%. A proportion of houses with tiles and grass include 4% and 1.7% respectively.

**Figure 44: Most Popular Roofing Materials**

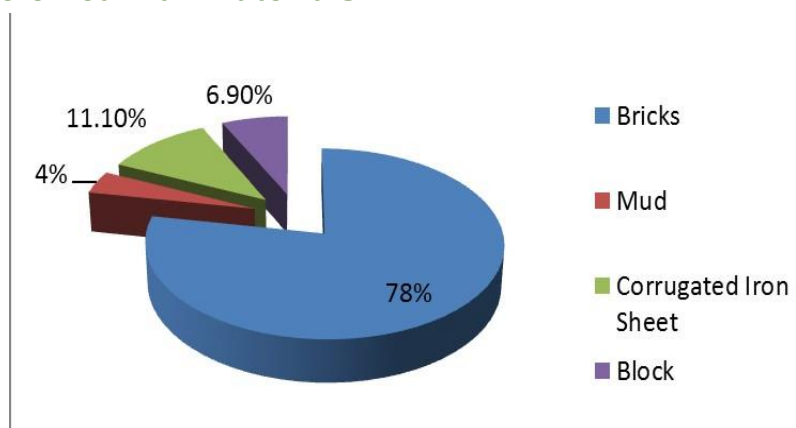


Source: Field Survey, 2015

### Wall Materials

The most common wall material in Rongo town is Bricks constituting 78%. This is followed by Corrugated iron sheets constituting 11% while Blocks and mud constitute 6.9% and 4% respectively.

**Figure 45: Preferred Wall Materials**

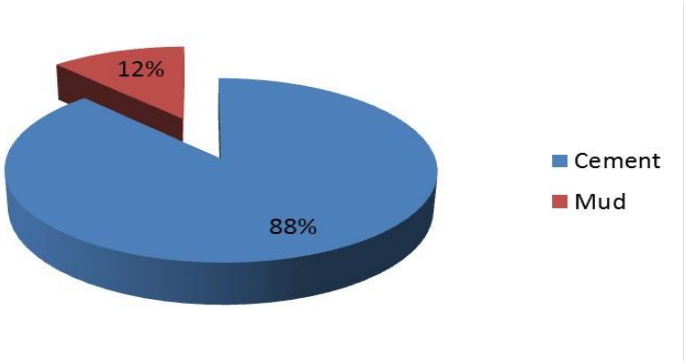


Source: Field Survey, 2015

### Floor Materials

Concerning floor materials, the majority of houses across Rongo town have Cement floors at 88% followed by Earth floors constituting 12%.

**Figure 46: Preferred Floor Materials**



Source: Field Survey, 2015

**4.5.4 Availability of Housing**

There is an acute shortage of both residential and commercial housing in Rongo town. The town serves as dormitory town to the neighbouring towns. Many people prefer residing in Rongo due to its strategic locations to other towns, good environment and security. The housing shortage has further been worsened by the influx of university students and staff who are seeking accommodation in the town. Majority of residential housing owners in the town have converted their houses into hostels to accommodate the students. The hostel business is considered to be much more profitable than the normal residential housing business.

**4.5.5 Land Values**

Land values within the planning area are relatively high. Land prices are highest in the CBD and reduce as one move outwards to the peri-urban. For example, an acre of commercial land within the CBD sells between Kshs 3 million - Kshs 5 million. Residential land values in the planning area have also skyrocketed due to increased demand. Depending on the location of the land from the CBD, an acre of residential land sells between Kshs 1 million - Kshs 3 million.

***Emerging Issues***

- There is acute shortage of residential and commercial housing
- There is increased construction of multi-storey buildings in the CBD

- Most houses built with impermanent materials are in the peripheral areas of the town
- Land values in the planning area are very high.
- Most newly built residential houses are permanent houses.

#### 4.5.6 SWOT Assessment of Housing and Informal Settlements

**Table 10:** Swot Analysis-Housing

Strengths	Weaknesses
<b>Good soil structure that can support multi-storey buildings</b>	<b>Low investment in the housing sector</b>
Opportunities	Threats
<b>Availability of land</b>	Population influx

## **CHAPTER FIVE: THE ISUDP PROPOSALS**

### **5.1 Introduction**

This section presents the Integrated Strategic Urban Development Plan for Rongo town which is based on the findings from the situational analysis phase. The plan is designed to respond to the planning challenges identified during the situational analysis from field work and interaction with various stakeholders in Rongo town. The section outlines the major planning considerations that guided the design of the plan and the proposed projects envisioned to remedy the identified development challenges.

The main components of the plan are as follows:

- i. Town-wide land use framework*
- ii. Planning standards, policy and guidelines*
- iii. Development strategies along thematic areas*
- iv. The implementation framework*

### **5.2 Design Conceptual Framework**

The design of the plan was guided by considering various planning principles, evaluating the existing development opportunities and challenges in the planning area, structuring elements, an analysis of the previous plans and environmental considerations. Below is an analysis of some of the major considerations guiding the design of the plan.

### **5.3 Summary of Findings**

The major findings identified in the situational analysis phase and highlighted above guided the preparation of this plan. It is indeed these challenges to development and identified opportunities that the plan is set to respond to and position Rongo town better to develop by reducing the development problems and tapping to the potential. These can be summarized in form of a SWOT analysis as presented below. The analysis also identified the following as major development challenges in the town;

#### **Major Development Challenges:**

- *Inadequate water supply.*
- *Lack of a sewerage system.*

- *Poor waste disposal mechanism*
- *Lack of cemetery.*
- *Lack of recreation facility/spaces.*
- *Inadequate industries (lack of employment areas-overreliance on agriculture).*
- *Encroachment onto road reserves.*
- *Disorganized urban structure/No urban form for the town.*
- *Development of informal activities along the streets.*
- *Inadequate street lighting.*
- *There being no guiding development plan the town is experiencing urban sprawl mostly along the major roads.*

## **SWOT Analysis**

<u><i>Strengths</i></u>	<u><i>Weaknesses</i></u>
<ul style="list-style-type: none"> <li>• <i>Strategic location (junction town to Kisii, Migori and Homabay)</i></li> <li>• <i>Good/Favorable climate for both settlement and agriculture</i></li> <li>• <i>Good soils structure and profile</i></li> <li>• <i>High number of institutions e.g. Rongo University College and other tertiary colleges.</i></li> <li>• <i>Good road network (intra-CBD and inter)</i></li> <li>• <i>Availability of power supply</i></li> <li>• <i>Good security</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Inadequate water supply</i></li> <li>• <i>Lack of sewerage system</i></li> <li>• <i>Informal business structures (kiosks)</i></li> <li>• <i>Unplanned development patterns</i></li> <li>• <i>Encroachment on road reserve and open spaces</i></li> <li>• <i>Lack of cemetery</i></li> <li>• <i>Inadequate mortuaries</i></li> <li>• <i>Street families</i></li> <li>• <i>High school drop-out rates among girls</i></li> <li>• <i>Frequent power blackouts</i></li> </ul>

### Opportunities

- *Good market that attracts people from as far as Tanzania*
- *Availability of Agricultural produce e.g. sugarcane, milk groundnuts*
- *Heterogeneous entrepreneurship town*
- *Availability of Tertiary Institutions*
- *Availability of permanent rivers*
- *Availability of human resource (both skilled and unskilled)*

### Threats

- *Informal structures on road reserves- encroachment*
- *Rising cost of land*
- *High unemployment rate*
- *Health crisis (within the market)*
- *Rapid population growth*

## 5.4 Structuring Elements

The structuring elements in Rongo town are those that influence the development and structure of the town's growth. They also dictate the form that the growth of the town takes. The major ones in Rongo are:

### **i. Road System** (*Kisii-Migori Road (A1), Rongo- Homabay and Rongo-Riosiri Road (C20)*)

It was observed that ribbon development has emerged along these roads. Transport corridors attract developments due to ease in access and transportation of people, goods and services. This advantage causes a rise in the value of the land close to these corridors and also an increased investment return.

### **ii. Property Boundaries**

The spatial form of the planning area is essentially a product of property boundaries. This shows the land parcels and access and circulation systems.

### **iii. River Systems**

The two main rivers in the planning area have divided the area into planning blocks. This is also a factor of the topographic structure of the area with high and low areas.

## 5.5 Guiding Principles

These have been drawn from the intent of the government as documented in the constitution of Kenya article 66 chapter 5 on land and Environment. Further reference is made to the National land policy, vision 2030, Land Act, county government Act and the physical planning act (Cap 286). These include;

- i. Optimal, efficient and economic use of land*
- ii. Promoting public health and safety*
- iii. Enhancing local economy*
- iv. Urban Environment sustainability*
- v. Inclusive and compact city form*
- vi. Accessibility*
- vii. Participatory, coordinated and governance system.*

## 5.6 Proposed Projects

The plan aims at providing a spatial guide to the location of the various development projects proposed by the stakeholders and identifies through the analysis of the existing situation. The plan provides a spatial representation of the various sites for the establishment of these projects. The proposed projects are included in the table below;

### Proposed projects

Project	Location	Status/Action
<b>Stadium</b>	- Showground in Koderobara	-Rehabilitation of the existing showground
<b>Water treatment plant</b>	-Koderobara along river Misadhi	-Commenced but stalled midway
<b>Solid Waste Management</b>	-Nyamuga	New project. The county will acquire land at Nyamuga for establishment of Solid

			waste management site.
<b>Sewerage system</b>	-Proposed treatment plants along River Nyamador and Misadhi		-New project (county in process of identifying land)
<b>Jua-Kali shades</b>	-Jua-kali area		-Rehabilitation of existing facility
<b>Cemetery</b>	-Initial proposal near showground -New proposal near Opapo primary		-New project (county government in process of acquiring land)
<b>Bus terminus</b>	-New location (location not identified) -Expansion of the existing terminus		-Relocation to a new site (location not identified) -Expansion of the existing bus-park -Separation of bus park into two (matatu and buses) (location not identified)
<b>Recreation park</b>	-Proposed location behind district hospital and the police		-New
<b>Fire Station</b>	-Proposed location at the current bus park		New
<b>Street lighting</b>	-Throughout the town		-Ongoing (by CDF and County government)
<b>Industries</b>	Reviving BAT	Present location	Reviving the existing facility
	Grain mill		
	Milk Processing plant	Present location (Rongo Farmers Dairy)	Expansion of existing facility
	Groundnut processing		
<b>Land Banking</b>	Land Banking for public purposes, major investments and for future urban development		

<b>Provision of low cost Housing</b>	-Acquisition of land for low cost housing within the urban zones -construction of low cost houses
<b>Other proposals</b>	Expansion and opening and improvement of access roads Pedestrian walkways Storm water drainage system Preparation of a Land Information System (LIS) for the town

### **5.7 Previous Planning Effort**

This plan appreciates efforts made in bringing spatial order in Rongo town. The town was initially planned in 1978. The plan covered a relatively small area (only the CBD area). The plan was later reviewed in 2010 but was however not approved. The 2010 plan covered a wider area, extending to the outskirts of the current commercial district. The plan considered the rapidly urbanizing areas outside the core town and extended to areas of Nyarach and Siala which at the time were predominantly agricultural but quickly urbanizing.

### 5.3 Plan Proposals and Implementation Framework

PROGRAMMES	PROJECTS	PHASE	ACTORS	MONITORING AND EVALUATION PARAMETERS
<p><b>Ensuring prompt and sound Solid waste management in Rongo town</b></p>	<ul style="list-style-type: none"> <li>- Establishment of waste collection points at the modern Market, Jua Kali Sheds, At the livestock market in Siala and next to the slaughter house</li> <li>- Solid waste recycling, reuse, reduction and sorting</li> <li>- Acquisition of land for dumpsite in the town</li> <li>- Purchasing of tippers for hauling wastes to the designated dumpsite</li> <li>- Waste collection bins at strategic waste generation points</li> <li>- Public sensitization on solid waste management.</li> <li>- Public toilets at the bus terminus, market, jua kali sheds and cemetery.</li> </ul>	1	<p>County Government of Migori</p> <p>Local Community</p> <p>Donors</p>	<p>Number of waste bins</p> <p>Waste collection points</p> <p>Identification, procurement designation of an official dumpsite</p> <p>Number of tippers/trucks for waste transportation</p>

<b>Land Banking</b>	Land Banking for public purposes, major investments and for future urban development	1 & 2 & 3	County Government Local community Donors	Acreages bought No. of Title deeds produced
<b>Provision of low cost Housing</b>	-Acquisition of land for low cost housing within the urban zones -construction of low cost houses	1 & 2 & 3	County Government Local community Donors	Number of housing units constructed Acreage of land acquired.
<b>Promoting reliable and sustainable Energy supply</b>	- Power Sub-Station at Siala - Adoption of alternative energy sources such as LPG gas and solar energy - Connection of electricity to the households	1	Kenya Power Local community Private Investors	No. of households using alternative and sustainable energy sources Percentage of households connected to electricity
<b>Enhancement of the town's economy</b>	- Improvement of Rongo Modern Market - Improvement of the Jua Kali sheds - Establishment of a hawkers market in Siala - Milk processing plant - Ground nuts processing plant in the B.A.T land - Grain milling factory	1&2	Private Investors Ministry of Industrialization County Government	Renovation of the modern market A functional hawkers market to remove hawkers from the roads reserve. Functional milk processing plant at Rongo Farmers Dairy -

	<ul style="list-style-type: none"> <li>- Street lighting to make the town a 24 hour economy</li> <li>- Investor conferences Sensitisation of the local community on ways to draw direct and indirect benefits from the town.</li> <li>- Formulating an incentive policy targeting investors in ICT related activities.</li> <li>- Aggressive marketing of the opportunities in the town to potential local and international investors</li> </ul>			
<b>Enhancement of access to education</b>	<p>Equipping all public schools with library, laboratory and computer lab</p> <p>Staffing of schools in the town including ECD teachers</p> <p>Construction of more classrooms including ECD centres</p> <p>Bursary for needy children</p>	1&2	<ul style="list-style-type: none"> <li>- Ministry of education, TSC</li> <li>- County Government</li> <li>- P.T.A of the respective schools</li> <li>- B.O.G of schools</li> <li>- C.D.F</li> </ul>	<ul style="list-style-type: none"> <li>- Teacher student ratio</li> <li>- Number of beneficiaries of bursary program</li> <li>- Number of classrooms constructed</li> </ul>

<b>Provision of a public cemetery for Rongo town</b>	Designation of a public cemetery separately for Muslims and Christians near Opapo	1	<ul style="list-style-type: none"> <li>- County Government of Migori</li> <li>- Local Community</li> </ul>	<ul style="list-style-type: none"> <li>- Designated burial site</li> </ul>
<b>Improvement of transportation services</b>	<p>Expansion and improvement of bus park at B.A.T land along Rongo-Migori Highway out of the road reserve.</p> <p>Provision of parking spaces along the street (designated).</p> <p>A Boda Boda shade next to the main bus park</p> <p>Roads improvement, expansion and establishment of missing links Establishment of a traffic management system</p>	1	<ul style="list-style-type: none"> <li>- County Government of Migori</li> <li>- Inspectorate Department</li> <li>- B.A.T</li> </ul>	<ul style="list-style-type: none"> <li>- An expanded and improved bus park out of the road reserve</li> <li>- A boda boda shade</li> </ul>
<b>Improvement of accessibility in Rongo town</b>	<p>Road re-survey and marking of all roads Road opening and widening</p> <p>Road improvement/paving to Motorable standards</p> <p>Establishment of missing links</p> <p>Provision of pedestrian walkways</p> <p>Including storm water drainage</p>	2	<ul style="list-style-type: none"> <li>- National government through KURA, KeNHA, and KeRRA.</li> <li>- County Government of Migori</li> </ul>	<ul style="list-style-type: none"> <li>- Number of roads improved</li> <li>- Length of roads improved</li> <li>- Number of missing links established</li> <li>- Elimination of encroachment within</li> </ul>

	channels in road designs		- Survey of Kenya	the road reserves
<b>Provision of Public recreation facility</b>	Nature walks along rivers Misadhi, Nyamador and Odundu Stadium at showground Rehabilitation of the show ground at Koderobara Public Recreational park at the land behind the police and district hospital	1	County Govern of Migori  National Government through ministry environment natural resource	Existence of a public recreation park  Nature walks with well-maintained greenery
<b>Ensuring proper Waste water management</b>	Establishment of trunk sewer for Rongo town Waste water Treatment works along rivers Misadhi and Nyamador	3	County Government of Migori Donors National Government	-Functioning Sewerage treatment plants -Trunk sewer lines across the town -Number of households connected to main trunk sewer

<b>Ensuring proper Waste water management</b>	Establishment of trunk sewer for Rongo town along the major transport networks Waste water Treatment works along rivers Misadhi and Nyamador	3	County Government of Migori Donors  National Government	Functioning Sewerage treatment plants Trunk sewer lines across the town Number of households connected to main trunk sewer
<b>Enhancing security, law and order</b>	Street lighting Police housing to ensure that officers are available for patrols and security operations (Kamagambo Police Station). Public awareness on peace, law and order to encourage investors	1	County Government of Migori National Housing Corporation	Number of street lights put up Reduction in crime rates Number of Houses built
<b>Improvement of storm water drainage in the town</b>	Storm water drains along all the roads Rain water harvesting by households Opening up of clogged drainage channels	1&2	Residents County Government of Migori  KeNHA  KURA	Coverage of storm water channels in the town

<b>Enhancement of disaster preparedness and response mechanism</b>	Fire engines at Rongo town within the current bus park Water hydrants at strategic points within the town Road opening to improve disaster preparedness	1	County Government of Migori National Police Service NYS Department of health	Number of fire engines An established fire station at Rongo town Number of water hydrants installed at the town
<b>Improvement of sanitation and public health</b>	Trunk sewer for Rongo town Food outlets and water points inspection and licensing Decommissioning of pit latrines in the town Public health awareness Effective solid waste disposal mechanism	1&3	Public health department County Government of Migori	Reduction in health risks associated with poor sanitation
<b>Enhancement of water supply to households in Rongo</b>	Revive the Rongo water project at Koderobara along river Misadhi Establish Rongo Water and Sewerage Company (RWSC) Drilling/sinking of three deep boreholes to supplement water supply Piping of the main trunk line to households Protection of river Misadhi which	2 & 3	County government of Migori Water companies Lake Victoria South Water Services Board WARMA Department of Geology and mines Donors/Private	Number of boreholes sank Established and constructed water intake and piping works Number of households connected to pipe water

	is the main source of water through conservation		investors	
<b>Enhancement of health service Provision and facilities</b>	Expansion of the Rongo level IV hospital Equipping of the hospital with ICU, HDU, and modern theatre.	2	Ministry of health County Government of Migori	Improved facilities at all health centres Reduced disease incidences
	Equipping and staffing all health centres, dispensaries and clinics. Expansion of Ngere dispensary Mortuary at Rongo Level iv Hospital Proposed Health Centre in Siala next to Bonventure School			Mortuary at Rongo Level iv Sub-county Hospital

<p><b>Improving access to affordable and decent housing</b></p>	<p>Development Control to ensure that all housing structures are approved and are in habitable condition before occupation</p> <p>Development of a public private partnership policy targeting investors in the housing sector</p> <p>Encourage partnership and cooperatives to build housing units in comprehensive/planned housing development</p> <p>Incentives by the county Government to encourage investments in the sector.</p> <p>Development of Public Housing Schemes for civil servants for both National and County officers</p> <p>Adoption of modern, safe and affordable building materials</p>	<p>2,3</p>	<p>County Government of Migori</p> <p>Ministry of housing</p> <p>Private sector</p> <p>Public Works</p> <p>Physical Planning department</p>	<p>Number of additional housing units put up by both the Government and private sector</p> <p>County Public Private Partnership policy</p> <p>Supportive infrastructure</p> <p>New building code for the County</p>
---	---	------------	---	---

<p><b>Enhancing Environmental sustainability in Rongo town;</b></p>	<p>Use of Bio-digester tanks and Septic Tanks for management of waste water awaiting trunk sewer.</p> <p>Discouraging developments on environmentally sensitive areas like hilltops, riparian reserves, wetlands and ridges through development control</p> <p>Establishing an elaborate solid and liquid waste management system for Rongo town including collection, segregation, recycling, re-use, reduction and disposal at designated points.</p> <p>Discouraging use of pit latrines within the town</p> <p>Conducting Environmental Impact Assessment (EIA) for all development proposals</p> <p>Discouraging unlicensed</p>	<p>1</p>	<p>County Government Migori WARMA NEMA</p>	<p>Level of awareness on sound environmental practises</p> <p>Designated waste collection and disposal points</p> <p>Waste bins providing for waste separation</p> <p>Number of EIA administered</p>
---	--	----------	--	--

<p><b>Enhancing efficient &amp; effective land management and administration in Rongo town</b></p>	<ul style="list-style-type: none"> <li>- Development of an elaborate Land Information System (LIS)</li> <li>- Digitize land records at the county lands registry</li> <li>- Repossessing of all grabbed land meant for public use</li> <li>- Land Banking for public purposes, major investments and for future urban development</li> <li>- Formulation of a policy to protect urban agriculture by discouraging densification in low density zones</li> <li>- Control rampant land subdivisions</li> <li>- Approval and registration of all new land sub-divisions</li> <li>- Processing of title deeds for all public lands in the county</li> </ul> <p>Development of a data base for all public land in the town by National Land Commission</p>	<p>1 &amp; 2</p>	<ul style="list-style-type: none"> <li>- NLC</li> <li>- S.O.K</li> <li>- County Government of Migori</li> <li>- Physical Planning department</li> </ul>	<ul style="list-style-type: none"> <li>- Digital land registry</li> <li>- Acreage of the County Land bank</li> <li>- Number of title deeds processed for public land</li> <li>- Data base for all public land</li> </ul> <p>Land subdivision guidelines</p>
--	---	------------------	---	---

<p>Phasing Legend</p> <p>Phase 1: 1-5 years</p> <p>Phase 2: 5-10 years</p> <p>Phase 3: 10-15 years</p> <p>-</p>	<p><i>N/B: The above detailed implementation framework provides and details appropriate institutional framework to coordinate the actualization of the plan proposals. It also outlines programmes and projects as well as specifying the time frame for their undertaking. The framework is meant to guide the different actors to harmoniously roll out actions necessary in ensuring all envisage projects are implemented and thus the central objectives of this plan are implemented.</i></p>
---	---

#### 5.4 Zoning Standards and Guidelines

ZONE	TYPE OF DEVELOPMENT PERMITTED	DEVELOPMENT PERMITTED WITH C.O.U	DEVELOPMENTS PROHIBITED	MIN. PLOT SIZE (HA)	SET BACK (M)			P.C	ANY OTHER
					F	S	R		
Low density Residential	Stand-alone units include: -Maisonettes -Town houses -Bungalows -Villas -GF+1	- Convenient store -Green spaces -Public purpose. -Petrol station - Kindergarten -Primary school -secondary school	=Rental Houses apartments/Flats Offices blocks =Industries =parking on access roads	0.15 Ha	5	2.5	4.5	35%	=On-site Parking =Minimum Access road of 9 metres =At least one parking space for each 250sq ft of floor space.

Medium Density Residential	Multi dwelling town houses Apartments GF+2	Convenient stores Petrol station Corner shops	= <i>Row housing single rooms</i> = <i>Makuti roofing</i> = <i>Semi-permanent/ Mabati-</i>	0.1Ha	5	2	4	50%	Guest parking required for apartments with a minimum of 10 units at a ratio of 1 space for each 3 units -Other features as per the master plan =minimum access road of 9 metres
----------------------------	--	---	--	-------	---	---	---	-----	---

High density residential	Apartments /flats G+ 4	Office blocks Convenient stores Petrol station Nursery school primary school Green space, water feature.	= <i>Residential structures</i> = <i>Perimeter walls of more than 2.5 metres</i> = <i>Setting buildings close to the boundary of the plot</i>	0.045ha.	3	2	3	65 %	2 parking spaces for every 3 households -Guest parking required for apartments with a minimum of 10 units at a ratio of 1 space for each 4 unit =minimum access road of 9 metres
--------------------------	------------------------	---	---	----------	---	---	---	------	--

Commercial	Strictly for business operations Minimum G+4	Petrol station Convenient stores	<p><i>=Using boundary walls for extension of living rooms and or shops/kiosks</i></p> <p><i>=Dumping of wastes solid or liquid</i></p>	0.045ha	3	2	3	90% net area of plot.	<p>-For every 100m<sup>2</sup> of land at the CBD a minimum of 1.5 of parking space.(if a basement parking is available)</p> <p>-For small commercial centres, a 500<sup>2</sup>m of land should be provided a parking space.</p>
------------	---	-------------------------------------	--	---------	---	---	---	-----------------------	---

Kiosks/Stalls	Temporary structures	Should be confined at the bus stops and market only	<p><i>=Landscaping within the road reserve without authorization</i></p> <p><i>=External staircases</i></p> <p><i>=Discotheques and Night clubs/bars</i></p>	0.02 Ha				90% of the net area of plot. 10% of net area must be landscaped	No kiosks should be in the road reserve
---------------	----------------------	---	--	---------	--	--	--	---	---

Recreation	<p>Open spaces  Nature parks  Landscaping  Monuments  Well maintained road reserve  Water masses  Theme parks,  Walk ways,  Green zones,  Sports stadium and recreational complexes,</p>	<p>Advertising Multiplexes with recreation al as the dominant activity, Spots recreation, Nature parks/trails</p>	<p>Commercial Offices Businesses. Residential.</p>				<p>Parking should be limited  -The department in charge of physical planning &amp; urban development will issue permit for any temporary activities /structures to be carried on this zone</p>
------------	--	---	--	--	--	--	--

Public purpose and utilities	Health, Education, Administration, religious, schools Colleges.			<p>3 Ha for Sub County Hospital, 2Ha for health centres, 0.4Ha for nursing homes.</p> <p>0.2 Ha for dispensary</p> <p>0.1Ha for Religious use.</p> <p>4.5 Ha for Secondary school</p> <p>4.5 Ha for primary school</p> <p>0.25 Ha for kindergarte</p>					-Parking space to be provided for as prescribed in each type of development.
------------------------------	---	--	--	---	--	--	--	--	--

				n					
Transport.	Road, Railways airstrip Waterways			Class A 60m Class B 40m Class C 30 m reserve Secondary road (12-18m) Minor road 9m					_Parking is highly discouraged along transport corridors except for the designated parking spaces.  -Vegetation is highly encouraged along road

									reserves to conserve the environment as well as conserve flora and fauna.
Public utilities	Water, garbage collection, power electricity, Sewerage, cemetery,								<p>Garbage collection should be located on the leeward side and have 50M protection belt.</p> <p>Permit before the commencement of any sewerage and sanitary</p>

									<p>works.</p> <p>-Compliance Certificate to be obtained upon satisfactory completion of any sewerage and sanitary works.</p> <p>-Approval before carrying out any building/structure works, piling. Works or temporary structure works over, across or adjacent to any sewer or</p>
--	--	--	--	--	--	--	--	--	---

									sewerage system.
<b>Education</b>	University Campus	Any other permissible development upon Extension of User permission	Industries; Residential flat buildings; Service stations; Warehouse or distribution centres;	10	10	6	5	35%	Education (University) Campus and auxiliary Facilities only

<b>Drainage system</b>	Open drains & Closed drains within the road reserve							Obtain clearance certificate before the commencement of any storm water drainage works, or to erect or place any structures or object in, above or across any drain or drainage reserve  -Compliance Certificate upon satisfactory completion of any storm water
------------------------	--	--	--	--	--	--	--	--

									drainage works, erection or placement of any structures or object in, above or across any drain or drainage reserve -Approval before carrying out any temporary structure works/services over, across or adjacent to any drain or storm water
--	--	--	--	--	--	--	--	--	---

									drainage system Approval to be obtained before any works
<b>Mixed Zone</b>	<b>use</b>	Commercial Business premises offices G+10	warehouses Petrol station restaurants advertising	Industrial outside storage	0.05	5	1.5	3	90% of net area of plot 10% must be landscaped.

=Parking for other uses applies.

=Provision of lifts for buildings over 5 levels/floors

## CHAPTER SIX: SECTOR STRATEGIES AND ACTION PLANS

### 6.1 Introduction

This section details the sector strategies giving an in-depth analysis and proposals for various sectors including, Environment, Transportation, Disaster Management, Tourism and Cultural promotion and infrastructure development.

### 6.2 Rongo Town Water Supply

Water is one of the fundamental needs of a population in urban areas. The calculation of water demand for Rongo town was based on international accepted average 20M<sup>3</sup> of water a day per person. The objective of the plan is to supply enough clean and safe drinking water for the town for the next twenty years through establishing a reliable water distribution network (piping), water kiosks and reservoirs.

The guiding principle is to supply clean and safe drinking water to every household and business premise within the town. The table below illustrates the estimated supply of water against projected population by 2035;

Year	Projected population	Water of Demand(M <sup>3</sup> )
2015	99727	309,080
2020	121333	372,440
2025	147620	448,780
2030	179602	540,780
2035	218513	651,640

#### ***The proposed Action areas under water supply include;***

- Revive the Rongo water project at Koderobara along river Misadhi.
- Establish Rongo Water and Sewerage Company
- Water distribution network within Rongo Town, (Diameter 50-150mm)
- Construction of at least 10 water Kiosks within Rongo Town
- Construction of at least 3 Water reservoirs at Rongo town,
- Regular Surveillance of the water lines to detect losses and damages

- Protection of rivers and water sources within the town
- Sinking boreholes to supplement water supply.

***The institutions and organizations below are mandated to provide and implement the above suggested Action Plans;***

- The department of water County Government of Migori
- WARMA
- Water companies within Migori county
- Lake Victoria South Water Service Board.

### **6.3 Recreation**

The plan provides Rongo town a variety of leisure, amusement and city branding facilities. While trying to achieve beauty and create a relaxing environment for the population, the plan is built on inherent assets on site while integrating environmental concerns in all the strategies. The proposed strategies are as follows;

- Establish Public Recreational park at the current bus park.
- Nature walks along rivers Misadhi, Nyamador and Odundu
- Sports Stadium at showground

### **6.4 Public Utilities & Public Purpose**

These are services and infrastructure subject to forms of public control and regulations from the Migori county government and community based organizations. The developments are also subject to legal statutes, policy guidelines and development standards spelt out in this plan such as the Physical planning hand book, Physical Planning Act and the building code. These include the following;

- Designation for a Public cemetery at Opapo Primary School.
- Equipping all public schools with library, laboratories and computer labs/ICT centre.
- Staffing of schools within Rongo including ECD centres
- Construction of more classrooms including ECD centres
- Street lighting in the town

- Establishment of a well-equipped fire station at Rongo town
- Expansion of Rongo Level IV hospital
- Equipping of the hospital with ICU, HDU and modern theatre
- Equipping and staffing all health centres, dispensaries and clinics within Rongo town.
- Expansion of Ngere dispensary
- Put up a mortuary at Rongo level iv hospital

## 6.5 Infrastructure

Good infrastructure system makes a town functional by stimulating developments, enhancing access, and an aid to trade and dictates the development trends and patterns for a town.

The proposed strategies under this sector aim at ensuring a functional trunk sewer line, improved connectivity and a clean environment through improving road network, establishing a trunk sewer for the town and adoption of sustainable waste management mechanisms. The proposals include;

- Electricity substation in Rongo town.
- Connection of the households with electricity
- Adoption of alternative energy sources such as LPG gas and solar energy
- Expansion and upgrading of the bus park at the BAT.
- Designate parking spaces within the town
- Establishment of the missing links, expansion of roads and maintenance works.
- Traffic management system within the town
- Provision of pedestrian walkways
- Establishment of a trunk sewer for Rongo town
- Opening up of clogged drains and provision of storm water drainage channels along the roads
- Construction of Sewerage Treatment Plant along River Nyamador and Misadhi

- Capacity Building and Procurement of equipment: - the county provide Sewerage Exhauster Vehicles before establishment of trunk sewer.
- Installation of waste bins at strategic waste generation points within Rongo Town
- Purchase of Garbage Trucks and Purchase of street cleaning equipment
- Installation of high mast solar powered security lighting

## 6.6 Environment

This plan aims to protect the sanctity of the environment by ensuring there is no environmental degradation and pollution for activities within the town. This is in fulfillment of the provisions of Chapter five of the Constitution of Kenya, EMCA 1999, PPA (Cap 286) section 36, and the principles of the National Land Policy.

### ***The main action areas proposed include;***

- Solid waste collection, recycling, reuse, reduction, sorting and disposal mechanisms.
- Reservation of green areas and pedestrian walkways
- Waste water treatment works along river nyamador
- Decommissioning of pit latrines in the town
- Use of Bio-digester tanks and Septic Tanks for management of liquid waste
- Discouraging developments on environmentally sensitive areas through development control mechanisms
- Conducting Environmental Impact Assessment (EIA) for development proposals
- Discouraging unlicensed mining and harvesting of natural resources such as sand harvesting, gold mining especially from rivers and streams, brick making and tree logging
- City greening
- Public sensitization on proper ways of disposing waste and need of maintaining a clean environment

## **6.7 Enhancing Local Economy**

The objective of this strategy is to ensure that the economy of Rongo town is self-sustaining and reliant and has expanded opportunities for working and investment. The following action areas are key to realising this objective;

- Development of Grain millers, Milk Processing and Groundnut processing plants
- Renovation and extension of the existing Rongo market and construction of a market for the hawkers.
- Putting up of sheds for the Jua Kali sector.
- Street lighting to make Rongo town a 24 hour economy
- Holding investor conferences to show the opportunities within Rongo

## **6.8 Housing**

The plan aims at providing affordable and decent housing to all the residents of Rongo town as envisioned in the Chapter four of the Constitution of Kenya and National Housing Policy. The main challenge in the housing sector is the demand for housing is higher than the supply.

- Public-Private partnership in the provision of housing
- Incentives by the County Government to encourage investments in the housing
- Provision of auxiliary infrastructure and services to encourage growth of the real estate through provision of water, sewerage and solid waste collection services, enhancing security and street lighting.
- Adoption of modern, safe and affordable building materials and technology to reduce cost of construction.
- Public Housing including police and County officers

## **6.9 Disaster Management**

### **6.3 Disaster Management**

Disaster means a catastrophe, calamity or grave occurrence in any area, arising from natural or manmade causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of,

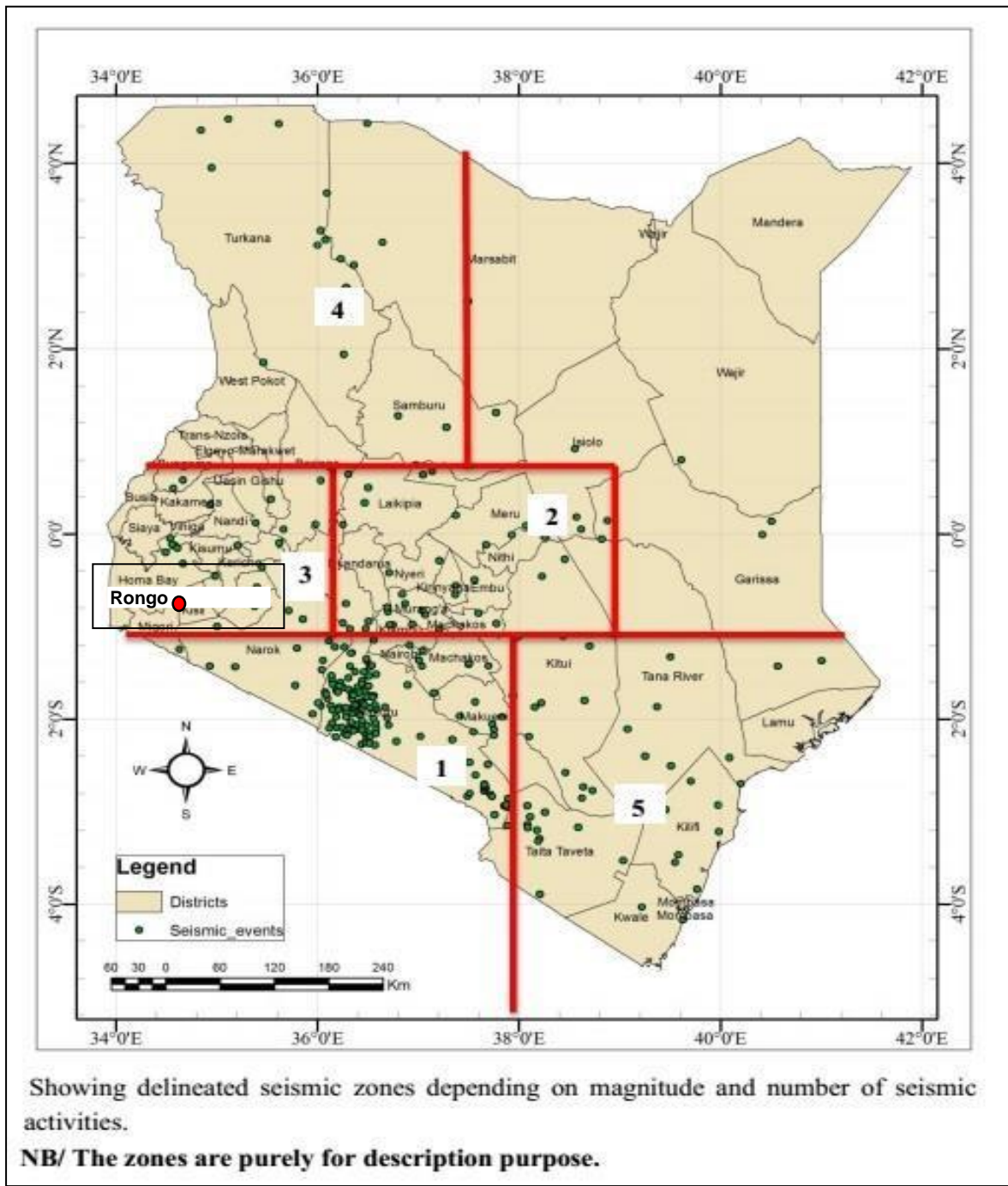
property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area;

Disaster management means a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient for:

- (a) Prevention of danger or threat of any disaster;
- (b) Mitigation or reduction of risk of any disaster or its severity or consequences;
- (c) capacity-building;
- (d) Preparedness to deal with any disaster;
- (e) Prompt response to any threatening disaster situation or disaster;
- (f) Assessing the severity or magnitude of effects of any disaster;
- (g) Evacuation, rescue and relief;
- (h) Rehabilitation and reconstruction;

Migori County has no legislation that will guide the process and institutions of disaster management. The infrastructure to support the process of disaster management is provided in this ISUDP. These include establishing and distribution health, fire brigade and police facilities. These are provided for in all the nodes. These units will be accessed through link to the key arterials in the town. Fire hydrants shall be provided in assessed strategic locations.

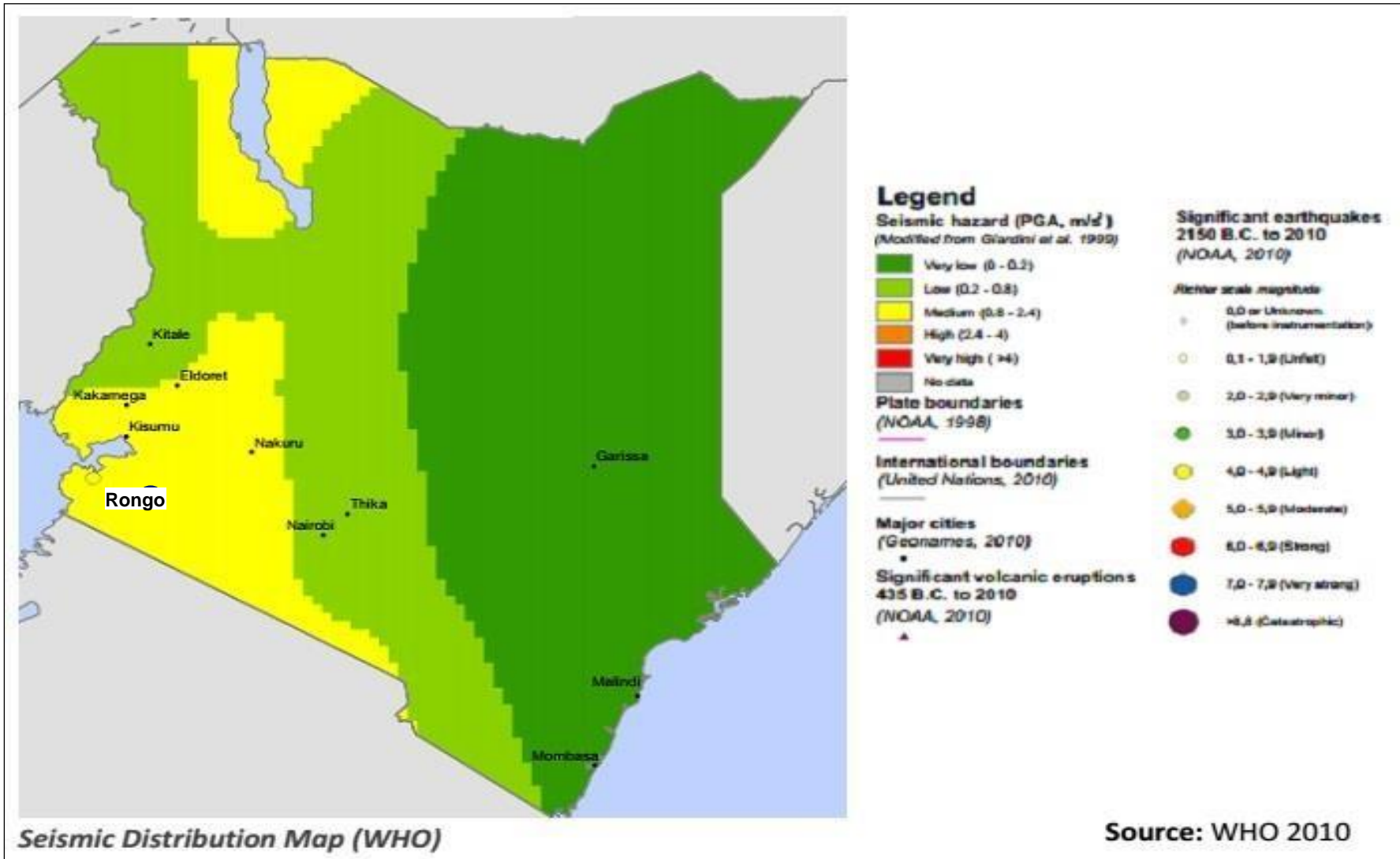
**Figure 47: Delineated Seismic Zones in Kenya**



Source: WHO 2010

**NB/:** The zoning provided here are purely based on magnitude level and number of seismic activity of various regions. The high seismic activity seen in zone 1 is mainly attributed to fault system associated with the rift system.

**Figure 48:** Seismic Distribution/Hazard Map



Source: WHO 2010

## CHAPTER 7: CAPITAL INVESTMENT PLAN

### 7.0 Introduction

The Capital Investment Plan (CIP) is the multi-year capital investment estimates of assessed social and physical infrastructure for improving the basic services of the town. It is an integral part of the Integrated Strategic Urban Development Plan (ISUDP) for creation of new infrastructure in the Rongo town. This section summarizes the capital investments required for creating infrastructure assets and various interventions required in the implementation of such projects till the horizon year 2035. It presents an investment road map for the horizon year 2035. The total estimated capital investment required for providing efficient services is Kshs 2,578.1 million up to 2035.

### 7.1 Project Identification

Identification of project is the base for preparation of CIP. The demand gap assessment, stakeholder's consultation, situation mapping and study of the Rongo town have been carried out to identify the projects. The CIP provides the estimate for execution of identified projects in Rongo town. The norms of Government of Kenya and County Government of Migori have been followed for making the CIP.

### 7.2 Sector Investment Needs for 2035

The table below presents the summary of the Rongo town investment needs until year 2035. The needs assessment has been carried out for the projected population for next twenty year 2016-2035.

S No.	SECTOR	Total Amount (Kshs)	Percentage %
<b>SWS</b>	Water Supply	1,000,000,000	9.4
<b>SWDSE</b>	Waste Management (Storm Water Drainage, Sewerage and Sanitation & Solid Waste Management)	1,086,000,000	10.2
<b>SPE</b>	Electricity and lighting	100,250,000	0.9
<b>SRT</b>	Road and Transportation	1,508,000,000	14.2
<b>SIF</b>	Housing and Social Infrastructure	6,668,000,000	62.9
<b>SHE</b>	Environment and Health	149,000,000	1.4

<b>SED</b>	Economic Development	90,000,000	0.8
	<b>Total</b>	<b>10,601,250,000</b>	<b>100</b>

### 7.3 Phases of Investment for 2018

The estimated cost has been phased in three periods. In view of completion of these projects in next 20 years the estimated cost will be invested in ratio of 50%, 30% and 20% in the years 2020, year 2023 and year 2035 respectively. Following table describes estimated cost for next 20 years.

S. No	SECTOR	Amount (Kshs)	2020	2025	2035
<b>SWS</b>	Water Supply	<b>1,000,000,000</b>	500,000,000	300,000,000	200,000,000
<b>SWD</b>	Waste Management	<b>1,086,000,000</b>	543000000	325800000	217200000
<b>SPE</b>	Electricity and lighting	<b>100,250,000</b>	50125000	30075000	20050000
<b>SRT</b>	Road Transportation	<b>1,508,000,000</b>	754000000	452400000	301600000
<b>SIF</b>	Housing and Social Infrastructure	<b>6,668,000,000</b>	3334000000	2000400000	1333600000
<b>SHE</b>	Environment Health	<b>149,000,000</b>	74500000	44700000	29800000
<b>SED</b>	Economic Development	<b>90,000,000</b>	45000000	27000000	18000000
	<b>Total</b>	<b>10,601,250,000</b>	5300625000	3180375000	2120250000

### 7.4 Identification and Listing of Projects

The investment needs for implementation of various projects have been estimated using similar projects that have been carried out within Kenya in the

recent and factoring in inflation perimeter. Projects required for CIP have been developed under each sector (as reflected in table below). The sectors covered in cost estimation include: health, recreation, trade and commerce, environment, water supply, sewerage and sanitation, storm water drainage, road transportation and industry. Project specific and the total costs have been listed in the table below as follows:

#### 7.4.1 Projects on Water Supply

**Table 0-1: Estimated Investment for Sub-Projects on Water Supply**

Project ID	Project	Quantity	Unit	Rate	Cost (Kshs)
<b>SWS1</b>	Water distribution network within Rongo Town, (Diameter 50-150mm)	50,000	M	16,000	800,000,000
<b>SWS2</b>	Construction of water Kiosks within Rongo Town	234	No.	300,000	70,000,000
<b>SWS3</b>	Construction of Water tanks at Rongo town,	34	No.	3,000,000	100,000,000
<b>SWS4</b>	Purchase of motorcycles for Awareness and Distribution of water treatment chemicals	100	No.	300,000	30,000,000
	<b>Sub total</b>				<b>1,000,000,000</b>

#### 7.4.2 Estimated Investment for Sub-Projects on Storm Water Drainage, Sewerage and Sanitation and Solid Waste Management

Project ID	Project	Quantity	Unit	Rate	Cost (Kshs)
------------	---------	----------	------	------	-------------

<b>SWDSE 1</b>	Construction of Ablution Blocks/Toilets in Rongo Town	5	No	6,000,000	30,000,000
<b>SWDSE 2</b>	Construction of Sewerage Treatment Plant along River Nyamador and Misadhi	40,000	Square meter	20,000	800,000,000
<b>SWDSE 3</b>	Construction of Sewerage Network in Rongo Town	20,000	M	10,000	200,000,000
<b>SWDSE 4</b>	Capacity Building and Procurement of equipment: - Purchase of Sewerage Exhauster Vehicles	2	No	10,000,000	20,000,000
<b>SWDSE 5</b>	Installation of Street Dustbins to main streets of Rongo Town	100	No	10,000	1,000,000
<b>SWDSE 6</b>	Purchase of Garbage Trucks and Purchase of street cleaning equipment	Sum	No	15,000,000	15,000,000
<b>SWDSE 7</b>	Expansion of storm water drains in Rongo Town	4,000	M	5,000	20,000,000
	<b>Sub Total</b>				<b>1,086,000,000</b>

#### 7.4.4 Projects on Electricity

Project ID	Project	Quantity	Unit	Rate	Cost (Kshs)
<b>SPE1</b>	Installation of high mast solar powered security lighting at Rongo town	100	No	300,000	30,000,000
<b>SPE2</b>	Installation of high mast solar powered security lighting at Riosiri, Nyamuga and Ngere Centres	30	No	1,000,000	30,000,000
<b>SPE3</b>	Installation of high mast security lighting along Kisii Migori Road	50	No	300,000	15,000,000
<b>SPE4</b>	Installation of high mast security lighting along Rongo Rodi Road	50	No	300,000	15,000,000
<b>SPE5</b>	Installation of high mast security lighting along Rongo Riosiri Road	35	No	300,000	10,250,000
	<b>Sub Total</b>				<b>100,250,000</b>

#### 7.4.5 Estimated Investment for Sub-Projects on Road and Transportation

Project ID	Project	Quantity	Unit	Rate	Cost in Kshs
<b>SRT1</b>	Rehabilitation and expansion of the existing Bus terminus and Bus stops	Sum		8,000,000	8,000,000
<b>SRT2</b>	Development of New Bus terminus in a portion of BAT land measuring approximately 1 Ha	Sum		200,000,000	200,000,000

<b>SRT3</b>	Maintenance and repair of Main roads within Rongo Town	20	Km	50,000,000	1,000,000,000
<b>SRT4</b>	Opening Up of Access Roads	30	Km	10,000,000	300,000,000
		<b>Sub Total</b>			<b>1,508,000,000</b>

#### 7.4.6

#### Projects on Health and Environment

Project ID	Project	Quantity	Unit	Rate	Cost (Kshs)
<b>SHE1</b>	Reservation of green areas and Pedestrian walkways	Sum		25,000,000	25,000,000
<b>SHE2</b>	Acquisition of Cemetery site	25	Acres	800,000	20,000,000
<b>SHE3</b>	Up gradation of sub county hospital level IV to level V i.e. Referral Hospital	1	No	80,000,000	80,000,000
<b>SHE4</b>	Acquisition of Ambulances	3	No	8,000,000	24,000,000
		<b>Sub Total</b>			<b>149,000,000</b>

#### 7.4.7 Estimated Investment for Sub-Projects on Housing and Social Infrastructure

Project ID	Project	Quantity	Unit	Rate	Cost (Kshs)
<b>SIF1</b>	Information and communication Centre (ICT) for the town	1	No	10,000,000	10,000,000
<b>SIF2</b>	Development of Stadium at Koderobara ( <i>showground</i> )	1	No	250,000,000	250,000,000
<b>SIF3</b>	Development of Recreational Park at Old Bus Park and next	1	No	8,000,000	8,000,000

	to Sub county Hospital				
<b>SIF4</b>	Provision of Low cost Housing	3000	No	1,800,000	5,400,000,000
<b>SIF5</b>	Land Banking	1250	Ha	800,000	1,000,000,000
	<b>Sub Total</b>				<b>6,668,000,000</b>

#### **7.4.8 Estimated Investment for Sub-Projects on Economic Development**

Project ID	Project	Quantity	Unit	Rate	Cost (Kshs
<b>SED1</b>	Preparation of feasibility and detailed project report for of development light industries	2	No	5,000,000	10,000,000
<b>SED3</b>	Development of Grain millers, Milk Processing and Groundnu processing plants	Sum		50,000,000	50,000,000
<b>SED4</b>	Development of Shed for the Jua Kali Industry	2	No	12,000,000	24,000,000
<b>SED5</b>	Renovation and Expansion of the current market	Sum		6,000,000	6,000,000
	<b>Sub Total</b>				<b>90,000,000</b>

## **References**

Republic of Kenya (1996), The Physical Planning Act (Cap 286)

Republic of Kenya (1999), Environmental Management and Coordination Act

Republic of Kenya (2004), National Housing Policy

Republic of Kenya (2007), The Kenya Vision 2030

Republic of Kenya (2007), The National Land Policy

Republic of Kenya (2010), The Constitution of Kenya

Republic of Kenya (2010), Urban Areas and Cities Act

Republic of Kenya (2012), County Governments Act

Republic of Kenya (2012), Public Finance Management Act

Republic of Kenya (2012), The Land Act

Republic of Kenya (2012), The Water Act







