

**County Government of Wajir** 

Department of Lands, Public Works, Housing & Urban Development

## BUTE TOWN LOCAL PHYSICAL AND LAND USE DEVELOPMENT PLAN 2023-2033



### FINAL PLAN REPORT



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## **PLAN APPROVAL**

#### CERTIFIED

I certify that the Plan has been prepared as per section 45 of the Physical and Land Use Planning Act, 2019 and physical planning standards and guidelines.

Signature	Date
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COUNTY DIRECTOR OF PHYSICAL PLANNING

#### RECOMMENDED

Signature	Date
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# COUNTY EXECUTIVE MEMBER OF LANDS, HOUSING AND PHYSICAL PLANNING

#### APPROVAL

Hansard No..... Date....

**COUNTY ASSEMBLY** 

**ENDORSED** 

Signature..... Date.....

#### H.E. GOVERNOR

## FOREWARD



Physical and land use planning are functions assigned to county governments as outlined by the Constitution of Kenya, 2010. This function bestows counties to prepare County Integrated Development Plans (CIDPs), County Physical and Land Use Development Plans, and Local Physical and Land Use Development plans. This comes with the need to control development, spur economic growth, and guide the provision of robust infrastructure and services.

Given this context, preparing the Local Physical and Land Use Development Plan for Bute Town is an earnest step toward achieving the county's vision of being "A peaceful, cohesive and prosperous county, affording quality life for its citizens." The plan focuses on improving residents' living conditions and livelihood and spurring economic development.

The plan is supported by strategic interventions in transportation, housing, governance, physical and social infrastructure provision, and environmental conservation. These interventions are supported by a raft of projects and programmes that aim to improve the living conditions in the town.

The plan has been prepared in consultation with the public at the town/grassroots level. Public participation was inclusive and involved extensive stakeholder engagement throughout the plan preparation process. The contribution of stakeholders exemplifies the spirit and vision through which this plan is anchored. This plan fits into the county's development priority and proposals for incorporation into future county-integrated development plans. The achievable benefits of the plan are only as good as its implementation.

I desire to give my commitment to the process of implementing this plan. Lastly, I call upon all stakeholders and the county's development partners to take up active roles in achieving the vision articulated in this Plan and make the Bute Town dream of being "*An economically vibrant, environmentally sustainable, well-organized town with an efficient multi-modal transport network integrated with adequate social and physical infrastructure.*" a reality.

H.E. FCPA AHMED ABDULLAHI, GOVERNOR.

## ACKNOWLEDGEMENTS

The preparation of this plan was made possible by the earnest effort of the Governor, H.E. Ahmed Abdullahi, and his Deputy, H.E. Ahmed Muhumed Abdi. The Department of Lands, Housing, and Physical Planning prepared the plan. I thank the Governor and his deputy for entrusting the department with successfully delivering this plan.

A special thanks go to the Lands Committee and the County Assembly for discussion and approval of this plan. I also appreciate the role played by the county executive committee members in not only providing their input and aligning their departmental aspirations to this plan but also in validating the plan. This sets a rightful tone for more straightforward implementation.

Additional gratitude goes to the planning team comprising the office of the Director of Lands, Mr. Abdullahi Adan, the county physical planner, Mr. Edward Mucheru, and the consultant, Mr. David Gichuki, who was the lead consultant in preparing the plan.

I hold special gratitude to the residents of Bute Town, especially the elders, who provided understanding and leadership to enable the preparation of the plan. The residents' input throughout the plan preparation process has made the plan wholesome. With this in mind, policing of its intentions will be forthcoming during implementation.

I also wish to express my appreciation for the efforts of the town, sub-county, ward administrators, and area chiefs in fully mobilizing the community and participating during the plan preparation period.

The preparation of the plan was a lengthy and intensive process that involved many other institutions and individuals at a personal level. We thank all involved for their contribution and input to the Plan.

### SAADIA AHMED ABDI COUNTY EXECUTIVE COMMITTEE MEMBER, DEPARTMENT OF LANDS, HOUSING AND PHYSICAL PLANNING.

## **EXECUTIVE SUMMARY**

Bute Town Local Physical and Land Use Development Plan (2023-2033) has been prepared in line with the provisions of the Constitution of Kenya, 2010, Physical and Land Use Planning Act, 2019, Urban Areas and Cities Act, 2011 and its Amendment of 2019, County Governments Act, 2012 and the Government's Development Blue Print outlined in The Kenya Vision 2030, as well as the National Spatial Plan.

This plan shall guide and coordinate the development of infrastructure and land use in the town and its environs for ten (10) years. The planning area covers an area of approximately 154.8km<sup>2</sup> comprising the urban nodes of Bute Town, Bute Godha, Kariandusi, Waititi A&B, and Adadijole.

The town functions as the headquarters for **Wajir North Sub-County** and is a significant transit town from Moyale Town to Mandera County. The town sits on the foothills of the Ethiopian Highlands along the Moyale-Dandaba highway.

In preparing the plan for the town, participatory planning was done through extensive stakeholder engagement with county government officials, residents, and other relevant stakeholders (drawn from various sectors and interest groups). The result of these engagements offered a deeper understanding of the town as well as the development aspirations of its citizenry.

Plan preparation was based on a process that broadly included the identification of planning issues, which gave a profile of the development issues in the town, development of land use & zoning plans, preparation of a land cadastre, and development of an implementation strategy having the projects/programmes, actors, timelines and a capital investment framework.

During identifying issues, an assessment of the development potential, opportunities, and constraints for Bute Town was made. The town is faced with a myriad of challenges, including the inadequacy of water, inefficient town institutional set-up, poor solid waste management practices, lack of a sewer reticulation system, narrow and inaccessible roads, flooding during rainy seasons owing to a lack of a stormwater management system among others. However, it

possesses a lot of potential in terms of transportation, logistics, and large-scale agricultural production, given the fertility of the soils in the area.

The **Proposed Structure Plan** of the town describes the long-term (10-year) spatial development framework for Bute Town and its adjoining nodes of Kariandusi, Waititi A&B, and Adadijole. The Structure Plan is informed by various structuring elements of the town, including the seasonal rivers traversing the town from the Ethiopian Hills and the Moyale-Mandera (B80) road, stakeholder affirmations as well as the needs of the population of the town, including its function as a sub-county headquarter.

A **Zoning Plan** accompanies the Structure Plan to provide detailed land use regulations for specific zones within the Core Urban Area, ranging from permitted uses, minimum plot sizes, setbacks (front, side, and rear), levels (building heights), and plot coverage. A subdivision scheme plan has also been provided, highlighting both institutional and individual plot ownership. This will assist in the provision of land ownership documents for residents of the town.

Sector-specific development strategies have also been proposed for transportation, housing, local economic development, infrastructure, and urban governance. These strategies outline the specific projects that will be put in place to achieve the plan's objectives. The Implementation Framework proceeds to name the actors, specify timeframes, and detail the cost of implementation of the projects. It is intended to ensure smooth, well-coordinated, and result-oriented implementation of this plan.

Adopting the proposed plan with timely and coordinated implementation of the proposed strategies will act towards reversing the current trend, improve the living conditions of Bute residents, and, above all, help achieve the Vision of the community and subsequent growth of the county.

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## ACRONYMS

AP	Administration police
ASAL	Arid and Semi-Arid Land
BPO	Business Process Outsourcing
CRA	Commission on Revenue Allocation
DCC	Deputy County Commissioner
DHS	Demographic and Health Survey
ECDE	Early Childhood Development and Education
EIA	Environmental Impact Assessment
EMCA	Environmental Management and Coordination Act
FBOs	Faith Based Organizations
FM	Frequency Modulation
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
ILRI	International Livestock Research Institute
KHPC	Kenya Household Population Census
LPG	Liquid Petroleum Gas
LPLUDP	Local Physical and Land Use Development Plan
MMA	Maternal Mortality Ratio
NEAP	National Environment Action Plan
NEMA	National Environmental Management Authority
NG-CDF	National Government Constituency Development Funds
NGO	Non-Governmental Organisation
NLC	National Land Commission
PFM	Public Finance and Management Act
РН	Physically Handicapped
РНО	Public Health Officers
PPP	Public-Private Partnerships
RCO	Registered Clinical Officers
SDG	Sustainable Development Goals

ToR	Terms of Reference
UN	United Nations
UNICEF	United Nations Children Fund
VIP	Ventilated Improved Pit Latrine
WASDA	Wajir South Development Association



## **1BACKGROUND**

#### **1.1 Overview**

Physical and land use planning are functions assigned to county governments as outlined in the Fourth Schedule of the Constitution of Kenya, 2010. Further captured by the County Government Act, 2012, this planning function mandates counties to prepare County Integrated Development Plans (CIDPs), County Physical and Land Use Development Plans, and Local Physical and Land Use Development. This comes with the need to control development, spur economic growth, and guide the provision of robust infrastructure and services.

Preparing the Local Physical and Land Use Development Plan for Bute Town is an earnest step toward achieving the county vision of being "*A peaceful, cohesive and prosperous county, affording quality life for its citizens*." The plan focuses on improving residents' living conditions and livelihood and spurring economic development.

The growth of Bute Town has been uncontrolled and unregulated over the years despite having a development plan. The result is the uncoordinated and unchecked division of land, inadequate access roads, inefficient solid waste management, inadequate social infrastructure and adherence to development standards, encroachment of public spaces, and poor natural resource conservation and management, among others.

Bute Town Local Physical and Land Use Development Plan (LPLUDP) is directed and guided by an assortment of legislations (sectoral policies and laws) as well as the needs of the population in terms of infrastructure and services. The plan is a long-term plan and shall span ten (10) years, 2023-2033, to guide the town's overall development regarding land use sustainability and coordinated growth.

### **1.2 Purpose of the plan**

The purpose of the Local Physical and Land Use Development Plan (LPLUDP) is to:

- ✓ Guide and coordinate the development of infrastructure;
- ✓ Regulate the use of land and land development;
- ✓ Promote urban renewal and zoning;

- ✓ Provide a framework for coordinating various sectoral agencies working in the town and the county;
- ✓ Provide a framework and guidelines for building and work development in the town.

## **1.3 Vision and Objectives**

The sectoral vision statements given by the stakeholders during the town's visioning exercise held on 24<sup>th</sup> May 2018 are:

- A town with an efficient multi modal transportation network
- A town with an all-inclusive and improved education system for all
- A town with efficient and adequate social and physical infrastructure
- A town with a diverse and vibrant economy
- A town with proper protection and conservation of the environment and its assets
- A town with a well spelt administrative/organizational structure with no conflicting roles/duties



The vision statements were summarized to give a shared vision for Bute Town as;

An economically vibrant, environmentally sustainable, well-organized town with an efficient multi modal transport network integrated with adequate social and physical infrastructure.

#### **Objectives of the Plan**

The specific objectives of the plan are:

- To optimize use of land and available resources
- To provide adequate and appropriate infrastructure to spur socio-economic development
- To conserve the environment
- To improve access to quality and affordable housing
- To promote good urban governance
- To provide a basis for property surveying, titling and management

#### **Guiding Principles**

The following principles guided the preparation of Bute Town LPLUDP:

- **Sustainable development:** The LPLUDP was guided by the need to harmonize social, economic, and environmental aspects of development in order to cater for the current and future generation needs of the people of Bute Town.
- Livability: The planning of Bute Town was guided by the need to enhance the community's quality of life through improved transportation, the built environment, and open spaces.
- **Public participation**: The LPLUDP was prepared through effective public engagement with relevant stakeholders.
- **Minimal disturbance**: The plan was prepared with the minimal impact of change on existing developments in mind. This is as captured in the towns proposed scheme plan.
- Resource maintenance and efficiency: The plan promotes environmentally responsible and resilient energy systems and comprehensive water management systems. This

principle also guided the development of the built environment to prevent urban sprawl effects on the ecologically rich hinterlands.

 Intra- and intergenerational equity: The plan was guided by design for mixed-income, affordable housing and considered the design needs of the elderly and persons with disabilities, demographic changes, access to good public transport, and development of well-connected compact neighborhoods.

### **1.4 Project Description**

This assignment involved the preparation of a Local Physical and Land Use Development Plan for Bute Town. The plan was prepared under the following summarized terms of reference;

- Preparing a participatory framework to guide stakeholder engagement throughout the plan-making process and implementation. The output of this is the general vision for the town and the identification of the current development issues and the possible future development in the town.
- Production of an inventory of the current situation in the town in terms of land use, suitability, and availability, and the development scenario done per sector/thematically in areas involving the environment, analysis of current and future urban development trends, socio-economy of the town, infrastructure, and services.
- Develop an interactive GIS-based plan for the town, showing the current situation, the proposed cadastral layer, and the plan in a digitally interactive format.
- An integrated urban development plan that addresses both the existing and future challenges of the town

### **1.5 Methodology**

A phased-based process was used to achieve the intended objectives of the assignment. These are:

- 1. Project Design/Preparatory Phase
- 2. Mapping Phase
- 3. Studies and Analysis Phase
- 4. Plan Proposals and Strategies Phase

The process of preparing the LPLUDP was operationalized in the following steps and activities as summarized in Table 1-1:

#### Table 1-1: Methodology

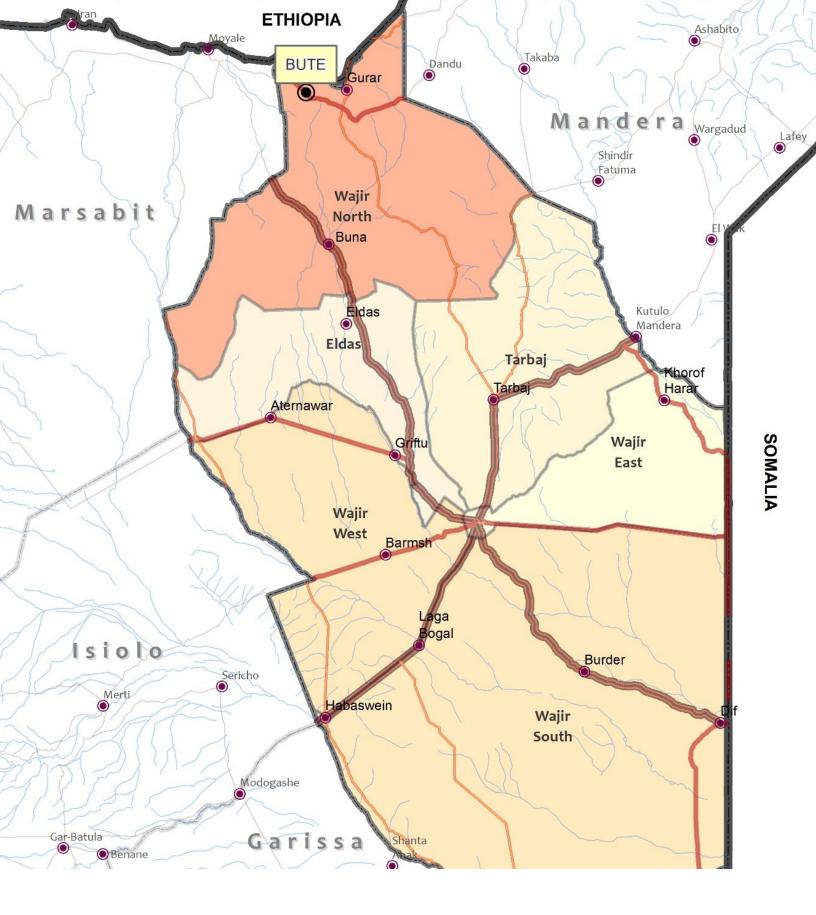
NO	PHASE	ACTIVITIES /TASKS
1.	Project inception	<ul> <li>Notice of intention to plan</li> <li>Start-up meetings</li> <li>Identification of stakeholders</li> <li>Developing mode of Operation/Action Plan</li> <li>Appraisal of project area/reconnaissance</li> </ul>
2.	Scoping of context	<ul> <li>Launch and preliminary visioning</li> <li>Urban study that included:         <ul> <li>Literature review</li> <li>Key informant interviews</li> <li>Stakeholder consultation</li> <li>Observation (including photography)</li> <li>Administering questionnaires</li> </ul> </li> <li>Stakeholder consultations</li> <li>Aligning the results according to the themes</li> </ul>
3.	Mapping	<ul> <li>Acquisition of digital topographical maps from Client</li> <li>Preparation of base, thematic maps</li> <li>Preparation of sub-division scheme plan</li> <li>Creation of GIS platform</li> </ul>
4.	Identification of planning issues	<ul> <li>Establishing of analysis criteria</li> <li>Analysis of the baseline information</li> <li>Sector consultations</li> <li>Visioning</li> <li>Description and illustration of status, potentials and constraints</li> <li>Establishing linkages</li> <li>Identifying emerging issues</li> <li>Validation of situational analysis findings and planning issues identified</li> <li>Realigning /reaffirming the preliminary vision established at the launch of the project</li> <li>Preparation and validation of the situational analysis report.</li> </ul>
5.	Land optimization for urban development	<ul> <li>Projection of land requirements based on population needs;</li> <li>Land site analysis</li> </ul>
6.	Preparation of land use/zoning plans	• Preparation of a land use plan
7.	Formulation of land use and land management policies	<ul> <li>Zoning regulations</li> </ul>
8.	Preparation of a Cadastral layer and Urban Design	<ul> <li>Preparation of a Scheme Plan</li> <li>Identification of Urban design opportunities and interventions</li> <li>Urban design modelling</li> </ul>
9.	Sector Development	Formulating sector development strategies

NO	PHASE	ACTIVITIES /TASKS
	strategies	<ul> <li>Identifying strategic actions and measures</li> <li>Identification of programs and projects to be undertaken to realise the strategies</li> </ul>
10.	Implementation framework	<ul> <li>Preparation of sector implementation strategy</li> </ul>
11.	Capital Investment Plan	<ul> <li>Identification of capital projects</li> <li>Costing of the capital projects</li> <li>Identification of the actors</li> <li>Funding mechanisms</li> </ul>
12.	Stakeholder engagement (validation workshop)	<ul> <li>Presentation of the plan</li> <li>Collection of comments from stakeholders</li> </ul>
13.	Preparation of the final plan	<ul> <li>Incorporation of comments as raised by the stakeholders</li> <li>Packaging of the reports for final submission</li> </ul>
14.	Submission to the client i.e. County Government of Wajir for approval	Submitting the final plan to the County Government of Wajir

## **1.6 Organization of the report**

This report is presented in five sections as outlined below:

- i. **The Background** of the plan incorporating its purpose, vision and objectives. A description of the terms of reference, the methodology used in preparing the plan and the organization of the plan report;
- ii. **The Planning Context** which outlines the project location and its physiographic characteristics in terms of climatic conditions and geological attributes, the previous planning efforts in the town and its existing functions and potential. Additionally, a review of the policy and legal background guiding the development of the plan is provided;
- iii. An analysis of the **Existing Development Situation** that highlights the population and its needs assessment, land use and suitability analysis, housing, physical and social infrastructure provision, transport, and local economic development while highlighting key issues in each sector;
- iv. The **Planning Proposals** presented as sector-based development strategies, a zoning plan and regulations, and an implementation framework;
- v. A **Capital Investment Plan** outlining the key projects that will spark transformation and socio-economic development.



## **2 THE PLANNING CONTEXT**

### 2.1 **Overview**

The planning of Bute Town takes cognizance of different legal provisions that guide the process of developing the plan and the expected output. This section presents an overview of the town's location and its physiographic characteristics. Additionally, a review of the previous planning effort in the town is presented alongside the existing functions. Lastly, a review of existing legislation regarding policies and laws guiding the plan is presented.

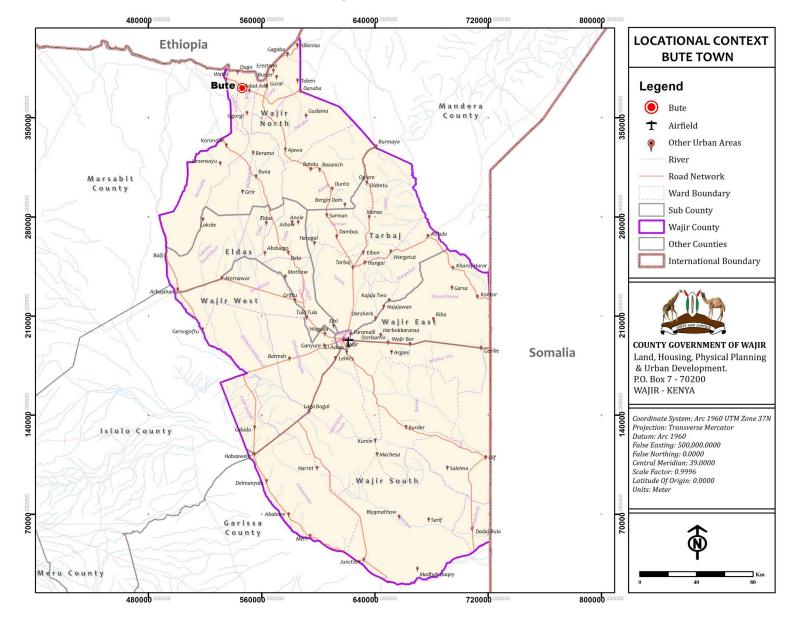
### 2.1 Project location

Bute Town is among the oldest towns in Wajir County, situated towards the Ethiopian highlands at a latitude of 3°20'15.39"N and a longitude of 39°27'36.30"E. It is located along the Moyale-Mandera road (B80), about 200 Kilometers North of Wajir Municipality.

The town is located in Bute Ward, approximately 42 kilometers from Moyale Town. It borders Godama Ward to the west and Gurar ward to the east.

The location of Bute Town presents potential as a major transit town as it lies between two major municipalities in the region, namely Moyale and Mandera. The Moyale-Danaba road is currently being tarmacked, thereby increasing the potential for growth due to improved accessibility to the town.

The location of the town is as presented in Map 2 -1.



Map 2-1:Bute Local Context

## 2.1 Physiography

#### 2.1.1 Rainfall and temperature

Bute Town is located at the foot of the Ethiopian highlands and receives annual rainfall between 500mm and 700mm. The area has two rainy seasons. The long rains fall in April and May while the short rains fall in October and November.

The average annual temperature is 27.9°C, and the average temperature range is 3.5 °C. The warmest months are February and March, with an average of 36°C while the coolest months are June, July, August and September with an average low of 21 °C.

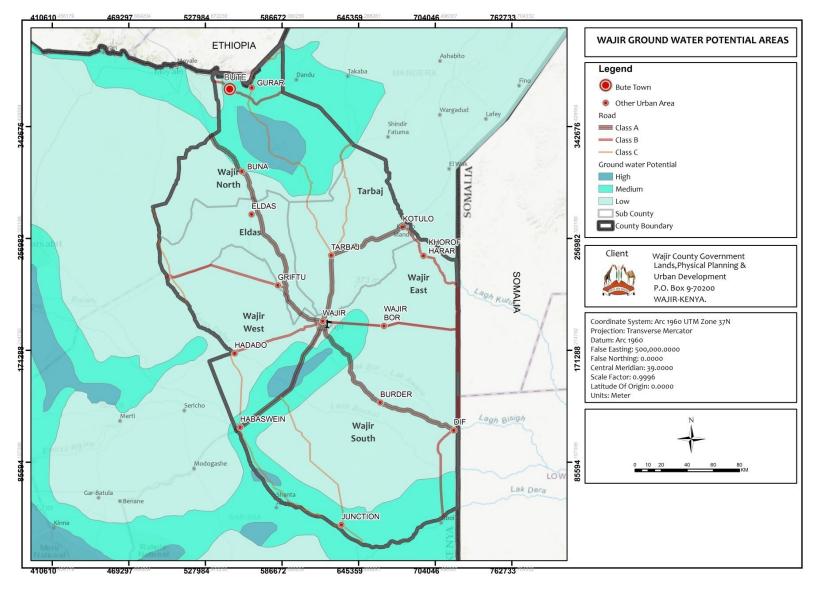
### 2.1.2 Wind

Kenya has vast unexploited wind energy that can fulfill power requirements for the whole country at an affordable price. The average wind speeds for Bute Town and its environs range from 4-4.8m/s. this is partly due to its location at the foothills of the Ethiopian Highlands. This range meets the minimum grid requirement of 4.5 meters per second for a grid connection system. (*www.altestore.com, 2019*).

### 2.1.3 Groundwater potential

The aquifers in this area occur in the alluvial deep-silt found below the limestone rocks series. Below this aquifer lies a series of dense clay layers and a few thin sandy and silty beds to a depth of between 80 and 150 metres. The sandy and silty beds have been found to contain water at depths between 35 and 40 metres. Therefore, the ground water potential in Bute Town could be termed as medium.

Map 2 -2 shows the groundwater potential in Bute Town.



Map 2-2: Groundwater potential

Source: Kenya Data

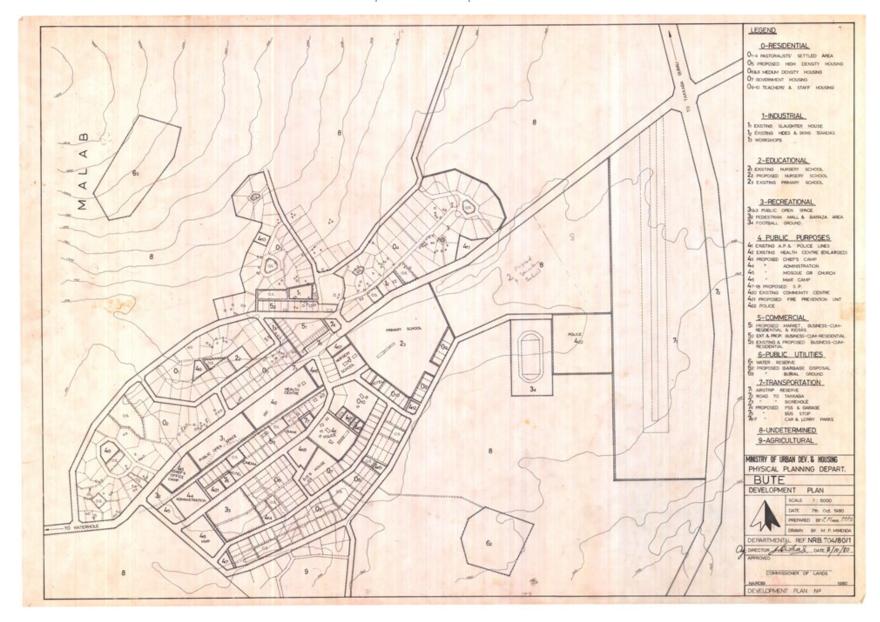
#### 2.1.4 Geological and Soil Characteristics

Bute Town, situated at the foothills of the Ethiopian highlands, is characterized by loamy soils favorable for agriculture. Sandy soils, locally known as '*Rama*', are dark reddish brown, deep, well-drained, non-saline, and non-sodic with high infiltration capacity, are also common. These soils are used by the locals in the construction industry to make sand, bricks, and mortar.

### 2.2 Previous planning Effort

A plan for Bute Town was prepared in 1980. The plan was not approved or implemented. The land uses proposed in the plan do not currently exist. The plan's orientation does not match what is currently on the ground. The airstrip is an example of the inadequacies presented in the plan regarding land orientation. Map 2-3 presents the Bute development plan of 1980.

Map 2-3:Bute Town plan, 1980



### 2.1 Town Functions and Potential

Bute Town is the sub-county headquarters for Wajir North Sub-County. It has offices of the Deputy County Commissioner, town and ward administrators, chief, and constituency development fund. The town also plays the role of a commercial and service centre. Commercial activities within the town include hotels and lodges, mobile money transfer shops, and wholesale and retail trade.

The town has a lot of potential as a commercial centre. The ongoing bitumenisation of the Moyale-Mandera (B80) road will enhance the town's growth by increasing access and movement of goods and services. Similarly, the rich, fertile soils in the town pose a high potential for agricultural production.

### 2.2 Policy Context

The section below highlights the policies that have guided the plan's development for Bute Town and its environs. The analysis highlights the general and specific areas within the policies that are key to the plan for the town.

#### 2.2.1 Vision 2030

Vision 2030 aims to transform Kenya into a newly industrializing, middle-income country that will provide a high-quality life to its citizens by 2030. It is based on three pillars: economic, social, and political.

Specifically, the plan aims to directly achieve the intentions of the economic pillar by promoting tourism activities in the wildlife-rich Bute Malaba Forest Ranges, increasing value addition, promoting an inclusive wholesale and retail trade sector, and promoting a robust, diversified manufacturing sector and financial services.

In addressing the social pillar, the plan aims to provide a clean, secure, and sustainable environment, adequate and decent spaces for promoting housing development, and infrastructure, including schools, health facilities, water reticulation, and sanitation systems. The plan also aims to promote gender, youth, and vulnerable groups in resource distribution and improve their livelihoods.

#### 2.2.2 National Spatial Plan (2015-2045)

The Plan was prepared within the framework of the Constitution. It seeks to achieve promises Kenyans furnished themselves under the new Constitution like the right to economy; the need for balanced development across the country, the right to a clean and healthy environment and the right to property among others. The Plan covers the entire country and encompasses all the 47 counties. The Plan recognizes that Kenya has various resources that must be managed in a concerted effort.

The National Spatial Plan addresses land use and socio-economic and environmental issues to achieve balanced and sustainable spatial development and optimal land uses across the country. The Plan provides comprehensive strategies and policy guidelines to deal with rural and urban development issues, modernizing agriculture, infrastructure, energy production, mining and industry, and sustainable human settlements. The NSP forms the basis upon which lower-level plans in the country shall be prepared, including Regional Plans, County Spatial Plans, Local Physical Development Plans, and Urban Plans.

#### 2.2.3 National Disaster Management Policy, 2009

The overall goal of Disaster Management is to build a safe, resilient, and sustainable society. The objectives of the policy are as follows:

- To establish a policy/legal and institutional framework for the management of disasters, including the promotion of a culture of disaster awareness and for building the capacity for disaster risk reduction at all levels;
- To ensure that institutions and activities for disaster risk management are coordinated and focused on fostering participatory partnerships between the Government and other stakeholders at all levels, including international, regional, sub-regional (Eastern African), national, and sub-national bodies;
- 3. To promote linkages between disaster risk management and sustainable development to reduce vulnerability to hazards and disasters.
- 4. To mobilize resources, including establishing specific funds for disaster risk reduction strategies and programmes.

The development of the plan for Bute Town takes cognizance of the objectives of this policy in mainstreaming disaster management.

#### 2.2.4 Sustainable Development Goals (SDGs)

The sustainable development goals (SDGs) are a new, universal set of goals, targets, and indicators that UN member states will be expected to use to frame their agendas and political policies over the next 15 years. The SDGs follow and expand on the millennium development goals (MDGs),. These specific goals that the plan aims to ensure conformity include;

- 1. End poverty in all its forms everywhere.
- 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.
- 3. Ensure healthy lives and promote well-being for all at all ages.
- 4. Ensure inclusive and quality education for all and promote lifelong learning.
- 5. Achieve gender equality and empower all women and girls.
- 6. Ensure access to water and sanitation for all.
- 7. Ensure access to affordable, reliable, sustainable, and modern energy for all.
- 8. Promote inclusive and sustainable economic growth, employment, and decent work for all.
- 9. Build resilient infrastructure, promote sustainable industrialization, and foster innovation.
- 10. Reduce inequality within and among countries.
- 11. Make cities inclusive, safe, resilient and sustainable.
- 12. Ensure sustainable consumption and production patterns.
- 13. Take urgent action to combat climate change and its impacts.
- 14. Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.
- 15. Promote just, peaceful and inclusive societies.

By accepting these goals, the County Government of Wajir has to address its planning problems in their context. Thus, the Integrated Strategic Urban Spatial Plan for Bute Town is prepared with due conformity and adherence to the Sustainable Development Goals.

#### 2.2.5 National Urban Development Policy, 2016

This policy is aimed at addressing the unprecedented urbanization phenomenon Kenya is currently experiencing, which has profound impacts on the way people live, work, socialize, and do business. The rapid urban transition is likely to present potential social and economic opportunities and significant challenges. The long-term goal of the Policy is to accelerate economic growth, reduce poverty, and promote equity. The policy creates a framework for sustainable urbanization and urban development by presenting three thematic areas of intervention: urban management, urban core issues, and urban advisory. **Urban Management** includes urban governance, finance, and economy; **Urban Core** comprises urban planning, land, infrastructure and climate change, housing and disaster and risk management. **Urban Advisory** encompasses social issues, marginalized groups, and cross-cutting principles; and introduces an implementation matrix.

### 2.2.6 Sessional Paper No. 8 of 2012 on National Policy for the Sustainable Development of Northern Kenya and Other Arid Lands

The policy was developed based on the premise that the ASALs have hidden strengths and enormous resources that can be harnessed to sustain themselves and contribute to national development. This was based on the fact that the region was unfairly recognized in the country's development agenda in the past. It also recognized that the country will not achieve sustained economic growth and progress if the ASALs are not appropriately factored into national planning and development.

The policy highlights a raft of provisions that aim to ensure that the region achieves development like the rest of the country. Specifically, the policy directs the need to improve the enabling environment for development in Northern Kenya and other arid lands through infrastructure development, including roads, water, and energy, to support economic activities and enhance connectivity within ASALs and other regions. Additionally, the policy advocates the reduction of disparities in access to essential services such as education and healthcare. The plan aims to conform to the intentions of the policy through the provision of infrastructure to ensure parity of the region to the rest of the country.

# 2.3 Legal Context

The preparation of Bute Town LPLUDP has been prepared in the context of different laws, as highlighted in the table below.

LAW	SECTIONS RELEVANT TO THE PLAN			
The County Government Act,	This act gives effect to Chapter Eleven of the Constitution to			
2012	provide for county governments' powers, functions, and			
	responsibilities to deliver services and for connected			
	purposes.			
	• Section 5 of the act states the responsibilities of the			
	county government, including county planning, as			
	provided in the fourth schedule of the Constitution.			
	• Section 49 introduces the urban areas and cities as a tool			
	for managing urban areas and cities.			
	• Section 102 stipulates the principles of planning and			
	development facilitation in a county.			
	• Section 104 indicates the obligations to plan by the			
	county			
	• Section 107 highlights the plans that the county should			
	prepare, including urban plans			
	• Section 111 indicates the plans for both a municipality			
	and a city.			
	• Section 115 stipulates the process taken to carry out			
	public participation.			
Urban Areas and Cities Act,	This act gives effect to Article 184 of the Constitution; to			
2011 and Urban Areas and	provide for the classification, governance, and management			
Cities (Amendment) Act, 2019	of urban areas and cities; to provide for the criteria of			
	establishing urban areas, to provide for the principle of			
	governance and participation of residents and for connected			
	purposes			

LAW	SECTIONS RELEVANT TO THE PLAN				
	• Section 5 of the act instructs on the criteria for				
	classifying urban areas and cities.				
	• Section 11 provides the principles of governance and				
	management of urban areas and cities.				
	• Section 34 gives directions on service delivery in towns.				
	• Part V of the act gives objectives, contents, the process				
	of adoption, and reviewing of integrated development				
	plans for urban areas.				
	• The first schedule of the Act lists the services to be				
	offered by different categories of urban areas in the				
	country.				
	• The second schedule highlights the rights of and				
	participation of residents in the affairs of their urban				
	area.				
	• The third schedule provides provisions for issues to be				
	dealt with in preparation of an integrated development				
	plan.				
Physical and Land Use	This act makes provision for the planning, use, regulation,				
Planning Act, 2019	and development of land and for connected purposes.				
	• Section 5 of the act stipulates the principles and norms				
	of physical and land use planning.				
	• Section 17 stipulates the responsibility of the County				
	Executive Committee Member in charge of Physical				
	planning. Among these responsibilities is the				
	formulation of policy on physical and land use planning				
	and promoting the integration of county physical and				
	<ul><li>land use planning functions and sectoral planning levels.</li><li>Sections 45-50 intricately describe a local physical and</li></ul>				
	land use development plan: its purpose, preparation				
	process, content, notices of objection and approvals as				

LAW	SECTIONS RELEVANT TO THE PLAN		
	well as the publication of the LPLUDP.		
	• Second schedule part A instructs matters that may be		
	dealt with in an LPLUDP.		



# **3 SITUATION ANALYSIS**

# 3.1 Overview

The basis for a plan is based on understanding the area in terms of how communities live and utilize land and land-based resources. Additionally, understanding the condition of facilities that drive their socio-economic development and the capacities of water, electricity, sewerage, and solid waste management infrastructure is fundamental to bridging the development gaps in the urban area. The section below presents the findings on Bute Town in terms of the population, existing land use, transportation, housing, water and energy supply, sanitation conditions, the local economy, and urban governance.

# 3.2 Population and Needs Assessment

# **3.2.1** Population size and growth rate

According to the Kenya Population and Housing Census 2019, Bute Town had a population of 14,108. Table 3 -3 below shows trends in population growth (projections) for Bute Town from 2019 to 2033.

<i>Table 3-3: I</i>	opulation proje	ections for Bute	Town

Population Growth	2019 (KPHC)	2023(Projection)	2033(Projection)
Rate			
Wajir County – 1.67	14,108	15,074	17,790

Source: Consultants analysis, 2019

### **Population Density and Structure**

Bute Town had a population density of 92 persons per square kilometer as of 2019. The town will have a 115-persons per square kilometers density by 2033.

In the age structure presented below, most of the population lies within the labour force bracket (15-64) while children under one are the lowest, represented by 3%. Population implications for different age groups are presented in Table 3 -4.

Age group	% of total	Implication		
Under 1 year	3	Need to: increase hospital deliveries, improve post-natal care, use of mosquito nets to reduce infant mortality.		
Under 5 Years	13	Provide more: ECDE and recreational facilities.		
Primary school going age (6- 13 Years)	18	More primary schools.		
Secondary school going age (14-17 Years)	10	More secondary schools.		
Youth (15-34 Years)	31	More post-secondary educational facilities, hospitals, social facilities, and employment opportunities.		
Labour force (15-64 Years)	55	More employment opportunitie improved access to credit		
Aged population (65 years and above)	4	Access to universal healthcare for the elderly		

Table 3-4: Age groups and population implications

Source; Consultants analysis, 2019

### 3.2.2 Needs assessment

Population needs assessment is critical in identifying gaps in the provision of facilities and services to residents. With reference from the physical planning handbook and the Urban Areas and Cities (Amendment) Act of 2019, the required facilities/services in Bute Town against land requirements for the establishment of each up to 2033 are as presented in Table 3-5.

Facilities	Catchment population	Existing No.	Land requirement (Ha.)	Accumulative demand in number as of 2019 (Pop=14108)	Gap as of 2019	Accumulative demand in numbers as of 2033 (Pop=17,790)	Gap as of 2033	Area of needed facilities(ha)
Police Station	49,999	1	3	1	0	1	0	-
Town Halls	49,999	0	1.2	1	1	1	1	1.2
Law court	49,999	0	1	1	1	1	1	1
Library	100,000	1	0.4	0	0	0	0	0.4
Post office	500,000	0	0.04	1	1	1	1	0.04
Primary	4000	5	3.9	4	2	5	0	-
Secondary School	8000	3	4.5	2	0	3	0	-
Vocational institution	15,000	2	10.2	1	0	1	0	
Religious institution	15,000	5	0.1	1	0	1	0	-
Community Centres	20,000	1	0.25	1	0	1	0	-
Level 1 (Clinics)	5,000	0	0.5	3	5	4	4	2
Level 2 (Dispensary)	10,000	1	1	2	2	2	1	1
Level 3 (Health Centres)	30,000	0	3	1	1	1	1	3
Level 4 (Sub- County Hospitals)	100,000	1	4	1	0	1	0	-
Child care facilities	49,999	0	0.1	1	1	1	1	0.1
Animal control office	49,999	0	0.1	1	1	1	1	0.1
Sports and cultural facilities	49,999	0	2	1	1	1	1	2
Total					10.84			

# Table 3-5: Population needs assessment

# 3.3 Site Analysis and Land Suitability Evaluation

# 3.3.1 Existing Land Uses

### **Residential Land Use**

The area under residential use in Bute Town is approximately 337.74Ha. The pattern of residences in the town has been influenced by the Moyale-Mandera (B80) road. The region's highest number of residents live near the main road.

# **Commercial Land Use**

The planning area has commercial buildings, mainly along roads and streets within the town. Activities under commercial land use include hotels and restaurants, wholesale and retail stores, office blocks, hardware stores, printing and cyber cafes, clinics and chemists. Land under commercial use in Bute Town is approximately 16.12Ha.

# **Agricultural Land Use**

Agricultural land in Bute is mainly found near water pans. The agricultural sector in the town is highly reliant on irrigation through the use of water pans and rainfall. Therefore, there is a need to excavate earth dams in the region that can store water for a year to increase land under agricultural use. The land under agriculture in the region is approximately 10785.91Ha.

### **Educational Land Use**

The land occupied by educational facilities includes seven (7) primary and three (3) secondary schools, one polytechnic, a TVET under construction, and one integrated madrassa. All these institutions are within walking distance. The land under educational use is approximately 36.38Ha.

### **Public Purpose Land Use**

The main use in this category is the administrative offices, including ward and town administrator offices, Bute Police Station, and the DCC's office. Others include health facilities and religious centres. There is also a hay store and a public baraza in the town. The land under public purpose is approximately 28.13Ha.

# **Public Utility Land Use**

Public utilities in the town include cemeteries, water pans and boreholes. The land under public utility is approximately 25.35 Ha.

# **Transportation Land Use**

In Bute Town, transportation land use incorporates the existing road network and airstrip. All roads in the region are of murram and earth surface with only Moyale-Mandera (B80) road being upgraded to bitumen standards. This will greatly improve the town's connectivity. The airstrip is of murram surface. The land under transportation use is approximately 99.35Ha.

# **Dry River Beds**

These comprise dry river beds that carry water during rainy seasons in the region. Water flowing from the mountainous landscapes is usually constrained in these ridges, locally referred to as *laghas*. Riparian reserves occupy approximately 53.41Ha.

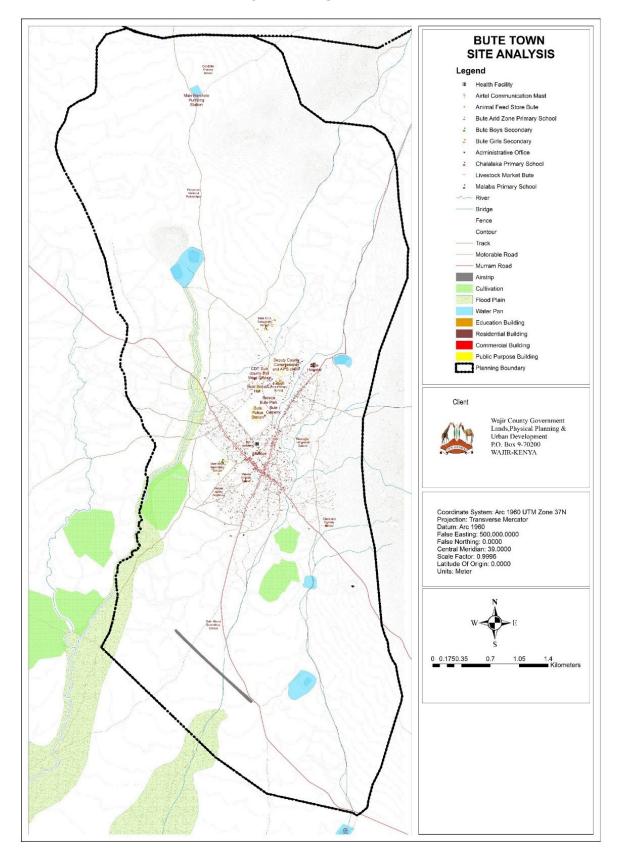
Table 3-6 and Map 3-4 present a summary of the existing land uses in the town.

Land Use	Area (Ha)	% COVER
Residential	337.74	2.967
Commercial	16.12	0.142
Agricultural/Grazing Lands	10,785.91	94.755
Educational	36.38	0.320
Public Purpose	28.13	0.247
Public Utility	25.35	0.223
Transportation	99.35	0.873
Dry river beds	53.41	0.469
Industrial	0.51	0.004
Total	11,382.9	100

#### Table 3-6: Summary of land uses

Source: Consultant's analysis, 2019

Map 3-4: Existing land uses



# 3.3.2 Land Suitability

Land suitability analysis is a critical tool in land use planning. This GIS-based evaluation is used to determine land suitability for agricultural and non-agricultural uses. Identified spaces unsuitable for development in the town include;

- Land prone to floods,
- Land for riparian reserves/dry rivers,
- Water pans and boreholes,
- Land with steep slopes.

### Table 3-7: Unsuitable areas

Land use	Area (km <sup>2</sup> )
Land prone to floods,	0.73
Land for riparian reserves,	0.54
Water pans and boreholes,	0.26
Land with high gradients.	3.01
Built up area	0.081
Total	4.621

All these areas are unsuitable for both agricultural and non-agricultural uses. The area of land suitable for development in the town is 150.621km<sup>2</sup> while the area unsuitable for development is 4.62km<sup>2</sup>.

Map 3-5 presents areas unsuitable for development in Bute Town.

**BUTE CORE URBAN** LAND SUITABILITY Legend Contour Classified Road River Flood Plain Steep Slope Water Pan Airstrip and Flight Funnel Available/Suitable Land Planning Boundary To Ma WAJIR COUNTY GOVERNMENT. Department of Lands, Housing and Physical Planning. PO. Box 9 - 70200. WAJIR - KENYA. Coordinate System: Arc 1960 UTM Zone 37N Projection: Transverse Mercator Datum: Arc 1960 False Easting: 500,000.0000 False Northing: 0.0000 Central Meridian: 39.0000 Scale Factor: 0.9996 Latitude Of Origin: 0.0000 Units: Meter 14 ≪M 10.5 1.75 3.5

*Map 3-5: Bute Land Suitability* 

# **3.4 Assessment of Development Conditions**

# **3.4.1** Transportation

Road transport is common in Bute Town. The Town has a total road length of 114.41 kilometers. Classified roads in Bute Town are class B and G.

Roads in Bute Town are earth and murram surfaces. However, tarmacking of the Oda-Bute-Danaba (B80) road is underway. Major roads joining the town to other urban areas have murram surface while intra connector roads are of earth surface.

Most areas in the town are accessible. However, road conditions are poor, with some roads being totally impassable during the rainy seasons and narrow and dilapidated.

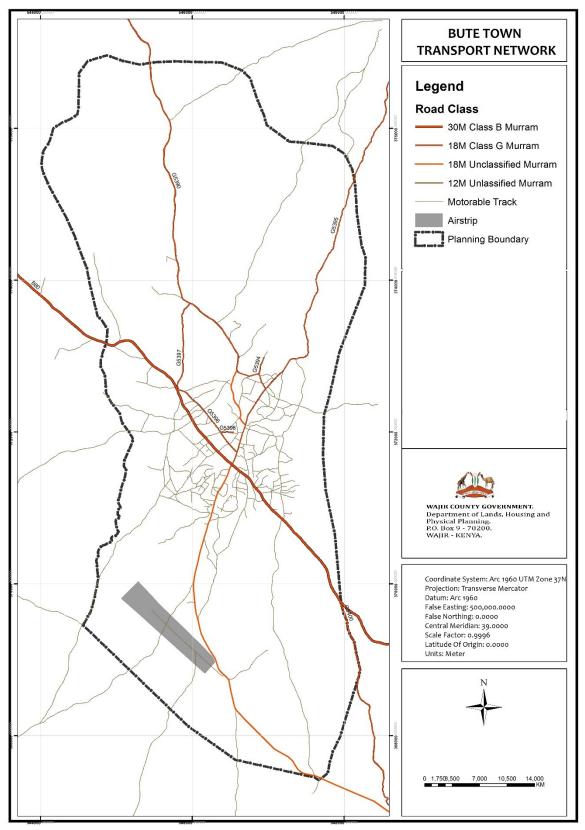




Source: Field survey, 2019

The airfield in the town is undeveloped and lacks infrastructure. In order to promote air transport in the region, the airfield needs to be developed and support infrastructure provided.

Map 3-6 presents the town's classified and unclassified roads in terms of their existing widths.



Map 3-6: Bute Roads and Airstrip

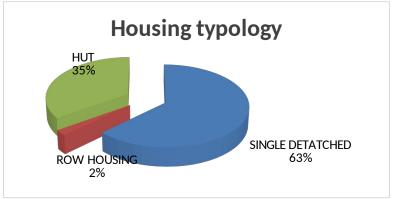
# 3.4.2 Housing and urban development patterns

# 3.4.2.1 Housing

# **Housing Typologies**

Housing typology refers to the characteristics of a building. In Bute Town, most houses (63%) are single-detached. Huts represent 35% of the total, while row housing represents 2%. Most row houses in the town are rentals. There are also a few bungalows in the town.





Source: Field survey, 2019

# **Building Materials**

Most houses in Bute Town are of poor quality with majority of the structures being semipermanent. To describe housing conditions in the town, building materials relative to floor, wall and the roof are discussed below.

# Floor Materials

Dwelling units have different floor materials, with earth floors being the highest at 65.5%, concrete floors at 26.6%, tiled floors at 2.9%, and other floor materials contributed 3.2%.

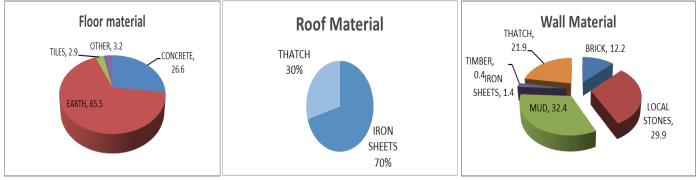
# **Roofing Materials**

In Bute Town, 70% of houses are iron sheet roofed, while 30% are thatched. Most of these are huts, which are semi-permanent structures.

# Wall Materials

Several wall materials have been used in the construction of houses. The town has 32.4% of houses being mud-walled. Stone walled houses account for 29.9%, brick houses at 12.2%, thatched walls at 21.9%, iron sheets at 1.4% and timber walled houses at 0.4%



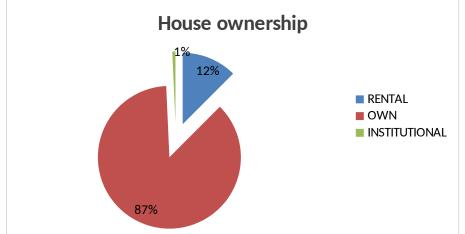


Source; Field survey, 2019

### **Housing Ownership**

In Bute Town, 87% of the people own their houses, while 12% reside in rental houses. The rental houses are provided by private developers in the town.

Institutions also provide a few houses. These institutions are schools and government departments that offer houses to their staff and are represented by 1%.



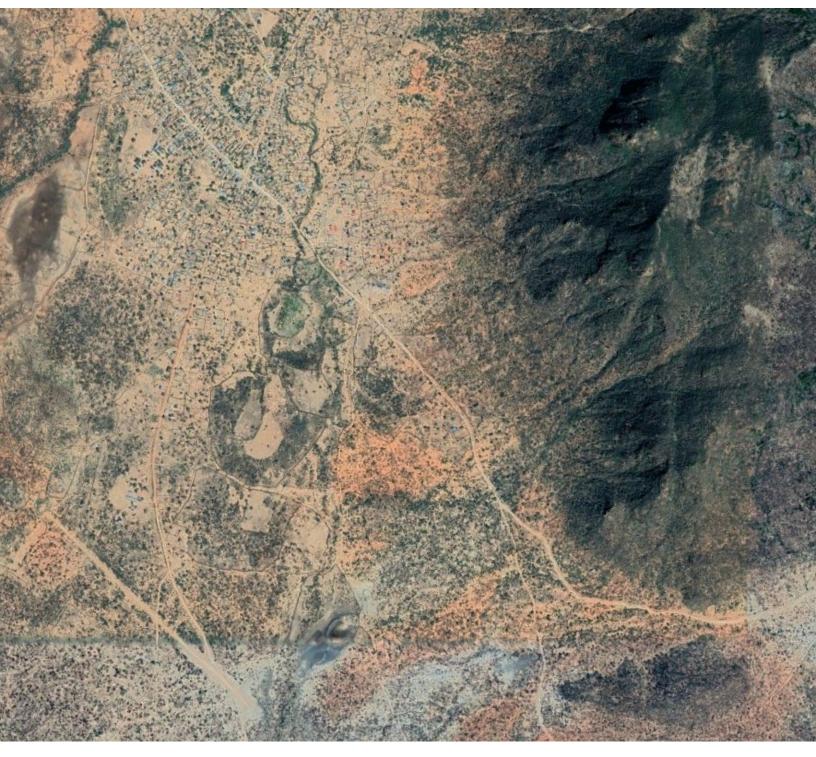


### 3.4.2.2 Urban Development Patterns

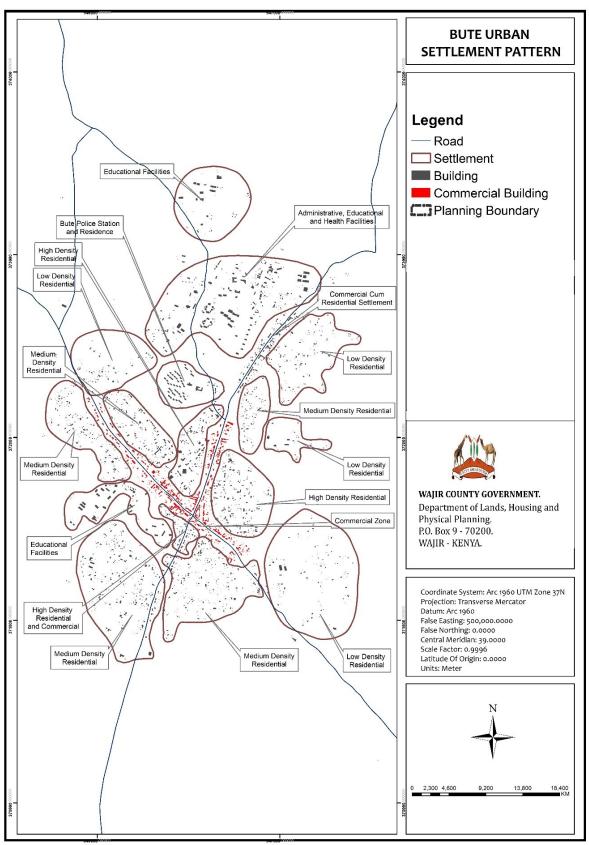
Many settlements are clustered within the town due to the availability of services, including utility goods, administrative services, infrastructure, and security. The presence of water from boreholes and water pans downstream influences the settlement patterns of the town. Commercial and retail shops are linearly along the Moyale-Mandera (B80) and the G5395 road.

Source: Household survey, 2019

At the same time, people have avoided steep landscapes like Mlima Simba and settled on areas of relatively low gradients. Water channels have also been avoided. The town is growing along the Moyale-Mandera (B80) road towards Moyale. Map 3 -7 presents the development patterns in the town.



Source: Extract from Google Earth



Map 3-7: Urban development pattern

# 3.4.3 Water Supply

Residents in Bute Town rely on water from water pans and boreholes. Ten water pans and two boreholes exist within the town. There are no permanent rivers in the town.

One borehole supplies 3.3 cubic metres of water per hour, while another supply ten (10) cubic metres per hour. Water from these boreholes is pumped into water kiosks and public purpose institutions like the police station, the sub-county hospital, and schools. Water pans are mainly used as watering holes for livestock and agricultural purposes.

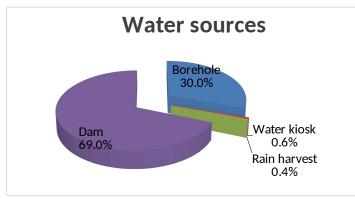
Plate 3-2: A Water Pan, Borehole and a Water Kiosk



Source: Field survey, 2019

According to household survey, 69% of residents draw water from water pans while 30% draw water from boreholes.





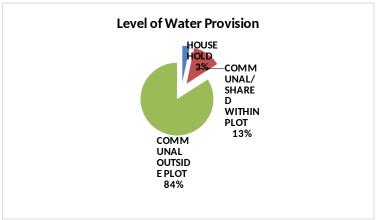
Source: Field survey, 2019

The total domestic water requirement for Bute Town currently stands at 3,868 cubic metres per day and is anticipated to rise to 5,407 cubic metres per day by the year 2033.

# 3.4.3.1 Distance and Level of Water Provision

Residents in the town travel approximately 2.8 km to access water sources. According to field survey, 84 % of residents in Bute Town accessed water from public water points, namely boreholes and water pans. However, 13% of the residents shared water within their plots, while only 3% accessed water at the household level.

#### Chart 3-5: Level of water provision



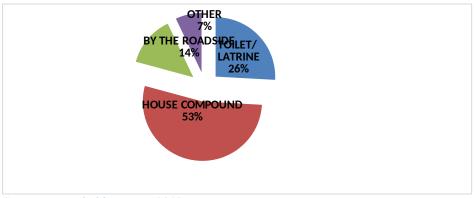
Source: Household survey, 2019

# 3.4.4 Sewerage and sanitation

# 3.4.4.1 Liquid waste disposal

The town has no sewerage system and mainly relies on septic tanks and pit latrines for the disposal of liquid waste (black and grey water). According to a field survey, 53% of residents dispose of their waste water within their compounds, 26% into toilets and pit latrines, 14% on the roadside, and 7% use other unspecified means.

Chart 3-6: Waste water disposal method



Source: Household surveys, 2019

# 3.4.4.2 Solid Waste Disposal

Bute Town has a solid waste landfill that is currently not in use; hence, environmental pollution is evident. According to field survey, 62% of households burn wastes, 29% do composting and 9% do indiscriminate dumping. Streets with more activities are littered, indicating the need for a solid waste management system in the town.





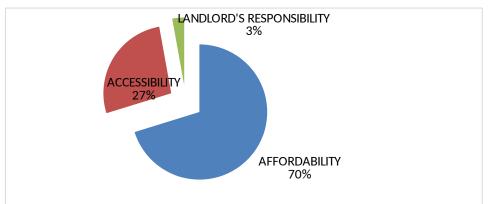
Source: Household surveys, 2019

# 3.4.5 Energy Supply

# 3.4.5.1 Electricity Supply and Connections

Bute Town is supplied with electricity from the Ethiopian national grid. However, electricity is managed by the Kenya power and Lighting Company. The town has street lighting on Moyale-Mandera (B80) and the G5395 road. The street lights are solar-powered and functional, although few in number. Chart 3 -8 shows the reasons why different residents lack electricity connections to their households.

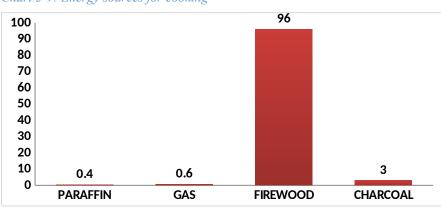
Chart 3-8: Reasons for lack of electricity connection



#### Source: Household survey, 2019

# 3.4.5.2 Energy Sources for Cooking and Lighting

According to household survey, approximately 99% of the population relies on wood fuel for cooking, while 0.4% and 0.6% rely on paraffin and (LPG) Liquid Petroleum Gas, respectively.

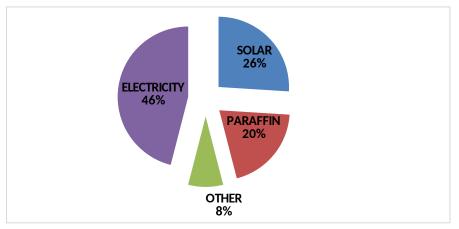


*Chart 3-9: Energy sources for cooking* 

#### Source: Household survey, 2019

According to household survey, 46% of households use electricity as their lighting source, 26% use solar energy, 20% use paraffin and 8% use wood fuel.







### **Energy Potential in Bute**

There is high potential for the generation of solar and wind energy in the town due to high solar insolation periods and its location on the foothills of the Ethiopian Highlands, which influences wind speeds in the town.

# **3.4.6 Education**

There exist 12 functional educational facilities in Bute Town, namely:

• Bute Arid Zone Primary school

- Malaba Primary School
- Ololdinle Primary School
- Chalalaka Primary School
- Adadijole Primary School
- Horset Academy
- Iftin Academy
- Madrassatul Nur Integrated school
- Bute Boys Secondary School
- Bute Boys Secondary School
- Bute Mixed Secondary School
- Bute Polytechnic

Also, there is an ongoing construction of the Bute Technical and Vocational Training Institute. All these institutions are accessible and within walking distance.

According to field survey, the average distance to primary and secondary schools is 1.04 and 1.28 kilometres, respectively.

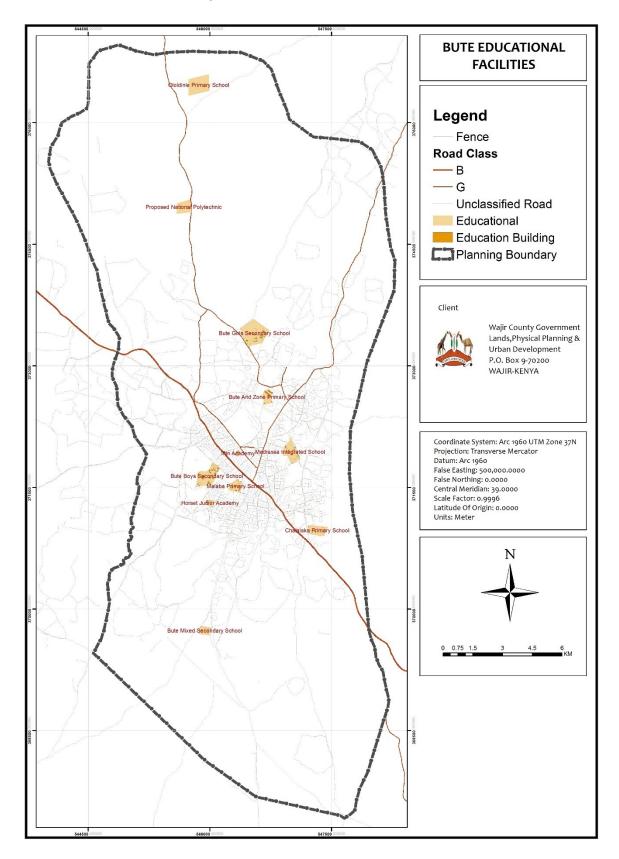
The table below shows recommended distances to education facilities in the country.

Table 3-8: Recommended Distances to Educational Facilities

<b>Recommended Walking Distance</b>		
Pre-Primary 300-500m		
Primary School	500m-2km	
Secondary School	500m-3km	

Source: Physical Planning Handbook

According to the population needs assessment, the town will require one primary school and one secondary school by the end of the planning period 2033.



Map 3-8: Education Facilities in Bute Town

# 3.4.7 Health

There are two public and one health care facility in Bute Town. These are Bute Sub-County Hospital, Adadijole Dispensary, and Bute nursing home.

The sub-county hospital has a bed capacity of 40. The hospital also has 1 Doctor, 4 Registered Clinical Officers (RCO), 8 Nurses, 2 Lab Technicians, 3 Public Health Officers (PHO), 1 Nutritionist, 1 Bio-Medical Engineer and 2 Pharmacists.

According to the population needs assessment, the town will require one (1) health centre, one (1) dispensary, and four (4)clinics by 2033.

Plate 3-3: Bute Sub-County Hospital and Adadijole Dispensary



Source: Field Survey, 2019

# 3.4.8 Community and Recreational Facilities

These facilities in Bute Town include a public library, a social hall, a public baraza that doubles up as a playground, and four currently full cemeteries. There is a need to establish additional facilities like a sports complex and cemeteries for both Muslims and Christians.

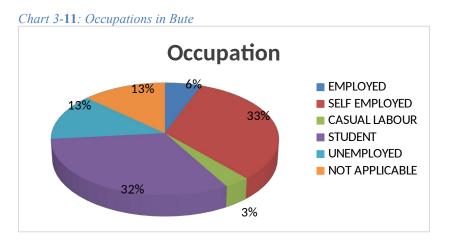


Source: Household surveys, 2019

# **3.4.9 Local Economy**

# 3.4.9.1 Employment and Income Levels

Bute Town has a youthful population, with most of them being students. This is represented by 32% of the population. Children below the age of 5 are represented by 13%. In the entire population, 6% are employed, 33% are self-employed in agriculture or business, and 13% are unemployed. About 3% of the town's population are casual laborers.

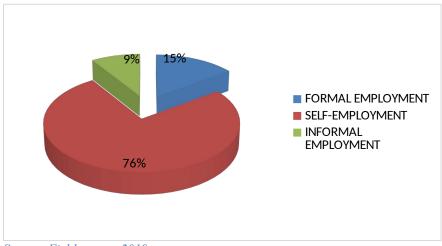


Source: Field survey, 2019

Amongst the working population in Bute Town, 76% are self-employed while 15% are formally employed. Only 9% are in informal employment.

36

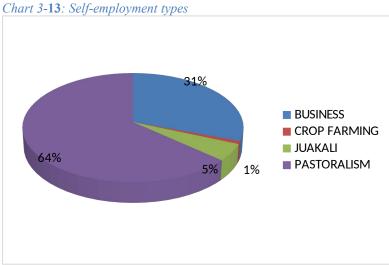
Chart 3-12: Employment Types in Bute

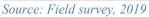




# 3.4.9.2 Income generating activities

Amongst those in self-employment, 64% practice pastoralism while 30% do business. Communities in Wajir County are mostly pastoral. This can be attributed to vast grazing lands in the area and the semi-arid nature of the land, which in most cases does not favor crop farming.





### **Commercial Activities**

Formal commercial activities in the town include wholesale and retail, restaurants, guest houses, Safaricom M-pesa shops among others.

Informal commercial activities include groceries, cloth retail business and motor cycle repair in the streets.

### **Industrial Activities**

There are no formal industries in Bute Town. However, informal industrial activities like brickmaking are observable in the town. There are also three fuel filling stations and a slaughterhouse.

Plate 3-5: Brick making



#### Source: Field survey, 2019

#### **Industrial Potential**

Bute Town has a lot of potential, especially in the processing of livestock products considering livestock rearing is the main source of livelihood.

#### 3.4.9.3 Tourism

Tourism is one of the biggest contributors to Kenya's GDP besides agriculture. Bute Town has a lot of tourism potential. A beautiful mountainous landscape surrounds the town. The most dominant is Mlima Simba, whose silhouette resembles that of a lion. The mountains form part of the Bute-Malaba Forest Ranges.

Additionally, wild animals like Guinea fowls, warthogs, dik-diks, and antelopes are observable in the town. These wild animals can be contained to form a game reserve and attract tourists. However, for tourism to thrive well in the region, accompanying infrastructure like the development of the airfield, upgrade of the roads for better connectivity and accessibility, and development of the hotel and hospitality sector needs to be established beforehand. Plate 3-6: Mlima Simba, Bute



Source: Field survey, 2019

# 3.4.9.4 Agriculture

#### **Crop Production**

Soils in Bute Town are very fertile, and therefore, the area's agricultural potential is very high. Erosion from the mountain ranges and siltation in flat area in the town contribute to soil fertility in the town. A few residents grow crops like maize, sweet potatoes, mangoes, paw paws, and bananas. Crop farming is mostly done under irrigation, sourcing water from pans and earth dams.

According to the county's agriculture department, Bute Town has a lot of potential for the growth of green grams, ground nuts, tomatoes, and maize. This potential is yet unexploited.





Source: Field survey, 2019

# **Livestock Keeping**

Most residents in Bute and Wajir County at large are pastoralists. They keep livestock like goats, camels, cows, and sheep.

Suitable livestock breeds that can do better in the region include the Galla goat, the Somali camel, and the Toggenburg goat.

Plate 3-8: Camels and goats in Bute



Source: Field survey, 2019

# **3.4.10 Environment and Disaster Management**

### **Environmentally Sensitive Assets**

Environmentally sensitive assets in Bute Town include the dry river beds running through the town and the Bute-Malaba Forest mountainous landscapes.

Dry river beds in the region should be protected and trees planted along the riparian land to reduce erosion and increase the tree cover in the region.

The Bute-Malaba Forest Ranges need protection and conservation to promote tourism as they can be a major source of tourist attraction. They are also habitats to certain wildlife species, which adds to these sites' tourism potential. Therefore, the county government should initiate programmes to conserve these assets.



Plate 3-9: Sample environmentally sensitive assets in Bute

Source: Field survey, 2019

### **Energy Sources and Environmental Effects**

With nearly 99% of the population in Bute relying on wood fuel, the rate at which vegetation cover continues to diminish is of great concern. Over-reliance on wood fuel in the town could be attributed to the low costs of acquiring wood fuel and limited access to alternative sustainable energy sources like LPG.

Effects of diminishing vegetation/forest cover due to overreliance on wood fuel include environmental degradation through soil erosion and increased air pollution.

#### **Disaster Management**

#### Drought

Bute Town falls within the arid and semi-arid areas of Northern Kenya. This area experiences a desert-like climate (Sahelian climate) since it falls within the transition zone of the Sahara Desert and the tropical climate of Sub-Saharan Africa, and thus, there is little rainfall. The planning area, therefore, experiences droughts due to the low rainfall, which is also unreliable. Human activities such as deforestation and overgrazing have also resulted to the occurrence of drought. To mitigate these adverse effects of drought, corrective measures need to be put in place such as irrigation, rain water harvesting, increase of forest cover, and conservation of water catchment areas.

#### Flooding

Bute Town stands on a flat plain below the foot of the Ethiopian highlands. During the rainy seasons, the surface run off from the highlands and the erratic rains in the area cause floods in the town. Flooding is mainly caused by deforestation, lack of storm water drainage systems, poor environmental planning and inappropriate soil and water conservation measures.

#### **Fire Preparedness**

Disaster centres are important in responding to many types of fire incidents and disasters. Bute Town does not have a firefighting station. Fire occurrences occur mostly during the dry seasons when fires graze across the grass and woodlands. Residents use simple conventional methods to put out the fire but, in most cases, they lose control, and fire burns the fields which are meant for grazing, which leads to famine and lose of wildlife and domestic animals. To minimize the impacts of fire, there is need for the establishment of firefighting infrastructure and education to the public on prevention, extinguishment and escape mechanisms.

#### Water Borne Diseases

Lack of a sewerage reticulation line, a treatment plant, and poor waste disposal methods can result in water pollution. In turn, using contaminated water within households results in incidences of waterborne diseases such as cholera, diarrhoea and dysentery. Most residents use open disposal (53%) and pit latrines (26%) to dispose of their waste waters. Lack of piped water leads people to use untreated water from boreholes and water pans, exposing them to water borne diseases. Diarrhoea was among the reported cases of illnesses, with a prevalence of 16% in the town.

# 3.5 Urban Management

A town committee and a town administrator should manage a town. The duties of a town administrator are determined by the town committee as per the Urban Areas and Cities (Amendment) Act section 31 (3). Bute Town has a town administrator and his office is located within the town.

### Town Committee

Appointed by the county governor and approved by the county assembly. Its functions are to:

- Formulate and implement an Integrated Plan.
- Develop and adopt policies, plans, strategies and programmes, and may set targets for delivery of services.
- Control land use, land sub-division, land development and zoning by public and private sectors for any purpose, including industry, commerce, markets, shopping and other employment centers, residential areas, recreational areas, parks, entertainment, passenger transport, agriculture, and freight and transit Adopt policies and plans.
- Promotes and undertakes infrastructural development.
- Develops and manages schemes, including site development in collaboration with the relevant national and county agencies.
- Maintains a comprehensive database and information system of the administration and provide public access thereto upon payment of a nominal fee to be determined by the board.

Currently, Bute Town has no town committee. However, with the anticipated growth of the town, there is need for the County government to establish a town committee for better and efficient management of the town.

# 3.6 Synthesis of emerging issues

This section presents issues in each sector, the available opportunities in the sector, and recommendations for resolving the underlying issues.

#### Table 3-9: Governance Issues

Issues	Opportunities	Recommendations
<ul> <li>Inadequate capacity of the physical planning department</li> <li>Lack of a development control department</li> <li>Lack of a public participatory policy</li> <li>Inadequate resource allocation for the town</li> <li>Limited revenue collection methods in the town</li> <li>Lack of a Town committee and hence a limitation on the duties of the Town administrator.</li> </ul>	<ul> <li>UACA provides for the creation of Town administration and management</li> <li>Laws for providing for public participation (Constitution of Kenya, County Government Act and UACA)</li> <li>Existence of devolved system of government</li> <li>Existence of town administration</li> <li>Unexplored revenue generating streams within the town</li> </ul>	mandates of the town through the town administrator.

#### Table 3-10: Local Economy issues

]	issues	Opportunities	Recommendations
•	Insufficient/unreliable electric supply due to rationing. This is attributed to the frequent power outages in the town.	<ul> <li>Presence of a large labor force</li> <li>Large livestock production</li> <li>The ongoing upgrading to</li> </ul>	• Set up an agricultural research and development station within the town to help develop human capital on agriculture (crop and livestock production).
•	Flooding during the rainy season hampers the movement of agricultural extension officers' ability to administer services during peak time of	<ul> <li>Bitumen standards of the B 80 road</li> <li>Accessibility and connectivity</li> </ul>	<ul> <li>Create an industrial zone within the town to capitalize on the potential the town and its hinterlands offer.</li> <li>Increase the quality and reach of technical support</li> </ul>
	agricultural production.	to other major urban area in the	through setting up technical institutions and providing
•	Transportation/mobility issues (poor roads and minimal transportation facilities) hampers exposure	region including Moyale.	necessary support such as staffing, equipment, and facilities.
	to other regions in Kenya for best practices		• Increase the capacity of the technical training institute to
•	break of him between research stations, the county		offer courses in agricultural production systems
	implementing departments and farmers/pastoralists.		• Develop parking slots within the commercial zone for revenue collection.
	Drought as well as erratic rainfall patterns hampers crop and livestock production at large and		<ul> <li>Allow densification within the commercial zone to</li> </ul>
	sustainable scales.		maximize collection of rates, rents and business permits.
•	Lack of revenue collection streams for improving		Employ revenue collection staff
	the revenue base of the town. The town also lacks revenue collection officers.		• Provide the necessary infrastructure such as water and sewage infrastructure as well as constant electricity

Issues	Opportunities	Recommendations
• Lack of enabling infrastructural services such as sewerage, water and constant electricity inhibits the town's investment level.		<ul> <li>supply in order to improve service provision.</li> <li>Construction of larger capacity earth dams to cater for crop and livestock production on the urban fringes.</li> <li>Facilitate market access for fresh produce and livestock products from the town to other external areas.</li> <li>Provide farmers with subsidized farm inputs, equipment and offer better extension services.</li> <li>Train farmers on modern methods of farming and disaster preparedness through the early warning systems against natural occurrences like drought and flooding.</li> </ul>

#### Table 3-11: Transport Issues

Issues	Opportunities	Recommendations
<ul> <li>Poor road surface conditions</li> <li>Many roads lack support infrastructure (drainage systems) leading to flooding of roads during the rainy seasons</li> <li>Lack of terminal and parking facilities</li> <li>Lack of non-motorized facilitating infrastructure</li> <li>Uni-modal transportation system (road only)</li> <li>Inadequate road transport network (missing links) that limits connectivity</li> </ul>	<ul> <li>Local availability of ballast</li> <li>Devolution of services including the construction of roads and any form of public works.</li> </ul>	<ul> <li>Upgrade Eldas-Bute and Buna-Bute roads from murram to Bitumen standards.</li> <li>Construct a bus park along Moyale-Mandera(B80) road and provide for on street car parking within the proposed CBD.</li> <li>Construct proper drainage systems on both sides of all roads.</li> <li>Upgrade all access and secondary roads to gravel standards</li> <li>Construct non-motorized transport infrastructure that includes walk ways and cycle ways on class B and G roads</li> <li>Upgrade Bute airfield to a well-equipped and functional airstrip and maintain strict zoning regulations on the flight funnel.</li> <li>Form a passenger welfare committee to regulate the public transport sector through formulation of favourable policies</li> </ul>

#### Table 3-12: Housing Issues

Issues	Opportunities	Recommendations
Poor quality houses	<ul> <li>Availability of local building materials</li> </ul>	• Formulate a housing policy for the county.
• Lack of a development plan to guide housing	• Mandate of the county department of	• Undertake land regularization to provide land
• Lack of a waste management system	Lands, Housing and Physical Planning	ownership documents to act as collateral in
• Inadequate housing related services such as		raising funds for housing development and
potable water		security of tenure.
• Flooding		• Initiate low cost housing programmes through
• Low investments by both levels of		subsidy provision by public private partnerships.
government.		• Provide service infrastructure such as water,
Lack of land ownership documents		electricity and waste management services.
Lack of/encroachment on access roads		• Open up access roads immediately after survey.

#### Table 3-13: Environment and disaster management

Issues	Opportunities	Recommendations
<ul> <li>Environmental degradation as a result of poor solid waste disposal practices</li> <li>Reduction in vegetation cover due to overreliance on wood fuel</li> <li>Pollution of environmental resources and water pans</li> <li>Lack of disaster response infrastructure in the case of severe floods</li> <li>Inaccessibility caused by flooding in the town</li> </ul>	<ul> <li>Potential for solar and wind energy harvesting</li> <li>Devolution of services, including disaster management, response, and environmental protection.</li> </ul>	<ul> <li>Provide proper waste management infrastructure in the town.</li> <li>Provide subsidies to promote use of alternative renewable energy sources e.g. solar panels and LPG and energy saving jikos</li> <li>Provide free tree seedlings to residents to promote agroforestry and re-forestation</li> <li>Sensitization campaign on integrated waste management practices i.e. waste reduction, re-use and recycling</li> <li>Enforce environmental laws regarding water resources, vegetation cover and rehabilitation of water pans</li> <li>Rehabilitate abandoned quarrying sites</li> <li>Capacity Building and Partnership Initiatives for environmental conservation.</li> </ul>

#### Table 3-14: Storm Water Drainage Issues

Issues	Opportunities	Recommendations		
<ul> <li>Lack of drainage infrastructure causes damage to property when there is excessive surface runoff that is not adequately channeled.</li> <li>Flooding during the rainy season caused by a lack of drainage systems</li> </ul>	<ul> <li>Upgrading of the Moyale- Mandera (B80) road to bitumen standards.</li> <li>Devolution of services including Public Works</li> </ul>			

#### Table 3-15 : Water Supply Issues

Iss	ues	Opportunities	Re	commendations
•	Poor management and conservation of water	•Availability of groundwater	•	Create a local water resource authority to operate and manage
	sources	•Trapping of surface run off		water sources for the town centrally.
•	Pollution of water pans by livestock.	using earth dams during rainy	•	Develop a central water treatment reservoir and pumping
•	Lack of a centralized water service provider in	season		station.
	the town has a bearing on water connection costs,		•	Expand the water reticulation system to supply potable water
	network of pipes for distribution as well as a			at household level.
	standardized way of water treatment before		•	Encourage partnerships between the proposed local water
	distribution			resource authority, private sector and the community in the
•	Conflicts between domestic and livestock water			development and operation of water sources and reticulation
	needs.			systems.
•	Over-reliance on boreholes from different points		•	Separate domestic and livestock water points.
	in the Town has resulted in excessive and		•	Fencing and rehabilitation of all water pans and earth dams.
	unregulated extraction of water from the aquifer		•	Initiate sensitization programs on water conservation to
	thereby causing an imbalance with its recharge			minimize wastage e.g. re-using and recycling and to also
	and its supply capacity in the long term.			equip residents with skills to harness water.

#### Table 3-16: Energy Issues

Issues	Opportunities	Recommendations
<ul> <li>Insufficient/unreliable electricity supply within the Town (The Town experiences sporadic power outages due to power rationing)</li> <li>Lack of a local power grid to offer alternative energy for the town.</li> <li>High cost of electricity.</li> <li>Overreliance on wood fuel</li> </ul>	energy harnessing	<ul> <li>Connect the town to the national grid.</li> <li>Enforce regulations relating to the preservation of power way-leaves</li> <li>Develop a and Solar Energy Production farm</li> <li>Encourage private sector participation in exploration of possibilities that increase supply of environmentally safe energy for cooking and lighting.</li> </ul>

#### Table 3-17: Sanitation issues

Issues	Opportunities	Recommendations
<ul> <li>Lack of a sewer management/reticulation system for liquid waste management.</li> <li>Indiscriminate dumping of solid waste</li> </ul>	Gently sloping land to encourage the development of a sewer reticulation system to flow through gravity.	<ul> <li>Expand and make the existing land fill functional to adequately serve the town's solid waste needs.</li> <li>Provide equipment and staff for solid waste management in the town e.g. trucks, tractors etc.</li> <li>Procure and position litter bins/waste skips at key places in the town, to prevent littering and facilitate responsible disposal of waste in the town.</li> <li>Encourage the use of septic tanks before establishment of a sewer reticulation system for the town.</li> <li>Construct the sewer treatment plant/oxidation ponds for the town.</li> <li>Institute effective monitoring and control measures to regulate discharge of toxic waste into the dry rivers.</li> </ul>

#### Table 3-18: Education Issues

Issues	Opportunities	Recommendations
• Inadequate infrastructure and equipment in	A youthful population that	• Construct two secondary schools in Bute Godha and Adadijole
schools such as laboratories, lighting,	would greatly benefit the	and one primary school in the Special Investment Zone
technical equipment etc. in schools for	economy of the Town if	(proposed).
facilitation of learning.	educated	• Appropriately provide support infrastructure such as water,
• High school drop-out rate with the prevalence		electricity and facilities like dormitories, laboratories, libraries
being higher among girls		etc. in all schools.
• Shortage of teachers due to perceived		• Promote education sensitization programs and encourage co-
insecurity concerns in the region		curricular activities.
• Nomadic pastoralism lifestyle affects both the		• Advocate for deployment of qualified staff in all educational
enrollment, transition and dropout rates in the		institutions.
county and the town.		• Encourage and facilitate the participation of the private sector as
• Untimely release of funds by the county to		well as religious institutions in the provision of education
ECDE centers for facilitation of learning		facilities and services.
		• Intensify inspection and supervision to ensure proper registration
		and enrollment, retention and transition in schools.

Table 3-19: Health Issues

Issues					Opportunit	ies				Re	ecommendations
• I	Inadequacy equipment Inadequate m Lack of speci		and	medical	Devolution health	of	services	including	county	•	Construct three dispensaries as identified in needs assessment to cater to the town residents' different health care needs. Provide adequate qualified medical staff, equipment, and facilities such as beds, laboratories, incinerators, staff quarters, and special units. Provide support infrastructure such as water, sewer, waste management facilities and electricity to all health facilities in the town. Provide mobile clinics and conduct frequent specialized medical camps to serve the sub-county.

Table 3-20: Community and Recreational Facilities Issues

Issues	Opportunities		Recommendations
Lack of a public sports complex, recreational parks	Availability of land for the construction of	٠	Establish the proposed recreational parks
and green spaces for recreational purposes	community and recreational facilities	•	Construct the proposed modern sports complex
		•	Acquire land for the proposed Muslim and
			Christian cemeteries



# **4PROPOSALS**

## 4.1 **Overview**

Given the challenges inherent in the town, plan proposals aim to remedy the pressing challenges by providing amenities and facilities, regularizing the existing cadastral layout, and organizing the town into complementary land uses while maintaining the environmentally sensitive areas in the town. The following section presents the plan proposals for Eldas Town, including the structure plan, which elaborates on the organization of land uses, the proposed action areas, the zoning plan, the scheme plan, and urban improvement strategies. The plan covers Eldas Town as the core urban centre, Masalale and Kilkiley.

## 4.2 Structure Plan

This Structure Plan presents the long-term development framework for Bute Town. It indicates broad land use classifications, transportation corridors concerning land uses, and the location of utilities and services. The plan shows the form, shape, urban development limits, and development pattern that Bute Town will take in ten (10) years (2023-2033).

Table 4-21 presents a summary of land uses in the proposed structure of the town.

Code	LAND USE	Existing Area (Ha)	Proposed Area (Ha)	Total	%Cover of existing and proposed Uses
0	Residential	337.74	526.12	863.86	5.25
1.	Industrial	0.51	7.38	7.89	0.05
2.	Educational	36.38	212.49	248.87	1.51
3.	Recreational	0	34.42	34.42	0.21
4.	Public	28.13	121.83	149.96	0.91
	purpose				
5.	Commercial	16.12	13.95	30.07	0.18
6.	Public utility	25.35	73.37	98.72	0.60
7.	Transportatio	99.35	833.89	933.24	5.68
	n				
8.	Conservation	53.41	2503.09	2556.5	15.55
9.	Agricultural	10785.91	734.86	11,520.77	70.06

## Table 4-21: Summary of land uses

Source: Consultants analysis, 2019

## 4.2.1 Residential Land Use (0)

The proposed and existing residential land use covers approximately 863.86Ha, representing approximately 4.98% of the entire planning area. This considers the current land uses, compatibility with neighbouring land uses, and space to cater for future housing demands. The town plan earmarks areas for different residential categories, which are high, medium and low-density housing areas, considering the varying housing needs of diverse socio-economic groups in the town.

## High Density Residential (01)

These areas are already densely populated and expected to house most of the population. This will consist of low-cost housing developments that house relatively low-income households and comprise multiple residential developments. The total area earmarked for high-density residential neighbourhoods is 51.05Ha.

## Medium Density Residential (0<sub>2</sub>)

The total area earmarked for medium-density residential neighbourhoods is 207.24Ha. These areas are projected to combine single and multiple dwelling units. The maximum number of floors for medium density is the ground floor plus one floor.

## Low Density Residential (0<sub>3</sub>)

The total area earmarked for low-density residential neighborhoods is 575.88 Ha. The current low population levels and the town's anticipated exponential growth resulted in planning for areas for future development. These two factors significantly influenced the delineation of parts of these areas into low-density housing areas. These areas are expected to have single-dwelling units.

## **Proposed Special Investment Zone (04)**

A special investment zone has been proposed to incorporate a high income, low density residential sub zone, including a primary school, a mosque, a dispensary, a recreational park, and a commercial sub zone. This special economic zone will act as a strategy to attract investors to the town. The area earmarked for this purpose is 29.69 Ha.

## 4.2.2 Industrial Land Use (1)

*Industrial Park (1<sub>3</sub>)* - Approximately 5.77 hectares, of land has been earmarked for light industrial developments/activities including *juakali*, workshops, and garages. These activities are non-offensive and can easily coexist harmoniously within or adjacent to commercial and residential neighborhoods. The industrial park on the Moyale-Mandera (B80) road towards Moyale shall include a livestock products processing industry given that livestock farming is the main economic activity in the region. Both Bute Godha and Adadijole have been allocated one industrial park each.

*Existing Slaughterhouse*  $(1_2)$  - The plan has proposed the expansion of the existing slaughterhouse to cover an area of 1.71 Ha. The slaughter house will have a slaughter slab and a holding bay for livestock.

*Existing Fuel Filling Stations (1* $_1$ ) -There are three filling stations in Bute Town. These stations cover an area of 0.41 Ha.

## 4.2.3 Educational Land Use (2)

The plan proposes the development of one secondary school  $(2_7)$  at Adadijole. A special needs school  $(2_8)$  has been proposed in Bute Godha opposite the proposed dispensary to cater to the existing and future special needs of the town and the entire Wajir North sub-county at large. The Special Investment Zone also proposes a primary and an ECDE centre. The existing and proposed educational facilities occupy an area of 248.87Ha.

## 4.2.4 Recreational Land Use (3)

This plan aims at creating an all-inclusive urban environment that provides opportunities for social activities while promoting personal health and wellness. 34.42Ha has been allocated to urban parks and a modern sports complex. A park is proposed inside the special investment zone.

## 4.2.5 Public Purpose Land Use (4)

The town's existing and proposed public purpose facilities are shown in table 4-2.

S/No.	Existing and Proposed Facilities	Area(Ha)
1.	Existing Administrative Offices	8.06
2.	Existing Health Facilities	9.33
3.	Existing Mosque	1.45

#### Table 4-22: Existing and proposed facilities

S/No.	Existing and Proposed Facilities	Area(Ha)
4.	Existing Baraza Park	3.02
5.	Existing Library	0.32
6.	Existing Police Station	12.35
7.	Existing Social Hall	0.49
8.	Proposed Administrative Facilities	24.5
9.	Proposed Health Facilities	14.52
10.	Proposed Post Office	0.13
11.	Proposed Police Post	1.89
12.	Proposed Prisons Land	37.65
13.	Proposed KFS land	27.02
14.	Proposed disaster management centre	0.91
15.	Proposed law courts	5.08
16.	Proposed mosque and madrassa	3.24
17.	Total	149.96

Source: Consultants analysis, 2019

## 4.2.6 Commercial Land Use (5)

The plan proposes four commercial zones  $(5_5)$ . One zone is located near the administrative offices to cater to workers, residents, and patients in and near the Bute sub-county hospital, while another one is located in Bute Godha to cater for the anticipated population there. A shopping centre has been proposed in the special investment zone. Additionally, another zone has been proposed in the new neighbourhood immediately after the proposed airport.

The existing and proposed commercial areas occupy an area of 30.07 Ha.

## 4.2.7 Public Utility Land Use (6)

The town's existing and proposed public utilities occupy an area of 98.72Ha. Table 4-3 presents different public utilities and their area coverage.

S/No.	Utility	Area(Ha)
1.	Communication Mast	0.04
2.	Boreholes	1.6
3.	Existing Cemetery	1.51
4.	Earth Dams	52.83
5.	Proposed Power Substation	5.36
6.	Proposed Muslim Cemetery	12.21
7.	Proposed Christian Cemetery	5.58
8.	Proposed Sewer Plant	9.52

#### Table 4-23: Public utilities

9.	Proposed Disaster Management Centre	1.49
10.	Proposed Landfill	2.52
11.	Proposed Solar Power Plant	2.46
12.	Proposed water tank station	2.04
13.	Proposed public ablution	1.56

Source: Consultants analysis, 2019

## 4.2.8 Transportation (7)

This plan proposes the expansion and widening of the existing roads (primary, secondary and access) to the required standards, and the acquisition of land to provide roads where there are missing links.

The plan proposes the development of a bus park  $(7_2)$  along the Oda-Bute-Danaba (B80) road. The proposed bus park has been allocated an area of 1.1 Ha.

The plan also proposes development, expansion, and upgrading the airstrip  $(7_3)$  to an airport to cover an area of 105.21 Ha.

## 4.2.9 Conservation Land Use (8)

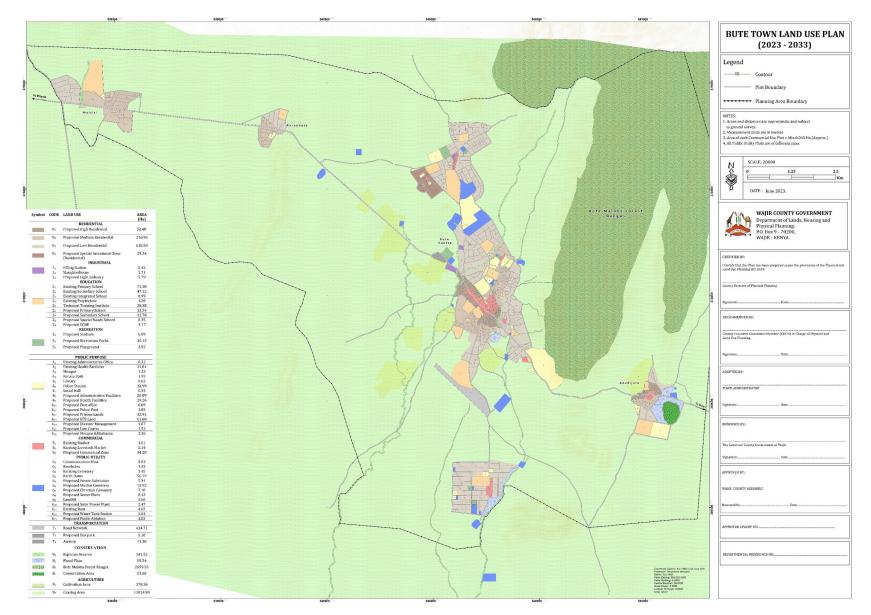
This zone comprises of the riparian reserve  $(8_1)$  (dry river bed and its buffer), flood plains, and all hills. Mlima Simba, the most dominant physical feature in the region been proposed as a conservation zone and covers nearly 2400 Ha, while riparian reserves cover an area of approximately 370.36 Ha. These areas have been zoned explicitly for conservation purposes; therefore, no development will be encouraged within these zones. The total area of land under conservation is approximately 2556.5Ha.

## 4.2.10 Agriculture Land Use (9)

These zones form the town's hinterland and will be used as grazing areas for livestock and cultivation of suitable crops. It also includes land under bee keeping and feed stores. Development on this zone is discouraged. Agricultural land use covers an area of 11,520.77Ha.

Map 4-9 presents a summary of proposed and existing land uses in the town.

#### Map 4-9: Bute Town proposed structure plan



# 4.3 Action Areas

## <u>Watiti A& B</u>

Watiti A and B is located 13.8Km from Bute Town on the Oda-Bute-Mandera Road (B81). The node is characterised by high and low density residential with an approximate number of 104 plots among which 80 have been regularised. People in the centre have developed some commercial structures along the road while the general settlement pattern is clustered.

Existing facilities in the centre are Watiti A dispensary covering an area of 1.49Ha and Watiti A primary school covering an area of 43. 66Ha.There also exists a mosque that covers an area of 0.18 Ha.

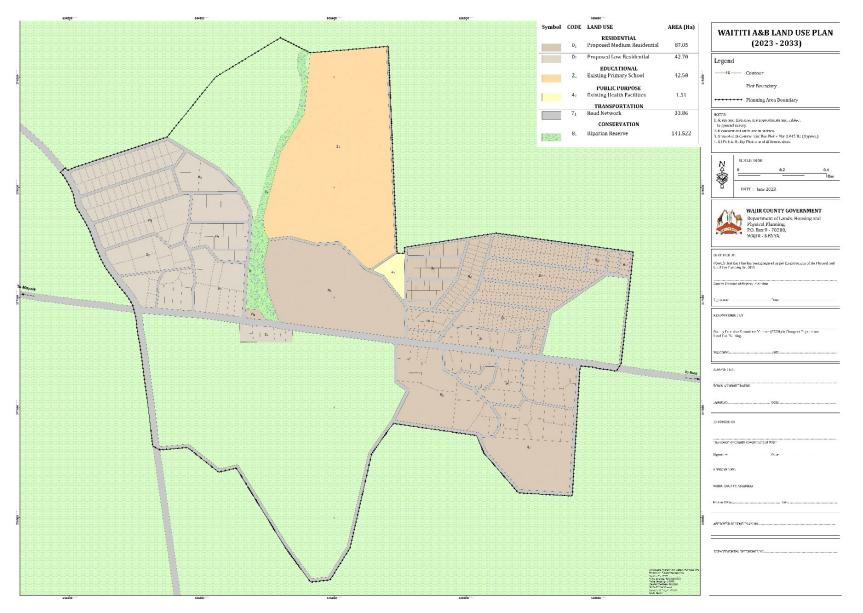
A total of 420 new plots has been created to cater for the future population of the town.

Medium and low density residential have been proposed in Watiti A and B to cater for the future resident population. Also, recreational parks and a commercial cum residential zone covering an area of 9.06Ha have been proposed. Map 4-10 presents the proposed structure of Watiti A and B.

## <u>Adadijole</u>

Adadijole lies along the Moyale-Mandera Road, approximately 6km from Bute Urban Centre. Sparsely populated residential areas characterise the center, with a primary school and a dispensary as the major public facilities.

A total of 4525 plots have been developed, with each plot given adequate access. The plan has catered to the existing population of the centre, with the existing informal cadastral layer being vital to informing the proposed scheme plan in line with the principle of minimal disturbance. Map 4-11 presents the proposed plan for Adadijole centre.



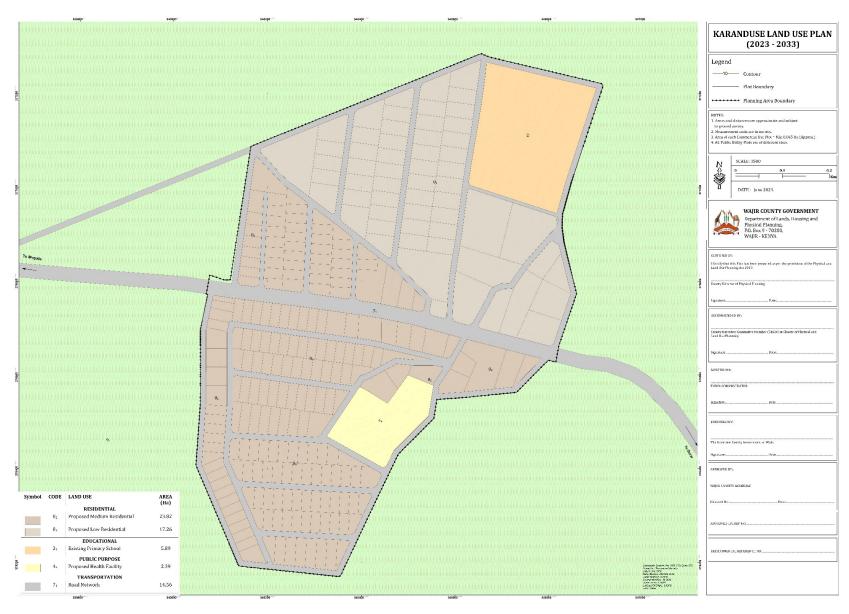
## Map 4-10: Watiti A & B Proposed Structure

Map 4-11: Adadijole Centre

#### <u>Karanduse</u>

Karanduse is located 8.3Km from Bute Town on the Moyale-Bute-Mandera Road (B81). The centre is characterised by a high-density residential with some commercial buildings developed along the main road. The approximate number of existing plots is 32, while the new plots created is approximately 245. A total of 27 existing plots have been regularised. Facilities in Karanduse include Bulgadud primary school which covers an area of 6.41Ha and a mosque covering an area of 0.12 Ha.

A public dispensary has been proposed in Karanduse to take care of the resident population so as to avoid traveling to Bute or Watiti for minor health issues. Medium and low density residential have been proposed to cater for the future resident population. Also, recreational parks and a commercial cum residential zone covering an area of 7.27Ha have been proposed. Map 4-12 presents the proposed structure of Karanduse.



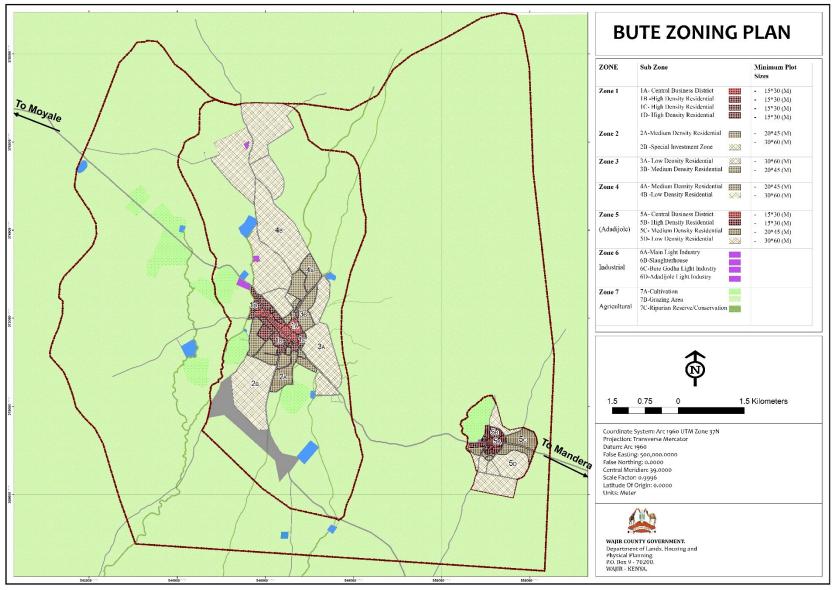
Map 4-12: Karanduse proposed structure

# 4.4 Zoning plan

This section provides zoning regulations for specific zones proposed for the urban area. The zoning regulations shall serve as a basis for town development control. The regulations range from permitted users, minimum plot sizes, setbacks (front, side, and rear), and plot coverage. The zones have been numbered systematically and the area in which they apply is indicated on the zoning map overleaf. Key terms used in the regulations are described below;

- ✓ Minimum Plot Size Refers to the minimum allowed horizontal land area of a given plot.
- ✓ Building Setbacks The unobscured, unoccupied open area between the furthermost projection of a structure and the property line of the plot on which the structure is located. This plan provides for the front, side and rear setbacks.
- ✓ Plot Coverage The percentage of the ground area of the plot covered by the structure (principal and accessory)
- ✓ **Plot Ratio-** The ratio of total built up area to the plot area
- Map 4-13 presents the proposed zones in Bute Town.





## 4.4.1 Zoning Regulations

Table 4-4 details the regulations for the various land use zones identified in the zoning plan. It details the rules and standards for the particular zone regarding minimum plot size, building setbacks (front, side and rear), maximum ground coverage, plot ratio and the types of development permitted and prohibited. The zoning regulations shall serve as a basis for development control in the town. *Table 4-24 : Zoning regulations* 

Zone Sub			-	Sta	ndar	ds		Permitted uses	Prohibited uses
	Zone	Minimu m Plot size	Setb F	acks(l S	M) R	Plot Ratio	Plot Coverage		
ZONE 1 Commercial	CBD-1A	0.25	3	0.5	-	240	80%	<ul> <li>Offices</li> <li>Malls</li> <li>Repair and service shops</li> <li>Clinics</li> <li>Banks/ATM lobbies</li> <li>Mosques/churches</li> <li>Cafes, restaurants, and accommodation facilities</li> <li>Post office/courier services</li> <li>Public toilets</li> <li>Laundry services</li> <li>Printing services</li> <li>Parking sites</li> <li>Petrol stations (only to those existing)</li> <li>Bakeries and confectioneries</li> </ul>	<ul> <li>Heavy/light industries</li> <li>Warehousing/storage godowns of perishable/inflammable goods</li> <li>Motor &amp;Vehicle repair</li> <li>Primary and secondary schools</li> <li>Slaughter facilities</li> <li>Bus/truck depots</li> <li>Sewage treatment plant/disposal work</li> <li>Water treatment plant</li> <li>Solid waste dumping yards</li> <li>Junk yards</li> </ul>

Zone	Sub			Sta	ndar	ds		Permitted uses	Prohibited uses	
	Zone	Minimu	Setb	acks(I		Plot	Plot			
	HDR-1B	<b>m Plot</b> 15*30	<b>F</b> 3	<b>S</b> 1.5	<b>R</b> 1	Ratio 2.1	Coverage 70%	<ul> <li>Mixed residential development (Flats, Row housing)</li> <li>Health facilities</li> <li>Primary and secondary school</li> <li>Library</li> </ul>	<ul> <li>Warehousing/godowns</li> <li>Motor &amp;vehicle repair</li> <li>Slaughterhouses</li> <li>Petrol stations</li> <li><i>Juakali</i> and light industrial activities</li> <li>Solid waste dumping</li> </ul>	
	HDR-1C	15*30	3	1.5	1	2.1	70%	<ul> <li>Mosques/churches</li> <li>Cemetery/gravesite</li> <li>Day cares</li> <li>Corner shops</li> <li>Recreational parks/open spaces</li> <li>Disaster management centre</li> <li>Solid waste collection points</li> </ul>	yards <ul> <li>Bars and night clubs</li> </ul>	
	HDR-1D	15*30	3	1.5	1	2.1	70%	Water points		
ZONE 2	MDR-2A	20*45	6	2	2	1.3	70%	<ul> <li>Mixed residential development (Flats, Masionettes, Bungalows)</li> <li>Water points</li> <li>Recreational facilities/open spaces</li> <li>Health facilities</li> <li>Primary School</li> <li>Day care centres</li> <li>Water Points</li> <li>Corner shops</li> </ul>	<ul> <li>Heavy/light industries</li> <li>Warehousing/godowns</li> <li>Motor &amp;vehicle repair</li> <li>Petrol stations/pumps/filling stations</li> <li>Sewage treatment plant/disposal work</li> <li>Water treatment plant</li> <li>Solid waste dumping yards</li> </ul>	

Zone								Permitted uses	Prohibited uses
	Zone	Minimu m Plot		acks(		Plot Ratio	Plot Coverage		
			F	S	R		Correlage	<ul> <li>Mosques/churches</li> <li>Animal haystore</li> <li>Police post</li> <li>Dispensary/Clinics</li> <li>Recreational facilities/open spaces</li> <li>Civic and institutional housing</li> <li>Solid waste collection points</li> </ul>	• Bars and night clubs
	SPI-2B	30*60	10	5	5	0.5	50%	<ul> <li>Single dwelling residential units (Masionettes, Bungalows)</li> <li>Primary school and secondary school.</li> <li>Recreational facilities/open spaces</li> <li>Mosques/Churches</li> <li>Dispensary/Clinics</li> <li>Shopping centre</li> <li>Health facilities</li> <li>Educational facilities</li> <li>Educational facilities</li> <li>Day cares</li> <li>Corner shops</li> <li>Police post</li> <li>Religious facilities</li> <li>Solid waste collection points</li> <li>Small scale</li> </ul>	<ul> <li>Heavy/light industries</li> <li>Warehousing</li> <li>Motor &amp;Vehicle repair</li> <li>Petrol station/pump/filling station</li> <li>Sewage treatment plant/disposal work</li> <li>Solid waste dumping yards</li> <li>Flats and row houses</li> <li>Bars and night clubs</li> <li>Hotel and guest houses</li> </ul>

Zone	Sub			Sta	ndar	ds		Permitted uses	Prohibited uses
	Zone	Minimu m Plot	Setb F	acks(I S	M) R	Plot Ratio	Plot Coverage		
ZONE 3	LDR-3A	30*60	10	5	5	0.5	50%	<ul> <li>agriculture/cultivation</li> <li>Single dwelling residential units (Masionettes, Bungalows)</li> <li>Water points</li> <li>Recreational facilities/open spaces</li> <li>Dispensary/clinics</li> <li>Primary and secondary schools</li> <li>Day care centres</li> <li>Corner shops</li> <li>Police post</li> <li>Mosque/Churches</li> <li>Petrol station</li> <li>Shopping centre</li> <li>Livestock Market</li> <li>Polytechnic</li> <li>Solid waste collection points</li> <li>Bus Park</li> </ul>	<ul> <li>Warehousing or godowns</li> <li>Motor &amp;Vehicle repair</li> <li>Slaughter slabs</li> <li>Sewage treatment plant/disposal work</li> <li>Water treatment plant</li> <li>Solid waste dumping yards</li> <li>Flats and row houses</li> <li>Bars and night clubs</li> <li>Hotel and guest houses</li> </ul>
	MDR-3B	20*45	6	2	2	1.3	70%	<ul> <li>Mixed residential development (Flats, Maisonettes, Bungalows)</li> <li>Water points</li> <li>Primary and secondary schools</li> <li>Day care centres</li> </ul>	All other uses except those enlisted as permitted.

Zone	Sub	Standards						Permitted uses	Prohibited uses
	Zone	Minimu		acks(I	í í	Plot	Plot		
		m Plot	F	S	R	Ratio	Coverage	<ul> <li>Corner shops</li> <li>Community facilities</li> <li>Police station</li> <li>Community Centre</li> <li>Mosque/Churches</li> <li>Recreational parks/Open spaces</li> <li>Civic and institutional housing</li> </ul>	
ZONE 4	MDR-4A	20*45	6	2	2	1.3	70%	<ul> <li>Solid waste collection points</li> <li>Mixed residential development (Flats, Masionettes, Bungalows)</li> <li>Water points</li> <li>Health facilities</li> <li>Primary school</li> <li>Cemetery</li> <li>Corner shops</li> <li>Religious facilities</li> <li>Community facilities</li> <li>Police station</li> <li>Health facility</li> <li>Administrative facilities/offices</li> <li>Recreational parks/open spaces</li> <li>Civic and institutional housing</li> </ul>	U

Zone	Sub			Sta	ndar	ds		Permitted uses	Prohibited uses
	Zone	Minimu		acks(I	- ´	Plot	Plot		
		m Plot	F	S	R	Ratio	Coverage		
	LDR-4B	30*60	F 10	5	5	0.5	50%	<ul> <li>Solid waste collection points</li> <li>Single dwelling residential units (Maisonettes, Bungalows)</li> <li>Water points</li> <li>Recreational parks/open spaces</li> <li>Health facilities</li> <li>Primary and Secondary school</li> <li>Day cares</li> <li>Corner shops</li> <li>Police post</li> <li>Religious facilities</li> <li>Solid waste collection points</li> <li>Earth dam</li> <li>Power substation</li> <li>Cemetery</li> <li>Prison</li> <li>Borabola and pumping</li> </ul>	All other uses except those enlisted as permitted.
								<ul> <li>Borehole and pumping station</li> <li>Dispensary/clinics</li> <li>Shopping centre</li> <li>Shopping have</li> </ul>	
ZONE 5 (ADADIJOLE)	CBD-5A	0.25	3	0.5	-	240	80%	<ul> <li>Slaughter house</li> <li>Wholesale and retail shops</li> <li>Repair and service</li> </ul>	All other uses except those enlisted as permitted.

Zone	Sub			Sta	ndar	ds		Permitted uses	Prohibited uses
	Zone	Minimu		acks(I	í í	Plot	Plot		
		m Plot	F	S	R	Ratio	Coverage		
								<ul> <li>shops</li> <li>Health Facilities</li> <li>Financial institutions/ATMs</li> <li>Educational Facilities</li> <li>Cafes, restaurants, and accommodation facilities</li> <li>Public toilets</li> <li>Laundry</li> <li>Printing</li> <li>Solid waste collection points</li> </ul>	
	HDR-5B	15*30	3	1.5	1	2.1	70%	<ul> <li>Mixed residential development (Flats, Row housing)</li> <li>Corner shops</li> <li>Mosques</li> <li>Water points</li> </ul>	• All other uses except those enlisted as permitted.
	MDR-5C	20*45	6	2	2	1.3	70%	<ul> <li>Earth Dam</li> <li>Small Scale agriculture</li> <li>Single dwelling residential units (Masionettes, Bungalows)</li> <li>Water Points</li> </ul>	All other uses except those enlisted as permitted.
	LDR-5D	30*60	10	5	5	0.5	50%	• Single dwelling residential units (Masionettes,	All other uses except those enlisted as permitted.

Zone	Sub	Standards						Permitted uses	Prohibited uses
	Zone	Minimu m Plot	Setb F	acks(I S	M) R	Plot Ratio	Plot Coverage		
								<ul> <li>Bungalows)</li> <li>Dispensary</li> <li>Secondary School</li> <li>Administrative offices</li> <li>Water points</li> <li>Recreational facilities/open spaces</li> <li>Police post</li> <li>Mosques</li> <li>Solid waste collection points</li> </ul>	
ZONE 6 Industrial	MAIN LIGHT INDUSTRY- 6A	0.045	3	1.5	2	65	65%	<ul> <li>Warehouses/Go downs</li> <li>Showrooms</li> <li>Banks/ ATM Machines</li> <li>Processing industries</li> <li>Manufacturing- Light/Heavy</li> <li>Corner Shops</li> <li>Industrial research/development</li> <li>Hotels and Restaurants</li> </ul>	• All other uses except those permitted
	slaughter house <b>-6B</b>	0.045	3	1.5	2	65	65%	<ul> <li>Slaughter house</li> <li>Livestock crush</li> <li>Other slaughter house related facilities</li> </ul>	All other uses except those permitted

Zone	Sub			Sta	ndar	ds		Permitted uses	Prohibited uses
	Zone	Minimu		acks(I		Plot	Plot		
	BUTE GODHA LIGHT INDUSTRY- 6C ADADIJOLE LIGHT INDUSTRY- 6D	m Plot 0.045 0.045	F 3 3	<b>S</b> 1.5 1.5	<b>R</b> 2 2	<b>Ratio</b> 65 65	Coverage 65% 65%	<ul> <li>Showrooms</li> <li>Banks/ ATM Machines</li> <li>Wholesale and distribution</li> <li>Processing</li> <li>Manufacturing- Light/Heavy</li> <li>Storage yards</li> <li>Car wash</li> <li>Corner Shops</li> <li>Industrial research/development</li> <li>Hotels and Restaurants</li> </ul>	All other uses except those permitted
ZONE 7 AGRICULT URAL	CULTIVATI ON-7A GRAZING AREA-7B							<ul> <li>Dumpsite at the designated area</li> <li>The sports complex at the designated site</li> <li>Earth Dams</li> <li>Crop production</li> <li>Grazing</li> <li>Green houses/plant nurseries</li> <li>Bee keeping at the designated site</li> <li>Land fill at designated site</li> </ul>	• All other uses except those permitted

Zone	Sub			Sta	ndar	ds		Permitted uses	Prohibited uses
	Zone	Minimu	Setb	acks(1	M)	Plot	Plot		
		m Plot	F	S	R	Ratio	Coverage		
								<ul> <li>Boreholes</li> <li>Farm house and store</li> <li>Waste Water Treatment Plant at designated site</li> </ul>	
	RIPARIAN RESERVES -7C							• Conservation (Tree planting)	All other uses except those permitted

# 4.5 Subdivision Scheme Plan

A subdivision scheme plan is the output of dividing a parcel of land or a building into one or more further parcels or changing an existing boundary location. The subdivision scheme plan for Bute Town will be the basis for a future cadastral system that will generate a land register and give residents secure land tenure.

Additionally, the developed subdivision scheme for the town aims to achieve accessibility, promote organized development, prepare a land information system for the town, and improve and promote development standards by establishing different plot sizes for different land uses.

Factors considered in the development of the scheme plan include;

- ✓ Population projection to the year 2033
- ✓ Regularization of existing properties
- ✓ Balanced distribution of services
- ✓ Improving access to all plots
- ✓ Creation of order and safety
- ✓ Zoning regulations

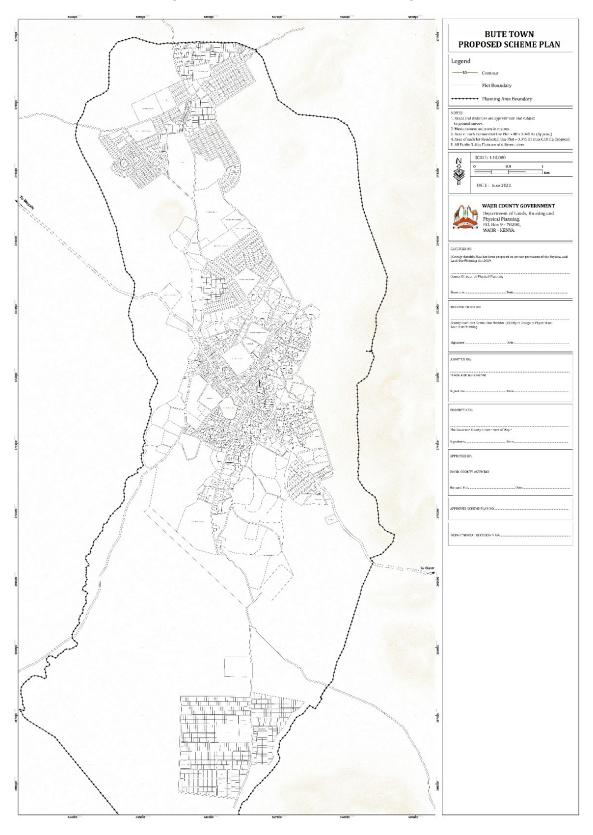
The number of buildings affected as a result of access provision is 574. Plots created from the scheme plan total 3,541.

Table 4 -25 describes the scheme plan in terms of plots created, plots regularised, total number of plots and the buildings affected by access roads and road reserves.

Table 4-25: Summary of plots

Town	Plots Created	Plots Regularized	Total Plots	Building Affected
Bute Watiti A &B	3541	1372 80	5020	574
Adadijole				
Karanduse		27		

Map 4-14 presents the tentative subdivision scheme plan for Bute Town, while Map 4-15 and Map 4-16 present the schemes for Watiti A & B and Karanduse, respectively.

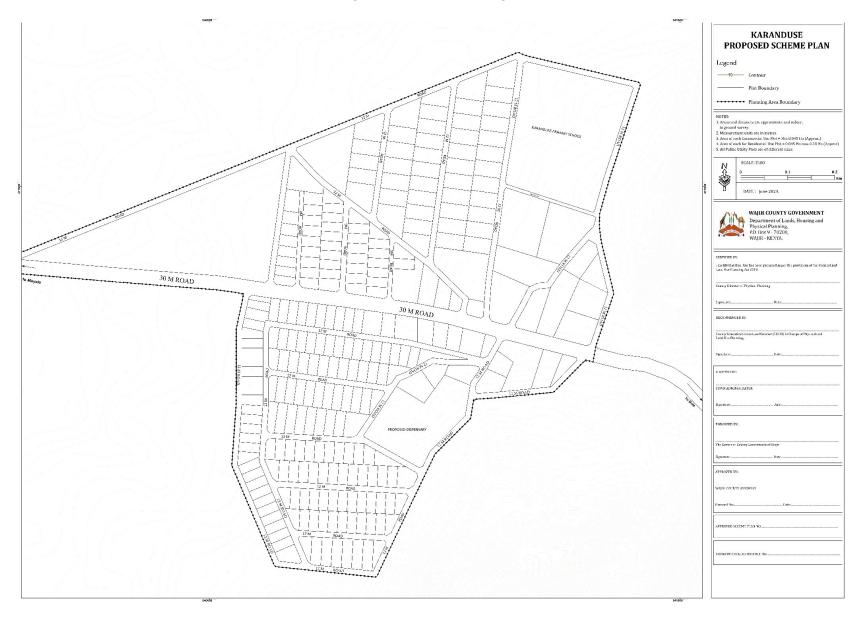


Map 4-14: Core urban are Subdivision scheme plan



Map 4-15: Watiti A & B Scheme plan

Map 4-16: Karanduse Scheme plan



Map 4-17: Adadijole Scheme Plan



# 4.6 Urban Design

## 4.6.1 Rationale

Urban design involves arranging and designing buildings, public spaces, transport systems, services, and amenities. It incorporates giving form, shape, and character to groups of buildings, whole neighbourhoods, and the urban area. It is a framework that orders the elements into a network of streets, squares, and blocks. (*The European Urban Knowledge Network*)

Urban design affects how a city performs and how its residents live over the decades and centuries. The total area selected for urban design in Bute Town is 348 Ha. The area incorporates the built-up zone where many activities occur.

## 4.6.2 Design Opportunities and Interventions

## **Design Opportunities**

Design opportunities in Bute Town include undeveloped spaces that could be developed into recreational parks, landmarks such as schools and the police station, streets and roads, and riparian 8reserves. Street scaping, planting trees on road reserves, and providing non-motorized infrastructure could make the town more functional and attractive. Non-motorized infrastructure is key to delivering alternative transit systems and critical to urban design. The map below presents the design opportunities in the town:

## **Sample Design Interventions**

#### 1. Roads/Streets

Urban roads need to be designed in a manner that people are provided with spaces where they can safely walk, cycle, drive, take transit, and socialize. Designing urban roads and streets to cater to easy and comfortable movement of people will help reduce/eliminate urban problems like traffic and accidents. It will even ease accessibility within the town.

All access roads (9 and 12m) and local distributor (15 to 18m) roads will be single carriageways.

Service lanes (roads with a 6m width) are the back streets within the commercial areas. They shall have a three (3) metre carriageway with a drainage channel of 0.5m. Walkways will cover a total of one (1) metre. This shall facilitate movement around buildings in commercial back lanes

to handle goods upon delivery. Street lights (solar-powered) can be installed along the walkways. The visual representation is as depicted in Plate 4-10.

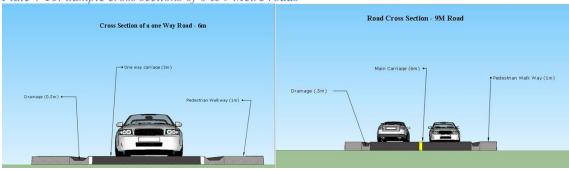


Plate 4-10: Sample cross sections of 6 & 9 Metre roads



Local distributor roads shall have a width of fifteen (15) to eighteen (18) metres. These roads shall distribute traffic from roads of greater functionality and width (secondary and primary roads). The roads shall be single carriageways of 7 metres split by road marking to direct traffic and a shoulder of one (1) m. Drainage channels of one (1) metre on either side of the roads shall be installed. A pedestrian walkway and cycle path each of one (1) metre shall also be constructed. Avenue tree planting covering a total width of 1.5 meters is allocated to promote greening, provide shade along these roads, and improve the aesthetic appeal of the roads and town. The graphic representation of the description mentioned above is shown in Plate 4-11.

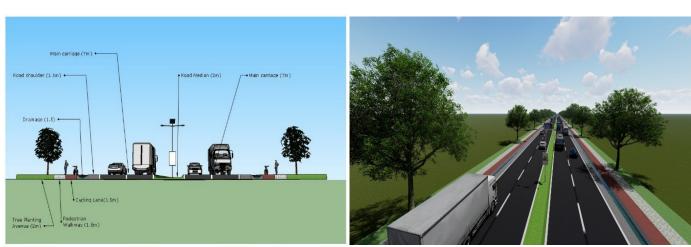






The outermost lanes within roads in the CBD will be used for on-street parking. This will help reduce the space required to provide parking facilities, enhance pedestrian safety, and generate revenue for the town through parking fees.

The main road, Odda-Bute-Danaba (B80) road, has a proposed reserve (width) of 30m. The model for designing these roads shall incorporate a dual carriageway (two lanes) of seven (7) metres each. The carriageways shall be separated by a median of two (2) metres which shall be utilized for street lighting. A cycle lane and walkway each of 1.5 metres shall be constructed after the road drainage (on either side of the road) of 1.5 metres. This is as shown in Plate 4-12





Source: Geodev design dept, 2020

#### 2. Commercial Areas

Commercial areas need to be designed in such a way that they promote order, clarity and aesthetic appeal. Abundant landscaping can integrate the built environment with natural features and express a welcoming feeling. Proper signage and building forms enable motorists to assimilate information quickly and locate their destinations. Order is essential to reduce stress by enabling people to understand where businesses are located proximate to one another and providing predictability.

Organized parking areas and readily accessible pedestrian path networks shall be established in commercial areas to encourage safe vehicle and pedestrian movement and enhance the overall shopping experience.



Plate 4-13: Sample commercial street with on street parking and walkway

Source: Geodev design dept, 2020

Commercial blocks shall also be established after defining a setback of 6 metres from the road reserve to allow for organised on-street commercial activities without affecting pedestrians and cyclists.

Plate 4-14: Sample organised on street commercial activity



Source: Geodev design dept, 2020

#### **Recreational parks**

Recreational parks are key in creating an all-inclusive urban environment that provides opportunities for social activities while promoting personal health and wellness.

The proposed sports complex is designed to accommodate recreational use by providing benches and training grounds. The stadium shall accommodate both indoor and outdoor sporting activities. These include a basketball court, football, volleyball, and netball pitch. Indoor sporting facilities will include a gym and tennis court. These facilities will all have changing rooms and washrooms.

Parks shall be evenly distributed in the town to serve the entire resident population equally. They shall also have special amenities like toilets, benches, and proper land scaping.

Plate 4-15: Toilets, smoking area and benches in a recreational park



Source: Geodev design dept, 2020

Plate 4 -16 presents a sample visualization of a proposed urban park to be constructed in Bute Town.





Source: Geodev design dept, 2020

# 4.7 Urban Improvement Strategies

This section presents various urban improvement strategies in different sectors of the town. These strategies seek to solve the root causes of multiple issues in respective sectors.

## 4.7.1 Transport Strategy

#### Strategy

Provide an integrated, efficient transport system to improve connectivity and promote user safety.

## Objective

To improve connectivity and promote user safety.

#### **Proposed Projects and Programmes**

- 1. Upgrade Eldas-Bute and Buna-Bute roads from murram to bitumen standards.
- 2. Construct a bus park along Oda-Bute-Danaba (B80) road and provide on-street car parking within the proposed CBD.
- 3. Construct proper stormwater drainage systems on both sides of all roads. The drainage lines
- 4. Upgrade all access (6-12m) and secondary (12-21m) roads to gravel standards.
- 5. Construct non-motorized transport infrastructure that includes walkways and cycleways on class B and G roads.
- 6. Upgrade Bute airfield to a well-equipped and functional airstrip and maintain strict zoning regulations on the flight funnel.
- 7. Form a passenger welfare committee to regulate the public transport sector.
- 8. Formulate a transport policy for the county.

## 4.7.2 Environment Strategy

#### Strategy

Promote afforestation, proper sanitation, and sustainable, environmentally friendly energy sources.

#### Objective

To protect and conserve the environment.

#### **Proposed Projects and Programmes**

- 1. Provide the town with proper waste management infrastructure, including waste skips, litter bins and garbage trucks/tractors.
- 2. Provide subsidies to promote alternative renewable energy sources e.g. solar panels, LPG, and energy-saving *jikos*.
- 3. Provide free tree seedlings to residents to promote agro-forestry and re-forestation
- 4. Sensitization campaigns on integrated waste management practices i.e. waste reduction, re-use and recycling
- 5. Formulate an environmental policy for the county to cater to water resources and vegetation cover.
- 6. Rehabilitate abandoned quarrying sites.
- 7. Capacity building and Partnership Initiatives for environmental conservation to residents of the town.

## 4.7.3 Housing Strategy

#### **Strategies**

- 1. Land regularization to offer incentives for investment in housing.
- 2. Provision of affordable, decent housing and requisite infrastructure.

#### Objective

To provide serviced areas for adequate, affordable, and quality housing.

#### **Proposed Projects and Programmes**

- 1. Formulate a housing policy for the county.
- 2. Undertake land regularization to provide land ownership documents to act as collateral in raising funds for housing development.
- 3. Initiate low-cost housing programmes through subsidy provisions by public-private partnerships.
- 4. Provide housing for the Kenya Police, teachers, administrative officers, and health care workers.
- 5. Provide service infrastructure such as water, electricity, and solid and liquid waste management services within the residential areas.
- 6. Open up access roads immediately after the survey.

# 4.7.4 Water Supply Strategy

#### Strategy

Provide adequate potable water for all at the household level.

#### Objective

To increase access and supply of potable water to all households in the town.

#### Measures to support the strategy

- 1. Create a local water resource authority to operate and centrally manage water sources for the town.
- 2. Drill two more boreholes and construct more water storage facilities.
- 3. Develop a water treatment reservoir and pumping station for the town.
- 4. Establish a water reticulation system to supply potable water at household level.
- 5. Encourage partnerships between the proposed local water resource authority, private sector and the community in developing and operating water sources and reticulation systems.
- 6. Separate domestic and livestock water points.
- 7. Fencing and rehabilitation of all water pans and earth dams.
- 8. Initiate sensitization programs on water conservation to minimize wastage e.g. re-using and recycling and equip residents with skills to harness water.

## 4.7.5 Sanitation Strategy

#### Strategy

Provide requisite sanitary equipment and infrastructure to improve sanitation in the town.

#### Objective

To improve the sanitary conditions of the town by providing requisite infrastructure.

#### Measures to promote the strategy

- 1. Relocate the existing landfill and make it fully functional to cater to the town's solid waste management.
- 2. Provide equipment e.g., trucks, tractors etc., and staff for effective solid waste management.

- 3. Procure and position litter bins at key places in the town, to prevent littering and facilitate responsible disposal of waste in the town.
- 4. Encourage the use of septic tanks and construct a sewer reticulation system throughout the town. The reticulation system includes the trunk sewer lines and the oxidation ponds. Construction of the oxidation ponds should precede the trunk sewer lines.
- 5. Institute effective monitoring and control measures to regulate the discharge of toxic waste into the river.

# 4.7.6 Storm Water Management

## Strategy

Develop an efficient drainage system to appropriately channel surface run off to counter flooding and soil erosion.

## Objective

To reduce flooding, soil erosion, and destruction of property by appropriately channeling storm water.

#### Measures to support the strategy

- 1. Construct and interlink drainage infrastructure along the town's road network to drain in the seasonal rivers (*laghas*).
- 2. Plant trees on peripheries of flood-prone areas and the built-up areas.
- 3. Relocate structures on the drainage way leaves and flood-prone areas.
- 4. Conduct regular routine maintenance and cleaning of the storm water drains and develop trap mechanisms for surface water drainage systems.

# 4.7.7 Energy Strategy

#### **Strategies**

- i. Ensure equal distribution and access to sustainable energy.
- ii. Promote use of safe alternative energy sources such as wind and solar energy.

#### Objective

To ensure adequate distribution and supply of energy using different sustainable energy sources.

#### Measures to promote the strategy

- 1. Connect the town to the national grid.
- 2. Enforce regulations relating to the preservation of power way-leaves.
- 3. Develop a solar energy production farm.
- 4. Install and maintain solar powered street lights throughout the town.
- 5. Encourage private sector participation in exploring possibilities that increase the supply of environmentally safe energy for cooking and lighting.

## 4.7.8 Education Strategy

#### Strategy

Provide adequate and well-equipped educational facilities.

#### Objective

To provide adequate and well-equipped educational facilities.

#### Measures to support the strategy

- 1. Construct one secondary school in Adadijole), a special needs school in Bute Godha, and one primary school in the proposed Special Investment Zone.
- 2. Provide support infrastructure such as water and electricity, as well as facilities like dormitories, laboratories, libraries, etc., in all schools where applicable.
- 3. Promote education sensitization programs and co-curricular activities.
- 4. Deploy adequate qualified staff in all educational institutions.
- 5. Encourage and facilitate the participation of the private sector and religious institutions in providing education facilities and services.
- 6. Intensify inspection and supervision to ensure proper registration, enrollment, retention, and transition in schools.

# 4.7.9 Health Strategy

#### Strategy

Improve the delivery of healthcare services by increasing the capacity of health facilities.

## Objective

To provide quality, universal healthcare.

#### Measures to support the Strategy

- 1. Construct dispensaries/clinics and adequately staff and equip them to cater to the town residents' different health care needs.
- 2. Provide adequate qualified medical staff, equipment, and facilities such as beds, laboratories, incinerators, drugs, staff quarters, and special care units in the sub-county hospital.
- 3. Provide support infrastructure such as water, sewer, waste management facilities, and electricity to all health facilities in the town.
- 4. Provide mobile clinics and conduct frequent specialized medical camps to serve Bute subcounty.

## 4.7.10 Economic Development Strategy

#### Strategy

Improve the town's economy.

#### Objective

To promote the avenues for economic development in the town through agriculture, commerce, and industry.

#### Measures to support the strategy

- 1. Set up an agricultural research and development station within the town to help develop human capital in agricultural production (crop and livestock production).
- 2. Develop the light industrial area to capitalize on the potential of the town and its hinterlands.
- 3. Increase the quality and reach of technical support through setting up technical institutions and providing necessary support such as staffing, equipment, and facilities.
- 4. Increase the capacity of the polytechnic to offer courses in agricultural production systems.
- 5. Develop parking slots within the commercial zone for revenue collection.
- 6. Allow densification within the commercial zone to maximize the collection of rates, rents, and business permits.
- 7. Employ revenue collection staff
- 8. Construction of larger capacity earth dams to cater for crop and livestock production on the urban fringes.

- 9. Facilitate market access for fresh produce and livestock products from the town to other external areas.
- 10. Provide farmers with subsidized farm inputs and equipment and offer better extension services.
- 11. Train farmers on modern methods of farming and disaster preparedness through early warning systems against natural occurrences like drought and flooding.

## 4.7.11 Governance strategy

#### Objective

To enhance better governance and participatory decision-making within the town.

#### Strategy

Enhance local management, participatory governance, and the institutional capacity of the town.

#### Measures to support the strategy

- 1. Institute a town committee to oversee the mandates of the town through the town administrator.
- 2. Institute a development control unit within the county department to be posted within the town.
- 3. Recruit additional qualified staff to oversee conformity to the plan
- 4. Hold continuous professional development for county staff to enhance the capacity of plan implementation.
- 5. Establish resident sub-committees to safeguard the intentions and proposed land uses for the town.
- 6. Establish a public information management system to facilitate knowledge-sharing between authorities and residents.

Table 4 -26 indicates strategies in different sectors presented by objectives, opportunities, challenges, strategies, and projects for implementing the strategies.

#### Table 4-26: Sectoral strategies

#### Governance

OBJECTIVES	OPPORTUNITIES	CONSTRAINTS/CHALLENGES	STRATEGY	PROJECTS
To enhance better governance and participatory decision making within the town	<ul> <li>UACA provides for the creation of town administration and management</li> <li>Laws for providing for public participation (Constitution of Kenya, County Government Act and UACA)</li> <li>Existence of devolved system of government</li> <li>Existence of Town administration</li> </ul>	<ul> <li>physical planning department</li> <li>Lack of a development control department</li> <li>Lack of a public participatory policy</li> <li>Inadequate resource allocation for the town</li> </ul>	To enhance better governance and participatory decision making within the town	<ul> <li>Institute a town committee to oversee the mandates of the town through the town administrator.</li> <li>Institute a development control unit within the county department to be posted within the town.</li> <li>Recruit additional qualified staff for overseeing conformity to the plan</li> <li>Hold continuous professional development for county staff to enhance the capacity of plan implementation.</li> <li>Establish resident subcommittees to safeguard the intentions as well as proposed land uses for the town.</li> <li>Establish a public information management system to facilitate knowledge-sharing between authorities and residents.</li> </ul>

<b>OBJECTIVE</b>	<b>OPPORTUNITIES</b>	CONSTRAINTS/CHALLENGES	STRATEGY	PROJECTS
To promote the avenues for economic development in the town through agriculture, commerce and industry	<ul><li>labor force</li><li>Large livestock production</li></ul>	frequent in the town	• Promote the town's economy through human capital development, improved revenue collection and value addition through agriculture	<ul> <li>Set up an agricultural research and development station within the town to help in human capital development on matters agriculture (crop and livestock production).</li> <li>Create an industrial zone within the town in order to capitalize on the potential that the town and its hinterlands offer.</li> <li>Increase the quality and reach of technical support through setting up of technical institutions and giving necessary support such as staffing, equipment and facilities.</li> <li>Increase the capacity of the technical training institute to offer courses in agricultural production systems</li> <li>Develop parking slots within the commercial zone for revenue collection.</li> <li>Allow densification within the commercial zone in order to maximize on collection staff</li> <li>Construction of larger capacity earth dams to cater for crop and livestock production on the urban fringes.</li> <li>Facilitate market access for fresh</li> </ul>

# Economic Development Strategy

OBJECTIVE	<b>OPPORTUNITIES</b>	CONSTRAINTS/CHALLENGES	STRATEGY	PROJECTS
				<ul> <li>produce and livestock products from the town to other external areas.</li> <li>Provide farmers with subsidized farm inputs, equipment and offer better extension services.</li> <li>Train farmers on modern methods of farming and disaster preparedness through the early warning systems against natural occurrences like drought and flooding.</li> </ul>

OBJECTIVES	<b>OPPORTUNITIES</b>	CONSTRAINTS/CHALLENGES	STRATEGY	PROJECTS AND PROGRAMMES
To provide an integrated, efficient transport system with an aim of improving connectivity and promoting user safety	<ul> <li>Local availability of Ballast</li> <li>Mandate of the county department of Roads, Transport and Public Works</li> </ul>	<ul> <li>Poor road surface conditions</li> <li>Lack of support infrastructure like drainage systems leading to flooding of roads during the rainy seasons</li> <li>Lack of terminal and parking facilities</li> <li>Lack of non-motorized facilitating infrastructure</li> <li>Uni-modal transportation system (road only)</li> <li>Inadequate road transport network that limits connectivity</li> </ul>	Provide an integrated, efficient transport system to improve connectivity and promote user safety	<ol> <li>Upgrade Eldas-Bute and Buna-Bute roads from murram to Bitumen standards.</li> <li>Construct a bus park along Moyale- Mandera(B80) road and provide for on street car parking within the proposed CBD.</li> <li>Construct proper drainage systems on both sides of all roads.</li> <li>Upgrade all access and secondary roads to gravel standards</li> <li>Construct non-motorized transport infrastructure that includes walk ways and cycle ways on class B and G roads</li> <li>Upgrade Bute airfield to a well-equipped and functional airstrip and maintain strict zoning regulations on the flight funnel.</li> <li>Form a passenger welfare committee to regulate the public transport sector through formulation of favourable policies</li> </ol>

Transport

# Housing

OBJECTIVES	<b>OPPORTUNITIES</b>	CONSTRAINTS/CHALLENGES	STRATEGY	PROJECTS
To provide adequate, affordable and quality housing	<ul> <li>Availability of local building materials</li> <li>Mandate of the county department of Lands, Housing and Physical Planning</li> </ul>	<ul> <li>Poor quality houses</li> <li>Lack of a development plan to guide housing</li> <li>Lack of a waste management system</li> <li>Inadequate water supply</li> <li>Flooding</li> <li>Low investments by both levels of government.</li> <li>Lack of land ownership documents</li> </ul>	<ul> <li>Land readjustment to accommodate new housing designs, create order and provide requisite facilities.</li> <li>Provision of affordable and decent housing and requisite infrastructure</li> </ul>	<ol> <li>Formulate a housing policy for the county.</li> <li>Undertake land regularization to provide land ownership documents to act as collateral in raising funds for housing development and security of tenure.</li> <li>Initiate low cost housing programmes through subsidy provision by public private partnerships.</li> <li>Provide service infrastructure such as water, electricity and waste management services.</li> <li>Open up access roads immediately after survey.</li> </ol>

# Environment

OBJECTIVE S	OPPORTUNITIE S	CONSTRAINTS/ CHALLENGES	STRATEGY	PROJECTS AND PROGRAMMES
To protect and conserve the environment	<ul> <li>Potential for solar and wind energy harvesting</li> <li>Mandate of the County department of Water, Energy,</li> </ul>	<ul><li>degradation</li><li>Pollution and</li></ul>	Protect and conserve the environment through afforestation, proper sanitation and the use of sustainable environmentally friendly energy sources.	<ol> <li>Provide proper waste management infrastructure in the town.</li> <li>Provide Subsidies to promote use of alternative renewable energy sources e.g. solar panels and LPG and energy saving jikos</li> <li>Provide free tree seedlings to residents to promote agro-forestry and re-forestation</li> </ol>

OBJECTIVE S	OPPORTUNITIE S	CONSTRAINTS/ CHALLENGES	STRATEGY	PROJECTS AND PROGRAMMES
INFRASTRUC	-			<ol> <li>Sensitization campaign on integrated waste management practices i.e. waste reduction, re-use and recycling</li> <li>Enforce environmental laws regarding water resources, vegetation cover and rehabilitation of water pans</li> <li>Rehabilitate abandoned quarrying sites</li> <li>Form a town water resources management committee</li> <li>Capacity Building and Partnership Initiatives for environmental conservation.</li> </ol>
OBJECTIVES	ainage infrastructure OPPORTUNITI S		STRATE	GY PROJECTS
To reduce flooding soil erosion and destruction of property by appropriately channeling storm water to an elabora drainage system.	g, • Upgrading to Bitumen standards of t B80 road	system within the T	Town.soil erosione rainydestructionlack ofproperty byappropriateforchannelingal in thewater to anelaborate dsystem.	<ul> <li>n and infrastructure along the town's road network to drain at a common point</li> <li>Plant trees on peripheries of flood prone areas and the built-up areas.</li> <li>Relocate structures on the drainage way leaves and flood prone areas.</li> </ul>

OBJECTIVES	OPPORTUNITIES	CHALLENGES	STRATEGY	PROJECTS
• To ensure adequate distribution and supply of energy using different sustainable energy sources	<ul> <li>Harnessing wind energy to take advantage of the windy nature of the Town.</li> <li>Harnessing solar energy to take advantage of the sunny environment</li> </ul>	<ul> <li>Insufficient electricity supply within the Town</li> <li>The Town experiences sporadic power outages.</li> <li>High cost` of electricity.</li> </ul>	To ensure adequate distribution and supply of energy using different sustainable energy sources.	<ul> <li>Connect the town to the national grid.</li> <li>Enforce regulations relating to the preservation of power way-leaves</li> <li>Develop a Wind and Solar Energy Production firm</li> <li>Install and maintain solar powered street lights throughout the town</li> <li>Encourage private sector participation in exploration of possibilities that increase supply of environmentally safe energy for cooking and lighting.</li> </ul>

SANITATION					
OBJECTIVES	<b>OPPORTUNITIES</b>	CHALLENGES	STRATEGY	PROJECTS	
To improve the sanitary conditions of the town by providing requisite infrastructure.	Mandate of the Department of Public Health, Medical Services and Sanitation, Wajir County	<ul> <li>Lack of sewage infrastructure for liquid waste management.</li> <li>Indiscriminate dumping of solid waste</li> </ul>	To improve the sanitary conditions of the town by providing requisite infrastructure.	<ul> <li>Establish designated dumping sites to prevent indiscriminate dumping</li> <li>Provide equipment for waste management e.g. trucks, tractors etc.</li> <li>Procure and position litter bins at key places in the town, to prevent littering and facilitate responsible disposal of waste in the town.</li> <li>Encourage the use of septic tanks and establish a sewer reticulation system throughout the town.</li> <li>Institute effective monitoring and control measures to regulate discharge of toxic waste into the river</li> </ul>	

WATER PROVISION.					
OBJECTIVES	OPPORTUNITIES	CHALLENGES	STRATEGY	PROJECTS	
To increase access and supply of potable water to residents of the town	<ul> <li>Availability of Groundwater</li> <li>Presence of Surface run off during rains</li> </ul>	<ul> <li>Deforestation leading to the decrease of water levels in the area</li> <li>Lack of a centralized water service provider in the Town has a bearing on water connection costs, network of pipes for distribution as well as a standardized way of water treatment before distribution</li> <li>Conflicts between domestic and livestock water needs.</li> <li>Over-reliance on boreholes from different points in the Town can result in excessive and unregulated extraction of water from the aquifer thereby causing an imbalance with its recharge and its supply capacity in the long term.</li> </ul>	Provide adequate potable water for all residents at household level.	<ul> <li>Create a local water resource authority to operate and manage water sources for the town centrally.</li> <li>Develop a water treatment reservoir and pumping station.</li> <li>Expand the water reticulation system to supply potable water at household level.</li> <li>Encourage partnerships between the proposed local water resource authority, private sector and the community in the development and operation of water sources and reticulation systems.</li> <li>Separate domestic and livestock water points.</li> <li>Fencing and rehabilitation of all water pans and earth dams.</li> <li>Initiate sensitization programs on water conservation to minimize wastage e.g. re-using and recycling and to also equip residents with skills to harness water.</li> </ul>	

SOCIAL INFRASTRUCTURE

OBJECTIVES	<b>OPPORTUNITIES</b>	CHALLENGES	STRATEGY	PROJECTS
To provide quality, universal healthcare	Mandate of the Department of Public Health, Medical Services and Sanitation, Wajir County	<ul> <li>Inadequacy of drugs</li> <li>Inadequate medical staff.</li> <li>lack of specialist doctors</li> </ul>	Improve the delivery of healthcare services by increasing the capacity of health facilities	<ul> <li>Construct four dispensaries as proposed in the structure plan to cater for different health care needs for the town residents.</li> <li>Provide adequate qualified medical staff, medical equipment and facilities such as beds, laboratories, incinerators, staff quarters and special units.</li> <li>Provide support infrastructure such as water, sewer, waste management facilities and electricity to all health facilities in the town.</li> <li>Provide mobile clinics as well as conduct frequent specialized medical camps to serve the sub county.</li> </ul>

# 4.8 Implementation matrix

## 4.8.1 Overview

This chapter presents a platform to ensure that all the proposals are implemented in the manner proposed and within the period indicated in the strategies. It also proposes prioritizing projects and provides ways and means for easing funds. The overall implementation of the integrated urban development plan will be absorbed by the identified existing institutions, which will require strong leadership and coordination.

A timeframe for each action indicates the expected implementation time, i.e., immediate, continuous, short-term, medium-term, or long-term. It identifies the relevant institutions that are crucial to the implementation of the various action programmes.

## 4.8.2 Strategic Projects

Critical projects are transformative, have more multiple effects (forward and backward linkages), and have the highest potential to kick-start the economy of Bute Town. These projects are categorized into facilitative, productive, and perceptive.

*Facilitative* are those projects/programmes which enable the productive sector to operate effectively and efficiently.

*Productive* projects produce goods and services directly and lead to the generation of employment and income.

*Perceptive* projects are those that improve the image and beauty of the town, have the potential to attract investors, and give the town a unique identity.

#### 4.8.2.1 Facilitative Projects Land Management

Survey and provide title deeds to the plots resulting from the town's scheme plan.

#### Sewer and Water Supply

County Government through the Department of Water, Energy, Environment and Natural Resources and Roads, Transport and Public Works as well as the proposed town water resources authority to work together in:

- 1. Conservation and rehabilitation of the water sources,
- **2.** Construction of a water reticulation system for the town. The water reticulation system shall involve the town's boreholes, town piping streatment, and pu,
- **3.** The construction of a sewer reticulation system for the town should be encouraged, and the use of septic tanks should be encouraged. The construction of the oxidation ponds to precede the construction of the trunk sewer reticulation lines.

#### Transport

- 1. Upgrade Eldas-Bute and Buna-Bute roads from murram to bitumen standards.
- 2. Construct a bus park along Moyale-Mandera (B80) road.
- 3. Construct proper drainage systems on both sides of all roads.
- 4. Upgrade all access and secondary roads to gravel standards
- 5. Upgrade Bute airfield to a well-equipped and functional airstrip

#### Energy

- 1. Develop a and solar energy production farm
- 2. Install and maintain solar powered street lights throughout the town
- 3. Connect the town to the national power grid.

## 4.8.2.2 Productive Projects

#### Industry

- Expand the slaughterhouse and provide requisite infrastructure, including water and electricity to the site.
- Provide support infrastructure like energy, efficient water, and proper road networks to promote access and connectivity to and within the proposed light industrial zones (juacali, furniture works, and livestock products processing).

## Commerce

• Expansion and maintenance of the existing livestock market.

## 4.8.2.3 Perceptive Projects

## **Design and Redevelopment**

1. Redevelop the CBD from single-storey buildings to modern multi-storey buildings that encompass aesthetic designs. This will enhance densification and optimal use of land in the CBD.

2. Landscape and pave all the streets while providing on-street car parks and non-motorized infrastructure.

#### **Green Spaces**

Develop proposed recreational and conservation areas through landscaping, tree planting, and furniture provision where necessary. These green spaces include parks, flood plains and riparian reserves.

## 4.8.3 Quick Wins

These are projects that will be achieved immediately preferably within a period of 100 days of plan implementation. They have high visibility and serve the purpose of rallying support for subsequent planning activities. These also require low funding and include:

- 1. Create a local water resource authority to operate and centrally manage water sources for the town.
- 2. Formulation of a housing policy for the county
- 3. Form a passenger welfare committee to regulate the public transport sector through formulation of favourable policies
- 4. Procure and position litter bins at key places in the town, to prevent littering and facilitate responsible disposal of waste in the town.

# 4.8.4 Short Term Projects

These projects are achievable within a period of 1 to 3 years. These projects also serve the community's immediate needs, are less costly, do not involve many actors, and form a basis for medium- and long-term projects. These are captured in Table 4-27.

# 4.8.5 Medium Term Projects

Projects enumerated here are medium-term actions achievable within a period of 4-6 years. They require more collaborators than short-term projects and extensive research before commencement, land acquisition and wider consultations among all the involved partners. Medium-term projects are as captured in Table 4 -27.

## 4.8.6 Long term projects

Projects presented here below are long term and require a period of between 7 to 10 years and are expected to have been achieved by the end of the planning period, require phasing, feasibility studies, major capital investments, donor funding, and wider consultation. Some projects here are also continuous and shall be implemented throughout the planning period. Long-term projects are as captured in Table 4 - 27.

## 4.8.7 Coordination Framework

At policy and institutional levels, the coordination focuses on facilitating:

- i. The understanding and implementation of strategies and measures by the government and non-government institutions;
- ii. Dialogue between all partners and the government to create conditions that favour the adoption of the plan.

At an operational level, coordination is mainly concerned with improving efficiency of actions through:

- i. Information exchange;
- ii. Facilitating administrative procedures as much as possible;
- iii. Ensure the financing of critical activities, direct resources to priority areas, and avoid overlapping activities.

To enhance good coordination, it is recommended that:

- i. People in the planning area to begin reinforcing the immediate and personal initiatives of this plan
- ii. The quick wins and immediate interventions be cleared to pave way for the short term and medium-term strategies that will ultimately prepare a way for the long-term objectives

## 4.8.8 Community Participation Framework

The main aim is to improve the effectiveness and validity of implementation processes and to increase the acceptability of plan proposals and decisions. This will fully involve the community in investment choices and management decisions. Presented projects outlined in each sector encourage:

- 1. Formulation of a passenger welfare committee to regulate the public transport sector through formulation of favourable policies.
- 2. Formulation of a town water resources management committee.
- 3. Establishment of a public information management system to facilitate the sharing of knowledge between authorities and residents.
- 4. The public to continuously monitor and participate in development activities in the Town

# **4.9 Implementation Framework**

Implementation describes the process or set of activities undertaken to ensure the plan proposals are executed. Moreover, it outlines the institutions/agencies involved in undertaking the various activities and the time it will take to undertake them.

Key issues that may hinder the implementation of projects and programs in the town include:

- Inadequate financial resources,
- Inadequate qualified personnel,
- Poor coordination between implementation agencies,
- weak plan monitoring and review capacity,
- Poor incorporation of spatial plan proposals in lower-level plans,
- Poor linkage between budgetary allocations and plan proposals
- Potential conflicts due to loss of property rights.

For proper implementation of the projects and programmes in the Town, the following measures are proposed:

- Establishment of a Town committee
- Capacity building for all implementers in different county departments
- Public participation for all proposed projects in the Town before commencement
- Establishment of a physical planning committee
- Coordination and partnership between different implementing agencies

This implementation framework outlines projects and programmes in every sector, duration to be taken for implementation of each project/programme and the implementing agency.

THEME	PROJECT	ACTORS	TIMEFRAME
TRANSPORT	Upgrade Buna-Bute Road from murram to bitumen standards.	KeNHA, KeRRA	Medium term by 2028
	Construct a bus park along Moyale-Mandera(B80) road	Department of Roads, Transport and Public Works, Wajir County	Medium term by 2028
	Construct proper drainage systems on both sides of all roads.	KeNHA	Medium term by 2028
	Upgrade all access and secondary roads to gravel standards		Short term by 2025
	Construct non-motorized transport infrastructure that includes walk ways and cycle ways on class B and G roads		Medium term by 2028
	Upgrade Bute airfield to a well- equipped and functional airstrip and maintain strict zoning regulations around the facility.	Kenya Airports Authority	Medium term by 2028
	Form a passenger welfare committee to regulate the public transport	<ul><li>Residents</li><li>Town committee</li></ul>	Short term, within 100 days of plan approval
	Formulate a county transport policy	County Assembly of Wajir	Short Term by 2024
ENVIRONMENT	Provide proper waste management infrastructure in the town including garbage trucks/tractors, waste skips etc.	County Government through the Department of: • Public Health, Medical Services and Sanitation • Roads, Transport and Public Works	Medium term by 2028
	Provision of free tree seedlings to farmers to promote agro-	Department of Water, Energy, Environment and Natural	Short term by 2024

# Table 4-27: Implementation framework

THEME	PROJECT	ACTORS	TIMEFRAME
	forestry and re-forestation	Resources, Wajir County	
	Sensitization campaign on integrated waste management practices i.e. waste reduction, re- use and recycling	Department of Public Health, Medical Services and Sanitation, Wajir County	Short term by 2024
	Enforce environmental laws regarding water resources, vegetation cover and rehabilitation of water pans	National Environmental Management Authority	Long term, Continuous
	Rehabilitate abandoned quarrying sites	• Department of Water, Energy, Environment and	Medium term by 2028
	Form a town water resources management committee	Form a town water resources Natural Resources, Wajir County	
	Capacity Building and Partnership Initiatives for environmental conservation	Development partners	Long term, Continuous
HOUSING	Formulate a housing policy for the county	<ul> <li>Department of Lands, Housing and Physical Planning, Wajir County</li> <li>Wajir County Assembly</li> </ul>	Short term, within 100 days of plan approval
	Initiate low-cost housing programmes through subsidy provision by public private partnerships.	<ul> <li>Department of Lands, Housing and Physical Planning, Wajir County</li> <li>Development partners</li> </ul>	Medium term by 2028
	Provide service infrastructure such as water, electricity and waste management services.	<ul> <li>Department of Public Health, Medical Services and Sanitation, Wajir County</li> <li>Department of Lands, Housing and Physical Planning, Wajir County</li> </ul>	Medium term by 2028
	Undertake land regularization to	• Ministry of Lands,	Short term by 2025

THEME	PROJECT	ACTORS	TIMEFRAME
	provide land ownership documents to act as collateral in raising funds for housing development and security of tenure.	Housing and Urban Development • Department of Lands, Housing and Physical	
	Open up access roads immediately after survey of the town	Planning, Wajir County	Medium term by 2027
WATER SUPPLY	Sink more boreholes and establish more storage facilities Fence and rehabilitate water pans and	• Department of Water, Energy, Environment and Natural Resources, Wajir	Medium term by 2024 Short term by 2025
	earth dams	County	
	Create a local water resource authority to operate and manage water sources for the town centrally.	<ul><li>Town committee</li><li>Development partners</li></ul>	Short term, within 100 days of plan approval
	Develop a water treatment reservoir and pumping station.	-	Medium term by 2026
	Separate domestic and livestock water points		Short term by 2025
	Establish a water reticulation system for the entire town.	<ul> <li>Department of Public Health, Medical Services and Sanitation, Wajir County</li> <li>Department of Water, Energy, Environment and Natural Resources, Wajir County</li> </ul>	Medium term by 2028
on water conservation to minimize wastage e.g. re-using and recycling and to also equip residents with skills to harness water.Ener Nate Cou Tow		<ul> <li>Department of Water, Energy, Environment and Natural Resources, Wajir County</li> <li>Town committee</li> </ul>	Long term, Continuous
SEWARAGE AND	Provide equipment for waste	• Department of Public Health,	Medium term by 2028

THEME	PROJECT	ACTORS	TIMEFRAME
SANITATION	management e.g. trucks, tractors etc. Procure and position litter bins at key places in the town, to prevent littering and facilitate responsible disposal of waste in the town.	<ul> <li>Medical Services and Sanitation, Wajir County</li> <li>Department of Lands, Housing and Physical Planning, Wajir County</li> </ul>	Short term, within 100 days of plan implementation
	Encourage the use of septic tanks and establish a sewer reticulation system throughout the town.		Medium term by 2028
	Institute effective monitoring and control measures to regulate discharge of toxic waste into the river.	<ul> <li>Department of Public Health, Medical Services and Sanitation, Wajir County</li> <li>Department of Lands, Housing and Physical Planning, Wajir County</li> <li>Town Committee</li> </ul>	Long term, Continuous
	Relocate the existing land fill and make it fully functional to cater for the solid waste in the town	Department of Public Health, Medical Services and Sanitation, Wajir County	Short term by 2025
ENERGY	Connect the town to the national grid.	KPLC	Medium term by 2028
	Enforce regulations relating to the preservation of power way-leaves	KPLC	Long term, Continuous
	Develop a Solar Energy Production firm	<ul> <li>Department of Water, Energy, Environment and Natural Resources, Wajir County</li> <li>Development partners</li> </ul>	Long term, by 2028
	Install and maintain solar powered street lights throughout the town	Department of Water, Energy, Environment and Natural Resources, Wajir County	Short term by 2025
	Encourage private sector participation in exploration of possibilities that increase supply	<ul> <li>Department of Water, Energy, Environment and Natural Resources, Wajir County</li> <li>Town committee</li> </ul>	Long term, Continuous

THEME	PROJECT	ACTORS	TIMEFRAME
	of environmentally safe energy for cooking and lighting.		
EDUCATION	Construct one secondary schools in Adadijole), a special needs school in Bute Godha and one primary school in the proposed Special Investment Zone.	<ul> <li>Ministry of Education, Science and Technology</li> <li>Department of Education, Youth, Culture, Gender and Social Services, Wajir County</li> </ul>	Medium term by 2028
	Provide support infrastructure such as water, electricity and facilities like dormitories, laboratories, libraries etc. in all schools.	<ul> <li>Ministry of Education, Science and Technology</li> <li>Department of Education, Youth, Culture, Gender and Social Services, Wajir County</li> <li>KPLC</li> </ul>	Short term by 2025
	Promote education sensitization programs and co-curricular activities.	<ul> <li>Ministry of Education, Science and Technology</li> <li>Department of Education, Youth, Culture, Gender and Social Services, Wajir County</li> </ul>	Long term, Continuous
	Deploy adequate qualified staff in all educational institutions.	<ul> <li>Teachers service Commission</li> <li>Department of Education, Youth, Culture, Gender and Social Services, Wajir County</li> </ul>	Short term by 2025
	Encourage and facilitate participation of the private sector as well as religious institutions in the provision of education facilities and services.	<ul> <li>Ministry of Education, Science and Technology</li> <li>Department of Education, Youth, Culture, Gender and Social Services, Wajir County</li> </ul>	Long term, Continuous

THEME	PROJECT	ACTORS	TIMEFRAME
	Intensify inspection and supervision to ensure proper registration and enrollment, retention and transition in schools	<ul> <li>Ministry of Education, Science and Technology</li> <li>Department of Education, Youth, Culture, Gender and Social Services, Wajir County</li> </ul>	Long term, Continuous
HEALTH SERVICES	Construct four dispensaries as proposed in the structure plan to cater for different health care needs for the town residents.	Department of Public Health, Medical Services and Sanitation, Wajir County	Medium term by 2028
	Provide adequate medical staff, medical equipment and facilities such as beds, laboratories, incinerators, staff quarters, and medicine and special units.		Medium term by 2028
	Provide mobile clinics as well as conduct frequent specialized medical camps to serve the sub county.		Short term by 2025
	Provide support infrastructure such as water, sewer, waste management facilities and electricity to all health facilities in the town.		Short term by 2025
COMMUNITY AND RECREATIONAL FACILITIES	Establish all the 7 proposed recreational parks Construct the proposed modern sports complex	Department of Education, Youth, Culture, Gender and Social Services	Medium term by 2028
	Acquire land for the proposed Muslim and Christian cemeteries		
ECONOMIC DEVELOPMENT	Set up an agricultural research and development station within the Town to help in human	<ul> <li>KALRO</li> <li>Department of Agriculture, Livestock &amp; Fisheries,</li> </ul>	Short term by 2025

THEME	PROJECT	ACTORS	TIMEFRAME
	capital development on matters agriculture (crop and livestock production).	Wajir County	
	Create 3 industrial zones within the town in order to capitalize on the potential that the town and its hinterland offer.	Department of Trade, Tourism, Cooperative and Wildlife, Wajir County	Short term by 2025
	Increase the quality and reach of technical support through setting up of technical institutions and giving necessary support such as staffing, equipment and facilities.	Ministry of Education, Science and Technology	Short term by 2025
	Increase the capacity of the polytechnic to offer courses in agricultural production systems		Short term by 2025
	Develop parking slots within the commercial zone for revenue collection.	Department of Roads, Transport and Public Works, Wajir County	Medium term by 2028
	Employ revenue collection staff	Department of Finance and Economic Planning, Wajir County	Short term by 2025
	Construct larger capacity earth dams to cater for crop and livestock production in the urban fringes.	<ul> <li>Department of Water, Energy, Environment and Natural Resources, Wajir County</li> <li>Ministry of water and Sanitation</li> </ul>	Medium term by 2028
	Facilitate market access for fresh produce and livestock products from the Town to other external areas.	Department of Trade, Tourism, Cooperative and Wildlife, Wajir County	Medium term by 2028

THEME	PROJECT	ACTORS	TIMEFRAME
	Facilitate the county agricultural department with farm inputs, equipment and staff in order to offer better extension services.	Department of Finance and Economic Planning, Wajir County	Short term by 2025
	Provide farmers with subsidized farm inputs, equipment and offer better extension services.	Department of Agriculture, Livestock & Fisheries, Wajir County	Long Term, continuous
	extension services.DecompositionTrain farmers on modern methods of farming and disaster preparedness through the early warning systems against natural occurrences like drought and flooding.Decomposition Li Composition Composition		Long Term, continuous
GOVERNANCE	Institute a town committee to oversee the mandates of the town through the town administrator	The Wajir County Executive	Short term by 2025
	Institute a development control unit within the county department to be posted within the town	vithin the county department to be and Physical Planning, Wajir	
	Recruit additional qualified staff for overseeing conformity to the plan		Short term by 2025
	Hold continuous professional development for county staff to enhance the capacity of plan implementation	Department of Public Service, Labour and Decentralised Units, Wajir County	Medium term by 2028
	Establish resident sub-committees to safeguard the plan proposals for the town.	Department of Public Service, Labour and Decentralised Units, Wajir County	Short term by 2025
	Establish a public information management system to facilitate the sharing of knowledge between authorities and residents.	Department of ICT & E- Government, Wajir County	Short term by 2025

Bute Town Local Physical and Land Use Development Plan (2023-2033)



# **5THE CAPITAL INVESTMENT PLAN**

#### Overview

A capital investment plan is a tool, spanning several years, that identifies capital projects for investment based on priority and scale of impact to bettering people's lives. Capital investment planning includes capital investment by the government or private sector through public-private partnerships (PPPs). It inter-relates asset management and financial management. A CIP is the, therefore, a link between spatial planning aspects and financial capacities and realities. For a capital investment plan to prove its effectiveness over time, the following are the key considerations:

- i. The local government must have the responsibility and authority to plan and make capital investments for a set of specified functions.
- ii. The local government should have economic autonomy that enables it to raise funding for its capital investment either through local taxes, fees, and other local sources or through borrowing or involving the private sector i.e. influence outside funding.
- iii. The local government should have the authority to independently carry out its budgeting process to align the capital investment plan to the local budgeting cycle.

The considerations mentioned above are characteristics of the devolved governance system in Kenya, thereby underlining the need for implementable capital investment plans that are linked to the annual local budgeting process. The CIP is intended to provide practical and realistic guidance regarding the next steps in implementing the capital development aspects of this plan.

To be realistic, this CIP is built upon two principles:

- i. Affordability within the current budgetary conditions and
- ii. Effectiveness in responding to the aspirations and expectations of the people of Bute Town.

# 5.1 Criteria for selection of capital investment projects

The process began with enlisting all the projects and programmes proposed in the plan for Bute Town. A selection criterion was undertaken based on the importance/urgency of each project.

The selected projects were then valued against the subsequent benefits to the town's development and the ability to achieve the plan's objectives. This ability/capacity is indicated by the attributes listed below.

- Improving the quality of life
- Economic productivity, creation of employment and investment opportunities
- Number of people positively impacted by the project

## Improving the quality of life

The projects selected within this plan are primarily based on the building of base/trunk infrastructure, which will form an enabling environment for local capital investment in the town, thereby improving the quality of life.

## **Economic productivity**

The projects selected shall form the platform for supporting the overlying land uses and subsequently boost the town's economy and livelihood. The projects offer the highest potential for boosting productivity within the town. The over-arching effect of improved production shall lead to employment creation and increased investment

## Number of people positively impacted by the project

The projects have the potential to positively impact the largest number of people within the town and its hinterland either through increased productivity, wellness, employment creation or income generation. This is based on the presumed notion that the larger the number of beneficiaries resulting from the implementation of a specific project, the higher the chances that the project promotes the achievement of preset objectives.

# 5.2 Selected Capital Projects and Plan

After a critical assessment of all the projects that will be required for the implementation of the urban plan for Bute Town, the following capital investment projects were selected.

No.	SECTOR	PROJECTS
1.	Land Administration	Survey and tilting of plots resultant from the scheme plan.
2.	Transport	• Upgrade Buna-Bute Road to bitumen standards.

Table 5-28: Selected	Capital Projects
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No.	SECTOR	PROJECTS
		• Construct a bus park along Moyale-Mandera (B80) road
		<ul> <li>Upgrade all access and secondary roads to gravel standards.</li> <li>Upgrade Bute airstrip to local standards.</li> </ul>
3.	Water	Drill two more boreholes
		• Construct three (3) high-capacity storage tanks.
4.	Sanitation	<ul> <li>Expand and develop the existing landfill.</li> <li>Design and construct a sewer reticulation system for the town (trunk system and oxidation ponds)</li> </ul>
5.	Energy	<ul><li>Construct a power substation and</li><li>Construct a Solar Energy Production Plant.</li></ul>
6.	Education	<ul> <li>Construct two secondary schools: one in Bute Godha and another in Adadijole.</li> <li>Construct one primary school.</li> </ul>
7.	Health	Construct four dispensaries.
8.	Community Facilities	Construct a modern sports complex.

### Table 5-29: Capital Investment Framework

No.	Project	Unit	Number of Units	Estimated Cost	Financing Options
1.	Survey and tilting of plots resulting from the scheme plan.	<ul> <li>Survey</li> <li>Creation of a plot register</li> <li>Beaconing</li> <li>Titling</li> </ul>	3,258plots	Kshs130,320,000	<ul><li>National government</li><li>County government</li></ul>
2.	Upgrade Buna-Bute Road to bitumen standards	<ul> <li>Clearing and Excavation</li> <li>Mounting</li> <li>Fine Grading</li> <li>Aggregate Base</li> <li>Tarmacking</li> </ul>	Buna-Bute road- 72kms	Kshs 4,320,000,000	<ul> <li>Development Partners/Donors</li> <li>KURA</li> <li>National government</li> <li>County government</li> </ul>
3.	Design and construct a bus park along Moyale-Mandera (B80) road	<ul> <li>Passenger Bays</li> <li>Construction of 20 retail Shops</li> <li>Construction of 2 toll stations</li> <li>Tarmacking of the road surface</li> </ul>	<ul> <li>Construction of shops, toll stations, passenger bays-20 units</li> <li>Length of road for tarmacking within bus park-1km</li> </ul>	· · · · ·	<ul> <li>i. Development Partners/Donors</li> <li>ii. Public Private Partnerships</li> <li>iii. County Government through the Department of:</li> <li>Roads, Transport and Public Works</li> <li>Lands, Housing and Physical Planning</li> </ul>
4.	Upgrade all access and secondary roads to gravel standards.	<ul> <li>Clearing and Excavation</li> <li>Mounting</li> <li>Fine Grading</li> <li>Gravelling</li> </ul>	Distance of all access and secondary roads- 120kms	Kshs4,800,000,000	<ul> <li>i. KeRRA</li> <li>ii. County</li> <li>Government</li> <li>through the</li> <li>Department of:</li> </ul>

No.	Project	Unit	Number of Units	Estimated Cost	Financing Options
					<ul> <li>Roads, Transport and Public Works</li> <li>Lands, Housing and Physical Planning</li> </ul>
5.	Upgrade Bute airstrip to local standards.	<ul> <li>Environmental and Social Impact Assessment</li> <li>Drainage channels</li> <li>Runway</li> <li>Passenger Terminals Building and Offices</li> <li>Runway gravelling and fine grading</li> <li>Ablution blocks</li> <li>Fencing</li> </ul>	<ul> <li>Runway distance- 1.8km</li> <li>Construction of Passenger Terminal building and offices- roomed building</li> <li>3 Ablution Blocks</li> </ul>	<ul> <li>Kshs60,000,000</li> <li>Kshs97,000,000</li> </ul>	<ul> <li>i. Kenya Airports Authority (KAA)</li> <li>ii. Development Partners/Donors</li> <li>iii. County Government through the Department of:</li> <li>Roads, Transport and Public Works</li> <li>Lands, Housing and Physical Planning</li> </ul>
6.	Drill two more boreholes.	<ul> <li>Hydro-geological survey</li> <li>Environmental impact assessment</li> <li>Piping and Pumping Station</li> <li>Storage Tanks</li> </ul>	2	Kshs8,000,000	<ul> <li>i. WAJWASCO</li> <li>ii. County Government through the Department of</li> <li>Roads, Transport and Public Works</li> <li>Water, Energy, Environment and Natural Resources</li> </ul>

No.	Project	Unit	Number of Units	Estimated Cost	Financing Options
7.	Expand and develop the existing land fill	<ul> <li>Hydrogeological survey</li> <li>Environmental and social Impact Assessment</li> <li>Excavation of the land fill</li> <li>Compaction and lining</li> <li>Fencing of site</li> </ul>	Amount of land for expansion of landfill-2Ha	Kshs110,000,000	<ul> <li>County Government through the Department of</li> <li>Roads, Transport and Public Works</li> <li>Water, Energy, Environment and Natural Resources</li> </ul>
8.	Design and construct a sewer reticulation system for the town (trunk system and oxidation ponds)	<ul> <li>Hydrogeological survey</li> <li>Construction of the trunk sewer lines</li> <li>Construction of oxidation ponds</li> </ul>	<ul> <li>Length of Sewer lines 7km.</li> <li>4Ha sewer treatment plant to be developed in a phased based process</li> </ul>	Kshs280,000,000 Kshs15,000,000	<ul> <li>i. Development Partners/Donors</li> <li>ii. Public Private Partnerships</li> <li>iii. County Government through the Department of</li> <li>Roads, Transport and Public Works</li> <li>Public Health, Medical Services and Sanitation</li> </ul>
9.	Construct four dispensaries.	<ul> <li>Construction of:</li> <li>The healthcare facilities</li> <li>Ablution Blocks</li> <li>Equipping the facility with</li> </ul>	4	Kshs6,000,000 (@kshs1,500,000)	County Government through the Department of: • Public Health, Medical Services and Sanitation

No.	Project	Unit	Number of Units	Estimated Cost	Financing Options
		water, electricity and medical equipment			<ul> <li>Public Works</li> <li>Finance and economic planning</li> </ul>
10.	Construct one primary school.	<ul> <li>Construct classrooms for grade 1-8, 3 streams per class</li> <li>2 Ablution Blocks</li> <li>2 Units of staffroom and offices</li> <li>Perimeter Fencing</li> </ul>	28	Kshs19,600,000 per (Kshs700,000 per classroom)	<ul> <li>County Government through the Department of:</li> <li>Roads, Transport and Public Works</li> <li>Education, Youth, Culture, Gender and Social Services</li> </ul>
11.	Construct two secondary schools: one in Bute Godha and another in Adadijole.	<ul> <li>Forms 1-6, 3 streams per class</li> <li>3 Laboratories</li> <li>10 dormitories</li> <li>1 Library</li> <li>7 Ablution Blocks</li> </ul>	33	Kshs23,100,000 (Kshs700,000 per classroom/unit of contruction)	<ul> <li>County Government</li> <li>through the Department</li> <li>of::</li> <li>Roads, Transport and Public Works</li> <li>Education, Youth, Culture, Gender and Social Services</li> </ul>
12.	Construct a power substation and install a solar energy production plant.	<ul> <li>Installation of a power generator</li> <li>Solar panels for energy production</li> </ul>	2	Kshs160,000,000	<ul> <li>i. National Government</li> <li>ii. Public-Private Partnerships</li> <li>iii. County Government through the Department of:</li> <li>Water, Energy, Environment and</li> </ul>

No.	Project	Unit	Number of Units	Estimated Cost	Financing Options
					Natural Resources
13.	Construct a modern sports complex	<ul> <li>Spectator stands and main dias</li> <li>changing rooms and ablution blocks</li> <li>Playing ground</li> <li>Running track</li> </ul>	4	Kshs300,000,000	<ul> <li>i. Public-Private Partnerships</li> <li>ii. County Government through the Department of:</li> <li>Roads, transport and public works</li> <li>Education, youth, culture, Gender and Social Services</li> </ul>