County Government of Wajir

Department of Lands, Public Works, Housing & Urban Development

HABASWEIN TOWN
LOCAL PHYSICAL AND LAND USE DEVELOPMENT PLAN
2023-2033

FINAL DRAFT PLAN

GEODEV (K) LIMITED
Land & Engineering Surveyors
Planning & Environmental Consultants
Allbid House, 2nd Floor, Kilimanjaro Road
P.O. BOX 14066 – 00800, Westlands, Nairobi
Email: geodevkenya@yahoo.com;
Website: www.geodevkenya.com

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……

COUNTY DIRECTOR OF PHYSICAL PLANNING

RECOMMENDED

Signature……. Date……

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 development and guide the provision of robust infrastructure and services.

Given this context, preparing the Local Physical and Land Use Development Plan for Habaswein 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 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 commit 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 Habaswein dream of being "***A model town in the county offering an attractive, conducive and healthy environment for economic development and human settlement***" 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 now 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 easier 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 Habaswein 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 appreciate the efforts of the town, sub-county and ward administrators of Ademasajida and Habaswein, and area chiefs for being fully involved in 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 appreciate 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

Habaswein 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 207.24 $km^{2,}$ comprising Habaswein Town and Lag Dima as an upcoming node.

The town functions as the headquarters of **Habaswein Sub-County.** It is the Gateway to the county from Isiolo and Garissa counties. The town lies southeast of Wajir Municipality, bounded by the seasonal Ewaso Nyiro River to its East. The river forms a major recharge to the town's groundwater supply and a major reason for the growth of the settlement over time.

In preparation for the plan for the town, participatory planning was carried out through extensive stakeholder engagement with county government officials, local 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 the identification of issues, an assessment of development potentials, opportunities and constraints for Habaswein Town was done. The challenges faced in the town include a weak institutional set-up, poor solid waste management, narrow and inaccessible roads, lack of a sewer reticulation system and a population explosion without corresponding services. The town has great potential for large-scale agricultural production, transport, and logistics.

The **Proposed Structure Plan** describes the long-term (10-year) development framework for Habaswein Town. It covers the entire planning area (207.24 km^2). The Structure Plan is informed by various structuring elements of the town, including the seasonal Ewaso Nyiro River and the major roads (Isiolo-Wajir, A13, highway and the Habaswein-Dadaab, C293, 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 shall assist in the land survey process and provide title deeds afterwards.

Additionally, **sector-specific development strategies** have been proposed for Transportation, Housing, Local Economic Development, Infrastructure and 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 and specifies timeframes for implementation. It is intended to ensure smooth, well-coordinated and result-oriented implementation of this LPLUDP.

Adopting the proposed plan coupled with timely and coordinated implementation of the proposed strategies will act towards reversing the current trend, improving the living conditions of Habaswein residents, and, above all, helping achieve the community's vision and subsequent growth of the county.

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ACRONYMS

ABTC	Appropriate Building Technology Centre
ASAL	Arid and Semi-Arid Lands
AP	Administration Police
ASL	Above Sea Level
ATM	Automated Teller Machine
ECDE	Early Childhood Development and Education
FGD	Focus Group Discussions
GDP	Gross Domestic Product
GIS	Geographic Information System
GoK	Government of Kenya
ICT	Information Communication and Technology
KALRO	Kenya Agricultural and Research Organization
KeNHA	Kenya National Highways Authority
KeRRA	Kenya Rural Roads Authority
KPLC	Kenya Power and Lighting Corporation
KURA	Kenya Urban Roads Authority
LPG	Liquid Petroleum Gas
LPLUDP	Local Physical and Land Use Development Plan
MDG	Millenium Development Goals
NDMA	National Drought Management Authority
NEMA	National Environmental Management Authority
NHC	National Housing Commission
NSP	National Spatial Plan
SDG	Sustainable Development Goals
ToR	Terms of Reference
UACA	Urban Areas and Cities Act
VIP	Ventilated Improved Pit
WAJWASCO	Wajir Water Sewerage Company
WASREB	Water Services Regulatory Board
WHO	World Health Organization
WRA	Water Resource Authority

PART I: BACKGROUND

1 BACKGROUND

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 of 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 Habaswein 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 Habaswein 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 adherence to development standards, encroachment of public spaces, and poor natural resource conservation and management, among others.

Habaswein 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 population's needs 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

Visioning is a process undertaken by stakeholders to project a desired end state concerning the development of urban areas by invoking the imagination of stakeholders to shape their future. The vision-setting process is anchored in public participation, which is provided for by the Constitution of Kenya.

The visioning exercise for Habaswein Town was done through consultation with the town's residents and key stakeholders. The following are the vision statements as given by stakeholders for the town's future:

1. Well-developed planned town.
2. Beautiful town with tarmacked roads
3. Habaswein to be the face of the county
4. Business hub
5. Provision of title deeds
6. Creation of employment
7. Proper sewerage system

These vision statements, as given by stakeholders, have been summarized to provide **the Vision** for the town as:

"***A model town in the county offering an attractive, conducive and healthy environment for economic development and human settlement.***"

The plan's main objective in achieving the abovementioned vision is "To provide the necessary trunk and social infrastructure for the town ***to support urban improvement***".

Objectives of the plan

The objectives of the plan are:

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

1.4 Description of the Project

Preparing the Local Physical and Land Use Development Plan (LPLUDP) for Habaswein Town was guided by Terms of Reference (TORs). The Terms of Reference guide the outputs for the Local Physical and Land Use Development Plan (LPLUDP) for Habaswein Town and act as a benchmark for subsequent evaluation of the work accomplished. They are summarized as follows:

i. Preparation of a participatory framework to guide stakeholder engagement throughout the plan-making process and implementation. The output of this is a general vision for the town and the identification of the current and future development situation in the town.
ii. Production of an inventory of the current situation experienced in the town in different sectors, including land suitability and availability, analysis of current and future urban development trends, socio-economy of the town, infrastructure and services and environment.

iii. Develop an interactive GIS-based plan for the town, showing the current situation and the proposed cadastral layer (subdivision scheme) and plan in a digitally interactive format.

iv. An integrated urban development plan that addresses both the existing and future challenges of the town

1.5 Guiding Principles/Values

The following are guiding principles which were used during the making of the Habaswein Town IUDP.

1. **Public Participation -**Stakeholder participation is the basis for preparing the plan. Public participation seeks to engage the public in decision-making and is responsive and accountable to their needs. It actively involves the public in planning to help identify and solve issues that directly relate to them. Stakeholders' views and opinions can be shared at various stages in the plan-making process, including visioning and problem identification, validation and approval, and complete adoption of the plan.
2. **Efficient use of Land -** The plan has been informed by the need to maximize and prudently use available land to cater to the various population needs. This has greatly informed the need to maximize space through densification and the promotion of vertical development within the town, freeing land for future uses.
3. **Minimal Disturbance-** The plan has considered minimal impact/change on existing development in creating the town's cadastral layer. This has been achieved through the regularisation of the existing settlement pattern.
4. **Livability:** The plan of Habaswein Town has been guided by the need to enhance the community's quality of life through improved transportation, the built environment and open spaces.

1.6 Methodology

The formulation of the Habaswein Local Physical and Land Use Development Plan (LPLUDP) involved several steps, each involving a set of activities. The exercise was done in a series of thirteen (13) steps, from the project's inception to the identification of issues, problem area mapping, and town zoning. These steps and activities are shown in Table 1 -1.

Table 1-1: Methodology

No.	Step	Key Activity
1.	Project Inception	➢ Notice of intention to plan ➢ Start-up meetings ➢ Identification of stakeholders ➢ Developing mode of Operation/Action Plan ➢ Appraisal of project area/reconnaissance
2.	Scoping of context	➢ Launch and preliminary Visioning; ➢ Urban Study: o Literature review o Key Informant interviews o Stakeholder consultations/FGDs o Observation (including photography) o Administering questionnaires ➢ Stakeholder consultations; ➢ Aligning the results thematically.
3.	Mapping	➢ Acquisition of high-resolution satellite image for the planning area; ➢ Acquisition of digital topographical maps; ➢ Preparation of thematic maps; ➢ Digitization and compilation of the digital information. ➢ Preparation of a cadastral layer ➢ Creation of a GIS data base.
4.	Identification of planning issues	➢ Analysis of the baseline information; ➢ Sector consultations; ➢ Validation of situational analysis findings and the planning issues identified; ➢ Visioning; ➢ Realigning /reaffirming the preliminary vision established at the launch of the project. ➢ Incorporating stakeholder's concerns and comments.
5.	Land optimization for Urban Development	➢ Projection of Land requirements based on population needs;

No.	Step	Key Activity
		➢ Land suitability; o Slope analysis; o Threshold analysis;
6	Preparation of Land use /Zoning plan	➢ Preparation of a zoning/Land use Plan
7	Formulation of Land Use and Land Management Policies.	➢ Formulation of Land use and Land Management Policies /Guidelines based on zoning
8	Action Area Planning	➢ Identifying Action Areas ➢ Undertaking Action Area Planning.
9	Formulation of sector development strategies	➢ Formulating sector development strategies; ➢ Identifying strategic actions and measures; ➢ Identifying programs and projects to be implemented to realise the strategies.
10	Implementation Framework	➢ Identification of Capital Investment Projects. ➢ Preparation sector of implementation strategy
11	Stakeholder engagement (Validation Workshop for the Draft Plan)	➢ Presentation of the Draft Plan ➢ Collection of comments from the stakeholders.
12	Preparation of the Final Draft Plan	➢ Incorporation of the comments as raised by the stakeholders; ➢ Packaging the reports for final submission.
13	Submission of the Plan for the purposes of approval and adoption.	➢ Submitting the Final Plan to the office of the County Executive Member in charge of Lands, Housing and Physical Planning ➢ Submission of the Final Plan to the county executive so as to follow the legal process for approval.

Source: Consultant's Edit

1.7 Organization of the Report

This report is presented in five sections as outlined below:

i. **The Background** of the plan incorporates 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;

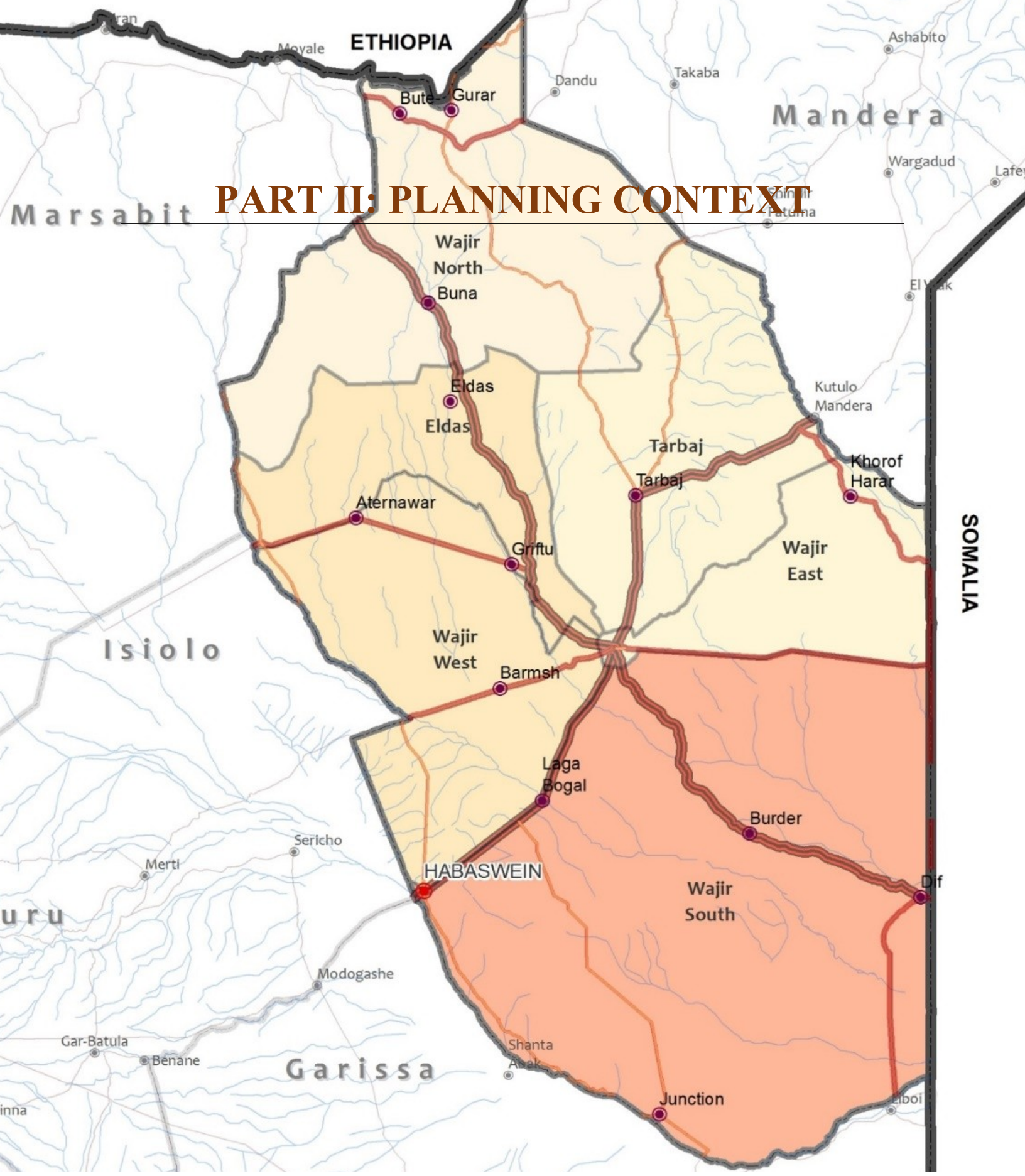
ii. **The Planning Context** outlines the project location and its physiographic characteristics in terms of climatic conditions and geological attributes, the previous planning efforts in the town and its existing functions and potential. Additionally, a review of the policy and legal background guiding 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.

PART II: PLANNING CONTEXT



2 PLANNING CONTEXT

2.1 Overview

The planning of Habaswein Town takes cognizance of different legal provisions that guide the plan's development and the expected output. This section presents an overview of the town's location and 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.

2.2 Location of the project/ Town/ Urban Area

2.2.1 Town at County and Regional Context

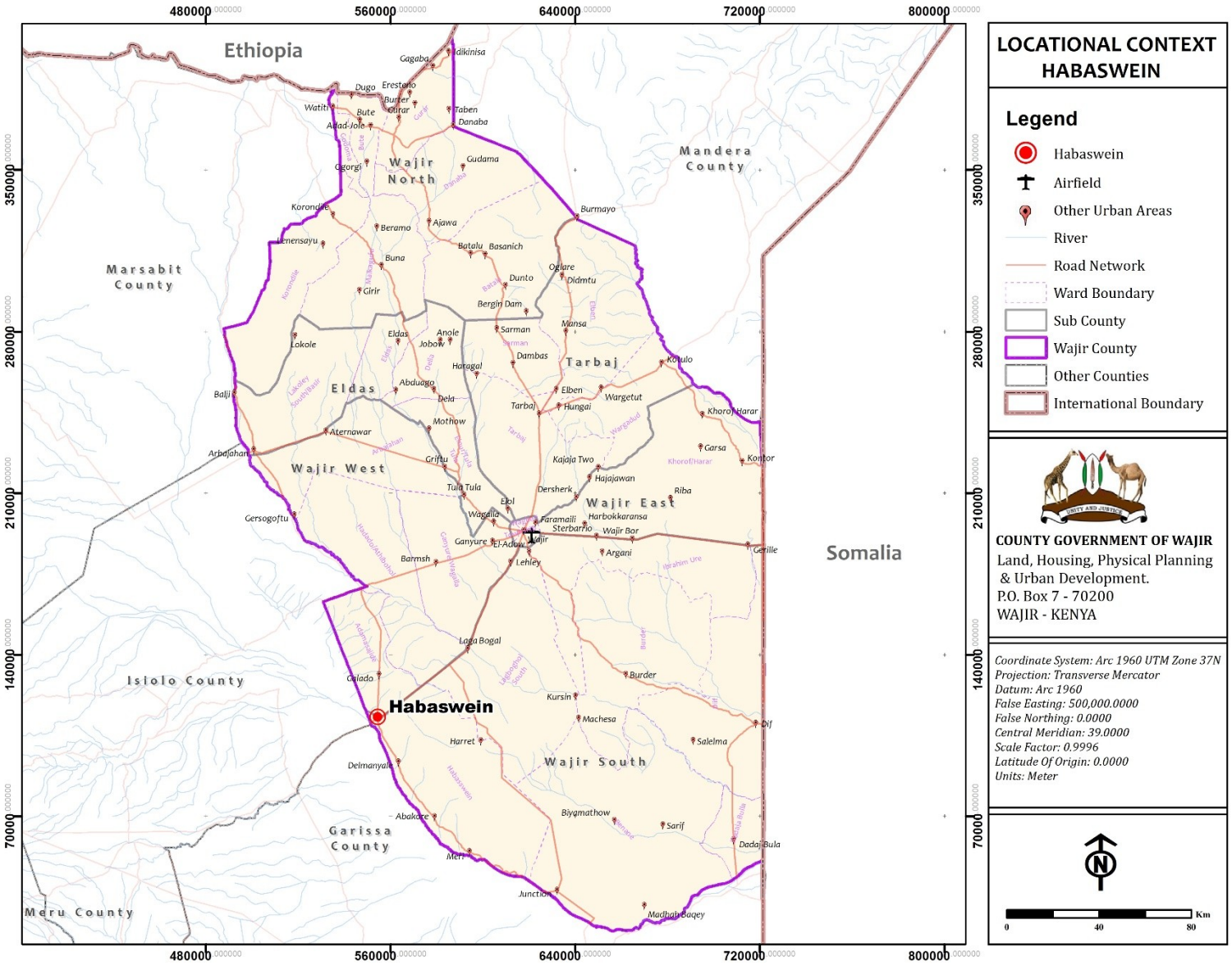
Habaswein Town lies along the Isiolo-Wajir road and is the Gateway to the county. The town spans both the Wajir South and Wajir West sub-county. The town is the second largest in Wajir County. It is connected to Wajir town through the Isiolo-Wajir road.

2.2.2 The town in the Local Context

Habaswein Town is connected to Daadab refugee camp through the Habaswein-Dadaab road. It connects Modogashe and Isiolo town through the Isiolo-Wajir road (A13).

The town’s location has a profound opportunity for exponential growth. It is a gateway town to the county and is bound to be easily accessible after the Isiolo-Wajir (A13) highway tarmacking. This shall increase its accessibility and subsequent growth.

Map 2-1: Habaswein Local Context



2.3 Physiography

2.3.1 Climate

Rainfall

Habaswein Town receives about 270 mm of rainfall annually. Most precipitation falls in April, with an average of 111 mm. This has implications for movement and accessibility to and from the town as a result of flooding of roads.

Temperature

Habaswein Town has temperatures averaging 28.0 °C. The warmest month of the year is March, with an average temperature of 29.5 °C. In July, the average temperature is 26.3 °C. It is the lowest average temperature of the whole year. The town experiences long solar insolation periods throughout the year, presenting a potential for solar energy harvesting that can be used to meet the town's energy requirements sustainably.

2.3.2 Wind

Habaswein Town experiences an average wind speed of approximately 4.4- 4.8 M/S at 50 m high above ground. The range effectively falls above the minimal grid requirement of 4.5 meters per second for a grid connection system.

2.3.3 Altitude

Wajir County is located in the North Eastern region of Kenya. The county lies between latitudes 3º N 60'N and 0º 20'N and Longitudes 39º E and 41º E. The county lies between 150 metres and 460 above sea level. The average altitude of the county is 244 metres above sea level (asl).

Habaswein town lies on the southeastern part of the county at about 252 metres asl.

2.3.4 Topography and Slope

Habaswein town lies on a plain at about 252 metres above sea level. The town's slope is generally flat.

2.3.5 Hydrology and Drainage

Habaswein Town is prone to flooding during the rainy season, partly due to the Ewaso Nyiro River breaking its banks during the wet season. The town also lacks stormwater drainage infrastructure to channel surface run-off. The town sits on a flood plain and needs interventions to limit damages caused during the rainy season.

2.3.6 Geological and Soil Characteristics

Geological and soil characteristics greatly determine the form a town takes. Geology can contribute significantly to the solution of many urban problems by providing information on the following:

- Areas that are environmentally favourable for urban settlements.
- Most suitable areas for town development.
- Most economical and environmentally conservative solution for urban planning.
- Suitable ways and areas for development, design and construction stages of the town.

Wajir County has four types of rock structures: basement, quaternary sediments, and Jurassic and Triassic. However, most of the county is covered by Quaternary sediments with characteristics such as low strength and high compressibility, making the soils more difficult to use as a foundation material for construction. Quaternary sediment rocks include alluvial beach sands, sand, fossil coral reefs and sandstones.

Habaswein Town has characteristic sandy soils apart from the *Ewaso Nyiro* River basin, which is comprised of loamy soils that are good for agriculture.

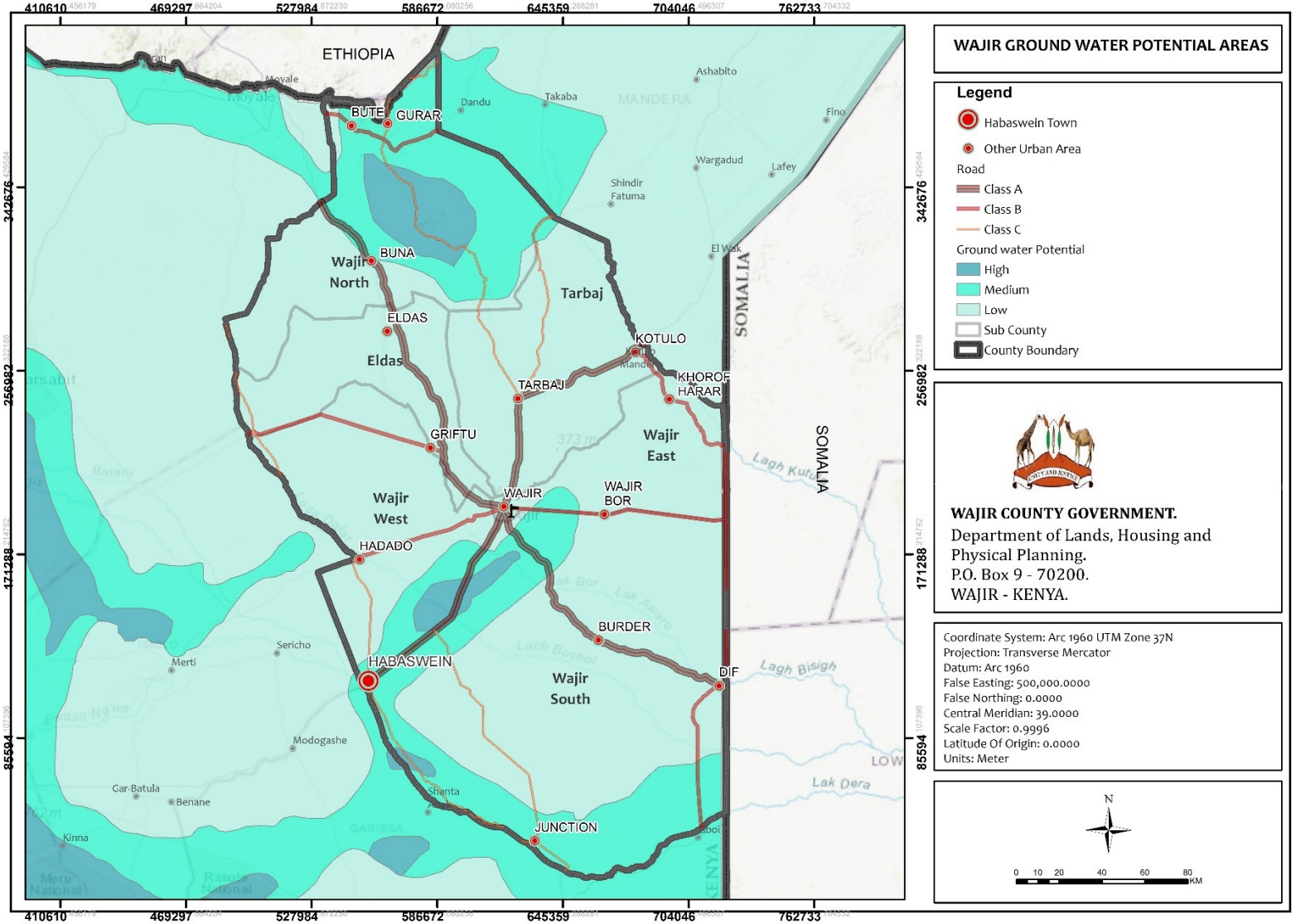
2.3.6.1 Groundwater

Habaswein Town gets its water from the Merti aquifer. Permeable water-bearing layers define the Merti aquifer. Generally, groundwater in the aquifer is confined and found at depths between 110 and 180 m below ground level. Successful wells tap the more permeable zone of the Merti formation, commonly between 105 and 150 metres below ground level. Studies of the aquifer reveal it is limited by the presence of adjacent saline water bodies (***Hydrogeological Assessment of the Merti Aquifer, Acacia Water, 2014***). The main freshwater aquifer extends from Habaswein into Somalia at Liboi and beyond. The vertical extent of the freshwater aquifer is

unknown, but there is a likelihood that the salinity of the groundwater will increase with depth. The vertical extent of the freshwater aquifer is either limited by impervious layers or the presence of saline groundwater.

The main groundwater abstractions occur in Habaswein and the refugee camps in Dadaab. The influx of refugees into the Dadaab refugee camps has sharply increased groundwater abstraction from the aquifer. The challenge in the preservation and sustainable use of this groundwater is caused by a lack of an overall body within the county to regulate its abstraction and offer sustainable distribution. The Merti Aquifer's extent is shown in a regional context (Wajir County) in the map overleaf.

Map 2-2: Wajir County Ground Water Potential



Source: Consultant's Edit

2.4 Function and Potential of the Town

2.4.1 Function of the town

Gateway Town

Habaswein Town is the gateway to Wajir County from the southwestern side. It is accessible via the Isiolo-Wajir (A13) highway, currently under construction, or through the Dadaad refugee camp from Garissa.

Commercial and service function

Habaswein Town is the second largest town in Wajir County. It hosts a vibrant commercial area accessible to all through the main road (Isiolo-Wajir highway) cutting through the town. Commercial activities within the town include hotels and lodges, mobile money transfer shops, and wholesale and retail trade.

Administrative function

Habaswein Town is the sub-county headquarters of Wajir South Sub-County. The town spans two wards, namely Ademasajida and Habaswein Wards, with each ward having a representative in the form of a ward administrator present within the town. The town also hosts the town administrator and the sub-county administrator's offices.

2.4.2 Potential of the town

Transportation Potential

The function of the town as a gateway to the county and the tarmacking of the Isiolo-Wajir (A13) highway will provide major linkage to external markets that were previously not as accessible owing to poor road conditions. This will cause the town to grow in transportation due to increased accessibility, offering linkage to external and internal markets. The town itself will grow as an important transportation hub for the county. An airstrip within the town further increases its accessibility and potential for growth as a major transport hub in the county.

Industrial potential

A majority of residents in the town attach their livelihoods to livestock production. This is equally significant in the hinterland areas of the town. This creates a great potential for industrial

exploitation in livestock produce processing, including leather tanning, milk and meat processing, among others

Commercial and Service Potential

The town's population, the function it serves as an administrative seat and its hierarchy as among the major urban centres in the county offers ample market in the commercial and service sectors. With the town's accessibility due to increase soon, the town is primed to become a leading market for products and services and a preferred destination for financial service providers. Linkage to the town through constructing and upgrading the Isiolo-Wajir (A13) highway to bitumen standards will provide this enabling environment.

2.5 Previous Planning Effort

Habaswein Town has had two development plans done in the past. One was done in 1971, although it was not approved. The development plan covered an area of 0.492 km^2. It focused on the town's growth on one side of the Isiolo-Wajir (A13) road, which proved inefficient in responding to the needs of the town at the time. Another short-term development plan for the town was developed and approved in 1978. It covered an area of 2.1 km^2 on both sides of the Isiolo-Wajir (A13) highway. The intention of the different land uses that were zoned for the town has guided its development to some extent. However, most of the town exhibits a different character from the one previously planned. The land uses that have maintained the proposals of the plan include;

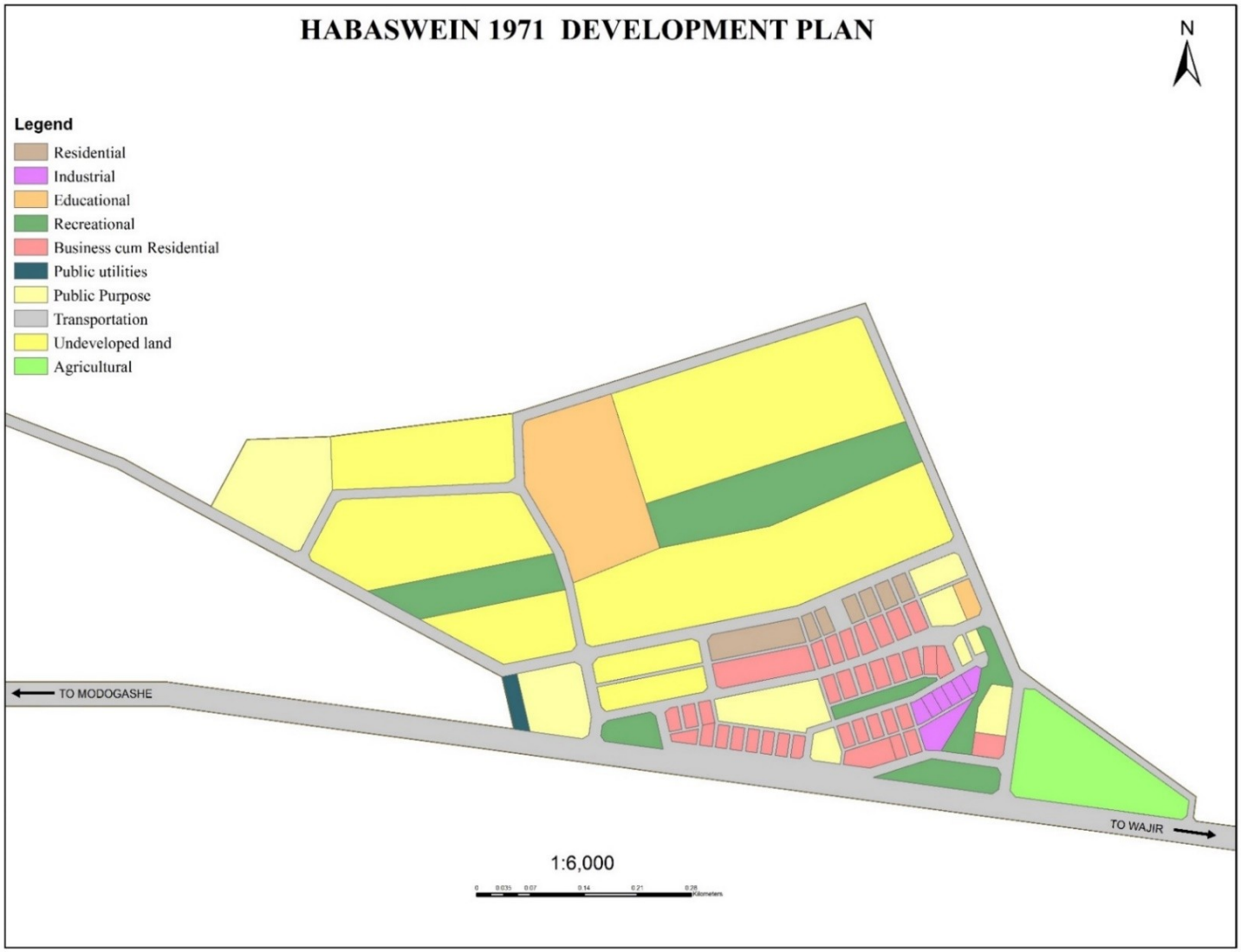
i. The high-density residential layout on the Ademasajida side of the town (opposite the police station).
ii. The airstrip, although its orientation on land, changed
iii. The proposed Habaswein Secondary school
iv. Habaswein Primary school
v. The Police station
vi. The Health Centre/ Sub-County Hospital
vii. The Administrative Police line

The land uses that have changed and are not in line with the intent of the plan include;

i. Proposed village polytechnic. The current land use is educational, being the Senior Chief Ogle Girls Secondary School.
ii. A proposed primary school where the current Habaswein Polytechnic is located.

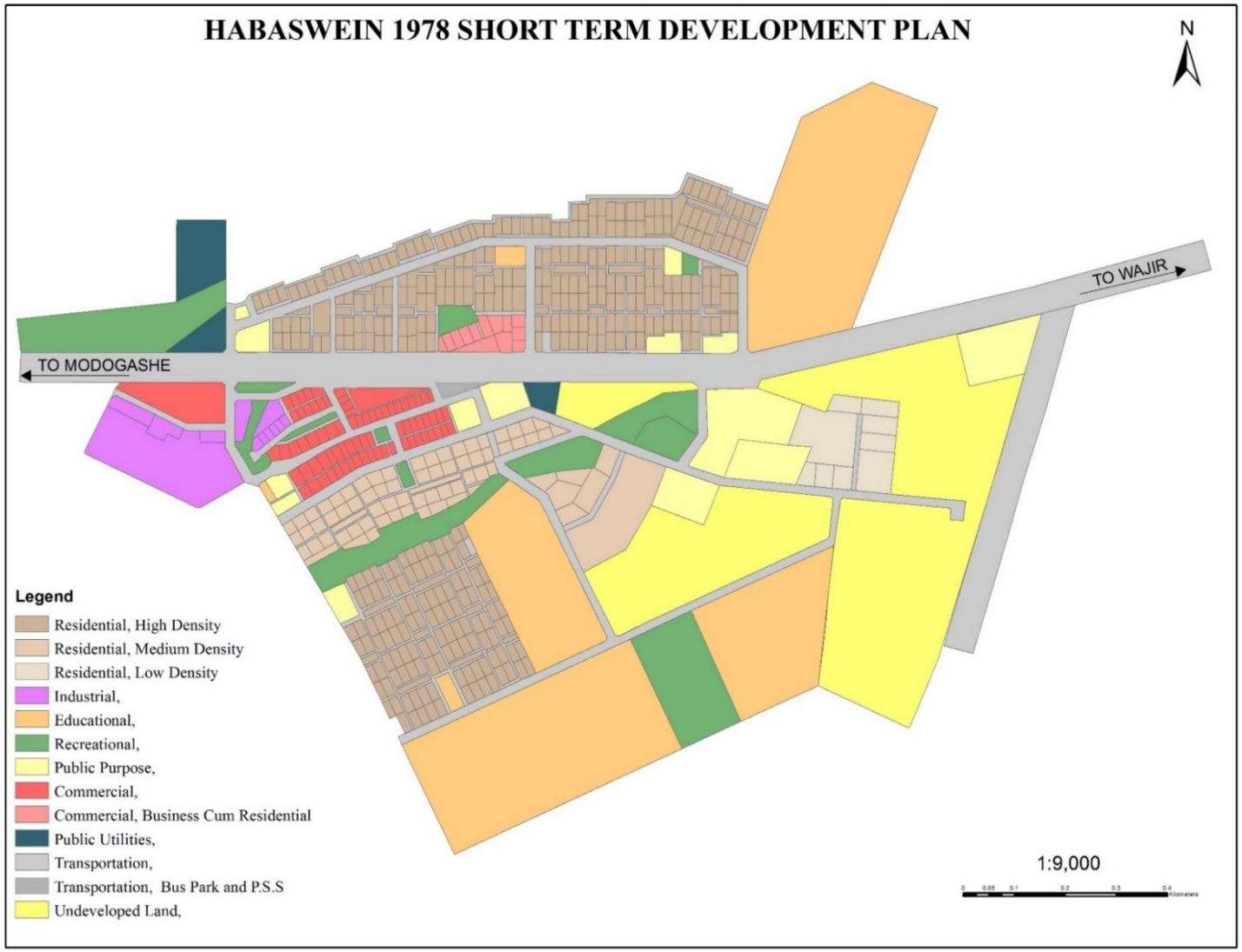
The two previous planning interventions are shown in the maps overleaf.

Map 2-3: Habaswein 1971 Development Plan



Source: Ministry of Lands

Map 2-4: Habaswein 1978 Development Plan



Source: Ministry of Lands

2.6 Policy Direction

Preparation of the Habaswein Local Physical and Land Use Development Plan (LPLUDP), 2018-2028, has been based on national and over-arching international policies which have guided the plan-making process towards achieving urban improvement within the town. The policies that have informed the plan are described below.

2.6.1 Vision 2030

Vision 2030 aims to transform Kenya into a newly industrializing, middle-income country providing a high-quality life to its citizens by the year 2030. It is based on three pillars which are economic, social and political pillars.

Among the six growth drivers envisaged by under the **economic pillar**, which aims to increase the country's annual GDP, four have been incorporated in the making of the plan for Habaswein Town which include:

i) Increasing value addition in agriculture; improving industrial production and service sector
ii) Inclusive wholesale and retail trade sector: The 2030 vision for wholesale and retail trade is to raise earnings by giving the informal sector opportunities to transform itself into part of the formal sector that is efficient, multi-tiered, diversified in product range and innovativeness.
iii) Diversified and robust manufacturing sector for the regional market
iv) Financial services: create a vibrant and globally competitive financial sector and to become a regional financial services centre.

The Social Pillar seeks to build a just, cohesive society with social equity. It advocates for ensuring a clean and secure environment by facilitating the provision of social infrastructure, including schools, health facilities, water and sanitation, and gender and youth groups' inclusivity. The key targets within this pillar have formed the basis for which infrastructure provision in the resultant plan has aimed to achieve.

The **Political Pillar** aims to realize a democratic political system founded on issue-based politics that respects the rule of law and transparency. This translates to better management of the urban areas and increasing productivity.

2.6.2 National Spatial Plan (2015-2045)

The National Spatial Plan provides a national spatial structure that defines how the national space is utilized to ensure optimal and sustainable use of land to achieve land policy principles of efficiency, equity, sustainability and productivity. The Plan is anticipated to promote attaining national, social, economic and environmental goals and objectives. Further, the Plan provides strategies and policies to deal with national challenges, including urbanization, regional imbalances/inequalities, rural development, environmental degradation, transportation and underutilization of the massive resources available in the country. The plan 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. The plan also aims to promote the principles of effective public participation. These compact cities delineate urban boundaries, smart and green urban growth to encourage health and aesthetics, sustainable development for posterity, livability and efficiency.

2.6.3 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 would not achieve sustained economic growth and progress if the ASALs were 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.

2.6.4 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), which were agreed upon by governments in 2001 and expired at the end of 2015. Among the goals that have greatly informed the plan-making process include;

1. End poverty in all its forms everywhere.
2. Ensure healthy lives and promote well-being for all at all ages.
3. Ensure inclusive and quality education for all and promote lifelong learning.
4. Achieve gender equality and empower all women and girls.
5. Ensure access to water and sanitation for all.
6. Ensure access to affordable, reliable, sustainable and modern energy for all.
7. Promote inclusive and sustainable economic growth, employment and decent work for all.
8. Build resilient infrastructure, promote sustainable industrialization and foster innovation.
9. Make urban areas inclusive, safe, resilient and sustainable.
10. Promote just, peaceful and inclusive societies.

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

2.6.5 National Urban Development Policy

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 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; the Urban Core comprises urban planning, land, infrastructure, climate change, housing, and disaster and risk management. Urban Advisory

encompasses social issues, marginalized groups, and cross-cutting principles and introduces an implementation matrix.

The long-term goal of the Policy is to accelerate economic growth, reduce poverty, promote equity and help the nation realize Vision 2030, which aims to make Kenya a middle-income country within two decades. The Policy also responds to the Constitution of Kenya 2010, which calls for devolved governance at the county level, and to the Urban Areas and Cities Amendment Act of 2019.

2.7 Legal Context

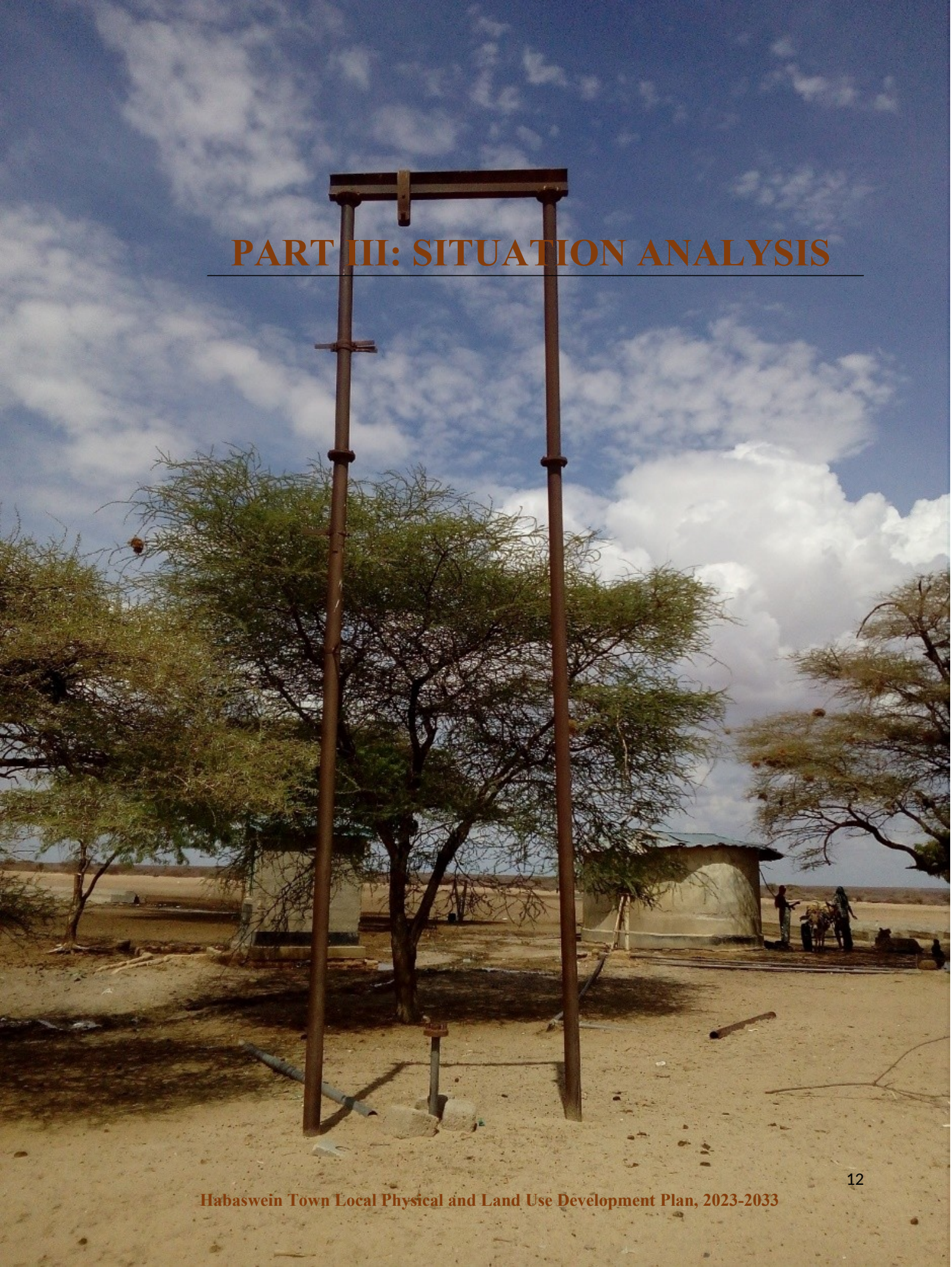
The preparation of Habaswein Town LPLUDP has been prepared in context of different laws as highlighted in the table below.

Table 2-2: Alignment with the Laws of Kenya

LAW	SECTIONS RELEVANT TO THE PLAN
The County Government Act, 2012	This act gives effect to Chapter Eleven of the Constitution to 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	This act gives effect to Article 184 of the Constitution to provide

LAW	SECTIONS RELEVANT TO THE PLAN
Act, 2011 and Urban Areas and Cities (Amendment) Act, 2019	for the classification, governance, and management 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 • Section 5 of the act instructs on the criteria for classifying urban areas and cities. • Section 11 provides the governance and management principles 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 Planning Act, 2019	This act provides land planning, use, regulation, and development for connected purposes. • Section 5 of the act stipulates physical and land use planning principles and norms. • Section 17 stipulates the responsibility of the County Executive Committee Member in charge of Physical planning. Among these responsibilities is formulating policy on physical and land use planning and promoting the integration of county physical and land use planning functions and sectoral planning levels. • Sections 45-50 intricately describe a local physical and land use development plan: its purpose, preparation process,

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



PART III: SITUATION ANALYSIS

Chart 3-1: Habaswein Town Population Pyramid

3.2 Population and Needs Assessment

Based on the projected population of 62,542 for the town for the year 2033, table 3-1 presents the population needs for the town. These needs contain a mixture of requirements as outlined in the Urban Areas and Cities (Amendment) Act, 2019. These other services benefit the town's hierarchy in the context of the county and the needs arising from stakeholder engagement during field surveys.

Table 3-3: Population Needs

Facilities	Catchment population	Land Requirement (Ha)	Existing Number	Current Demand in Number (pop. 52,996)	Projected Demand in Numbers (Pop. 62,542)	Projected Gap in Facilities, 2023	Total Land Requirement (Ha)
Police Station	49,999	3	1	1	1	-	-
Town Hall	49,999	1.2	0	1	1	1	1.2
Lower court	49,999	1	1	1	1	-	-
Library	49,999	0.4	1	1	1	-	-
Post office	49,999	0.04	1	1	1	-	-
Primary School	4,000	3.9	6	13	16	10	39
Secondary School	8,000	4.5	4	7	8	4	18
Vocational institution	15,000	10.2	1	4	4	3	30.6
Recreational parks	10,000	1.5	0	5	6	6	9
Religious institution	15,000	0.1	0	4	4	4	0.4
Community Centres	20,000	0.25	0	3	3	3	0.75
Level 2 (Dispensary)	10,000	1	1	5	6	6	6

Facilities	Catchment population	Land Requirement (Ha)	Existing Number	Current Demand in Number (pop. 52,996)	Projected Demand in Numbers (Pop. 62,542)	Projected Gap in Facilities, 2023	Total Land Requirement (Ha)
Level 3 (Health Centres)	30,000	3	0	2	2	2	6
Level 4 (Sub-County Hospitals)	100,000	4	1	-	-	-	-
Child care facilities	49,999	0.1	0	1	1	1	0.1
Animal Control Office	49,999	0.1	0	1	1	1	0.1
Abattoir	49,999	2	0	1	1	1	2
Sports and Cultural Centre Facilities	49,999	2	0	1	1	1	2
Disaster Management Centre	49,999	1	0	1	1	1	1
Total Land Requirement by year 2028							116.15

Source: Consultant's Edit

3.3 Site and Land Suitability Analysis

3.3.1 Site Analysis

The section below presents how land within the town is currently being utilized.

Table 3-4: Current Land Uses

Land Use	Area (km^2)	Area (Ha)	Percentage of Planning Area (%)
Residential	5.2	520	6.34
Commercial	0.22	22	0.27
Agricultural/Grazing Lands	57.6	5760	70.27
Educational	0.94	94	1.15
Slaughter House	0.004	0.4	0.00
Public Purpose	0.427	42.7	0.52
Public Utility	0.355	35.5	0.43
Transportation	1.676	167.6	2.04
Environmentally Sensitive Areas	13.38	1338	16.32
Undeveloped spaces	2.17	217	2.65
Total	**81.972**	**8197.2**	**100**

Source: Consultant's Edit

Residential land use

This forms the bulk of developments within the built-up area in the town, covering a total area of 5.2 km^2. Residential land use in the town can further be subdivided to show two distinct types of settlements/neighbourhoods: Habaswein and Ademasajida. These two neighbourhoods have different residential densities, as shown on Map 3 -9. High residential densities are characteristic along the major roads running through the town.

Commercial land use

Commercial land use in the town is mainly along the Isiolo-Wajir (A13) highway and the Habaswein-Dadaab road (C293), covering a total area of 0.22 km^2. It is mainly comprised of

retail shops, hotels and lodges, vehicle repair shops, a petrol station and money banking outlets. Mixed-use development is characteristic of developments along the Isiolo-Wajir (A13) road.

Agricultural/Grazing land

Crop farming is practiced on the flood plains of the Ewaso Nyiro River, while more extensive tracts of land on the fringes of the developed area are used for livestock grazing. This covers a combined total area of 57.6km^2. Within the flood plains of the Ewaso Nyiro River, private and public earth dams have been constructed for agricultural purposes (livestock and crop farming). The area can produce various crops at the domestic (town level) and large scale (external markets) for commercial purposes.

Plate 3-1: Agricultural activities along the Ewaso Nyiro River

Educational land use

Habaswein Town has a total of fourteen educational facilities located on either side of the two neighbourhoods. Ademasajida has two primary schools, including Waso Girls and Ademasajida Primary School, one secondary school (Ademasajida Mixed Secondary School), a polytechnic (Habaswein Polytechnic) as well as two religious institutions (Abuhureira Islamic Centre and Al Furqan Islamic Centres). Habaswein neighbourhood has seven (7) education institutions, including Kiblay, Bula Juu, Habaswein and Kiwanja Ndege Primary schools, Senior Chief Ogle Girls Secondary School, as well as Habaswein Secondary and Habaswein Mixed Secondary Schools. These institutions cover a total area of 0.94 km^2.

Slaughter House

The town has one slaughterhouse covering an area of approximately 0.004Ha/0.6km^2. This is the only industrial facility located in the town. It is, however, not fenced, and zones of activity (slaughtering and recycling of animal carcasses) are not demarcated.

Public purpose land use

Public-purpose land use in Habaswein Town includes lands occupied by hospitals, county and national government offices, religious institutions, the AP camp and police station, and the library. These institutions cover a collective area of 0.427 km^2.

Plate 3-2: D.O.s Office (Ademasajida) and Chief's Office (Habaswein)

Public utility land use

Public utility land use in Habaswein Town includes areas covered by earth dams and the Kenya Power and Lighting Company (KPLC) sub-station premises. These cover a total area of approximately 0.355 km^2.

Transportation land use

Habaswein Town lies along two major roads. These are the Isiolo-Wajir (A13) highway and the Habaswein Dadaab (C293) road. These roads are the town's structuring elements. The town has other small roads that offer linkage within the town. The major roads cutting across the town are of murram surface while the connector roads within the town are of earth surface. The town also has an airstrip. Transportation land use in the town covers a combined total area of 1.676 km^2.

Environmentally Sensitive Areas

This forms the area along the Ewaso Nyiro River and its banks. The areas are prone to flooding during the rainy season and form unsustainable lands for development. They also include grooves that crisscross the town during the rainy seasons caused by excessive surface run-off. Environmentally sensitive areas in the town cover a total area of 13.38km^2.

Plate 3-3: A seasonal river through the town

Undeveloped spaces

The built-up area within the town has a total area of 2.17 km^2 that is undeveloped. The land comprises spaces within the built-up area that can be used for infill development. Efficient use of land in the town can be used to provide different services and facilities for the town's population.

3.3.2 Land Suitability Analysis

The planning area covers 207.24 km^2. However, the town's growth has been impeded by its location on the floodplain of the Ewaso Nyiro River. Approximately 11.52km^2 of land within the planning area is flood-prone, with 0.748km2 of this land lying within the town's built-up area, as shown in Map 3 -6. This has implications for the availability of land, the location of facilities and services in the town, and the town's expansion.

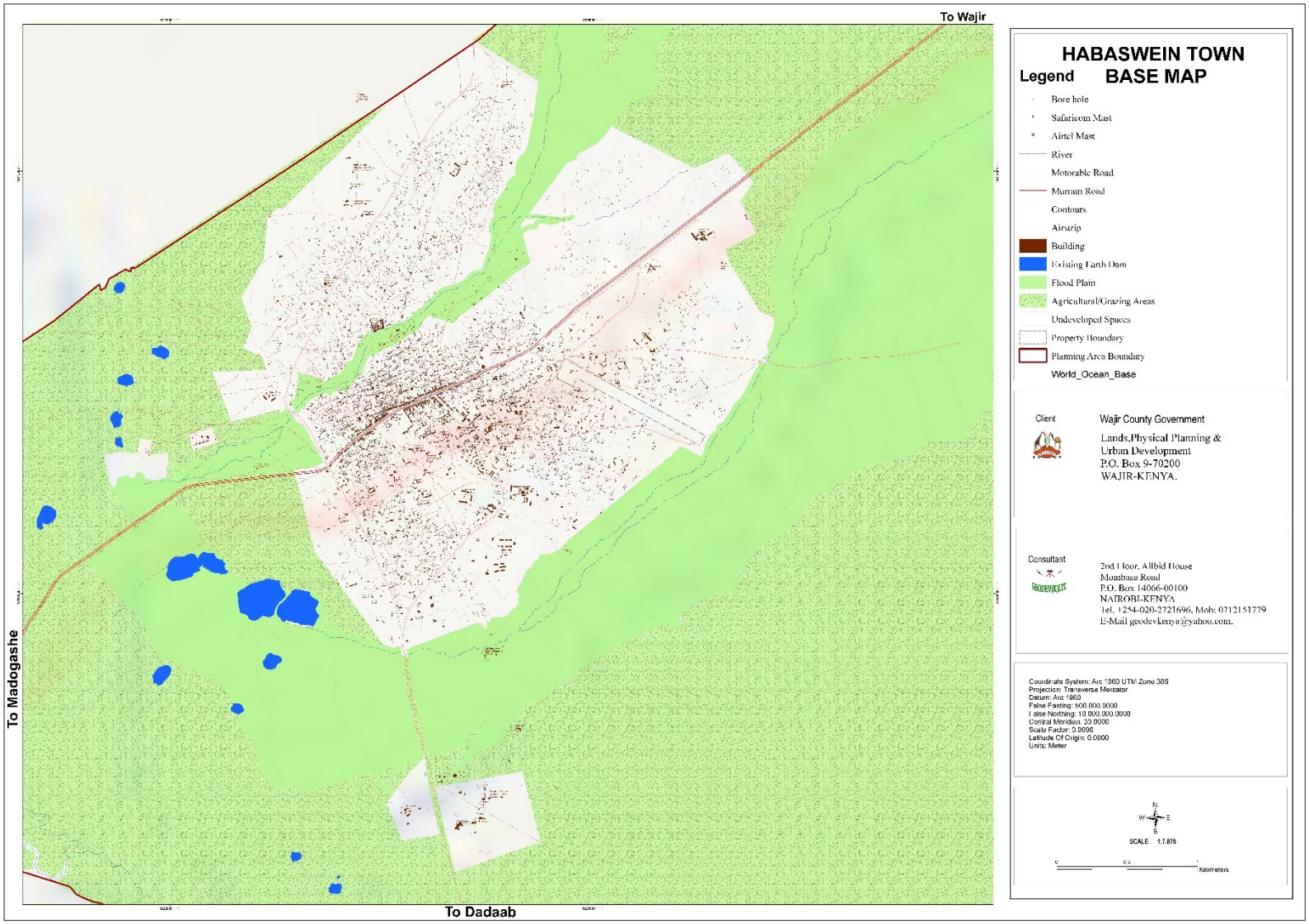
Within the Habaswein neighbourhood, the flood-prone area lies beyond the airport, stretching to the Habaswein-Dadaab road. This has proven to be a major structuring element for the town as development is limited beyond this point. Ademasajida is divided into two zones by a flood-prone area that stretches the entire expanse of the built-up area.

The built-up area covers 9.549 $km^{2,}$ of which 0.748 km^2 should be conserved due to its susceptibility to flooding. This leaves a total area of 8.799 km^2 (879.9) that is available for development. 1.162km^2 is needed to meet the total land area for the population needs. The town, therefore, requires an additional 7.191km^2/719.1Ha of land to be availed for development and future expansion.

Table 3-5: Land Suitability and Availability

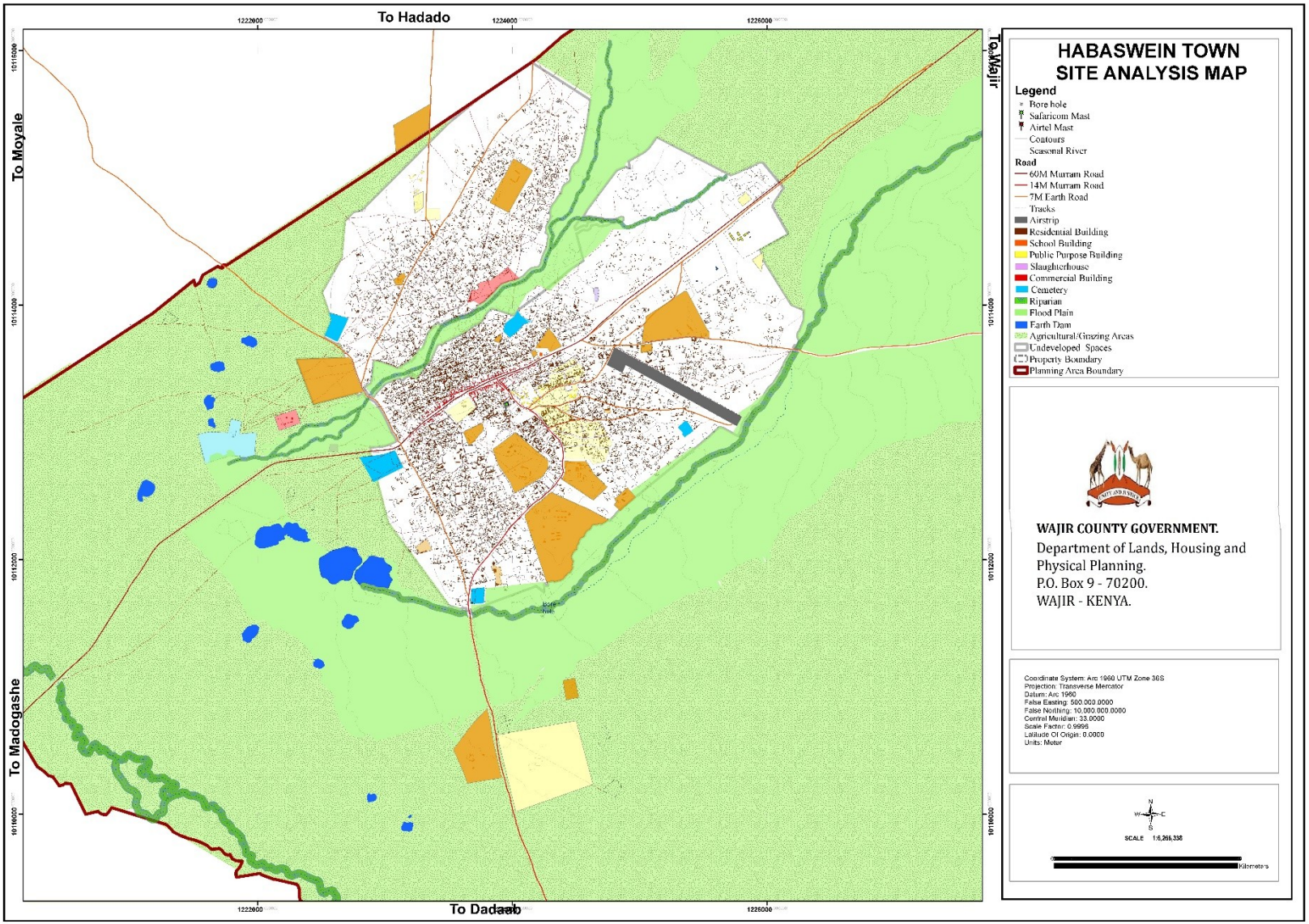
ITEM	AREA COVERED (KM^2)
Built up Area	9.549
Unsuitable Land (Ha)- {Flood Plain and Riparian Reserve}	11.52

Map 3-5: Habaswein Town Base Map



Source: Field Survey, 2019

Map 3-6: Habaswein Town Site Analysis



Source: Field Survey, 2019

3.4 Assessment of Development Conditions

3.4.1 Transportation

Road Coverage and Condition

The road surface in Habaswein Town is of Tarmac, murram and earth, covering approximately 103.9km. The murram surface in the town is on the major arterial road corridor passing through the town: the Isiolo-Wajir (A13). Part of the Habaswein-Dadaab (C293) road and the road to Habaswein Habaswein Primary. The rest of the town is mostly covered by earthen roads that offer linkage. The earth and murram roads are impassable during the rainy season due to flooding due to a lack of stormwater drainage facilities and its proximity to the Ewaso Nyiro River flood plains.

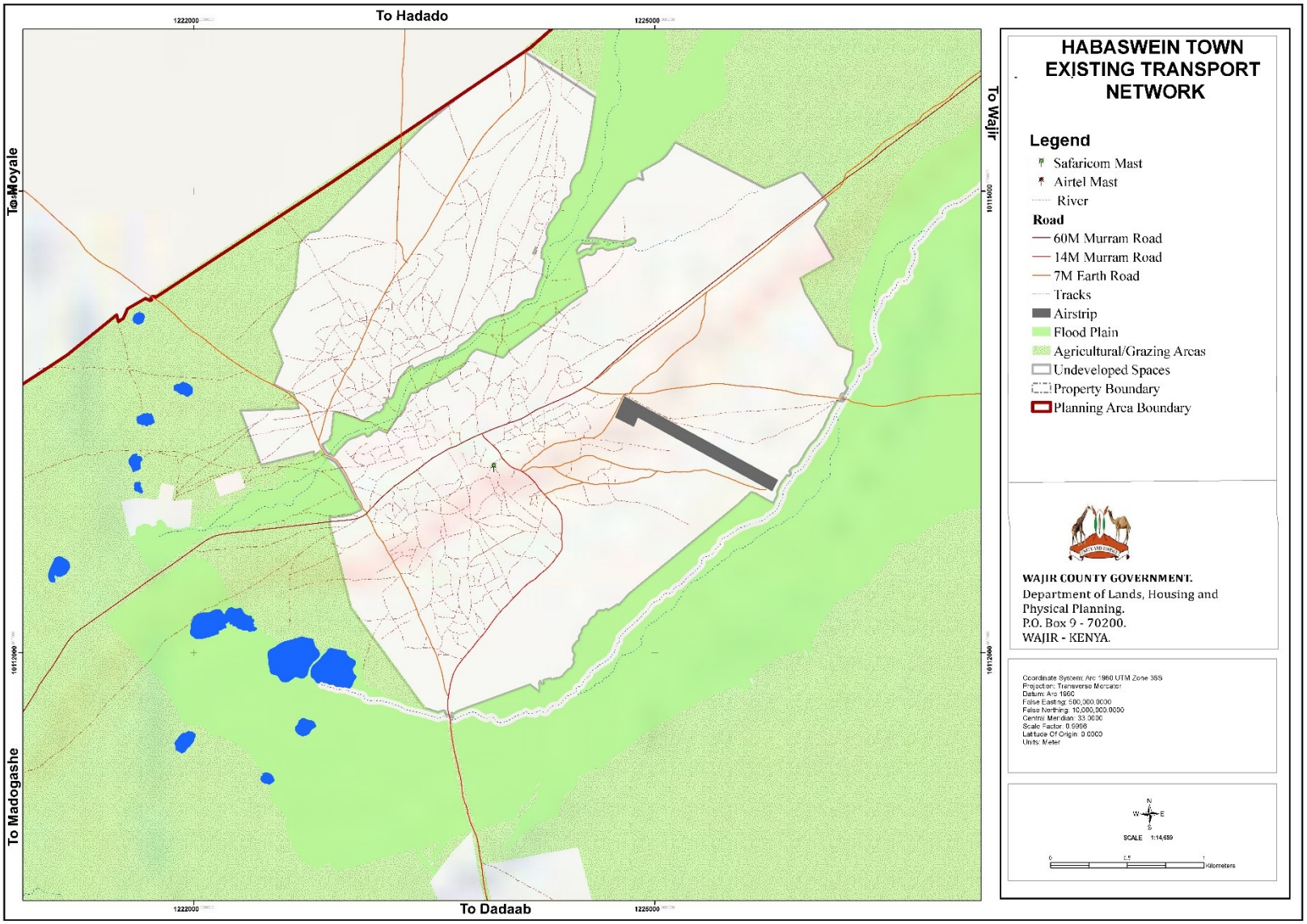
Access roads within the town are of earth surface. The access roads link the different residential areas to the main roads that host commercial activities and the different county departments/offices within the town.

Air transport

Habaswein Town has an airstrip of murram surface. The airstrip is not adequately fenced and lacks the necessary facilities and equipment to handle aircrafts, thereby underutilized. However, the airstrip can still be useful during times of disaster/emergency.

Plate 3-4: The Tarmacked Road next to Kenya Police and the Isiolo-Wajir Road

Map 3-7: Habaswein Town Existing Transport Network



Source: Field Survey, 2019 1

3.4.2 Infrastructure

3.4.2.1 Physical Infrastructure

Water supply

Habaswein Town has seven (7) boreholes, each serving the seven sub-locations in the town. There are three (3) boreholes in Ademasajida and four (4) in Habaswein. A water users association manages each borehole. The main borehole in the Habaswein neighbourhood distributes about 120m^3/day to 500 households that are connected to its piping system.

Plate 3-5: Habaswein Boreholes

Source: Field Survey, 2019

Household Water Sources

The town mostly draws household water from boreholes, personal and public. The public boreholes are managed by local water users' associations and distributed within the town using pipes or water vendors.

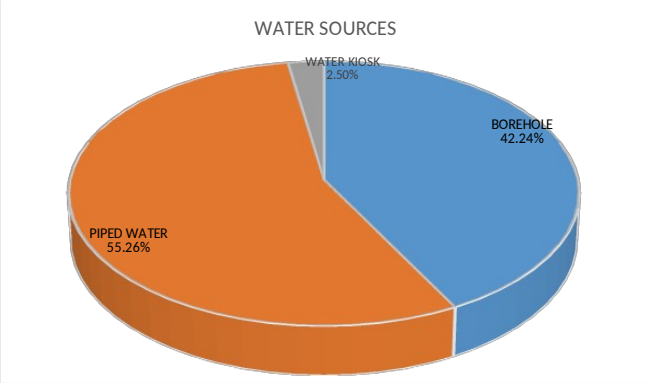
Plate 3-6: Water Sources

Source: Field Survey, 2019

According to a field survey 2019, 55.2% of households in Habaswein Town have piped water to the household, while only 2.5% of households access water through water kiosks. 42.2% of

households in Habaswein Town source their water directly from privately or publicly owned boreholes.

Chart 3-2: Water Sources



Source: Field Survey, 2019

Level of Water Provision, Access and Quality

Habaswein Town's main water source is from boreholes, which utilize the Merti aquifer to provide domestic household water through a system of pipes. Water supply in the town is limited to a maximum of three days a week. According to a field survey, 64.5% of households within the town have access to water at a household level, while 13%t access water communally within the plot either through boreholes or public standpipes. 22.5% of residents within the town can only access water outside the plot, either at water kiosks or public boreholes.

Table 3-6: Level of Water Provision

LEVEL OF WATER PROVISION	PERCENTAGE
Household	64.50%
Communal Outside Plot	22.50%
Communal/Shared Within Plot	13.00%
Total	**100**

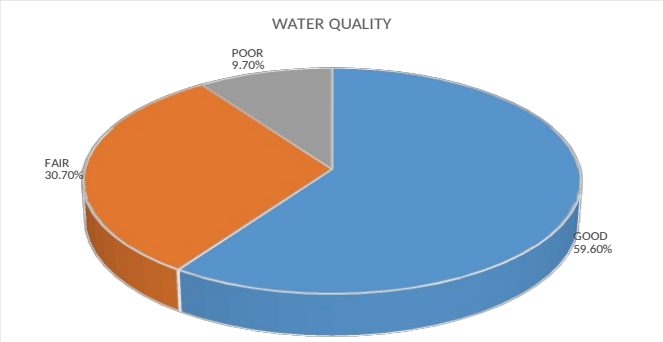
Source: Field Survey, 2019 2

According to WASREB standards, any water source that takes more than 30 minutes to make a round trip is inaccessible. A Field survey in 2019 revealed an average distance to a water source for those who access water outside the plot to be 3.2 km.

Field survey, carried out in 2019 revealed that 59.6% of households are of the opinion that water within the town is of good quality while 9.7% felt that the water was of poor quality. Water in

the town partly has salty properties, highlighting the general quality of the town's source of water, which is the Merti aquifer.

Chart 3-3: Water Quality



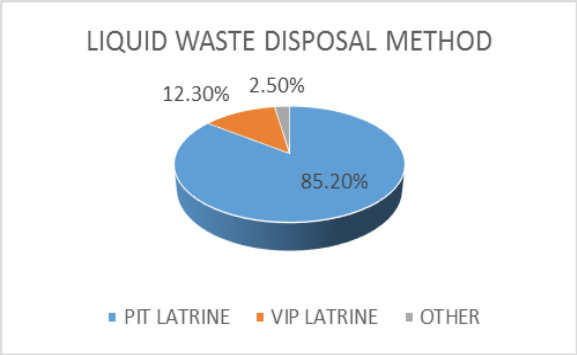
Source: Field Survey, 2019

Liquid Waste Disposal

Modes of Liquid Waste Disposal

According to field survey, 2019, 85.2% of households in Habaswein Town use pit latrines to dispose of liquid waste while 2.5% of households use other means of liquid waste disposal, suggesting they use open defecation (bushes) or buckets. Only 12.3% of households in the town use Ventilated Improved Pit (VIP) latrines as a means of liquid waste disposal (black water).

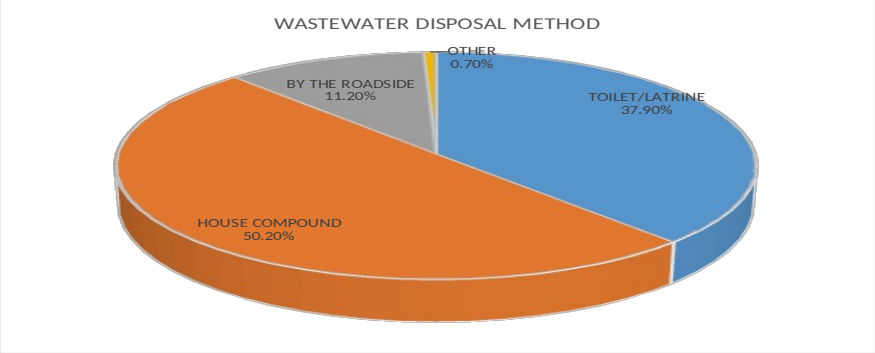
Chart 3-4: Liquid Waste Disposal Method



Source: Field Survey, 2019

Field survey further revealed that 50.2% of households in the town dispose of grey water (kitchen and bathroom liquid effluence) within the house compound, while 0.7% of households use other means of disposing of grey water, which includes recycling.

Chart 3-5: Wastewater Disposal Method



Source: Field Survey, 2019

Norms and Demand Supply Gaps for Water and Liquid Waste Infrastructure

The town has a total current demand for water of 8,419.74m^3/day and 6,735.79m^3/day for liquid waste as of 2023. This demand (gap) for the town's water and liquid waste requirements is projected to be 9,936.36m^3/day and 7,949.09m^3/day for the year 2033.

Table 3-7: Liquid Waste Output and Water Demand

Consumer Water Demand	**% Of Total Population (52,996)**	**Consumption Litres/Head/Day**	**Litres/Day**	**M3/Day**
WATER DEMAND PROJECTION FOR 2023				
Low income	70	75	2,782,290	2,782.29
Medium income	25	150	1,987,350	1,987.35
High income	5	250	662,450	662.45
Total domestic			5,432,090	5432.09
Commercial and institutions	30% of total domestic water demand		1,629,627	1,629.63
Allowance for leakage	20% of total domestic water demand		1,086,418	1,086.42
Total Water Demand			2,716,045	2,716.05
Internal usage	5% of total domestic water demand		271,605	271.62
Total Water Requirement			8,419,740	8,419.74
Liquid waste Demand	80% of total water demand		6,735,792	6,735.79
WATER DEMAND PROJECTION FOR 2033				
Consumer Water Demand	% Of Total Population (62,542)	Consumption Litres/Head/Day	Litres/Day	M3/Day
Low income	70	75	3,283,455	3283.46

Consumer Water Demand	% Of Total Population (52,996)	Consumption Litres/Head/Day	Litres/Day	M3/Day
Medium income	25	150	2,345,325	2345.33
High income	5	250	781,775	781.78
Total domestic			6,410,555	6410.56
Commercial and institutions	30% of total domestic water demand		1,923,167	1923.17
Allowance for leakage	20% of total domestic water demand		1,282,111	1282.11
Total Water Demand			3,205,278	3205.28
Internal usage	5% of total domestic water demand		320,528	320.53
Total Water Requirement			9,936,361	9,936.36
Liquid waste Demand	80% of total water demand		7,949,089	7,949.09

Source: Consultant Computation

Storm Water Drainage

Habaswein Town lacks stormwater drainage infrastructure for channelling flood water during the rainy season. This results in periodic flooding and undirected surface run-off, which distributes solid waste/garbage to other parts of the town. Households built along water stream paths are also affected when the surface runoff increases.

Plate 3-7: Gullies from Surface Run-off

Source: Field Survey, 2019

Flooding vs. Terrain

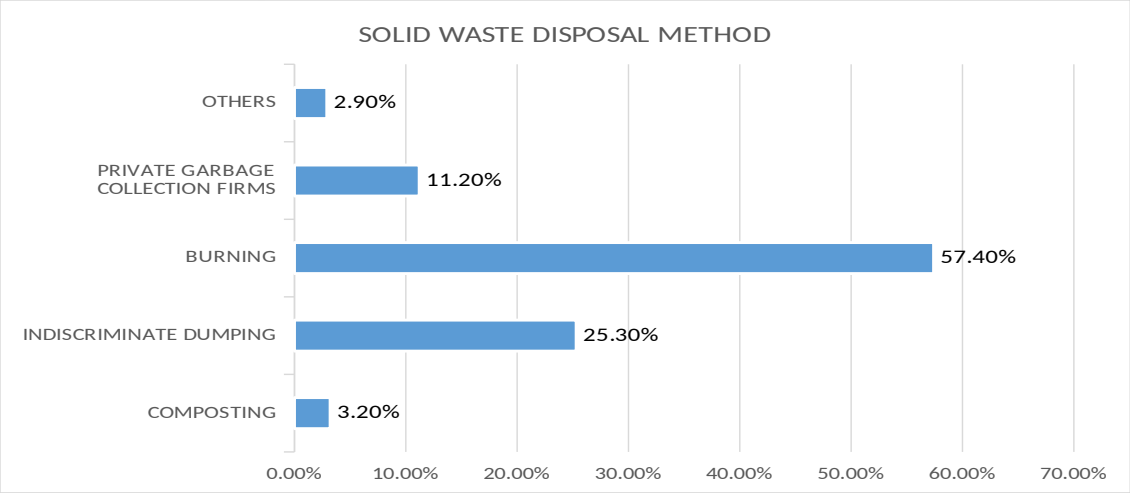
Habaswein Town experiences periodic flash floods during the rainy season. This is partly attributed to the overflow of water from the Ewaso Nyiro River and the town's lack of stormwater drainage infrastructure to channel stormwater run-off appropriately. The town lies on a flat terrain and close to the Ewaso Nyiro River floodplain.

Solid Waste Management

Solid Waste Generation and Disposal

The solid waste generated in Habaswein Town comes from commercial activities and households. According to a field survey in 2019, the main method of waste disposal in Habaswein Town is burning, accounting for 57.4% of solid waste disposal methods for households. 2.9% of households use other solid waste management methods, which may include a mixture of all the methods shown in the chart below. 11.2% of households in the town use private garbage collection firms/individuals for solid waste disposal.

Chart 3-6: Solid Waste Disposal Method



Source: Field Survey, 2019

The county council mostly handles solid waste collection on the main commercial district. They undertake the collection exercise three times a week. They use different dumpsites (undesignated) located in the town for solid waste disposal.

Plate 3-8: Solid Waste Disposal Methods

Source: Field Survey, 2019

Waste Collection and Transportation

Waste collection in the town's commercial district is transported by hand to the various undesignated dumpsites within the town. The county council workers collect garbage thrice a week without charging a fee. Private garbage collectors use hand and animal carts to ferry solid waste to different disposal sites within and outside the town.

Electricity Supply and Street Lighting

Electricity Supply

Habaswein Town is supplied electricity from the Kenya Power and Lighting Company (KPLC) off-grid power substation. The power station uses solar, wind and diesel-powered generators for electricity generation. The solar a total of 30kWh/day while the two windmills generate 50kwh/day. The diesel engines generators produce a combined total of 450kwh/day. There are 2,200 households connected to the electricity in the town. The main commercial area of the town is adequately connected to electricity. Most schools in the town use solar energy for lighting.

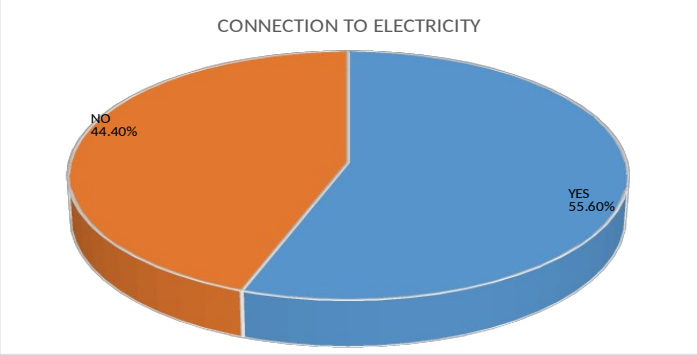
Plate 3-9: Electricity Distribution in the town

Source: Field Survey, 2019 3

Households Connected with Electricity

According to a field survey, 55.6% of households in Habaswein are connected to electricity. This is as shown in Chart 3 -7.

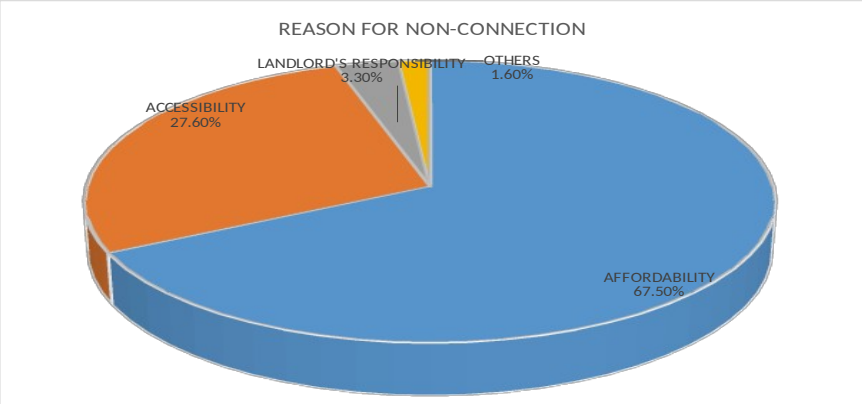
Chart 3-7: Electricity Connection



Source: Field Survey, 2019

67.5% of households not connected to electricity site affordability as the main reason for non-connection while 2% of households site other reasons for the lack of connection such as the use of solar energy or batteries.

Chart 3-8: Reason for Non-Connection to Electricity



Source: Field Survey, 2019

According to KPLC (Kenya Power and Lighting Company), the normal connection charges stand at Kshs. 32,000 when close to a transformer. This amount is considerably high for the 44.4% of households that are not connected to electricity who site affordability as the main reason for non-connection to the local power grid.

Street Lighting

Street lighting can promote security and safety for drivers, riders, and pedestrians in urban areas, and it can increase the quality of the economy by artificially extending the hours for commercially related activities.

The main commercial street (along the Isiolo-Wajir A13 highway) has street lights. This is also extended to the Habaswein-Dadaab C293 highway upon which the AP camp and other county departments are based. Residential neighbourhoods are, however, inadequately covered.

Plate 3-10: Street Lighting

Source: Field Survey, 2019

3.4.2.2 Social Infrastructure

Education in Habaswein Town

Religious, Pre-primary and Primary Education

Education in Habaswein Town for young students aged 5-14 is divided into religious and formal education. Islamic religious education is taught in madrassas and Islamic centres, including the Abuhureira Islamic Centre and Al Furqan Education Centre.

Four public primary schools have ECDE (Early Childhood Development and Education) centres embedded within. These include Bula Juu, Kiwanja Ndege, Habaswein, Waso Girls and Ademasajida Primary School.

The town has two public primary schools in the Ademasajida neighbourhood: Ademasajida Mixed Primary School and Waso Girls Primary School. Habaswein neighbourhood has four primary schools: Bula Juu Primary School, Habaswein Primary School, Kiblay Girls Primary School and Kiwanja Ndege Primary School. The town also has four private primary schools: Alidaya Academy, Karu Junior Academay, Madey Integrated Academy, and Kulmiye Primary School.

Plate 3-11: Primary Schools

Source: Field Survey, 2019

Secondary education

The town has a total of four secondary schools, two of which have boarding facilities. These include Habaswein Boys Secondary School and Senior Chief Ogle Girls Secondary School. The other two secondary schools are mixed-day secondary schools: Ademasajida Mixed Secondary school and Habaswein Mixed Day Secondary School. Three of these secondary schools are on the Habaswein side of the town while the Ademasajida neighbourhood only has one. One private secondary school in the town is Kulmiye Secondary School (Mixed).

Plate 3-12: Secondary Schools

Source: Field Survey, 2019

Technical Training Institutions

The town has a technical training institution, the Bidii Youth Centre, that offers computer training, electrical and electronic engineering, carpentry, food processing and tailoring courses. The polytechnic, however, is not adequately equipped to offer practicality in most of the courses taught.

Plate 3-13: Bidii Youth Centre

Source: Field Survey, 2019

Distribution of Education facilities

Table 3-8: Distribution

Ward	Primary	Secondary	Tertiary
Ademasajida	2	1	1
Habaswein	4	3	0
Total	6	4	1

Source: Field Survey, 2019

From field survey, pupils in pre-primary institutions cover a distance longer than the recommended standards by the Physical Planning Handbook, with each pupil covering a distance of approximately 1.61km. However, primary and secondary school students cover distances at approximately the recommended standards. This is as shown in the table below.

Table 3-9: Distance to Education Facilities

Education Institution	Current walking distance (km)	Recommended walking distance (Km)
Pre-Primary school	1.61	0.3-0.5
Primary school	1.86	0.5-2
Secondary School	3.19	0.5-3

Source: Field Survey, 2019

Education Facilities Demand

Table 3-10: Education Facilities Demand

Facility	Catchment Population	Current No of facilities	Projected Demand FY, 2028	Gap
Primary Schools	4,000	6	11	5
Secondary school	8,000	4	5	1

Source: Field Survey, 2019

Health

Health Care Facilities

Habaswein Town has two healthcare facilities, as shown in the map overleaf, which include the Ademasajida Dispensary (Level 2), which offers maternal and newborn health care, and the Habaswein Sub-County Hospital (Level 4). Although these two facilities can adequately cater to the town, they face different challenges. Due to the presence of these facilities in the town, it can be lightly deduced that the town's residents have access to health promotion and prevention (Level 2) and curative health services (Level 4). The town also has five (5) private clinics. The town is however in need of more public clinics (Level 1), dispensaries (Level 2) and a health centre (Level 3).

Habaswein Sub-County Hospital has a bed capacity of 50, two (2) doctors, five (5) registered clinical officers, fifteen (15) nurses, five (5) lab technicians, five (5) public health officers, two (2) nutritionists and two (2) pharmacy technicians. The town has a doctor-patient ratio of 1:16,169, higher than the recommended World Health Organization (WHO) standards of one doctor per thousand population (1:1000).

Plate 3-14: Health Facilities


Source: Field Survey, 2019 4

According to field survey, the average distance to a health facility in the town is approximately 2.8 km, which is lower than the recommended distance of 5km.

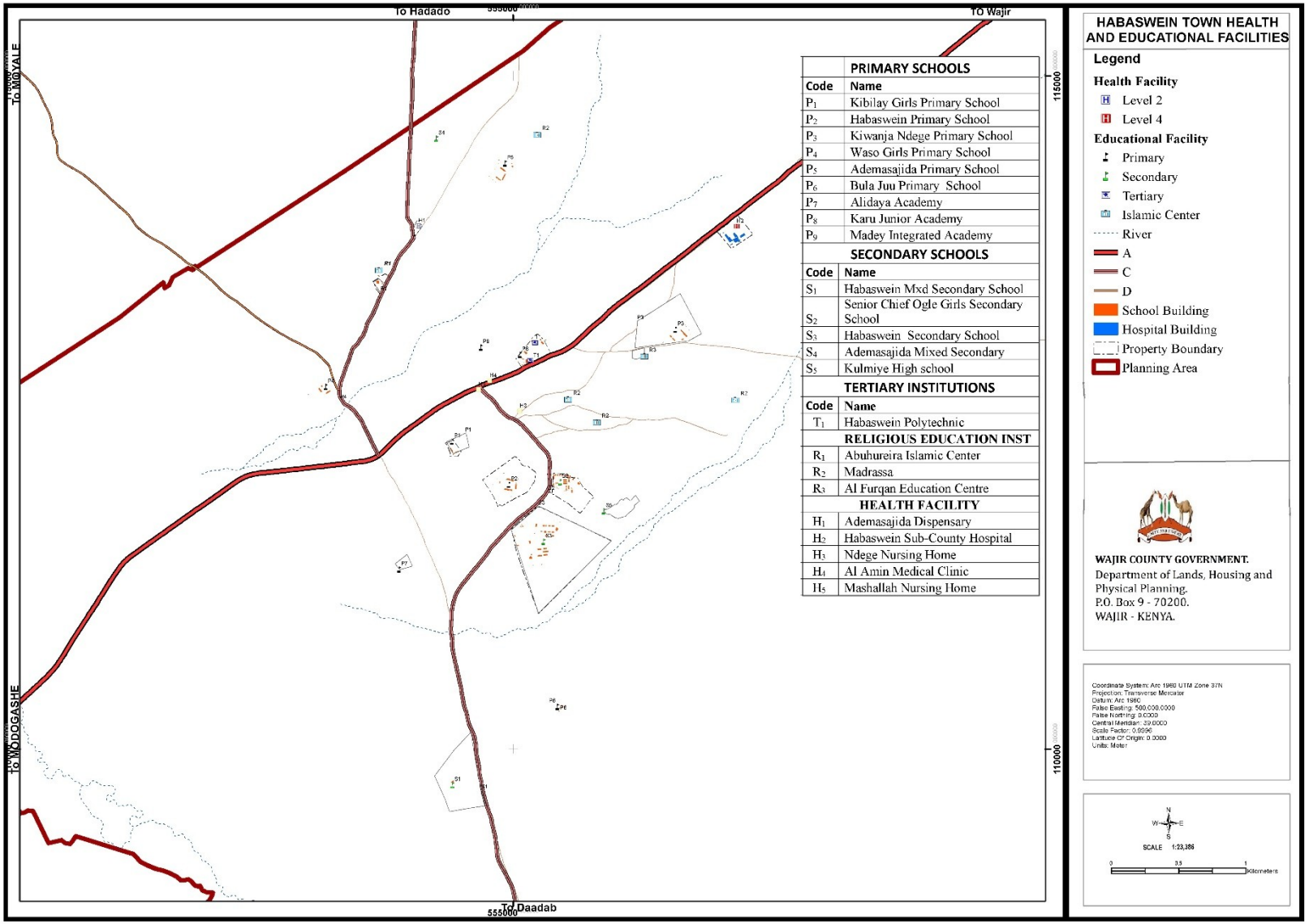
Health Facilities Demand

Table 3-11: Health Facilities Demand

Facility	Catchment Population	Current No of facilities	Projected Demand FY, 2028	Gap
Clinics (Level 1)	5,000	0	9	9
Dispensaries (Level 2)	10,000	1	4	3
Health centres (Level 3)	30,000	0	1	1

Source: Consultant Computation

Map 3-8: Social Infrastructure



	PRIMARY SCHOOLS
Code	Name
P_1	Kibilay Girls Primary School
P_2	Habaswein Primary School
P_3	Kiwanja Ndege Primary School
P_4	Waso Girls Primary School
P_5	Ademasajida Primary School
P_6	Bula Juu Primary School
P_7	Alidaya Academy
P_8	Karu Junior Academy
P_9	Madey Integrated Academy
	SECONDARY SCHOOLS
Code	Name
S_1	Habaswein Mxd Secondary School
S_2	Senior Chief Ogle Girls Secondary School
S_3	Habaswein Secondary School
S_4	Ademasajida Mixed Secondary
S_5	Kulmiye High school
	TERTIARY INSTITUTIONS
Code	Name
T_1	Habaswein Polytechnic
	RELIGIOUS EDUCATION INST
R_1	Abuhureira Islamic Center
R_2	Madrassa
R_3	Al Furqan Education Centre
	HEALTH FACILITY
H_1	Ademasajida Dispensary
H_2	Habaswein Sub-County Hospital
H_3	Ndege Nursing Home
H_4	Al Amin Medical Clinic
H_5	Mashallah Nursing Home

HABASWEIN TOWN HEALTH AND EDUCATIONAL FACILITIES

Legend

Health Facility
- Level 2
- Level 4

Educational Facility
- Primary
- Secondary
- Tertiary
- Islamic Center

- River
- A
- C
- D
- School Building
- Hospital Building
- Property Boundary
- Planning Area

WAJIR COUNTY GOVERNMENT.
Department of Lands, Housing and Physical Planning.
P.O. 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

N
W E
S
SCALE 1:23,386
0 0.5 1 Kilometers

Source: Field Survey, 2019

Community Facilities

Community Centres

Habaswein Town has a social hall that is currently not being utilized. The social hall is not equipped with chairs, tables, display boards, or public address systems.

Plate 3-15: Social Hall

Source: Field Survey, 2019

Library services

The town has one public library. The library is equipped with computers, books, and a meeting/gathering hall. Charges apply for the use of the library's equipment and facilities. The cost of renting the library hall for events or meetings is upwards of Kshs3,000.

Plate 3-16: Habaswein Library

Source: Field Survey, 2019

Cemeteries and Burial Grounds

The town has four burial grounds that are not commissioned. Two burial grounds are found in Ademasajida neighbourhood, while the other two are in Habaswein. The Two burial grounds in Habaswein neighbourhood are located in areas close to flood plains and, therefore, require subsequent closure and relocation to other suitable sites.

Religious Facilities

Religious institutions play a major role in constructing and upgrading morals within various societal groups, such as families and youth. Habaswein Town has one Catholic Church and several mosques that serve the religious needs of the resident population.

Plate 3-17: Religious Institutions

Source: Field Survey, 2019

Information, Communication & Technology (ICT)

Habaswein Town's telephone network coverage is strong, effectively serving the entire town and its hinterland. The town has three different network service providers: Safaricom, Airtel, and Telcom Kenya. All these service providers can offer high-speed internet on either the 3G or 4G mobile network platform. However, internet uptake in the town is low, as only 22.7% of residents can access internet services. The town is currently not served with fibre optic internet service.

Plate 3-18: Telecommunication Masts

Source: Field Survey, 2019

The town is adequately served with different radio stations, both national and local/regional, although the town does not have a community radio station within.

Postal and Courier Services

Habaswein Town has a small postal service station currently not used to full capacity as most town residents prefer bus/shuttle services such as Salman bus service for sending and delivering goods and parcels.

Plate 3-19: Post Office

Source: Field Survey, 2019

Essential Services

Administrative and Government Offices

Habaswein Town is administratively split into two Sub-Counties, Wajir East and Wajir South. The town has two sub-county offices for each sub-county and a general town administrator for the entire town. The town is also split into seven (7) locations, each with a chief's office.

Government offices in the town include the Department of Agriculture, livestock production services office, Ministry of Gender, Children and Social Development, and Ministry of Education, among others. These offices remain under-utilized, some in disrepair and most lacking equipment.

Law and order

The town has a police station, an AP camp, and the directorate of criminal investigations office. The town has a proposed site for the construction of law courts. Accessibility to the Chief's camps, the police station, the AP camp, and the courts is shown in the table below. These facilities are generally within walkable distance and at the town's residents' reach.

Table 3-12: Average Distance to an Administrative Facility

Facility	Average Distance
Chief's Camps	2.6
Police Station	2.1
AP Camp	1.8
Court	1.3

Source: Field Survey, 2019

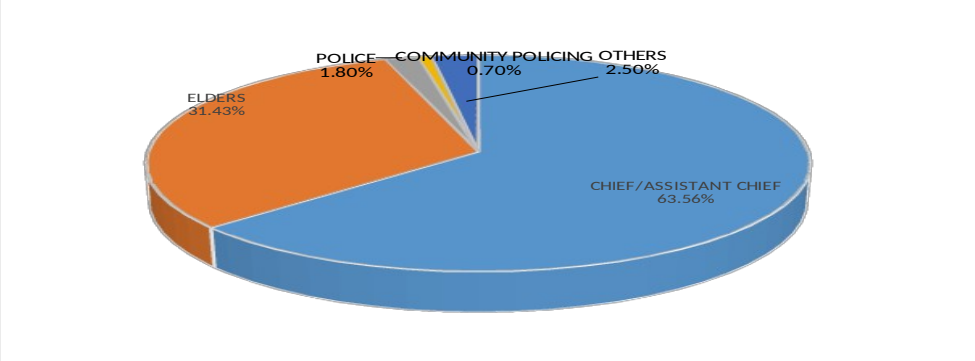
Plate 3-20: Proposed Site for Habaswein Law Courts

Source: Field Survey, 2019

Conflict Resolution Mechanisms

The town's institutions responsible for conflict resolution include chiefs, elders, community policing and police. Other institutions for conflict resolution include non-state actors such as: family, opinion leaders, religious leaders, and mediators. The choice of use of these institutions for conflict resolution depends on factors such as effectiveness, efficiency, trust, convenience, and attitude /perception. The institutions most preferred by residents of the town are chiefs/assistant chiefs, who account for 63.5% of conflict resolution choices, while community policing accounts for 0.7% of the preferred conflict resolution institutions/mechanisms.

Chart 3-9: Conflict Resolution Mechanism



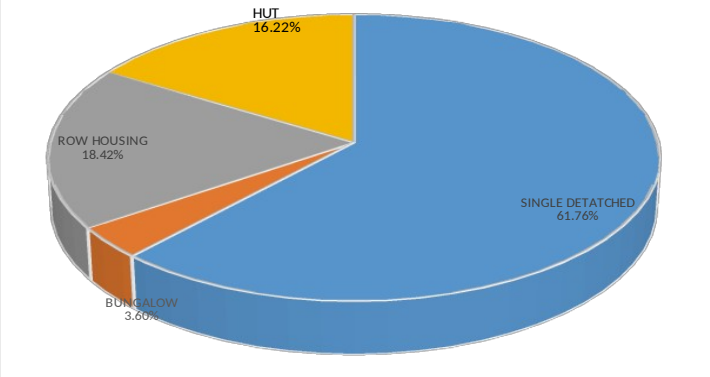
Source: Field Survey, 2019

3.4.3 Housing and Urban Development Pattern

3.4.3.1 Housing

Housing Typologies

Chart 3-10: Housing Typologies



Source: Field Survey, 2019

According to a field survey, 61.7% of the households in Habaswein Town are single detached, single-roomed, one- or two-bedroomed houses. Only 3.6% of houses in the town are bungalows. 16.2% of households in the town live in traditional huts (*Horis*). These huts are known for maintaining cooler temperatures in contrast to the hot temperatures experienced during the day throughout the year.

Plate 3-21: Housing Typologies

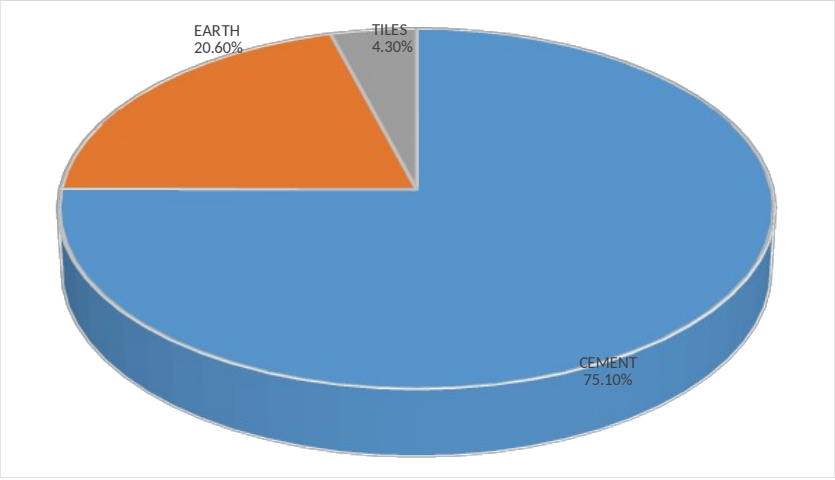
Source: Field Survey, 2019

Building Materials

Floor materials

According to a field survey, in 2019, only three materials are predominantly used for flooring. 75.1% of households in Habaswein Town have cemented floors while only 4.3% of households have used tiles. 20.6% of households have earthen floors. Earthen floors are mostly characteristic of the traditional huts.

Chart 3-11: Floor Materials

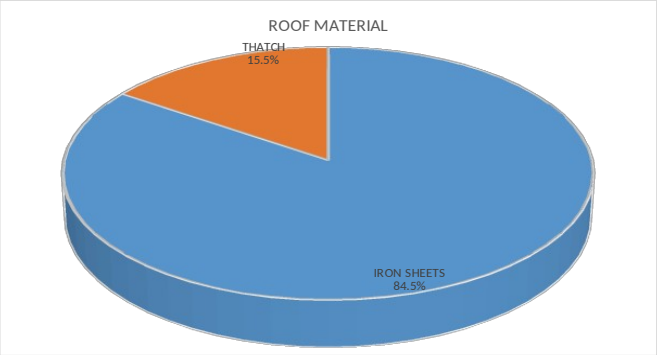


Source: Field Survey, 2019

Roofing materials

According to a field survey in 2019, 84.5% of households in the town have used corrugated iron sheets as roofing material, while 15.5% use thatch for roofing. This is as presented in the chart below.

Chart 3-12: Roof Material

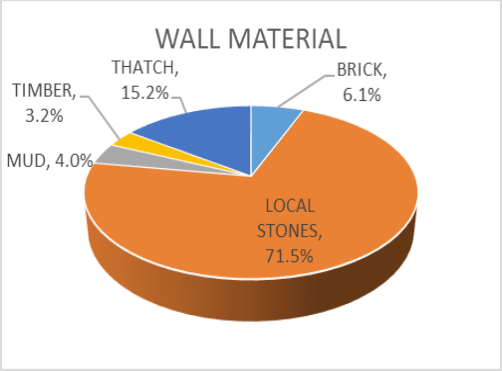


Source: Field Survey, 2019

Wall materials

According to a field survey, 71.5% of households in Habaswein Town have stone walls, while 4% of residents use mud as wall material. 15.2% of households in Habaswein Town have thatched walls, while 3.2% have used timber as wall material.

Chart 3-13: Wall Material



Source: Field Survey, 2019

Housing Providers

Individuals and public institutions are the main housing providers in Habaswein Town. The Kenya Police is the only institution in the town housing its workforce. Residents of the town individually own most of the town's households.

Housing demand and supply

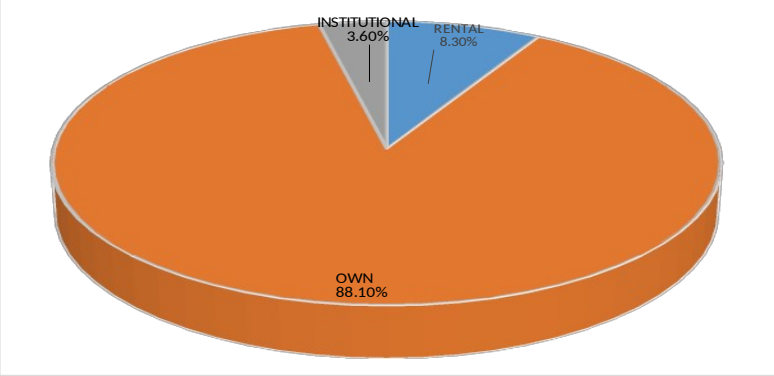
The current projected population of Habaswein Town is approximately 52,996. With a housing size of 5.2 in Habaswein Town, the current demand for housing stands at 10192 (2023). This demand shall rise to 12,027 houses by the year 2033, thereby requiring different stakeholders as well as the county government to invest and provide this housing stock for the rising population.

Household Characteristics

Type of House Ownership

According to a field survey, 88.1% of residents in Habaswein own their houses, while 3.6% of residents in the town live in institutional houses. Members of the Kenya Police Force are housed institutionally. 8.3% of the town's residents are tenants living in rental houses.

Chart 3-14: *Type of House Ownership*

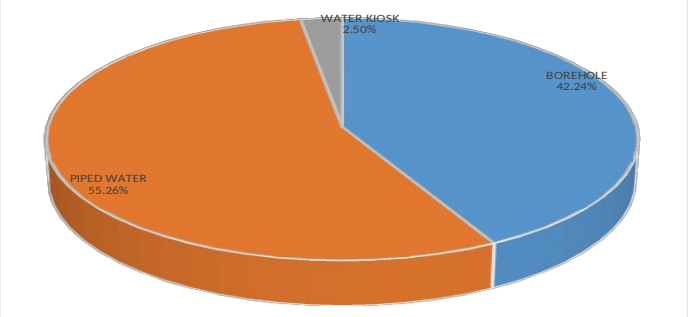


Source: Field Survey, 2019

Household water source

According to a field survey in 2019, 55.2% of residents in the town have piped water connected to their household, while only 2.5% access water via water kiosks or residents that sell water commercially. 42.2% of residents have sunk boreholes within their compounds or communally. Water users' associations mainly manage piped water to households, and a connection fee is applied upon connection request.

Chart 3-15: Household Water Source

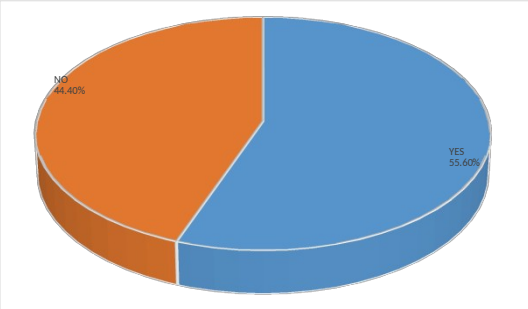


Source: Field Survey, 2019

Household source of lighting energy

According to a field survey, 55.6% of households in the town are connected to electricity, while 44.4% use other lighting methods at night.

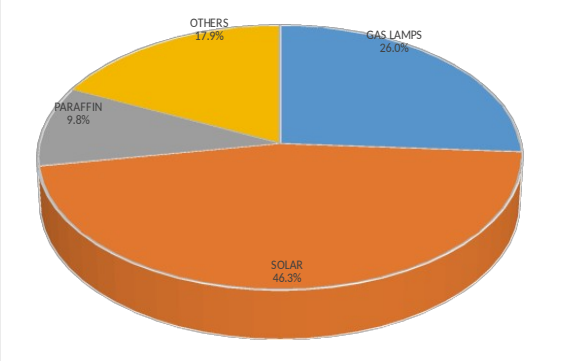
Chart 3-16: Electricity Connection



Source: Field Survey, 2019

Of those not connected to electricity, 46.3% use solar energy for lighting, while 9.8% use paraffin/tin lamps. 26% use gas lamps as a source of lighting.

Chart 3-17: Alternative Lighting Sources

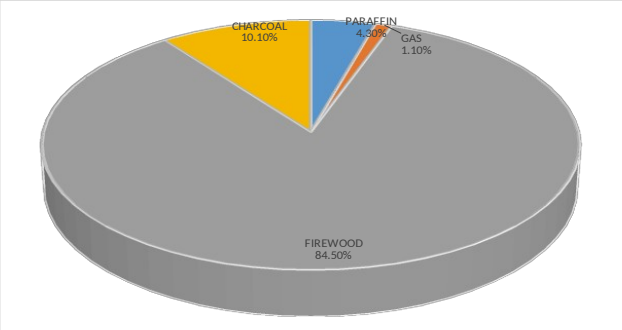


Source: Field Survey, 2019

Household source of cooking energy

According to a field survey, 84.5% of households in the town use firewood for cooking, while only 1.1% use Liquid Petroleum Gas (LPG) as cooking fuel. 10.1% of households use charcoal for cooking.

Chart 3-18: Cooking Energy Source



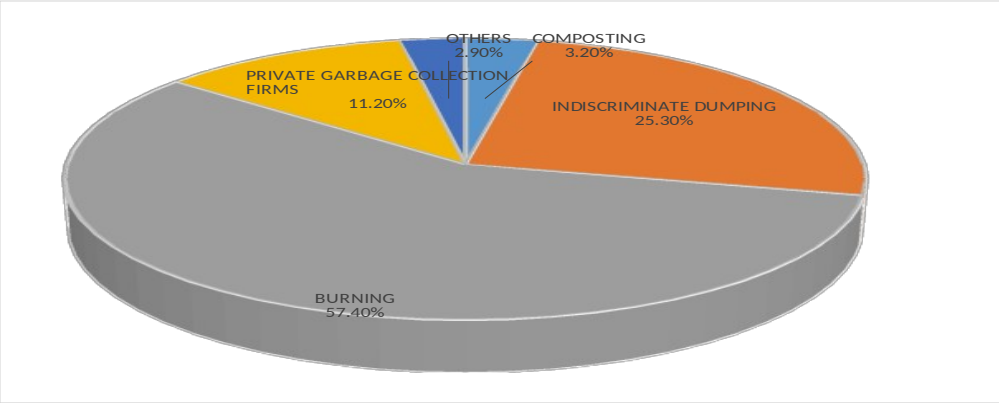
Source: Field Survey, 2019

Solid Waste Disposal

Habaswein Town lacks a public solid waste disposal site or waste skips within high commercial and residential areas. This has resulted in several alternative ways for solid waste disposal among town residents.

According to a field survey, 57.4% of households prefer to burn the garbage produced within the household, while only 2.9% of the households within the town use other means of disposing of solid waste. 25.3% of households within the town are reported to dump waste indiscriminately or at undesignated sites. This highlights the need for a solid waste management plan for the town.

Chart 3-19: Solid Waste Disposal Methods

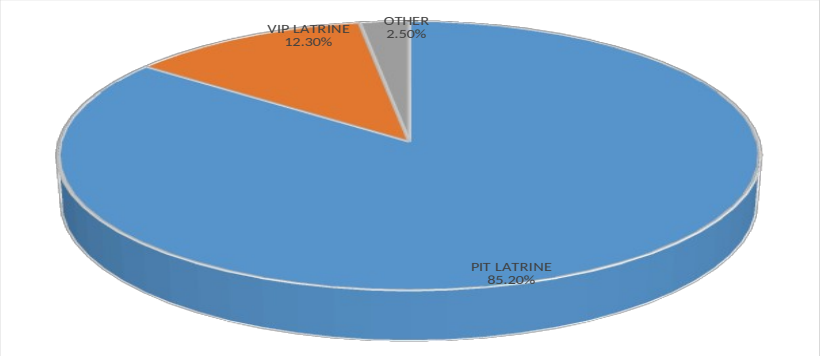


Source: Field Survey, 2019

Liquid waste disposal

According to a field survey, a combined majority of households, 97.5% of households in the town use pit latrines as the main means of liquid waste disposal, while 2.5% of households use other means of liquid waste disposal. These include use of buckets as well as open defecation.

Chart 3-20: Liquid Waste Disposal



Source: Field Survey, 2019

3.4.3.2 Assessment of Urban Development Pattern

Habaswein Town exhibits a linear, compact settlement pattern. The Isiolo-Wajir (A13), the Habaswein-Dadaab (C293), as well as the Habaswein-Hadado (C301) roads, are the three major roads that have attracted a significant amount of both commercial activities and residential households. The three roads and the town's proximity to the seasonal Ewaso Nyiro River basin have led to the aggregation of a dense (compact) settlement pattern influenced by the three roads.

High residential densities with a mixture of commercial activities are characteristic along the Isiolo-Wajir (A13) highway, while low-density residential areas are mostly found on the fringes of the core of the town such as the areas past the Habaswein Polytechnic just opposite the KPLC power substation. This is due to a lack of services within these areas, thereby restricting the town's growth to these areas. The current residential densities are as shown in Map 3 -9.

Structuring elements

Road Network

Habaswein Town has grown along the Isiolo-Wajir highway, the Habaswein-Dadaab (C293) road and the Habaswein-Hadado (C301) roads. Commercial, public purpose, utility, and residential use along these roads abound as they act as the focal points of movement of people, goods, and services to and from the town. The two roads have shaped the form and settlement pattern of the town.

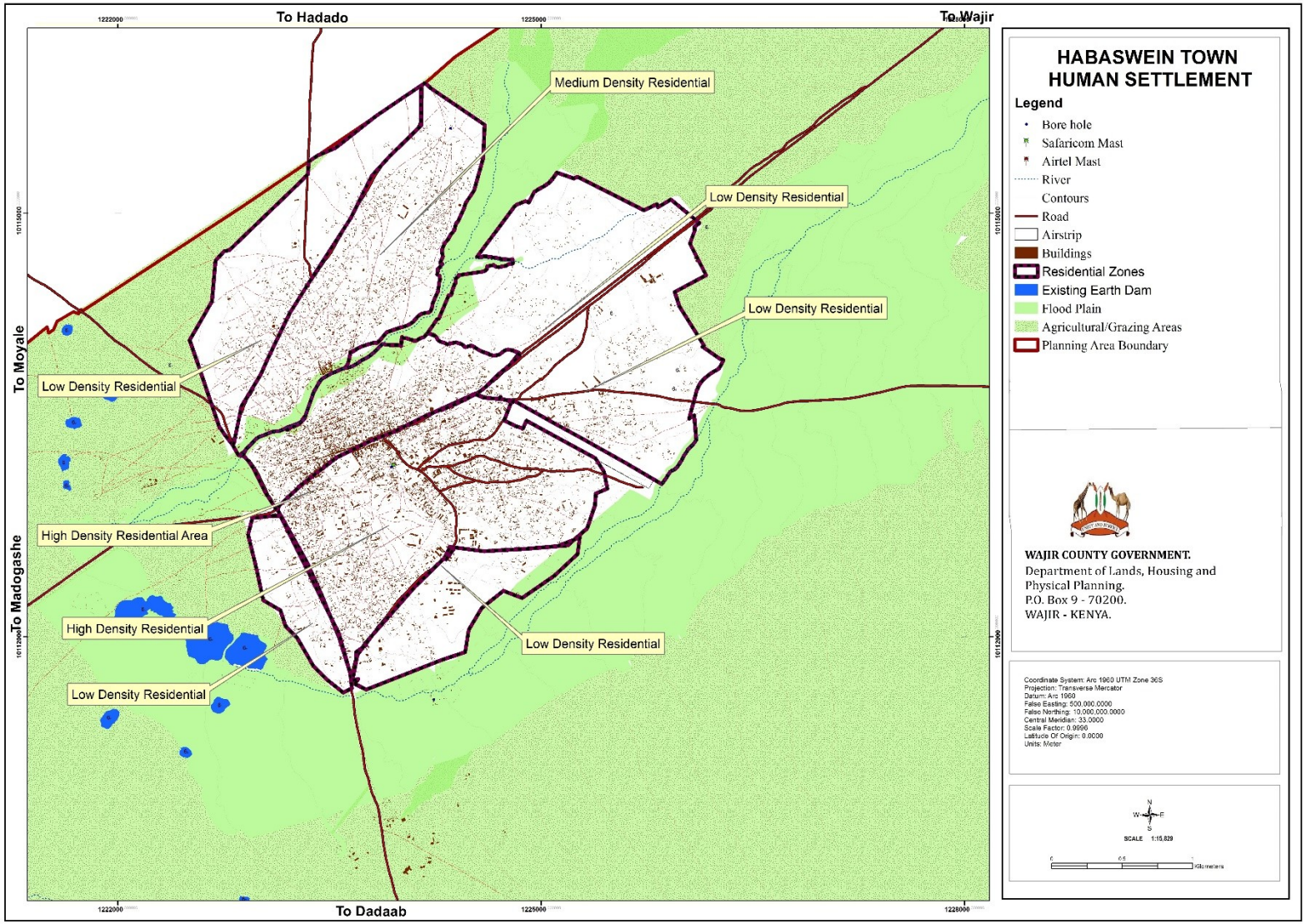
Flood Plains

A flooding area on the southern side of the town limits its growth. This has limited the horizontal spread of the town on the southern side. The other side of the town is limited and divided by another flood-prone area that had divided Ademasajida into two. One side follows the Isiolo-Wajir (A13) highway, exhibiting a dense character. The area opposite follows the Habaswein-Hadado (C301) road. Settlements along this road are sparsely populated.

Presence of Surface and Ground Water

The seasonal Ewaso Nyiro River, which flows for three months in a year during the long rains season, March to May, as well as the presence of the Merti Aquifer and the Lorrian Swamp, provides the town with adequate water throughout the year for domestic, livestock and agricultural use. This has in turn influenced the clustered settlement pattern of the town.

Map 3-9: Human Settlement Pattern



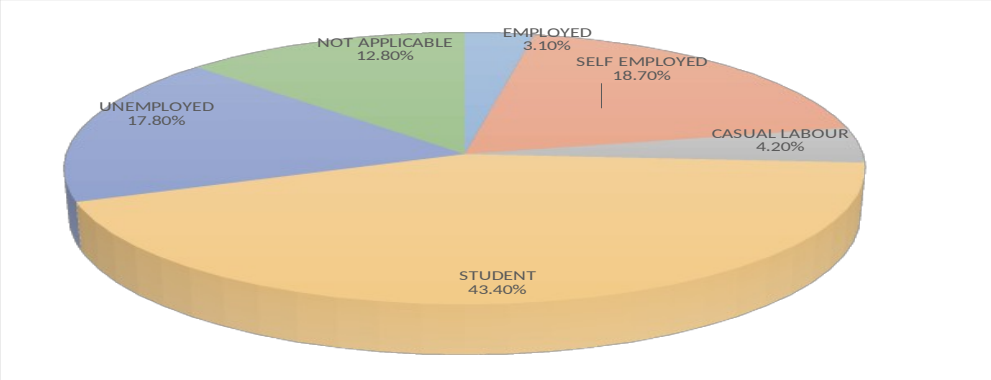
Source: Field Survey, 2019

3.4.4 Economic Analysis

Employment levels

According to field survey, 43.4% of the town's population are students, attributed to the town's youthful population, while 3.1% are in gainful employment. About 18.7% of residents in the town are self-employed through pastoralism and businesses while 17.8% of the town's population is generally unemployed.

Chart 3-21: Employment Levels

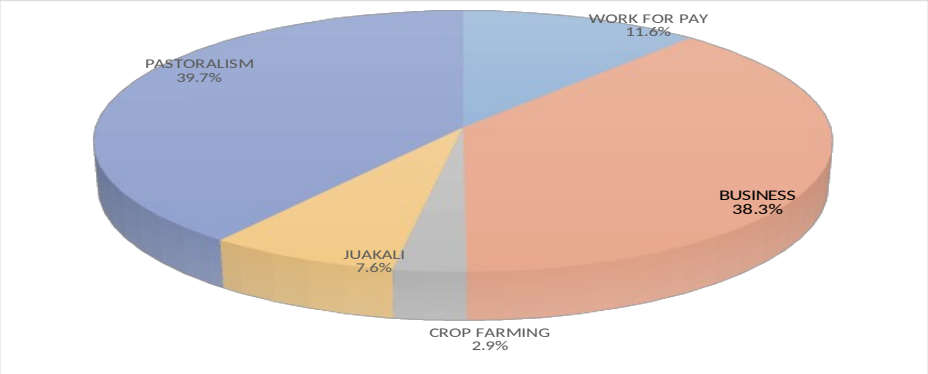


Source: Field Survey, 2019 5

Income-Generating Activities at the Household Level

Field survey conducted in 2019 in the town reveals that 39.7% of residents in the town practice pastoralism as their main source of income. Crop farming is practised by only 2.9% of residents, while 11.6% of residents in the town work for pay in either the formal or informal sector. 38.3% of residents practice business in various forms, such as retail trade, hotels, tailoring, and money transaction shops. 7.6% of residents in the town practice *juakali* as their main source of income.

Chart 3-22: Income Generating Activities



Source: Field Survey, 2019

Commercial Activities

Commerce is among the leading income-generating activities in Habaswein Town. The town has an underutilized designated market for fresh produce and cereals. There is a lack of a distinct commercial zone; many commercial activities occur along major thoroughfares passing through the town. Traders majorly operate from stalls dealing in various products ranging from retail and electronic shops, tailoring, hotels and restaurants, and lodges.

Formal Commercial Activities

Formal commercial activities in the town include businesses that county authorities charge daily or pay for business permits annually. These include lodges, restaurants, money transfer agents' shops, and wholesale and retail traders. These businesses provide basic goods and services to the town's population. They are a source of livelihood for most residents in the town who are actively engaged in different forms of commerce.

Chart 3-23: Retail Shops

Source: Field Survey, 2019

Informal Commercial Activities

Informal commercial activities play an important part in the socio-economic life of Habaswein Town. It also includes retail shops, tailors, workshops, firewood and charcoal dealers, vegetable sellers, and motorcycle riders. The main commercial corridor of the town exhibits many informal commercial activities which occupy the road reserve of the Isiolo-Wajir (A13) highway passing through the town. Categories of traders found along the streets of Habaswein Town include second-hand clothes sellers, *miraa* sellers, furniture makers, vegetable traders, and electronic dealers, among others.

Plate 3-22: Informal Commercial Activities

Source: Field Survey, 2019

Industry and Industrial Activities

Habaswein Town has a low industrial base, although the sector has huge potential for growth. The town is currently exhibiting few industrial activities, as seen from the presence of a slaughterhouse, garages and tyre repair shops, and welding and furniture-making shops. The slaughterhouse does not meet the required safety and hygiene standards for handling meat and livestock products. The town is currently disconnected from the national grid and is over-reliant on diesel-generated electricity and wind and solar energy. This restricts the power consumptive industrial ventures, limiting the town's industrial potential. A distinct industrial zone is also lacking to promote these industrial activities.

Plate 3-23: Industrial Activities

Source: Field Survey, 2019

Industrial Potential in the Town

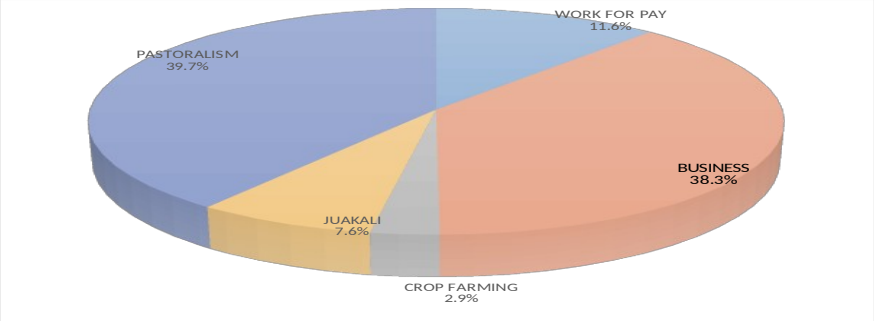
The pastoralist nature of residents of the county (keeping large herds of livestock) and the town, as well as the town's linkage to external and internal markets, offers a huge potential for livestock products processing. This presents avenues for exploitation in milk and meat processing and the hides and skins (leather tanning) industry. This will in turn, have a trickling effect on the livelihoods of the local communities and the general economy of the town and

county. It is also worth noting that the town has adequate land to allocate such industrial facilities.

Agricultural Activities

Agriculture in Habaswein is a major source of livelihood for the town's residents. About 42.6% of the town's residents draw their livelihood from agriculture, especially pastoralism. Crop production is limited due to adverse climatic conditions. However, large-scale crop production has a high potential due to the town's proximity to the Ewaso Nyiro River basin and underground water stored in the Merti Aquifer.

Chart 3-24: Income Generating Activities



Source: Field Survey, 2019

Crop production

Crop production in Habaswein Town is mostly done along the Ewaso Nyiro River belt and its flood plains, with fertile alluvial soils rich for mass crop production. Although the river is seasonal, flowing for three months during the rainy season, the flood plain has been used to construct dams to provide water for cultivation to adjoining farms during the dry season through irrigation. Water from these dams is then pumped using generators to the farms, as shown in the figure below.

Plate 3-24: Irrigation Water Source

Source: Field Survey, 2019

Farrow irrigation is the main mode of irrigation used for crop cultivation along the Ewaso Nyiro River basin. This method is used to cultivate crops such as maize, sorghum, cow pies, green grams, capsicum, collards (s*ukuma wiki*), pawpaw, chillies, tomatoes, onions, citrus (lemon) and guavas, bananas and mangoes. The town's main model farm is the Zeytun farm.

Plate 3-25: Farrow Irrigation

Source: Field Survey, 2019

There are around 2,500 farmers within Wajir South Sub County, each with a land holding size of 2 acres. Habaswein Town hosts around 1030 farmers.

There are two production periods within the year in the town. These include March to May during the long rains and October to December. The first rainy season is the most productive as the Ewaso Nyiro River flows continuously for three months. Irrigation should be largely promoted along the flood plains.

Pastoralism

Pastoralism is the extensive production of livestock in rangeland environments. It takes many forms, but its principal defining features are livestock mobility and the communal management

of natural resources. Animal rearing in the wider North Eastern region is a major source of livelihood for communities living therein.

The main livestock reared in and around Habaswein Town include cattle, camel, sheep and goats.

Plate 3-26: Cattle Herds

Source: Field Survey, 2019

Potential of Agriculture in the Town

There is great potential in the production of cereals and horticultural crops (tomatoes and onions) along the Ewaso Nyiro River belt.

There is great potential in livestock production processing in the town. This can be attributed to the large herds of cattle that pass through the town seeking water along the Ewaso Nyiro River basin during the dry season. This can also have a subsequent impact on the livelihoods of the pastoralists, especially during the dry seasons when pasture and water are scarce.

3.4.5 Environment and Disaster Management

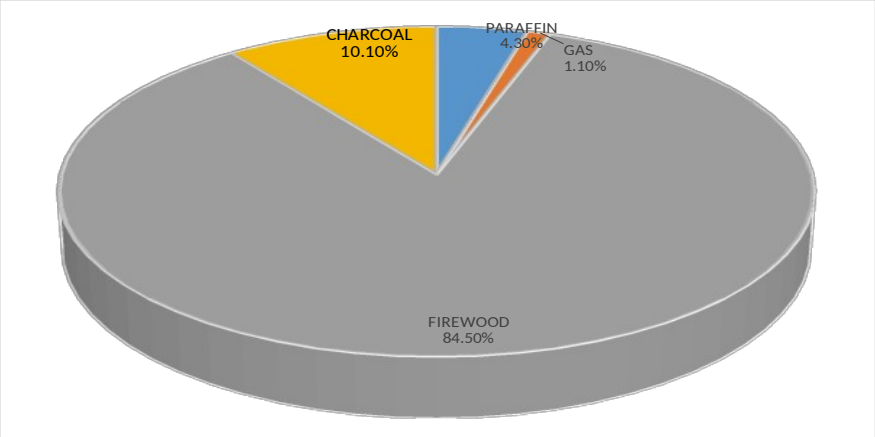
Land Use Effects on the Environment

Energy use

A field survey revealed that a majority, 84.5%, of households in the town use firewood as a source of cooking energy, while 10.1% use charcoal. This accounts for a total of 94.6% of

households that are directly dependent on non-renewable, biomass sources of energy that are taxing to the natural resource base of the town and its hinterland.

Chart 3-25: Sources of Cooking Energy



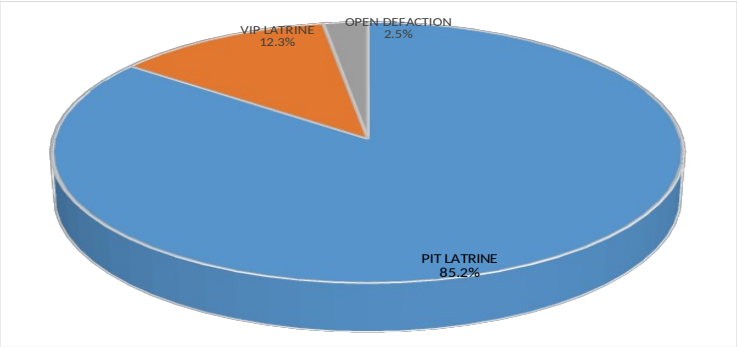
Source: Field Survey, 2019

Dependence on primitive fuels, especially firewood for cooking, has a negative impact on the environment in terms of depletion of vegetation cover and air pollution caused by carbon emissions from burning fuels. It also poses a health challenge to households that use these fuels for cooking, exposing them to the risk of upper respiratory tract diseases.

Liquid waste disposal

Habaswein Town lacks a sewerage reticulation system; therefore, residents depend highly on pit latrines for liquid waste disposal. The town relies on groundwater stored in the Merti aquifer for domestic consumption. Extensive use of pit latrines can adversely affect the quality of the groundwater and the general health of residents of the town.

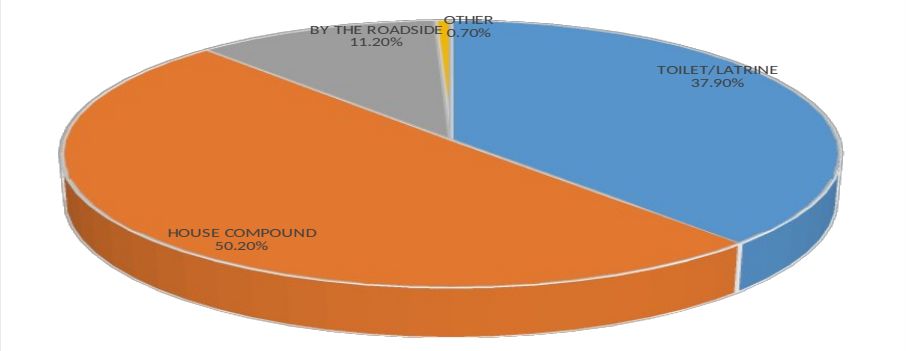
Chart 3-26: Liquid Waste Disposal



Source: Field Survey, 2019

Due to the lack of a sewerage reticulation system, residents of the town have resorted to openly disposing of wastewater (grey water). A field survey revealed that 50.2% of residents dispose of their wastewater within the house compound, while 37.9% channel this water to pit latrines. This further highlights the risk that can potentially be caused in terms of contamination of ground water due to infiltration of untreated liquid waste (grey and black waste water).

Chart 3-27: Liquid Waste Disposal Method

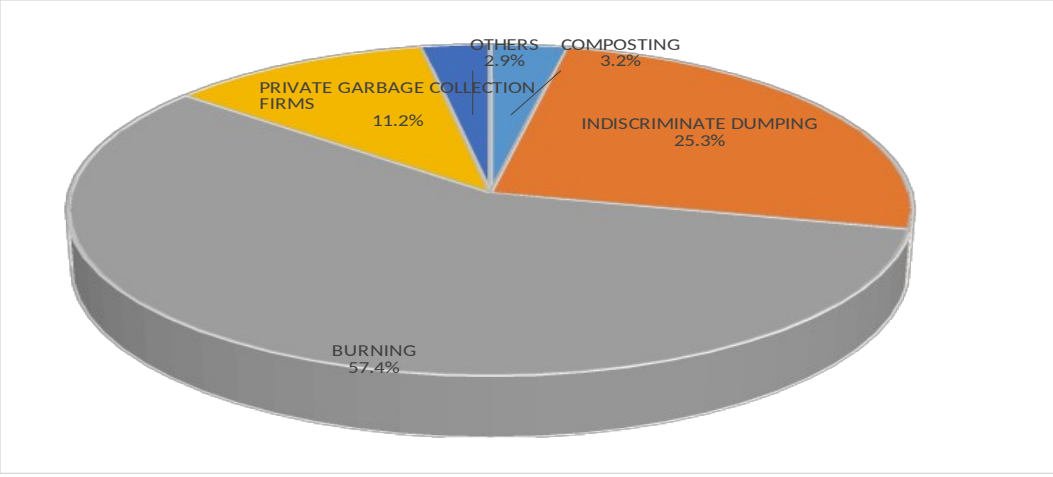


Source: Field Survey, 2019

Solid waste management

Habaswein Town lacks designated points for dumping solid waste/garbage. A field survey revealed that 57.4% of households in the town burn their household waste while 25.3% dump waste at points not designated by the town authority. This highlights the inefficiencies of solid waste management in the town. Only 2.9% of households in the town use other methods of solid waste disposal, including recycling and reusing.

Chart 3-28: Solid Waste Disposal Methods



Source: Field Survey, 2019

Plate 3-27: Solid Waste Disposal Sites

Source: Field Survey, 2019

Disaster Management

Drought

Communities living in these ASALs understand drought well and adapted to these harsh conditions in various ways. Pastoralism is the main source of livelihood for these communities. Pastoralism informs the wealth of communities living in the ASALs; therefore, drought highly affects the livelihood of these regions. The National Drought Management Authority (NDMA) in Wajir Municipality issues early drought warnings and monthly bulletins for the county's drought. Poor management of water catchment areas, inappropriate soil conservation measures, deforestation, and land degradation cause increased frequency of droughts. Wajir County is a drought-prone zone, and this has been witnessed as recently as this year, 2019, when the County was classified to be on the "*alarm drought phase*". Urban areas, and especially Habaswein, can play an important role in disaster response and management. They can be used as focal points for disaster response and resource mobilisation, requiring proper reinforcement through urban improvement.

Flooding

Flooding in Habaswein Town is characteristic during the long rainy seasons due to the town's proximity to the Ewaso Nyiro River basin. The town does not have a stormwater drainage system and is prone to surface run-off, which creates grooves across the town whenever heavy rains occur. This causes seasonal mobility challenges within the town and the destruction of houses built on the paths created by high-speed surface run-off.

Fire preparedness

Wajir County has only one fire station located in Wajir Municipality. This poses a challenge to rapidly urbanizing towns, such as Habaswein. However, accessibility is also challenging as the road linking the town to Wajir Municipality has a poor surface.

Waterborne diseases

A lack of a sewerage reticulation system coupled with the use of pit latrines occasioned by flooding during the rainy season poses a high risk of waterborne diseases at a large scale, considering the town lies on an aquifer which is the main source of domestic water for the town.

3.4.6 Lag Dima Market Centre

This centre is approximately 6.61km from Habaswein Sub-County Hospital along the Isiolo-Wajir (A13) highway. The centre is a major stop for lorry trucks on the way to Wajir. It is located along the flood plain of a seasonal river, *Lag Dima*, where the centre gets its name.

There are two hotels located along the Isiolo-Wajir (A13) highway, including the Hotel Lagdima and the New Lag Dima Restaurant as a result of the attraction from long-distance drivers making a stop at the centre as opposed to Habaswein. A small fresh produce market exists in the centre opposite the primary school. The market is, however, not currently functional.

Plate 3-28: Lag Dima Restaurant and Fresh Produce Market

Source: Field Survey, 2019

The centre has one primary school, Lag Dima Primary School, with a borehole and a pumping station awaiting commissioning before use. The school uses solar energy as a source of lighting energy.

Plate 3-29: Lag Dima Primary School

Source: Field Survey, 2019

There exists a dispensary within the settlement. The dispensary has beds for examination, drugs and a laboratory. The dispensary uses solar energy for lighting.

Plate 3-30: Lag Dima Dispensary

Source: Field Survey, 2019

Housing within the market centre consists mainly of single detached bungalows and traditional huts (herios). Use of bricks for construction is prevalent.

Plate 3-31: Housing Typologies (Lag Dima)

Source: Field Survey, 2019

The main water source for residents of the centre is through a borehole. The borehole has a functional pumping station. The market centre is mainly dependent on solar energy for lighting. Lag Dima is not connected to the local electricity grid from Habaswein.

Plate 3-32: Borehole (Lag Dima)

Source: Field Survey, 2019

The location of the centre along the Lag Dima poses a great environmental challenge due to the area's susceptibility to seasonal flooding.

Potential of the Centre

1. Small logistics centre for long-distance cargo trucks.
2. Commercial node due to its attraction to long-distance truck drivers.

3.5 Urban Management

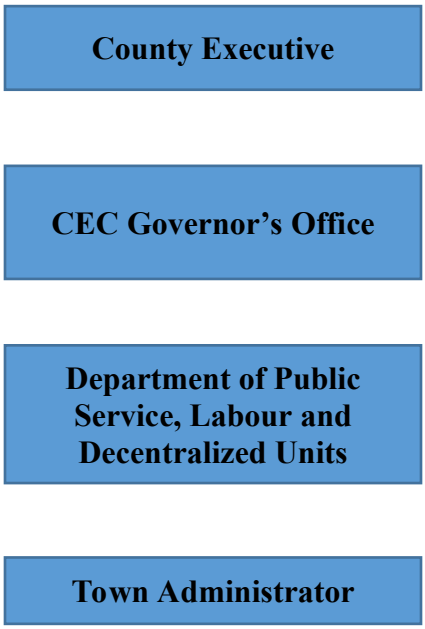
Governance

The management of a town is vested upon a town committee, which prescribes the functions of a town administrator. Public participation through the involvement of the resident population is also paramount. The current management structure of Habaswein Town is as described below.

Current Town Management Structure

Section 31 (1 and 2) of the Urban Areas and Cities (Amendment) Act (UACA) stipulates the appointment of a town administrator through the county public service board. However, his/her duties are determined by a town committee as per the Urban Areas and Cities (Amendment) Act section 31 (3). Within this law, Wajir County appointed a town administrator for Habaswein Town, whose office is located in the town.

Figure 3-1: Town Administration Organogram



Source; Department of Lands and Physical Planning

The organogram for town administration in the county is shown in Figure 3 -1.

Habaswein Town lacks a town committee. The absence of a town committee to prescribe the functions of the town administrator highlights a disparity in the town's management. A town committee is appointed by the county governor and approved by the county assembly. Upon formulation of a town committee, the following are the functions that it is supposed to perform:

- Oversee the affairs of a town.
- 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 centres, residential areas, recreational areas, parks, entertainment, passenger transport, agriculture, and freight and transit Adopt policies and plans.
- Promote and undertake infrastructural development.
- Develop and manage schemes, including site development, in collaboration with the relevant national and county agencies.

- Maintain a comprehensive database and information system of the administration and provide public access to it upon payment of a nominal fee to be determined by the board.
- Settle and implement tariffs, rates and tax and debt collection policies as delegated by the county government.
- Monitor the impact and effectiveness of any services, policies, programmes or plans.
- Promote a safe and healthy environment.
- Facilitate and regulate public transport.

The town lacks a stakeholder or resident committee to communicate and represent the views of the town residents when called upon. The town administrator, ward administrator, and chiefs have been charged with mobilising the town's stakeholders during stakeholder participation/involvement exercises.

Rights of Stakeholders/Residents in Town Management

- Contribute to decision-making by submitting written or oral presentations or complaints

3.6 Summary of Emerging Issues

Table 3-13: Summary of Emerging Issues

EMERGING ISSUES	RECOMMENDATIONS
Housing	
• Lack of a development plan and regulations to guide housing • Lack of a waste management system • Inadequate water supply • Low investment in housing • High cost of modern building materials due to long distances • Lack of land ownership documents	• Formulate a housing policy for the county • Initiate low-cost housing programmes • Introduce alternative affordable building materials • Provide service infrastructure such as a sewer, a water supply system, stormwater drainage, solid waste management infrastructure, etc. • Initiate the process of land allocation and registration.
Environment	
• Environmental degradation • Pollution and reduction in vegetation cover.	• Provision of Subsidies to promote the use of alternative renewable energy sources, e.g., solar panels and LPG and energy saving *jikos*. • Sensitization campaign on integrated waste management practices, i.e., waste reduction, re-use and recycling. • Enforcement of environmental laws regarding water resources, vegetation cover and rehabilitation of water pans
Storm Water Drainage	
• Lack of drainage and sewer system within the town. • Flooding during the rainy season caused by a lack of drainage systems • The use of pit latrines for liquid waste disposal in the town has an underlying effect on groundwater quality.	• Construct a drainage network intertwined with the road network • Construct drainage networks in flood-prone areas • Relocate structures on the drainage way leaves and flood-prone areas • Build gabions along the areas adjoining the flood plain to protect the built-up areas from damage • Undertake regular clean-up of the drainage channels • Conduct routine maintenance and cleaning of the storm water drains by developing adequate trap mechanisms in surface water

EMERGING ISSUES	RECOMMENDATIONS
Water Supply	
• The lack of a centralized water service provider in the town has a bearing on water connection costs, a network of pipes for distribution and a standardized way of water treatment and distribution • Conflict between domestic and livestock water needs during dry seasons. • Over-reliance on boreholes from different points in the town can result in excessive and unregulated water extraction from the aquifer, thereby causing an imbalance with its recharge and supply capacity in the long term.	• Sensitization programs on water conservation and rain water harvesting • Separation of domestic water points from livestock water points. • Creation of an overall water service provider to manage and maintain water bodies
Electricity and Energy	
• Insufficient electricity supply • Sporadic power outages. • High cost of electricity as well as household connection charges	• Develop a Wind and Solar Energy Harvesting and Production farm to supplement the current power substation and reduce costs. • Encourage private sector participation in exploring possibilities that increase the supply of sustainable energy sources. • Provision of subsidies to promote alternative renewable energy sources, e.g., solar panels and LPG and energy saving *jikos.* • Install and maintain solar-powered streetlights throughout the town • Enforce regulations relating to the preservation of power way-leaves
Sewer and Sanitation	
• Lack of sewerage infrastructure for liquid waste management. • Indiscriminate dumping of solid waste	• Provide/construct a sewer reticulation to cover the entire planning area. • Establishment of designated dumping sites • Procurement and positioning of litter bins at key places in the town to prevent littering. • Regular maintenance of the sewerage line and treatment plant

EMERGING ISSUES	RECOMMENDATIONS
Education	
• Inadequate schools. • In schools, inadequate infrastructure and equipment, such as laboratories, lighting, technical equipment, etc., are needed to facilitate learning. • High school drop-out rate, with the prevalence being higher among girls at 60%. • Shortage of teachers due to perceived insecurity concerns in the North Eastern region. • The nomadic pastoralism lifestyle affects both the enrolment, transition and dropout rates in the county and the town. • The county releases funds untimely to ECDE centres to facilitate learning.	• Construction of more schools (while ensuring an even distribution), laboratories, provision of electricity and other facilities necessary for learning. • Education sensitization programs. • Ensure adequate security in the town to create a safer working environment. • Incentives and subsidies should be provided to attract investors and professionals in the town to assist in the education sector. • Construction and upgrading of the current polytechnic. • Advocate for more staff in the schools. • Encourage and facilitate participation of the private sector, religious institutions and other key stakeholders in providing education facilities and services. • Intensify inspection and supervision to ensure proper registration in schools.
Health	
• Inadequate drugs • Inadequate medical staff. • Lack of specialist doctors • Lack of incinerators to dispose of medical waste.	• Establishment of more health facilities • Provide adequate medical staff and health facilities such as beds, wards and medicine • Expansion, maintenance and rehabilitation of existing health facilities • Install an incinerator in every health facility
Transportation	
• Poor road surface conditions • Many roads lack support infrastructure (drainage systems), leading to flooding during the rainy seasons • Lack of terminal and parking facilities • Lack of non-motorized facilitating infrastructure such as pedestrian walkways and cycle ways. • Uni-modal transportation system (road	• Upgrading of Isiolo-Wajir (A13) highway to bitumen standards • Construction of transport terminals like bus parks and provision of street car parks • Construction of proper drainage systems on both sides of major roads and in the residential neighbourhoods. • Upgrading of all intra-connector roads to gravel standards.

EMERGING ISSUES	RECOMMENDATIONS
only) • Inadequate road transport network that limits connectivity	• Construction of non-motorized transport infrastructure that includes walk ways and cycle ways • Upgrading Habaswein airfield to a well-equipped and functional airstrip • The partnership between Wajir County government and other partners like KeNHA, KeRRA, and KURA in upgrading and maintenance of roads to standard • Formation of a passenger welfare committee to regulate the public transport sector through the formulation of favourable policies
Economy	
• The scale of electrical production is inadequate for promoting power-consumptive industrial activities. This is attributed to the infrequent power outages in the town. • Flooding during the rainy season hampers the movement of agricultural extension officers' ability to administer services during peak time of agricultural production. • Crop and livestock conflicts especially during the dry months when water becomes scarce. • Transportation/mobility issues (poor roads and minimal transportation facilities) hamper exposure to other regions in Kenya for best practices. • Break of link between research stations, the county implementing departments and farmers/pastoralists. • Drought and erratic rainfall patterns hampers crop and livestock production at large and sustainable scales.	• Set up an agricultural research and development station within the town to help develop human capital on agriculture (livestock production). • Develop parking slots within the commercial zone for revenue collection. • Allow densification within the commercial zone in order to maximize the issuance of business permits. • Increase the quality and reach of technical support through setting up technical institutions and providing necessary support such as staffing, equipment, and facilities. • Construction of larger capacity earth dams to cater for crop and livestock production.
Governance	

EMERGING ISSUES	RECOMMENDATIONS
• Inadequate capacity of the physical planning department • Lack of a development control department • Lack of a public participatory policy • Inadequate resource allocation for the town • Lack of a town committee and hence a limitation on the duties of the town administrator.	• Institute a town committee to define the roles of the town administrator. • Institute a development control unit within the department posted in the town. • Recruit additional qualified staff to oversee conformity to the plan • Hold continuous professional development for county staff • Establish a public information management system to facilitate knowledge-sharing between authorities and residents. • Establish citizen sub-committees to safeguard the town's intentions and land uses.

PART IV: PLAN PROPOSALS

4 PLAN PROPOSALS

4.1 Overview

Given the challenges inherent in the town, presented in Chapter Three (3), 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. This chapter presents the proposed land use plan, the zoning plan and the improvement strategies that contain projects geared toward improving the town.

4.1 Structure Plan

Background

The Planning area is categorized into nine broad land uses as shown on Map 4 -10 and Map 4 -11 (**The Structure Plan**). These land uses contain proposals in terms of projects and facilities that the projected population for Habaswein Town for the year 2033, projected to be 52,996 people, shall require as well as prescriptions in the form of regulations for maintaining order. The aim is to create an environment that enables commercial, residential, and industrial purposes.

The following are the factors that have informed the land uses in the structure plan:

i. **Land optimisation**- This is among the leading principles used for zoning, with the aim being to efficiently use land available through the promotion of vertical and infill development (densification) within the built-up area. This will thus result in compact, self-sufficient, broad land-use zones with a mixture of aesthetics and user-friendliness while freeing space for future development.

ii. **Previous planning efforts,** especially the approved Habaswein short-term development plan of 1978. The land uses, such as the high-density residential neighbourhood on the Ademasajida side of the town adjoining the police station, captured in the previous plan have been maintained by the resultant plan.

iii. **The population needs** derived from stakeholder engagement and requirements outlined in the Urban Areas and Cities (Amendment) Act, 2019. This resulted in the allocation of land for such facilities and activity areas such as an industrial zone to promote employment and local manufacturing potential, a sports complex for recreational purposes, proposed wastewater treatment works and a landfill for the town's sanitation needs, a bus park to promote order in public transportation as well as open spaces for improvement of the town's aesthetics and "breathing" among others.

Description of the Land Use Proposals

1. ***Residential-*** Divided into three exclusive zones for explicit residential purposes depending on the density and type of developments allowed. The zones include;

    i. ***Proposed High Density Residential Area-*** Located on either side of the Isiolo-Wajir (A13) highway adjacent to the proposed commercial nodes. These zones shall aim to house the town's population and act as areas for settlement for those working within the proposed commercial district. The zone shall contain developments with multiple floors (three, 3), each expected to house more families. Planning interventions for these areas include:

- Access roads are to have a width of 9-12m, while secondary roads linking the area to major arterial roads are to have a width of 18-21m.
- Local distributor roads direct traffic within the area to major arterial and secondary roads that have a width of 15-18m.
- Adequately service area with electricity and street/flood lights, storm water drainage infrastructure, water and a sewer reticulation system.
- Open areas/neighborhood parks for recreation

    ii. ***Proposed Medium Density Residential Area-*** This is covered by the area opposite the airstrip all the way to and beyond Habaswein Secondary School. Another area is bound by the proposed buffer of the Habaswein airstrip, Kiwanja Ndege Primary school, the KPLC power substation, and the Isiolo-Wajir highway.

    In the Ademasajida neighbourhood, the area is to the upper side of the Ademasajida Primary School. Development in this zone shall be explicitly residential, allowing for a maximum of two (2) floors. Planning interventions for these areas include:

- Access roads to have a width of 9-12m while secondary roads linking the area to major arterial roads to have a width of 18-21m.
- Local distributor roads direct traffic within the area to major arterial and secondary roads that have a width of 18-21m.
- Open areas/neighbourhood parks for recreation
- Adequately service the area with electricity, street/flood lights, stormwater drainage infrastructure, water, and sewer reticulation system.
- Institute garbage collection points/disposal sites and subcontract groups/companies/institutions to clean the areas regularly.

iii. Proposed Low-Density Residential Area- This zone forms the fringes of the developed area. It also acts as the proposed zone for the town's future development. They are as shown in the structure plan (see Map 4-1). Planning interventions for these areas include:

- Access roads are to have a width of 9-12m, while secondary roads linking the area to major arterial roads are to have a width of 18-21m.
- Open areas/neighbourhood parks for recreation
- Adequately service the area with electricity, street/flood lights, stormwater drainage infrastructure, water, and sewer reticulation system.
- Institute garbage collection points/disposal sites and subcontract groups/companies/institutions to clean the areas regularly.

iv. Proposed Special Investment Zone- Located off the Wajir-Dadaab (C293) road past the Habaswein Secondary school, this zone is specifically highlighted for accommodating and attracting investment to the town. The zone comprises low residential density with adequate room for movement and recreation. The total area covered by the zone is 62.79Ha. Planning interventions for this area include:

- Access roads serving this area are to have widths of 9m, while secondary roads linking the residential area to major arterial roads are to have a width of 18-21m
- Roads servicing the area should have drainage facilities.
- Open areas/neighbourhood parks for recreation.

- Adequately service this area with electricity, street/flood lights, stormwater drainage infrastructure, water, and a sewer reticulation system.
- Institute garbage collection points/disposal sites and subcontract groups/companies/institutions to clean the area regularly.
- Provide a primary, secondary, and Islamic Centre for the young.
- Provide a dispensary to serve the anticipated resident population.

2. ***Industrial-*** This land use has two proposals based on the potential the town has in terms of livestock produce processing and small-scale industrial activities. The zone is divided into:

    i. ***Proposed Abbatoir***- One slaughterhouse is located in Ademasajida on an isolated land off the Habaswein-Moyale road, it has a proposed total area of one (1) hectare. This facility shall be used for lower-level slaughter purposes. The main slaughterhouse for the town shall be located off the Habswein-Dadaab road opposite the Zeytun Farms. The facility will be used for large-scale slaughter of livestock and processing livestock products. The following are proposed within the site:

- Separate the slaughter slab/house from the holding bay.
- Service the site with water and electricity.
- Set up an animal control office within the site to offer quality control services to the facility.
- Buffer the site with trees.

    ii. ***Proposed Light Industrial Area-*** Also located in Ademasajida is a light industrial area intended to house activities such as food processing industries, furniture and welding enterprises, and warehousing/godowns, among other compatible light industrial activities. The proposed interventions highlighted for this land use include:

- Service the area with trunk infrastructure, including electricity and street lighting, stormwater drainage infrastructure, and water and provide a sewer reticulation system.
- Construct a 21m road around the proposed light industrial area to buffer the industrial zone and hinterland. Access roads within the area are to have a minimum width of 12m.

- Provide waste management by instituting garbage collection firms to handle industrial waste.
- Provide a power substation or higher capacity (step-up) power transformers to serve the zone.
- Provide toilets for the general public.

3. ***Educational-*** This land use contains a mixture of existing primary, secondary and tertiary institutions as well as two proposed educational facilities each in the primary and secondary category, covering a total area of 129.72Ha. The existing primary and secondary schools should be adequately fenced and connected to requisite infrastructure such as water and electricity. Existing secondary schools should also be improved by providing necessary infrastructure and equipment such as sanitary ablution blocks, classrooms, laboratories and dormitories. The proposed primary and secondary schools should also be adequately fenced and cover the provided area. These facilities should also be serviced with water and electricity (preferably solar electricity). Requisite infrastructure such as sanitary ablution blocks, classrooms, laboratories, and dormitories are to be provided.
4. ***Recreational-*** This land use comprises two proposals: a sports complex along the Habaswein-Dadaab (C293) road and open spaces and playgrounds within all the residential neighbourhoods. For the sports complex, the road leading to the facility to be tarmacked to increase accessibility and promote frequent use of the facility. Provide a higher-capacity power transformer to serve the facility. However, using renewable solar energy is highly encouraged within the facility. The sports complex should also be connected to a stormwater drainage, a sewer reticulation system and water. Open spaces and playgrounds to be fenced. Benches with shade to be provided. Sites are to be lit with solar-powered high masts to encourage use at night.
5. ***Public Purpose-*** This land use contains facilities both existing and proposed for public purpose, covering a total area of 72.27Ha. Existing facilities within this zone include the Habaswein Sub-County hospital, the police station, Ademasajida Dispensary, the social hall, a proposed Appropriate Building Technology Centre (ABTC), an existing civic area, and a proposed health centre. The proposed interventions highlighted for this land use include:
    - All existing health facilities (Habaswein Sub-County Hospital and Ademasajida Dispensary) must be adequately furnished and equipped. Facilities such as

laboratories and wards must be increased and provided where unavailable. The structure plan indicates that the sub-county hospital area should be increased to 8.7 ha. The facilities should also be adequately equipped with solar harvesting equipment to supplement their power needs and ensure constant supply.

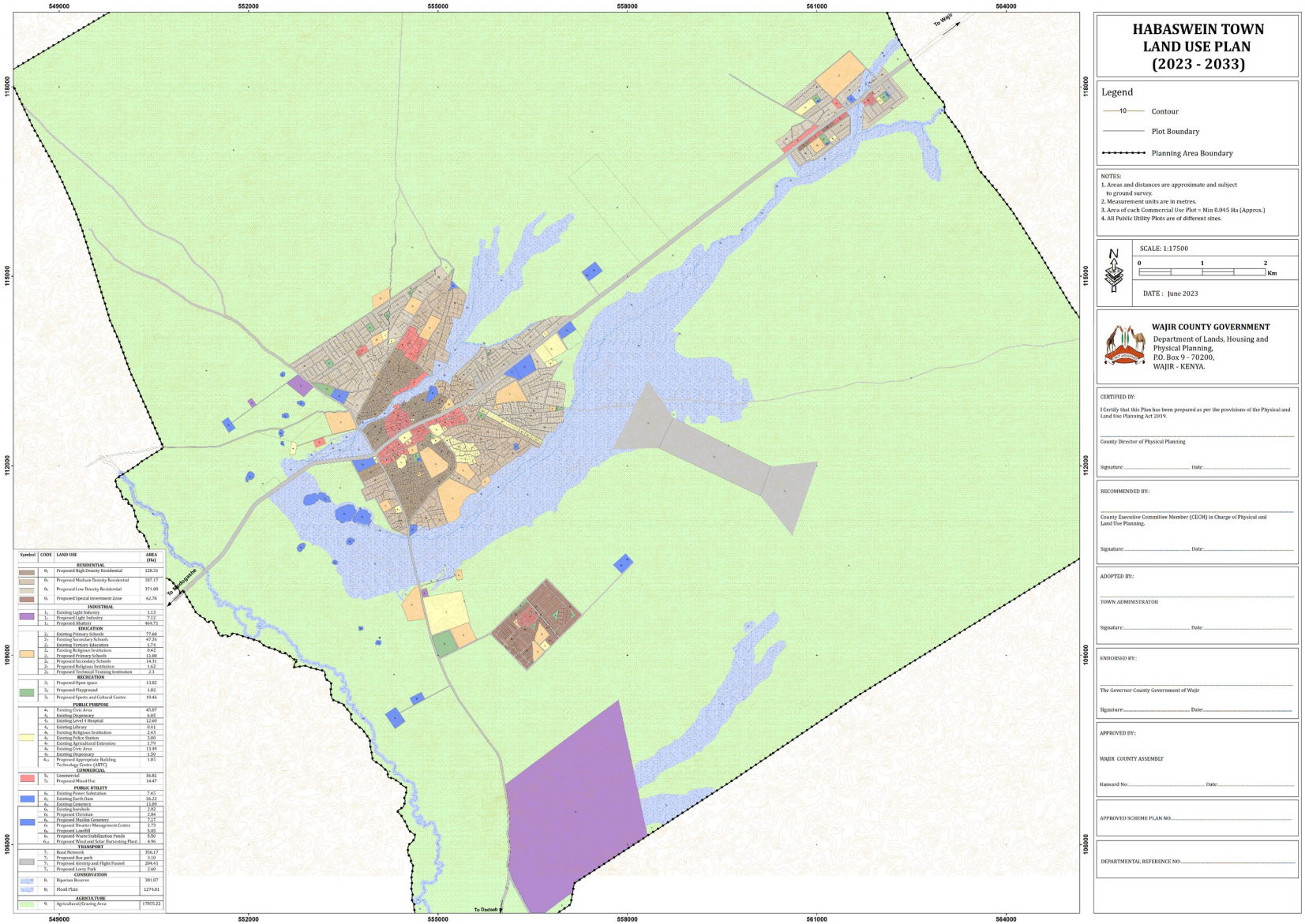
- Provide and improve facilities and equipment in the library, such as toilets, the catalogue section and the information technology section, to enhance current use.
- Furnish all public offices with requisite infrastructure and equipment such as electricity, chairs, tables, computers, and cabinets.

6. ***Commercial-*** The plan proposes an exclusive commercial and a mixed-use (commercial cum residential) area. The exclusive commercial land uses are highlighted in Map 4 -10, and Map 4 -11. A mixed-use area adjacent to Ademasajida primary school has been proposed. The commercial areas should all have back lanes of 6 metres and be adequately serviced with infrastructure including electricity and street lighting, stormwater drainage infrastructure, water and a sewer reticulation system.
7. ***Public Utility-*** This land use contains ten (10) categories of both existing and proposed public utility amenities/infrastructure, including the existing power substation and a proposed wind and solar harvesting farm adjoining it, public boreholes, two proposed landfills located on each of the two neighbourhoods (Ademasajida and Habaswein) to cater for the town's solid waste management needs, proposed Muslim and Christian cemeteries as well as proposed waste stabilization ponds (Oxidation Ponds). The sanitary landfills and waste stabilization ponds are to be densely buffered with trees. The facilities mentioned above under this land use cover a total area of 78.04 Ha.
8. ***Transportation-*** This zone comprises the road network, the proposed airstrip (buffered and has a flight funnel), and a proposed bus park, as shown on map 4-1. The proposed bus park has been proposed to have a toll station at the entrance and exit points for revenue collection, with shaded areas and benches for passengers. The facility is to be buffered with trees and a road of 15m forming a ring around it. Public toilets and areas for small-scale commercial shops within the bus park are to be provided. The facility is proposed to be serviced with trunk infrastructure, including electricity and street lighting, stormwater drainage infrastructure, water and provide a sewer reticulation system.

The airstrip should be raised and reinforced accordingly. The site for the airstrip should also be adequately fenced, covering a total area of 203.57 Ha.

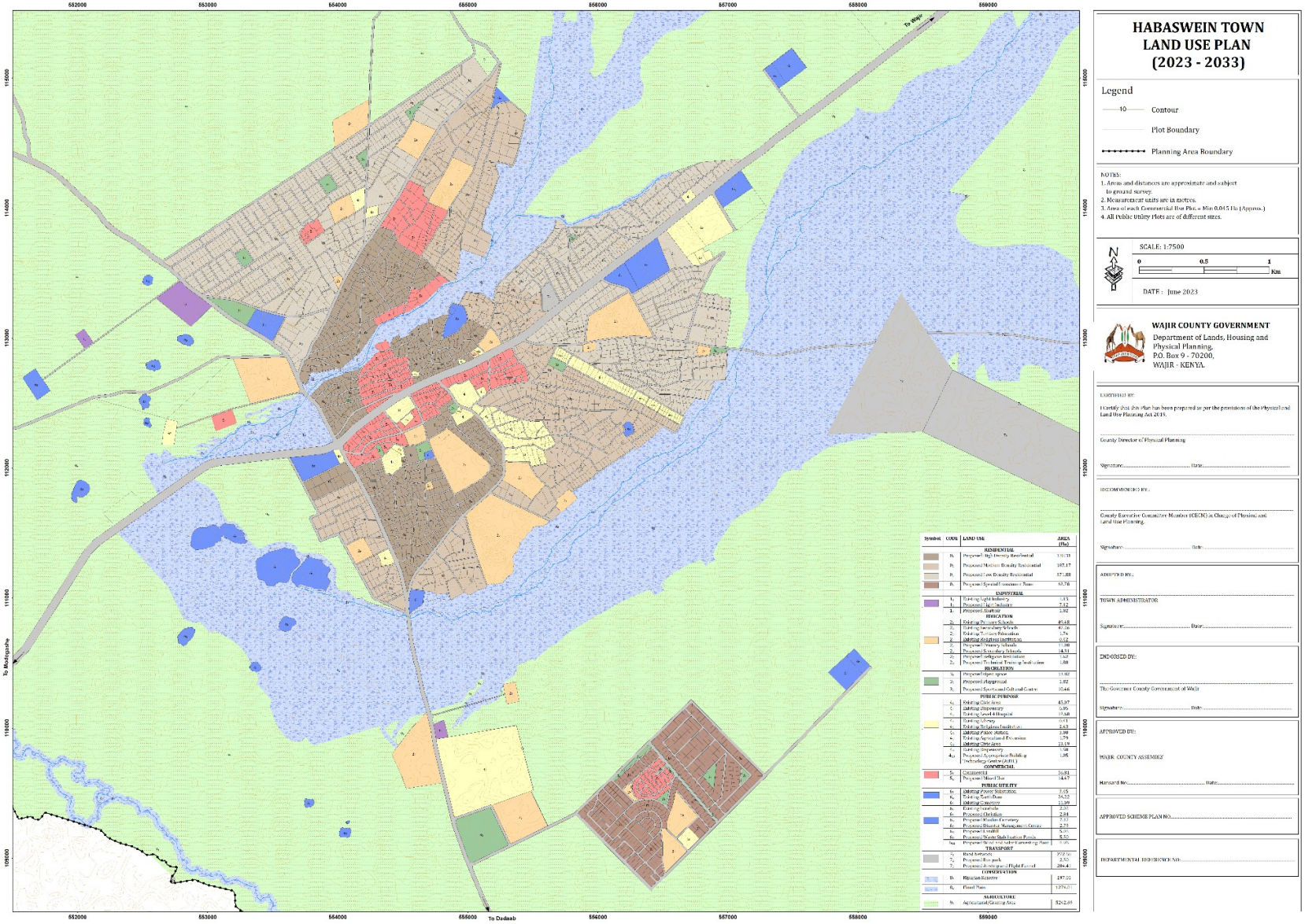
9. ***Conservation-*** This zone comprises the riparian reserve (Dry River and its buffer) and areas that have been identified as prone to flooding. These areas have been zoned explicitly for conservation purposes; therefore, no development will be encouraged within this zone. Gabions are to be constructed, especially along the built-up areas adjoining the riparian reserve.
10. ***Agricultural-*** This land use forms the town's hinterland and is to be reserved for crop cultivation and livestock grazing lands. Development along this zone is discouraged unless permitted under the zoning regulations as prescribed in section 4.2.1.

Map 4-10: Habaswein Town Structure Plan (1)



Symbol	CODE	LAND USE	AREA (Ha)
		RESIDENTIAL	
	0_1	Proposed High Density Residential	128.31
	0_2	Proposed Medium Density Residential	187.17
	0_3	Proposed Low Density Residential	371.88
	0_4	Proposed Special Investment Zone	62.70
		INDUSTRIAL	
	1_1	Existing Light Industry	1.13
	1_2	Proposed Light Industry	7.12
	1_3	Proposed Abattoir	464.71
		EDUCATION	
	2_1	Existing Primary Schools	77.66
	2_2	Existing Secondary Schools	47.56
	2_3	Existing Tertiary Education	1.74
	2_4	Existing Religious Institution	0.42
	2_5	Proposed Primary Schools	13.08
	2_6	Proposed Secondary Schools	14.31
	2_7	Proposed Religious Institution	1.62
	2_8	Proposed Technical Training Institution	2.1
		RECREATION	
	3_1	Proposed Open space	13.82
	3_2	Proposed Playground	1.82
	3_3	Proposed Sports and Cultural Centre	18.46
		PUBLIC PURPOSE	
	4_1	Existing Civic Area	45.07
	4_2	Existing Dispensary	6.05
	4_3	Existing Level 4 Hospital	12.60
	4_4	Existing Library	0.41
	4_5	Existing Religious Institution	2.43
	4_6	Existing Police Station	3.00
	4_7	Existing Agricultural Extension	1.79
	4_8	Existing Civic Area	13.49
	4_9	Existing Dispensary	1.50
	4_{10}	Proposed Appropriate Building Technology Centre (ABTC)	1.05
		COMMERCIAL	
	5_1	Commercial	59.81
	5_2	Proposed Mixed Use	14.47
		PUBLIC UTILITY	
	6_1	Existing Power Substation	7.45
	6_2	Existing Earth Dam	26.22
	6_3	Existing Cemetery	11.09
	6_4	Existing borehole	2.01
	6_5	Proposed Christian	2.86
	6_6	Proposed Muslim Cemetery	2.17
	6_7	Proposed Disaster Management Centre	5.03
	6_8	Proposed Landfill	5.78
	6_9	Proposed Water Stabilization Ponds	6.50
	6_{10}	Proposed Wind and Solar Harvesting Plant	4.96
		TRANSPORT	
	7_1	Road Network	356.17
	7_2	Proposed Bus park	3.10
	7_3	Proposed Airstrip and Flight Funnel	204.41
	7_4	Proposed Lorry Park	2.60
		CONSERVATION	
	8_1	Riparian Reserve	301.07
	8_2	Flood Plain	1279.01
		AGRICULTURE	
	9_1	Agricultural/Grazing Area	17055.22

Map 4-11: Habaswein Town Structure Plan (2)

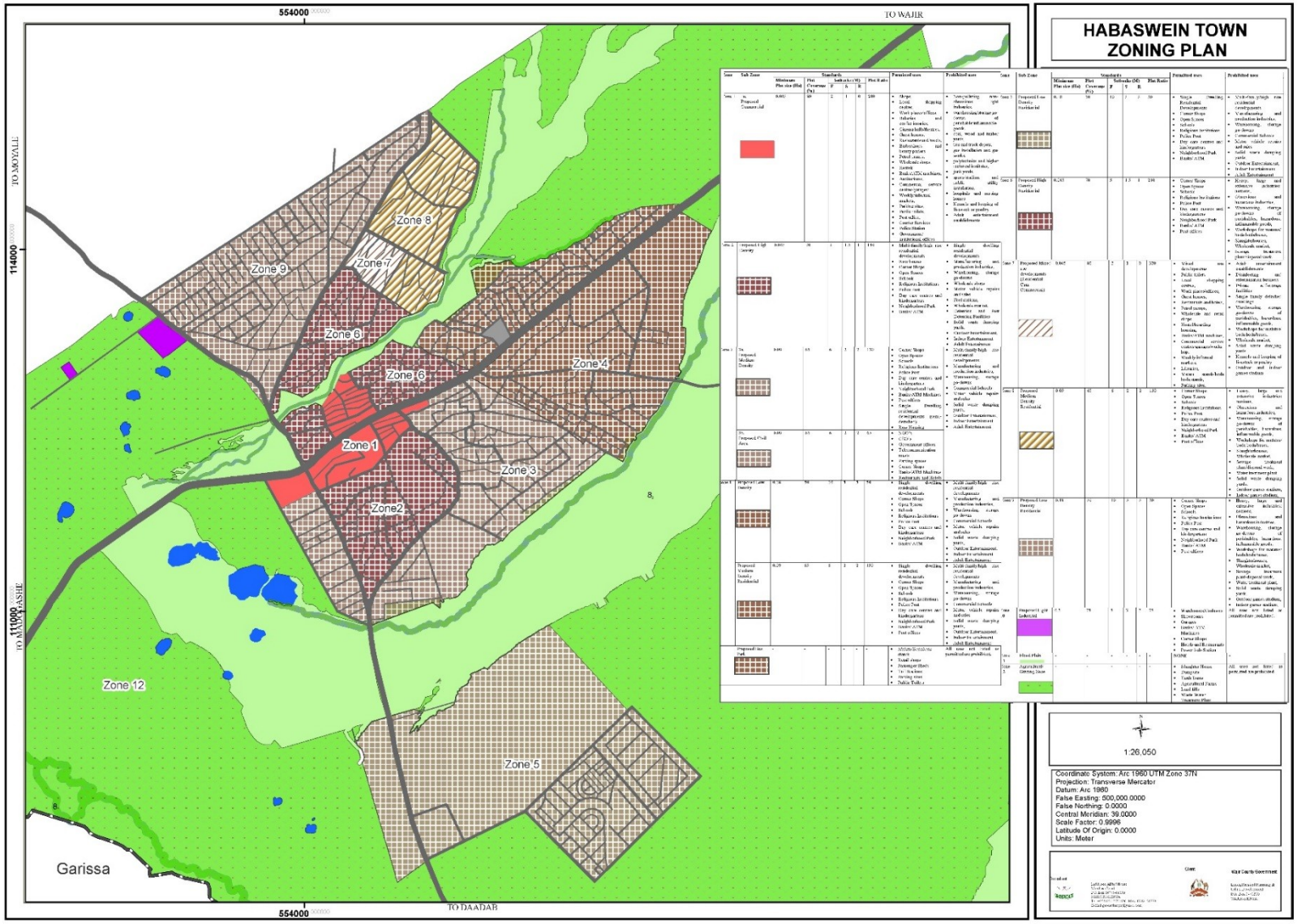


4.2 Proposed Land Use Zones

This section provides zoning regulations for zones proposed for the core 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;

i. Minimum Plot Size – Refers to a given plot's minimum allowed horizontal land area.
ii. Building Setbacks – The unobscured, unoccupied open area between the furthest 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.
iii. Plot Coverage – The percentage of the ground area of the plot covered by the structure (principal and accessory).
iv. Plot Ratio- The total built-up area ratio to the plot area.

Map 4-12: Habaswein Town Zoning Plan



4.2.1 Zoning Regulations

Zone	Sub Zone	Standards						Permitted uses	Prohibited uses
		Minimum Plot size (Ha)	Plot Coverage (%)	Setbacks (M)			Plot Ratio		
				F	S	R			
Zone 1	1a. Proposed Commercial	0.045	80	2	1	0	240	• Shops, • Local shopping centres, • Workplaces/offices, • Bakeries and confectionaries, • Cinema halls/theatres, • Guest houses, • Restaurants and hotels, • Barbershops and beauty parlours • Petrol pumps, • Wholesale shops, • Hostels • Banks/ATMs, • Auditoriums, • Commercial service centres/garages • Weekly/informal markets, • Parking sites, • Public toilets, • Post office, • Courier Services • Police Station • Government/ institutional offices	• Non-polluting, non-obnoxious light industries, • warehousing/storage go-downs of perishable/inflammable goods, • coal, wood and timber yards, • bus and truck depots, • gas installation and gas works, • polytechnics and higher technical institutes, • junk yards, • sports/stadium and public utility installation, • hospitals and nursing homes • Kennels and keeping of livestock or poultry • Adult entertainment establishments
Zone 2	Proposed High	0.045	70	3	1.5	1	140	• Multi-family/high-rise	• Single-dwelling

Zone	Sub Zone	Standards						Permitted uses	Prohibited uses
		Minimum Plot size (Ha)	Plot Coverage	Setbacks (M)			Plot Ratio		
				F	S	R			
	Density							residential developments • Row houses • Corner Shops • Open Spaces • Schools • Religious Institutions • Police Post • Daycare centres and kindergartens • Neighborhood Park • Banks/ ATM	residential developments • Manufacturing and production industries, • Warehousing, storage go-downs • Wholesale shops • Motor vehicle repairs and sales • Fuel stations, • Wholesale market, • Detention and Post-Detention Facilities • Solid waste dumping yards, • Outdoor Entertainment, • Indoor Entertainment • Adult Entertainment
Zone 3	3a. Proposed Medium Density	0.09	65	6	2	2	130	• Corner Shops • Open Spaces • Schools • Religious Institutions • Police Post • Daycare centres and kindergartens • Neighborhood Park • Banks/ATM Machines • Post offices • Single Dwelling residential developments (semi-detached) • Row Housing	• Multi-family/high-rise residential developments • Manufacturing and production industries, • Warehousing, storage go-downs • Commercial Schools • Motor vehicle repairs and sales • Solid waste dumping yards, • Outdoor Entertainment, • Indoor Entertainment

Zone	Sub Zone	Standards						Permitted uses	Prohibited uses
		Minimum Plot size (Ha)	Plot Coverage	Setbacks (M)			Plot Ratio		
				F	S	R			
	3b. Proposed Civil Area	0.09	65	6	2	2	65	• NGO's • CBO's • Government offices • Telecommunication masts • Parking spaces • Corner Shops • Banks/ATM Machines • Restaurants and Hotels	• Adult Entertainment
Zone 4	Proposed Low Density	0.18	50	10	5	5	50	• Single-dwelling residential developments • Corner Shops • Open Spaces • Schools • Religious Institutions • Police Post • Daycare centres and kindergartens • Neighborhood Park • Banks/ ATM	• Multi-family/high-rise residential developments • Manufacturing and production industries, • Warehousing, storage go-downs • Commercial Schools • Motor vehicle repairs and sales • Solid waste dumping yards, • Outdoor Entertainment, • Indoor Entertainment • Adult Entertainment
	Proposed Medium-Density Residential	0.09	65	6	2	2	130	• Single-dwelling residential developments • Corner Shops • Open Spaces • Schools • Religious Institutions • Police Post • Daycare centres and	• Multi-family/high-rise residential developments • Manufacturing and production industries, • Warehousing, storage go-downs • Commercial Schools • Motor vehicle repairs

Zone	Sub Zone	Standards						Permitted uses	Prohibited uses
		Minimum Plot size (Ha)	Plot Coverage	Setbacks (M)			Plot Ratio		
				F	S	R			
								kindergartens • Neighborhood Park • Banks/ ATM • Post offices	and sales • Solid waste dumping yards, • Outdoor Entertainment, • Indoor Entertainment • Adult Entertainment
	1b. Proposed Bus Park	-	-	-	-	-	-	• *Matatu/Bodaboda* stands • Retail shops • Passenger Sheds • Toll Stations • Parking sites • Public Toilets	All uses not listed as permitted are prohibited.
Zone 5	Proposed Low Density Residential	0.18	50	10	5	5	50	• Single Dwelling Residential Developments • Corner Shops • Open Spaces • Schools • Religious Institutions • Police Post • Daycare centres and kindergartens • Neighborhood Park • Banks/ ATM	• Multi-family/high-rise residential developments • Manufacturing and production industries, • Warehousing, storage go-downs • Commercial Schools • Motor vehicle repairs and sales • Solid waste dumping yards, • Outdoor Entertainment, • Indoor Entertainment • Adult Entertainment
Zone 6	Proposed High Density Residential	0.045	70	3	1.5	1	210	• Corner Shops • Open Spaces • Schools • Religious Institutions • Police Post	• Heavy, large and extensive industries: noxious, • Obnoxious and hazardous industries,

Zone	Sub Zone	Standards						Permitted uses	Prohibited uses
		Minimum Plot size (Ha)	Plot Coverage	Setbacks (M)			Plot Ratio		
				F	S	R			
								• Daycare centres and kindergartens • Neighborhood Park • Banks/ ATM • Post offices	• Warehousing, storage go-downs of perishables, hazardous, inflammable goods, • Workshops for matatus/ boda boda/buses, • Slaughterhouses, Wholesale market, • Sewage treatment plant/disposal work, • Water treatment plant, • Solid waste dumping yards, • Outdoor games stadium, • Indoor games stadium,
Zone 7	Proposed Mixed-use developments (Commercial Cum Residential)	0.045	80	2	1	0	320	• Mixed-use developments • Public toilets • Local shopping centres, • Workplaces/offices, • Guest houses, • Restaurants and hotels, • Petrol pumps, • Wholesale and retail shops • Hostel/boarding housing, • Banks/ATMs, • Commercial service centres/garages/workshops,	• Adult entertainment establishments • Disinfecting and extermination business • Private self-storage facilities • Single-family detached dwellings • Warehousing, storage go-downs of perishables, hazardous, flammable goods, • Workshops for matatus/ boda boda/buses, • Wholesale market, • Solid waste dumping yards • Kennels and keeping of

Zone	Sub Zone	Standards						Permitted uses	Prohibited uses
		Minimum Plot size (Ha)	Plot Coverage	Setbacks (M)			Plot Ratio		
				F	S	R			
								• Weekly/informal markets, • Libraries, • Matatu stands/boda boda stands, • Parking sites,	livestock or poultry • Outdoor and indoor games stadium
Zone 8	Proposed Medium-Density Residential	0.09	65	6	2	2	130	• Corner Shops • Open Spaces • Schools • Religious Institutions • Police Post • Daycare centres and kindergartens • Neighborhood Park • Banks/ ATM • Post offices	• Heavy, large and extensive industries: noxious, • Obnoxious and hazardous industries, • Warehousing, storage go-downs of perishables, hazardous, inflammable goods, • Workshops for matatus/ boda boda/buses, • Slaughterhouses, Wholesale market, • Sewage treatment plant/disposal work, • Water treatment plant, • Solid waste dumping yards, • Outdoor games stadium, • Indoor games stadium,
Zone 9	Proposed Low Density Residential	0.18	50	10	5	5	50	• Corner Shops • Open Spaces • Schools • Religious Institutions • Police Post • Daycare centres and kindergartens	• Heavy, large and extensive industries: noxious, • Obnoxious and hazardous industries, • Warehousing, storage go-downs of

Zone	Sub Zone	Standards						Permitted uses	Prohibited uses
		Minimum Plot size (Ha)	Plot Coverage	Setbacks (M)			Plot Ratio		
				F	S	R			
								• Neighborhood Park • Banks/ ATM • Post offices	perishables, hazardous, flammable goods, • Workshops for matatus/ boda boda/buses, • Slaughterhouses, Wholesale market, • Sewage treatment plant/disposal work, • Water treatment plant, • Solid waste dumping yards, • Outdoor games stadium, • Indoor games stadium,
Zone 10	Proposed Light Industrial	0.2	75	5	3	2	75	• Warehouses/Godowns • Showrooms • Garages • Banks/ ATM Machines • Corner Shops • Hotels and Restaurants • Power Sub-Station	All uses not listed as permitted are prohibited.
Zone 11	Flood Plain	-	-	-	-	-	-	NONE	-
Zone 12	Agricultural/ Grazing Zone	-	-	-	-	-	-	• Slaughter House • Dumpsite • Earth Dams • Agricultural Farms • Landfills • Waste Water Treatment Plant	All uses not listed as permitted are prohibited.

4.3 Sub-division Scheme Plan

The subdivision scheme plan is a requirement as per the Terms of Reference, the plan initiates the process of preparation of a comprehensive and interactive cadastral system to be used for;

- Preparation of a Land Information System
- Generating a plot register for the town will aid the survey process.
- Provision of land ownership documents
- Preparation of a valuation roll

The following factors were considered during the development of the scheme plan;

- Regularization of the existing properties.
- Population increase from 2023-2033.
- Balanced distribution of services.
- Creation of order, safety and aesthetics.
- Zoning regulations prescribed the plot sizes for different zones in the town.

The plan proposes and promotes standardization of land sizes for the various categories within the residential zones, as shown in the table below:

Table 4-14: Land Size per Residential Density

Zone	Land Size (Standard)
High Density Residential	0.03
Medium Density Residential	0.045
Low Density Residential	0.2

Source: Consultant's Edit

The total number of plots created for Habaswein Town, including the proposed Special Investment Zone, total to 4,146. This includes regularized plots, which amount to 2,515. The regularization considered the current plot boundaries. New plots created within the scheme plan are 1,212. Buildings affected due to the creation of access roads are 1,852. Lag Dima has a total of 560 plots created.

Table 4-15: Summary of Lot Allocations

Item	Commercial	High Density Residential	Medium Density Residential	Low Density Residential	Educational	Plots under Mixed Use (Commercial cum Residential)	Total no. of plots created
Regularized	456	606	672	677	16	88	
New Plots	269	0	175	761	7	0	
Sub Total	**725**	**606**	**847**	**1,308**	**23**	**88**	**4,146**

Map 4-13: Habaswein Town Scheme Plan

Map 4-14: Lag Dima Market Centre Scheme Plan

4.4 Urban Design

Urban design involves arranging and designing buildings, public spaces, transport systems, services, and amenities. It incorporates giving form, shape, and character to land uses in a town. Three components are herein earmarked for design. These include roads, recreational areas and the built-up areas.

4.4.1 Rationale for Urban Design

1. **Environmental conservation-** The proposed open spaces within the town and the seasonal rivers on either side of the built-up areas present an opportunity to preserve the natural environment. This can be done by planting trees and landscaping as recreational areas. This will help in improving the aesthetics of the town
2. **Efficient and inclusive transportation-** The road network for the town shall form an elaborate network that promotes efficient use of the proposed widths to cater to all road users, i.e., vehicular and pedestrian. Along the roads, it is designed that they shall form corridors for a green network through landscaping.
3. **Order in development-** Buildings heights within high-density residential areas and commercial zones shall be used to define the skyline of the town. Through regulated building lines, the alignment of buildings will be used to create orderliness within the built-up area.
4. **Distinction of areas of activity-** Residential and commercial buildings as well as civic areas will be used as defining elements for the town. Such will be seen through the differentiation of the building heights between the high-density residential and commercial zones, which have building heights of three (2) and four (3) floors, respectively. The civic areas will also display a distinct building design and organisational characteristics.

4.4.2 Design Interventions

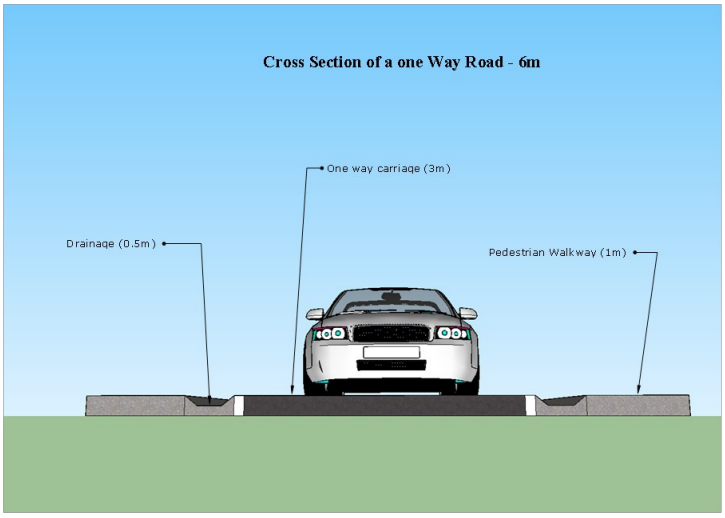
Road Transport

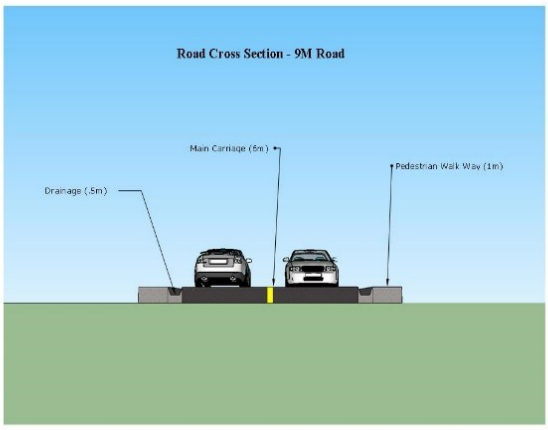
In order to promote efficient circulation/movement within the town, motorized and non-motorized transport will be integrated to form an elaborate inclusive transport network. This

shall be achieved through the provision of pedestrian walkways along all roads. 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 in terms of handling goods upon delivery. The visual representation is depicted in Plate 4-1. Service lanes only direct one-way traffic.

Plate 4-33: 6m and 9m Road Profile

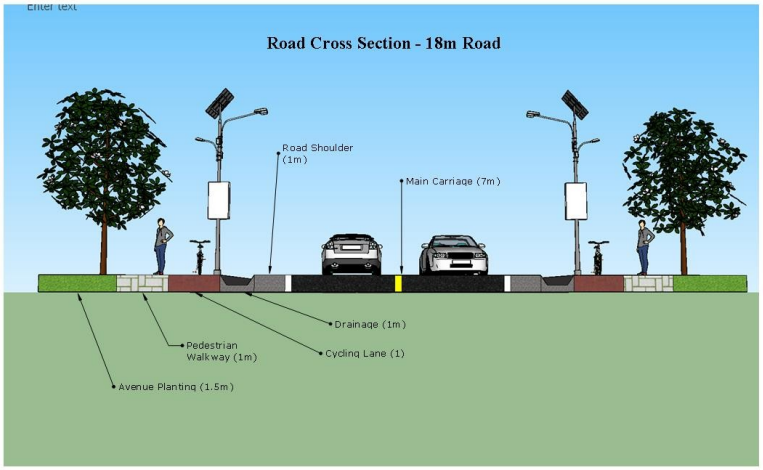




Local distributor roads shall have a width of between fifteen (15) to eighteen (18) metres. These roads shall distribute traffic from roads of greater functionality and width (secondary and primary roads). The roads shall be single carriageways of 6 metres split by road markings to

direct traffic and a shoulder of 0.5m. Drainage channels of 0.5 metres on either side of the roads shall be installed. A pedestrian walkway and cycle path shall also be constructed, each 1.5 metres long. Avenue tree planting covering a total width of one (1) metre is allocated to promote greening, provide shade along these roads, and improve the aesthetic appeal of the roads and town.

Plate 4-34: 18m Road Profile



The main road, Isiolo-Wajir (A13), has a proposed reserve (width) of 60m. The model for designing this road shall incorporate two dual carriageways (two lanes each) of seven (7) metres. These shall be between two service lanes, each of seven (7) metres for access to the town's built-up (activity) areas. The carriageways shall be separated by a median of six (6) metres, which shall be utilized for street lighting. A cycle lane and walkway, each 1.5 metres wide, shall be constructed after the construction of road drainage (on either side of the road) of 1.5 metres. This is as shown in Plate 4 -35. This shall only be incorporated for the road passing through Habaswein Town and Lag Dima market centre.

Plate 4-35: Isiolo-Wajir (60m) Raod Potential Profile

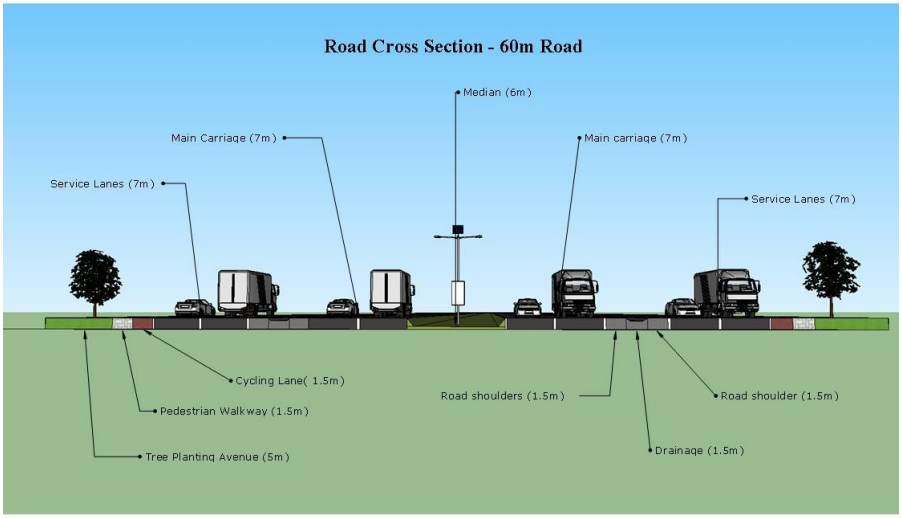
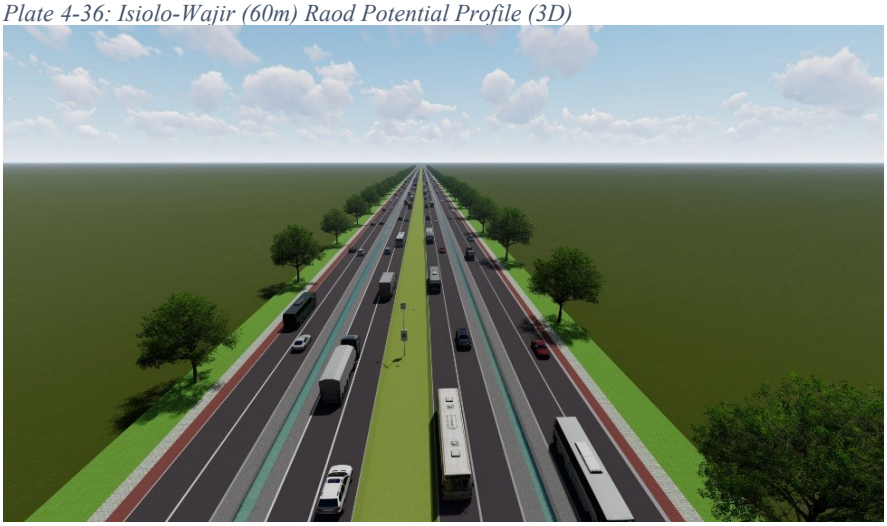


Plate 4-36: Isiolo-Wajir (60m) Raod Potential Profile (3D)



Recreation

To promote recreational activities, parks/open spaces will be designed to integrate children's playing facilities, directed walkways, manicured lawns with trees, adequate furniture such as seats/benches, and street lighting (solar powered). An area designated as a smoking zone should also be provided within each park. Monuments are to be included within the parks to offer the town an identity. The parks are to have public washrooms for both men and women.

Plate 4-37: Recreational Spaces

Plate 4-38: Artistic impression of a model park

Plate 4-39: Artistic impression of a model park

Built-Up Areas (Commercial and Residential Areas)

The design gives life to the building standards prescribed in the zoning regulations for the different activity zones. Building lines will be used to create orderliness in development, ensuring uniformity. This will ease the provision of trunk infrastructure such as electricity, sewer lines, and piped water. Maintaining the prescribed building lines will also promote better movement within the commercial and residential areas during times of emergencies and on regular interaction with space.

On-street parking is encouraged within the town, where the roads have a reserve of more than eighteen (18) metres.

Plate 4-40: Model of a serviced built-up area

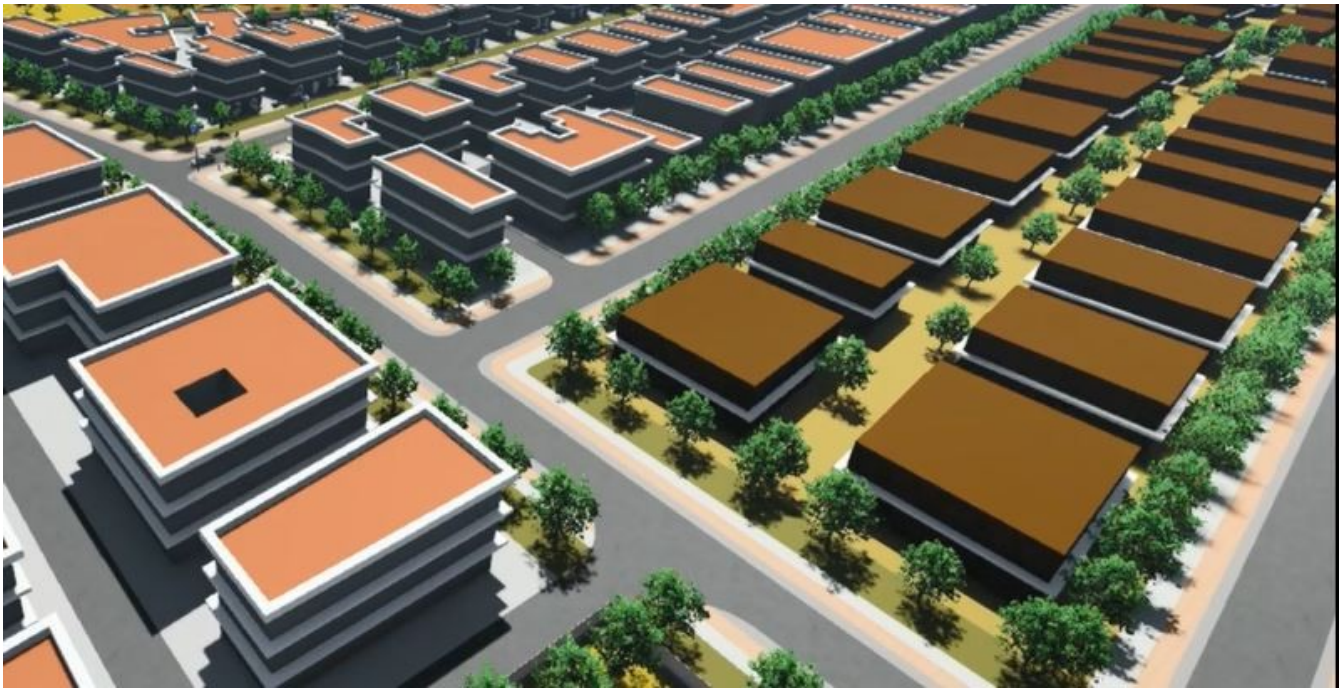


Plate 4-41: On-Street Car Parking

4.5 Urban Improvement Strategies

4.5.1 Transport Strategy

Strategy

Integrating and improving connectivity in the town.

Objective

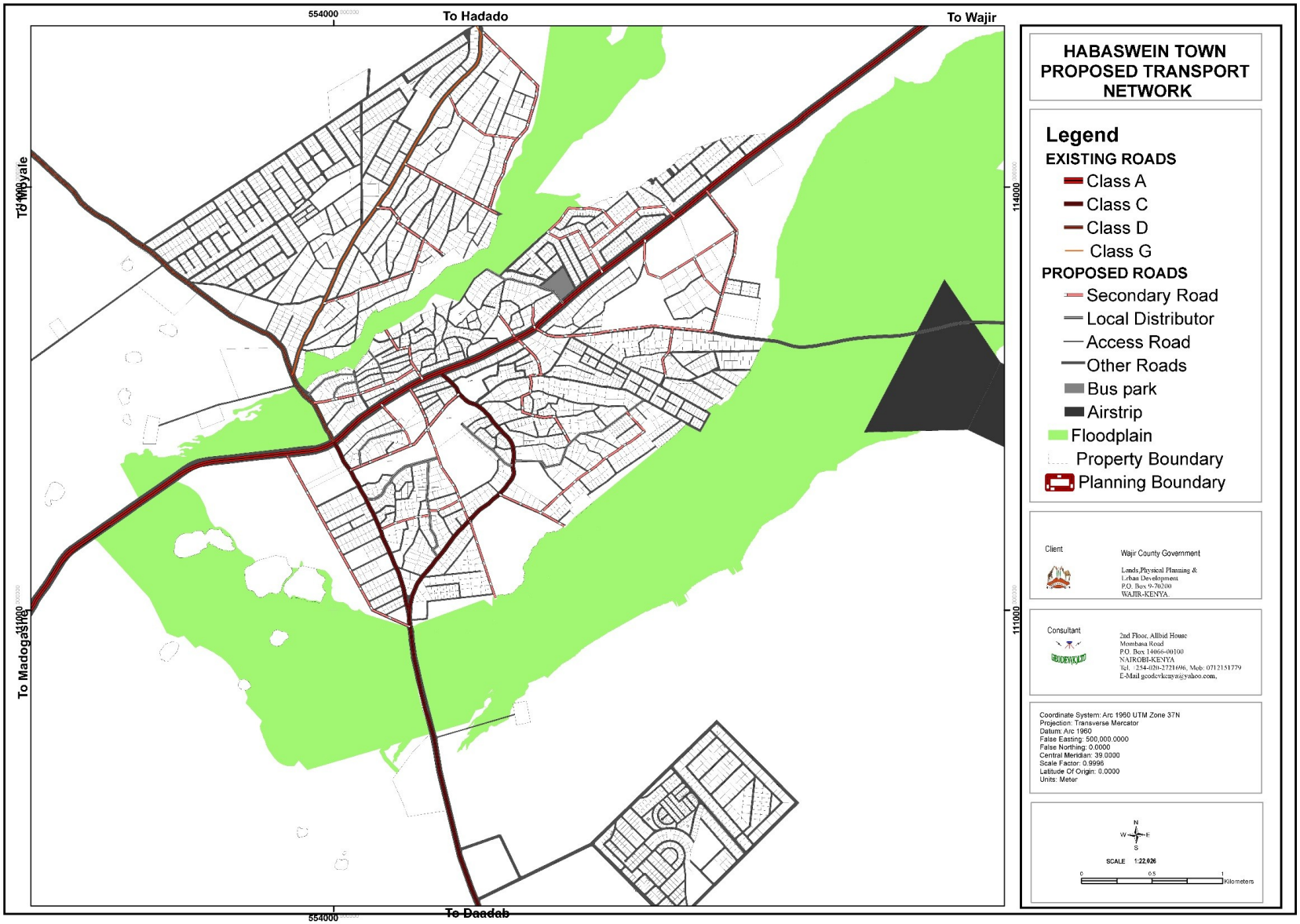
To integrate the road network in the town to offer efficiency, improve connectivity and promote user safety.

Proposed Projects and Programmes

- Create/open up all roads in the town as proposed in Map 4 -15.
- Upgrade the Isiolo-Wajir (A13) road to bitumen standards.
- Upgrade the Habaswein-Dadaab (C293) road to bitumen standards.
- The proposed secondary and local distributor roads are to be opened and later upgraded to bitumen standards (categorization of the proposed road system is shown in Map 4 - 15.
- Create and upgrade access roads and lanes to gravel standards. (Categorization of the proposed road system is as shown in Map 4 -15.
- Construct a bus park to serve regional routes. This is to be located along the Isiolo-Wajir (A13) highway past the Bidii Youth Centre (Polytechnic).
- Construct proper drainage systems on all roads to channel surface run-off.
- Construct speed humps, zebra crossings and adequately provide road signage along the main Isiolo-Wajir (A13) highway. This shall improve the safety of town residents along the road due to an anticipated increase in traffic resulting from the tarmacking of the highway soon.
- Relocate the airstrip to the identified site as located on Map 4 -10. Raise and reinforce the surface of the proposed airstrip to bitumen standards and provide facilities and equipment to enable and promote frequent use.
- Developments are not allowed on the flight funnel for the airstrip to provide a proper flight path to and from the airstrip.

- The county should formulate a transport policy to improve safety and mobility and introduce standards in the transport sector.
- Construction of non-motorized transport infrastructure that includes walkways and cycleways along primary, secondary and local distributor roads.
- The partnership between the County Government of Wajir and other development partners, such as KeNHA, KeRRA, and KURA, etc. in upgrading and maintaining roads, especially secondary and local distributor roads.
- Formation of a passenger welfare committee to regulate the public transport sector within the town.

Map 4-15: Habaswein Town Proposed Transport Network



4.5.2 Environment Strategy

Strategy

Protecting the environment.

Objective

To protect and conserve the environment for sustainability.

Proposed Projects and Programmes

- Provide subsidies to promote alternative renewable energy sources, e.g., solar panels, LPG, and energy-saving *jikos*. The aim is to reduce over-reliance on bio-fuels to a bare minimum.
- Provide farmers with free tree seedlings (drought resistant) to promote agro-forestry and re-forestation, especially along the Ewaso Nyiro River Basin. This shall assist in lowering the effects of flood waters, especially along the flood plains.
- Sensitization campaigns on integrated waste management practices, i.e. waste reduction, re-use and recycling
- Enforcement of environmental laws regarding water resources and vegetation cover.
- Capacity Building and Partnership Initiatives for environmental conservation.

4.5.3 Housing Strategy

Strategy

Encourage investment in housing in order to provide adequate, affordable and quality housing for all in the town.

Objective

To provide adequate, efficient and quality housing.

Proposed Projects and Programmes

- Survey plots resulting from the scheme plan and provide town residents with land ownership documents.
- Provide ownership documents (title deeds) to residents after the survey. This shall increase and encourage investment in housing within the town.
- Formulate a housing policy for the county.

- Subsidise solar harvesting equipment to encourage the use of solar power in houses.
- County to initiate affordable housing programmes by constructing an Appropriate Building Technology Centre (ABTC) within the town to provide technologies for creating cheaper, climate-appropriate building materials (sourced locally) to reduce over-reliance on expensive building materials such as stones from Mandera. The site is as located on the structured plan (Map 4 -11).
- Service all residential areas with portable water, liquid and solid waste infrastructure (sewer reticulation system, garbage trucks/tractors, waste skips, etc), stormwater drainage infrastructure and electricity.
- Establish designated waste disposal points and undertake regular waste evacuation by the county garbage collection unit to assist in regular cleanup of the residential zones.

4.5.4 Infrastructure

The objective of this strategy is to provide standard, efficient and reliable infrastructure for the town. This shall be achieved within different sectors to provide necessary and adequate physical and social infrastructure to support urban improvement and enhance the town's economy.

4.5.4.1 Physical Infrastructure Strategy

Water

Strategy

Providing potable water for all.

Objective

To increase access and supply of potable water to residents of the town.

Measures to support the strategy.

- Create an overall body to operate and centrally manage water sources for the town.
- Formation of a town water resources management committee.
- Construct a water treatment reservoir and pumping station to service the town properly.
- Construct a water and sewer reticulation system for the entire town.
- Construct larger earth dams to cater to crop and livestock production on the urban fringes (banks of the Ewaso Nyiro River.

- Subsidise solar and wind harvesting equipment to encourage solar and wind energy use for water pumping.
- Encourage partnerships between the county council, private sector, and community to develop and operate water sources and reticulation systems.
- Separate domestic and livestock water points. This is to be done by separating earth dams within the Ewaso Nyiro River basin.
- Establish sensitization programs on water conservation to minimize wastage, e.g., reusing and recycling, and equip residents with skills to harness water.

Sanitation

Strategy

Providing sanitary conditions in the town.

Objective

To improve the living conditions of the town by providing healthy, sanitary conditions.

Measures to promote the strategy.

- Establish designated dumping sites to prevent indiscriminate dumping by providing waste skips at different points within the proposed commercial zones, light industrial area and high-density residential areas in the town.
- Establish a landfill in the outskirts of the town to act as the final disposal point in managing the town's waste. One landfill is to be located off the Habaswein-Dadaab (C293) road to serve Habaswein, and another is off the Habaswein-Moyale road to serve Ademasajida.
- Provide staff and equipment for solid waste collection and evacuation, e.g., trucks, tractors etc.
- Procure and position litter bins at key places in the town to prevent littering and facilitate responsible waste disposal.
- Construct waste stabilization ponds/oxidation ponds off the Habaswein-Dadaab road, approximately 4.5km from the town. The ponds are located near the *Ewaso Nyiro* River basin to allow for easier discharge of treated wastewater.
- Construct a sewer reticulation system to service the town.

- Regular maintenance of the sewerage line and treatment plant.
- Institute effective monitoring and control measures to regulate the discharge of toxic waste into the sewer.

Plate 4-42: Solid Waste Disposal Equipment

Source: Consultant's Edit

Plate 4-43: Oxidation Ponds and Sanitary Landfill

Source: Consultant's Edit

Storm Water Management

Strategy

Develop an efficient drainage system to help in channelling surface runoff.

Objective

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

Measures to support the strategy.

- Construct a drainage network intertwined with the road network.
- Construct gabions in areas affected by flood waters in order to protect the built environment. (***Flood-prone areas are as shown in the structure plan, Map 4 -10***)

- Relocate structures on flood-prone areas.
- Conduct routine maintenance and cleaning of the stormwater drains and develop trap mechanisms in the stormwater drainage systems.

Plate 4-44: Storm Water Drainage Infrastructure

Source: Consultant's Edit

Electricity and Energy

Strategies

Efficient and sustainable energy supply.

Objective

To promote adequate distribution of electricity and sustainable energy sources.

Measures to promote the strategy.

- Connect the town to the national grid.
- Invest in power generators at the power station to guarantee a continued supply of energy.
- Enforce regulations relating to the preservation of power way-leaves.
- Develop a Wind and Solar Energy Harvesting farm along the Isiolo-Wajir highway opposite the Habaswein Sub-County hospital to supplement the town's power needs.
- Install and maintain solar powered street lights throughout the town in order to increase the time for undertaking business activities.
- Encourage private sector participation in the exploration of possibilities that increase the supply of environmentally safe energy for cooking and lighting.
- Subsidise solar power equipment to promote alternative options for lighting within the residential areas.

Plate 4-45: Solar and Wind Harvesting Equipment

Source: Consultant's Edit

4.5.4.2 Social Infrastructure Strategy

Education

Strategy

Providing access to quality education for all.

Objective

To increase access to education by taking into account factors that affect access.

Measures to support the strategy.

- Construct two schools, a primary and a secondary school, within the Ademasajida neighbourhood.
- Install solar panels in all education institutions to supplement their power needs.
- Construct Islamic Religious institutions on sites as indicated by 2_7 in the structure plan (See Map 4 -11).
- Construct a Technical Training Institute opposite the civic area along the Habaswein-Dadaab (C293) road.
- Provide support infrastructure to all educational facilities, such as water and electricity, as well as dormitories, laboratories, libraries, etc.
- Promote education sensitization programs.
- Advocate for the deployment of adequately trained staff in all educational institutions.
- Encourage and facilitate the participation of the private sector and religious institutions in providing education facilities and services.

- Intensify inspection and supervision to ensure proper registration, enrollment, retention, and transition in schools.
- Promote and reinforce security installations within the town to dispel fears of insecurity.

Health

Strategy

Providing quality universal healthcare for all.

Objective

To make health care accessible for all.

Measures to support the Strategy

- Construct a health centre along the Habaswein-Dadaab (C293) road to cater to the town residents' health care needs.
- Provide adequate medical staff, medical equipment and facilities such as beds, laboratories, incinerators, staff quarters, medicine and special units in all health facilities in the town.
- Expansion, maintenance and rehabilitation of existing health facilities.
- Provide solar panels and backup generators to the sub-county hospital to reinforce its medical, laboratory and surgical dispensation capacity.
- Provide support infrastructure such as water, sewer, waste management facilities and electricity to all health facilities in the town.
- Sensitize the population, especially women/mothers, on the need for seeking maternal treatment at health facilities.
- Conduct frequent specialized medical camps within the town.

4.5.5 Economic Development Strategy

Strategies

Promoting the town's economy.

Objective

To promote the avenues for economic development in the town, including three key sectors that can drive this strategy. These include the commercial, industrial, and agricultural sectors.

Measures to support the strategy

- Set up an agricultural research and development station within the town to help develop human capital in agriculture (crop and livestock production).
- Service the proposed light industrial zone to capitalize on the potential of the town's hinterland. (This will involve the opening of roads as proposed and the provision of water, electricity and sewerage infrastructure)
- Increase the capacity of the power substation in the town to provide more energy for supporting industrial and commercial activities.
- Increase the quality and reach of technical support by setting up a technical institution and providing necessary support such as staffing, equipment, and facilities.
- Increase the capacity of the technical training institute to offer courses in agricultural production systems, mechanics and carpentry.
- Develop parking slots within the commercial zone to increase the revenue base for the town.
- Allow densification within the commercial zone to maximize the collection of rates, rents and business permits.
- Employ revenue collection staff to boost the town's revenue collection capacity.
- Facilitate market access for fresh produce and livestock products from the town to other external areas.
- Create incentives to facilitate industrial production in the town.
- Facilitate the county agricultural department with farm inputs, equipment and staff to offer better extension services.
- Subsidize farm inputs to incentivise farmers to create alternative revenue/income sources aside from livestock production.
- Train farmers and pastoralists on modern agricultural methods and disaster preparedness through early warning systems against natural occurrences like drought.

4.5.6 Governance strategy

Strategy

Enhancing local management and institutional capacity

Objective

To enhance better governance and participatory decision-making within the town. This objective will help in plan implementation through stakeholder approval, adoption and adaptation.

Measures to support the strategy

- Institute a town committee.
- Institute a development control unit within the county department to be posted within the town.
- Employ modern revenue collection mechanisms to serve the town and ensure better revenue collection.
- Recruit additional qualified staff to oversee conformity to the plan.
- Hold continuous professional development for county staff to enhance the capacity of plan implementation.
- Establish citizen sub-committees to safeguard the integrity of the plan.
- Establish a public information management system to facilitate knowledge-sharing between authorities and residents.

4.5.7 Proposed Projects/Programmes for Lag Dima Market Centre

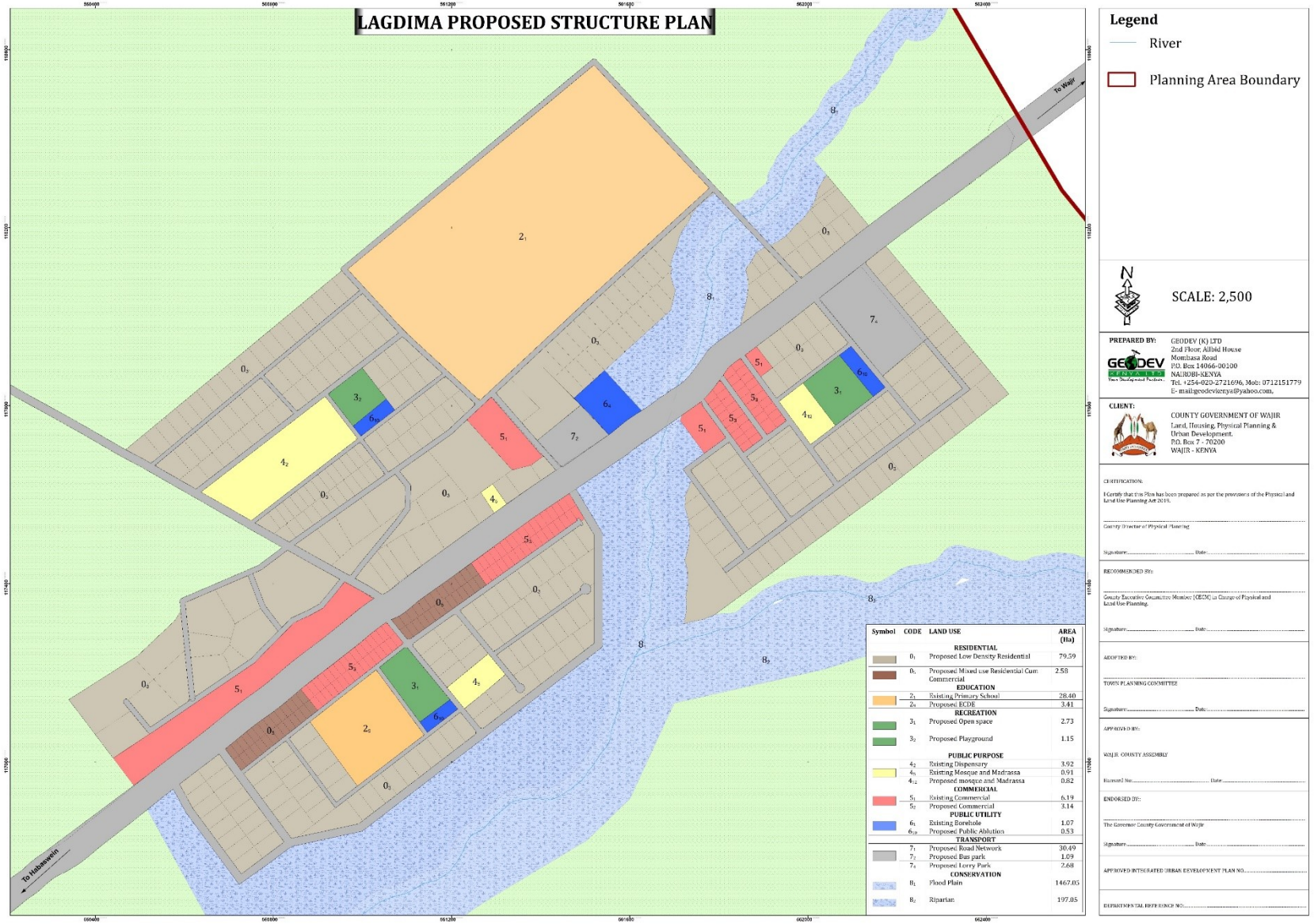
The following are the proposed projects/programmes highlighted for improvement of Lag Dima Market Centre:

1. Service the local centre with piped water, electricity and sewerage infrastructure
2. Mixed-use (Residential cum commercial) has been proposed along the Isiolo-Wajir Highway. This use denotes that commercial activities are allowed within a dominantly residential area.
3. Construct and fully equip an ECDE centre off the Isiolo-Wajir highway.
4. Construct a mosque and madrassa opposite the proposed ECDE centre.
5. Provide landscaped open spaces and ensure proper maintenance of the facilities.
6. Adequately equip the dispensary with adequate drugs. Connect the facility to the local electricity grid and increase the amount of solar harvesting equipment to offer round-the-clock services to the population.

7. Hire and post a clinical officer and nurses to the facility. Provide equipment to support laboratory testing.
8. Provide public ablution blocks within the open spaces as proposed. Ensure regular maintenance of the facilities.
9. Install solar harvesting equipment at the existing borehole to assist in pumping water to households and storage tanks.
10. Construct a bus and lorry park at the sites proposed.

Source: Extract from Google Earth Pro

Map 4-16: Lag Dima Structure Plan



4.6 Implementation Framework

This section offers a platform for ensuring that proposals are implemented in the manner proposed through project phasing and within the proposed timeframes. The identified institutions will be charged with the implementation of the local physical and land use development plan. These institutions shall require resilient leadership and inter-departmental coordination. The expected timeframe for which each project is intended to be completed is provided through phasing, i.e., short, medium term and long-term (absolute and continuous).

4.6.1 Strategic Projects

Critical projects are transformative, have higher multiplier effects (forward and backward linkages) and have the highest potential to kick-start the economy of Habaswein Town. These projects are categorized as facilitative, productive and perceptive.

Facilitative projects are those projects/programmes which enable the productive sector to operate effectively and efficiently. These include infrastructure such as water, roads, and electricity.

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.

4.6.1.1 Facilitative Projects

Water and Sewer supply

County government, WAJWASCO and community water users' associations need to formulate a strategy to work multilaterally for water and sewer reticulation in the town.

Transport

1. The county government, together with the different road authorities, to improve roads within and to the town.
2. The county government is to provide transport facilities such as bus parks, stormwater drainage infrastructure, walkways and cycleways within the planning area.

Energy

1. Kenya Power, North Eastern Region, needs to improve the electricity supply within the town to increase reliability.
2. Wajir County government and KPLC to invest in harvesting wind and solar energy through the development of an energy generation plant within the town

4.6.1.2 Productive Projects

Commerce

1. Enable and promote compactness through vertical development within the core commercial area to accommodate a variety of commercial activities such as wholesale and retail trade, banking, etc.
2. Provide support infrastructure such as roads, electricity inclusive of street lighting, water and sewer reticulation, and storm-water drainage.

Industry

1. Develop a light industrial zone for furniture workshops, *juakali* areas, and other industrial activities within the Ademasajida neighbourhood.
2. Move the current slaughterhouse next to the light industrial zone. The slaughterhouse shall have an increase in acreage to cater to offices and slaughter facilities, as well as an animal holding bay.
3. Provide support infrastructure such as roads, electricity inclusive of street lighting, water and sewer reticulation, and storm-water drainage.

4.6.1.3 Perceptive Projects

Design and redevelopment

1. Redevelopment of the core area in the town to incorporate modern and multi-storey buildings encompassing aesthetic designs that include solar energy harvesting.
2. Landscape all the streets by incorporating trees and street furniture and provisions for walkways and cycle ways to improve user safety.

Green Spaces

1. Establish reserves for the floodplain and dry river beds to promote the town's greening.
2. Establish boulevards along primary roads (Isiolo-Dadaab A13 highway) and secondary roads (as highlighted in the structure plan).
3. Create open spaces within the high-density residential areas for recreational purposes.

4.6.2 Quick wins

Projects enumerated herein as quick wins are projects that will be achieved immediately, preferably within 100 days. These projects have high visibility and serve the purpose of rallying support for subsequent planning activities. They also require low funding. The projects highlighted for quick wins within Habaswein Town include;

1. Formation of Community forums to ensure and monitor provisions of the Urban Development Plan.
2. The county Government is to procure and provide waste skips, litter bins and equipment for solid waste management.
3. Installation of high masts at the proposed commercial and residential neighbourhoods.

4.6.3 Short Term Projects

Projects enumerated as short-term actions are achievable within 1–3 years, 2023-2026. 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. See section 4.6.8. for proposed short-term projects.

4.6.4 Medium Term Projects

Projects enumerated as medium-term actions achievable within a period of 4-7 years, 2027-2029. They require more collaborators than short-term projects, require extensive research before commencement, and require the acquisition of land. They also need wider consultations among all the involved partners. See section 4.6.8. for proposed medium-term projects.

4.6.5 Long Term Projects

Projects enumerated as long-term (7 year to and above 10 years) actions are expected to have been achieved by the end of the planning period or can go beyond and require phasing, feasibility studies, major capital investments, donor funding, and wider consultation. The projects can also be done continuously throughout the planning period. See section 4.6.8. for proposed long-term projects.

4.6.6 Coordination Framework

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

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

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

- Information exchange.
- Facilitating administrative procedures as much as possible.
- Ensuring the financing of critical activities, directing resources to priority areas and avoiding overlapping activities.

To enhance good coordination, it is recommended that:

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

4.6.7 Community Participation Framework

The main aim of this framework is to improve community involvement, enhance implementation processes' effectiveness and validity and increase the acceptability of plan proposals and decisions. This will fully involve the community in investment choices and management decisions in such activities or stages as underlined below:

1. Formulation of a passenger welfare committee to regulate the public transport sector.
2. Formulation of a town water resources management committee.
3. Establishment of citizen sub-committees to safeguard the land use proposals for the town.
4. Establishment of a public information management system to facilitate the sharing of knowledge between authorities and residents.
5. Sensitization of the population especially women/mothers on the need for seeking maternal treatment at health facilities.

6. Establish sensitization programmes on water conservation to minimize wastage, e.g., re-using and recycling, and equip residents with skills to harness water.

4.6.8 Implementation Matrix

THEME	PROJECT	ACTORS	TIMEFRAME
TRANSPORT	Create/open up all roads in the town as proposed	Department of Lands, Housing and Physical Planning, Wajir County Department of Roads, Transport and Public Works, Wajir County	Short Term by 2025
	Upgrading of the Isiolo-Wajir (A13) road to bitumen standards	KeNHA	Long Term by 2033
	Upgrading of the Habaswein-Dadaab road to Bitumen standards	KURA, KeRRA	Short Term by 2025
	Construction of the proposed bus park and provision for on-street car parking	• Department of Roads, Transport and Public Works, Wajir County • Development Partners	Medium Term by 2028
	Construction of proper drainage systems on both sides of major roads.		Medium Term by 2028
	Upgrading of all intra-connector roads to gravel standards.		Medium Term by 2028
	Construction of non-motorized transport infrastructure that includes walkways and cycleways		Medium Term by 2028
	Formulate a county transport policy to improve safety and mobility and introduce standards in the sector.	• Wajir County Assembly • Department of roads, transport and public works; Wajir County	Short Term by 2025

THEME	PROJECT	ACTORS	TIMEFRAME
	Relocate the airstrip to the identified site on Map 4 -10. Raise and reinforce the surface of the proposed airstrip to bitumen standards and provide facilities and equipment to enable and promote frequent use.	• Ministry of transport, infrastructure, housing, urban development and public works • Kenya Airports Authority	Long Term by 2033
	Formulate a passenger welfare committee to regulate the public transport sector.	• Department of Roads, Transport and Public Works,Wajir County • Residents • Town committee	Short Term by 2025
ENVIRONMENT	Provision of proper waste management infrastructure in the town, e.g. landfill	• Department of Water, Energy, Environment and Natural Resources,Wajir County • Department of Roads, Transport and Public Works,Wajir County • Development partners	Medium Term by 2028
	Provision of subsidies to promote the use of alternative renewable energy sources, e.g. solar panels and LPG and energy-saving *jikos*		Long Term, by 2033 (continuous)
	Provision of free tree seedlings to farmers to promote agro-forestry and re-forestation		
	Undertake sensitization campaigns on integrated waste management practices, i.e. waste reduction, reuse and recycling.		
	Enforcement of environmental laws regarding water resources and vegetation cover	National Environmental Management Authority (NEMA)	Long Term, by 2033 (continuous)

THEME	PROJECT	ACTORS	TIMEFRAME
	Capacity Building and Partnership Initiatives for environmental conservation		Long Term, by 2033 (continuous)
	Construction of a wind and solar harvesting plant to promote use of renewable energy at household and commercial levels	• Kenya Power and Lighting company (KPLC) • County Government of Wajir	Long Term, by 2033 (continuous)
HOUSING	Survey plots resulting from the scheme plan and provide town residents with land ownership documents.	• Department of Lands, Housing and Physical Planning,Wajir County • National Land Commission (NLC) • Survey of Kenya • Department of Lands, Housing and Physical Planning,Wajir County	Medium Term by 2028
	Formulate a housing policy for the county	• Department of Lands, Housing and Physical Planning,Wajir County • Wajir County Assembly	Short Term by 2025
	Initiate affordable housing programmes	• Department of Lands, Housing and Physical Planning,Wajir County • National Housing Commission Development partners	Medium Term by 2028
WATER SUPPLY	Create an overall body to operate and manage water sources for the town	• Department of Water, Energy, Environment and Natural	Short Term by 2025

THEME	PROJECT	ACTORS	TIMEFRAME
	Formation of a town water resources management committee	Resources, Wajir County • Water Resource Authority (WRA) • Wajir Water Sewerage Company (WAJWASCO) • Development partners	Short Term by 2025
	Develop a central water treatment reservoir and pumping station.		Medium Term by 2028
	Separate domestic and livestock water points.		Short Term by 2025
	Construct a water reticulation system for the entire town	• Department of Public Health, Medical Services and Sanitation, Wajir County • Department of Water, Energy, Environment and Natural Resources, Wajir County	Medium Term by 2028
	Encourage partnerships between the council, private sector and the community in the development and operation of water sources	• Department of Water, Energy, Environment and Natural Resources, Wajir County • Town committee	Long Term, by 2033 (continuous)
	Establish sensitization programmes on water conservation to minimize wastage e.g. re-using and recycling and to equip residents with skills to harness water.		Long Term, by 2033 (continuous)
SANITATION	Establish designated dumping sites to prevent indiscriminate dumping by providing waste skips at different points.	• Department of Public Health, Medical Services and Sanitation, Wajir County	Short Term by 2025
	Provide staff and equipment for solid waste collection and evacuation e.g. trucks, tractors etc.	• Department of Lands, Housing and Physical Planning,Wajir County	Short Term by 2025

THEME	PROJECT	ACTORS	TIMEFRAME
	Procure and position litter bins at key places in the town, to prevent littering and facilitate responsible disposal of waste.		Short Term by 2025
	Construct a sewer system to service the town.		Long Term by 2033
	Regular maintenance of the sewerage line and treatment plant.		Long Term by 2033
	Effective monitoring and control measures should be instituted to regulate the discharge of toxic waste into the sewer.	• Department of Public Health, Medical Services and Sanitation, Wajir County • Department of Lands, Housing and Physical Planning,Wajir County • Town Committee	Long Term by 2033
ELECTRICITY AND ENERGY	Connect the town to the national grid.	KPLC	Medium Term by 2028
	Invest in power generators at the power station to guarantee continued energy supply.		Medium Term by 2028
	Enforce regulations relating to the preservation of power way-leaves		Long Term, by 2033 (continuous)
	Develop a Wind and Solar Energy Production farm	• Department of Water, Energy, Environment and Natural Resources, Wajir County • Development partners	Long Term by 2033
	Install and maintain solar-powered street lights in the town	• Department of Water, Energy, Environment and Natural	Short Term by 2025

THEME	PROJECT	ACTORS	TIMEFRAME
		Resources, Wajir County • Department of Roads, Transport and Public Works, Wajir County • Development partners	
	Encourage private sector participation in the exploration of possibilities that increase the supply of environmentally safe energy for cooking and lighting.	• Department of Water, Energy, Environment and Natural Resources, Wajir County • Town committee	Long Term, by 2033 (continuous)
	Subsidise solar power equipment to provide alternative energy	• Department of Water, Energy, Environment and Natural Resources, Wajir County • Wajir County Government	Long Term, by 2033 (continuous)
EDUCATION	Construct the schools as prescribed by the plan (See Map 4 -11)	• Ministry of Education, Science and Technology • Department of Education, Youth, Culture, Gender and Social Services, Wajir County • Development Partners	Medium Term by 2028
	Provide support infrastructure such as water and electricity and facilities such as dormitories, laboratories, libraries, etc. to all schools in the town	• Ministry of Education, Science and Technology • Department of Education, Youth, Culture, Gender and Social Services, Wajir County	Medium Term by 2028

THEME	PROJECT	ACTORS	TIMEFRAME
	Promote education sensitization programs.	• Ministry of Education, Science and Technology • Department of Education, Youth, Culture, Gender and Social Services, Wajir County • Development Partners	Long Term, by 2033 (continuous)
	Advocate for the deployment of adequately trained staff in all educational institutions.	• Teachers Service Commission • Department of Education, Youth, Culture, Gender and Social Services,	Short Term by 2025
	Encourage and facilitate the participation of the private sector as well as religious institutions in the provision of education facilities and services.	• Ministry of Education, Science and Technology • Department of Education, Youth, Culture, Gender and Social Services, Wajir County	Long Term, by 2033 (continuous)
	Intensify inspection and supervision to ensure proper registration, enrollment, retention, and transition in schools.	• Ministry of Education, Science and Technology • Department of Education, Youth, Culture, Gender and Social Services, Wajir County	Long Term, by 2033 (continuous)
	Promote and reinforce security installations within the town to dispel fears of security.		Long Term, by 2033 (continuous)
HEALTH	Establish a dispensary and health centre to cater for	Department of Public Health, Medical	Medium Term by 2028

THEME	PROJECT	ACTORS	TIMEFRAME
SERVICES	the different healthcare needs of the town residents	Services and Sanitation, Wajir County	
	Provide adequate medical staff, medical equipment and facilities such as beds, laboratories, incinerators, staff quarters, medicine and special units in the sub-county hospital.	Department of Public Health, Medical Services and Sanitation, Wajir County	Medium Term by 2023
	Expansion, maintenance and rehabilitation of existing health facilities		Medium Term by 2028
	Provide mobile clinics and undertake frequent medical camps.		Long Term, by 2033 (continuous)
	Sensitization of the population, especially women/mothers on the need to seek maternal treatment at health facilities		Medium Term by 2028
ECONOMIC DEVELOPMENT	Set up an agricultural research and development station within the town to help in human capital development on matters of agriculture (crop and livestock production)	• KALRO • Department of Agriculture, Livestock & Fisheries, Wajir County	Short Term by 2025

THEME	PROJECT	ACTORS	TIMEFRAME
	Service the proposed light industrial zone to capitalize on the potential of the town's hinterland. (This will involve the opening of roads as proposed the provision of water, electricity and sewerage infrastructure)	• Department of Trade, Tourism, Cooperative and Wildlife, Wajir County • Department of Water, Energy, Environment and Natural Resources, Wajir County • Department of Roads, Transport and Public Works,Wajir County • Development partners • Department of Lands, Housing and Physical Planning,Wajir County • Town Committee	Long Term by 2033
	Install street lights within the proposed commercial districts in order to increase the time required to undertake business activities. Ensure regular maintenance of these facilities.	• Department of Water, Energy, Environment and Natural Resources, Wajir County • Department of Roads, Transport and Public Works, Wajir County • Development partners	Short Term by 2025
	Increase the quality and reach of the agricultural technical support through setting up of technical institutions and giving necessary support such as staffing, equipment,	• Department of Education, Youth, Culture, Gender and Social Services • Development partners	Medium Term by 2028
	Increase the capacity of the technical training		Medium Term by 2028

THEME	PROJECT	ACTORS	TIMEFRAME
	institute to offer courses in agricultural production systems, mechanics and carpentry.		
	Develop parking slots within the commercial zone for revenue collection.	• Department of Lands, Housing and Physical Planning, Wajir County • Department of Finance and Economic Planning, Wajir County	Medium Term by 2028
	Employ revenue collection staff to reinforce revenue collection.		Short Term by 2025
	Construction of larger capacity earth dams to cater for crop and livestock production along the seasonal Ewaso Nyiro River.	• Ministry of Water and Sanitation • Department of Roads, Transport and Public Works • Department of Water, Energy, Environment and Natural Resources, Wajir County • Development partners.	Medium Term by 2028
	Facilitate market access for fresh produce and livestock products from the town to other external areas.	• Department of Finance and Economic Planning,Wajir County • Department of Agriculture, Livestock & Fisheries, Wajir County	Long Term by 2033 (Continuous)
	Create incentives to facilitate industrial development in the town.	• Department of Agriculture, Livestock & Fisheries, Wajir County • Department of Finance and Economic Planning,Wajir County	Long Term by 2033 (Continuous)

THEME	PROJECT	ACTORS	TIMEFRAME
	Facilitate the county agricultural department with farm inputs, equipment and staff	• Department of Finance and Economic Planning,Wajir County • Department of Agriculture, Livestock & Fisheries, Wajir County	Long Term by 2033 (Continuous)
	Subsidize farm inputs to incentivise farmers to create alternative revenue/income sources aside from livestock production.	• Department of Agriculture, Livestock & Fisheries, Wajir County • Department of Finance and Economic Planning,Wajir County	Long Term by 2033 (Continuous)
	Train farmers and pastoralists on modern agricultural methods and disaster preparedness through early warning systems against natural occurrences like drought.	Department of Agriculture, Livestock & Fisheries, Wajir County	Long Term by 2033 (Continuous)
GOVERNANCE	Institute a town committee for the town	The Wajir County Executive	Short Term by 2025
	Institute a development control unit within the county department to be posted within the town	Department of Lands, Housing and Physical Planning, Wajir County	Short Term by 2025
	Employ modern revenue collection mechanisms.		Short Term by 2025
	Recruit additional qualified staff to oversee conformity to the plan		Short Term by 2025
	Hold continuous professional development for county staff to enhance the capacity of implementation.	Department of Public Service, Labour and Decentralised Units, Wajir County	Long Term by 2033 (Continuous)

THEME	PROJECT	ACTORS	TIMEFRAME
	Establish citizen sub-committees to safeguard the land use proposals for the town.	• Department of Public Service, Labour and Decentralised Units, Wajir County • Town committee • Town Administrator	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

Part V: CAPITAL INVESTMENT

5 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, 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 needs the responsibility and authority to plan and make capital investments for 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. influencing outside financing.
iii. The local government should be able 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

Effectiveness in responding to the aspirations and expectations of the people of Habaswein 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 Habaswein 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 adequately 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

1. **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.

2. **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

3. **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 as a result of the implementation of a certain 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 to implement the urban plan for Habaswein Town, the following capital investment projects were selected.

Table 5-16: Habaswein Town Capital Investment Projects

SECTOR	PROJECT
Land Administration	• Carry out the survey and tilting of plots resulting from the scheme plan.
Sanitation	• Construct two landfills.

SECTOR	PROJECT
	• Design and construct a sewerage reticulation system (trunk sewer line and oxidation ponds).
Water	• Create an overall body to operate and centrally manage water sources for the town. • Construct a water treatment reservoir and pumping station • Construct two large-capacity earth dams. • Expand the existing water reticulation system.
Transport	• Upgrade the Isiolo-Wajir (A13) road to bitumen standards. • Upgrade the Habaswein-Dadaab (C293) road to bitumen standards. • Construct all access roads proposed to gravel standards. • Upgrade all proposed secondary and local distributor roads to bitumen standards. • Construct a bus park along the Isiolo-Wajir (A13) highway. • Relocate and construct the airstrip to bitumen standards.
Energy	• Installation of a solar and wind harvesting plant. • Develop a wind and solar energy harvesting plant.
Storm Water Drainage	• Construct gabions in areas affected by flood waters in order to protect the built environment.
Education	• Construct two schools: a primary and a secondary school • Construct Islamic religious Centres • Construct a Technical Training Institute.
Health	• Construct a health centre. • Expansion, maintenance and rehabilitation of existing health facilities.
Economic development	• Set up an agricultural research and development station within the town.

Table 5-17: Habaswein Town Capital Investment Framework

NO.	PROJECT	UNIT	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
1.	Survey and provide title deeds of the plots resulting from the town's scheme plan.	• Survey • Creation of a plot register • Beaconing • Titling	4,146 plots	Kshs82,920,000	• National government • County Government through the Department of Lands, Housing and Physical Planning
2.	Construct a water treatment reservoir and pumping station.	• Hydrological survey • Pumps • Procurement of solar panels • Fencing • Piping • Construction of the treatment plant		Kshs45,000,000	i. Development Partner/Donors ii. Public Private Partnerships iii. County Government through the Department of: • Water, Energy, Environment and Natural Resources • WAJWASCO
3.	Design and construct a sewerage reticulation system (trunk sewer line and oxidation ponds).	• Hydrogeological Survey • Construction of trunk lines. • Excavation of oxidation ponds. • Compaction and lining. • ESIA	• Length of trunk sewer lines;**14.92km** • **Costing done for Construction of 2 Ha of oxidation ponds**	• Kshs600,000,000 (1km at Kshs40,000,000) • Kshs7,000,000 (ESIA)	i. Development Partners/Donors. ii. WAJWASCO iii. County Government through the Department of: • Public health, Medical Service and Sanitation
4.	Construct two large capacity earth dams (each with a capacity of 100,000m^3)	• Hydrogeological survey • Excavation, compaction	2	Kshs80,000,000(each @40,000,000)	i. National Irrigation Board (NIB) ii. Public Private Partnerships

NO.	PROJECT	UNIT	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
		and lining • ESIA • Perimeter fencing			iii. County Government through the Department of: • Water, Energy, Environment and Natural Resources • Agriculture, Livestock and irrigation • WAJWASCO
5.	Design and construct a bus park along the Isiolo-Wajir (A13) highway.	• Survey and Demarcation of 2.5 Ha of land • Construction of drainage channels, 25 stalls, 30 waiting bays and two toll stations, 5 Ablution blocks • Tarmacking of the bus park • Perimeter Fencing	• Construction of drainage channels, 25 stalls, 30 waiting bays, two toll stations, 5 Ablution blocks- 42 Units • Tarmacking length– 2.5 Km	• Kshs95,000,000 ***(The cost estimate is for 1 Ha of the proposed bus park. The total area is 2.5Ha)*** • Kshs150,000,000	i. Public Private Partnerships ii. Development partners/donors iii. KENHA iv. County Government through the Department of; • Roads, Transport and Public Works • Lands, Physical planning and Urban Development
6.	Relocate and construct the airstrip to bitumen standards.	• Construct the Runway • Construction of Stormwater drainage	Area of the Airstrip -89.15 Ha	• Kshs3,407,500,000	• County Government • National Government • KAA • Development partners/donors

NO.	PROJECT	UNIT	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
		facilities • Perimeter Fencing • Construct an Apron • Construct a Passenger Terminal Building • Construct an Office Block			
7.	Upgrade the following roads to bitumen standards: • Habaswein-Dadaab (C293) road • Isiolo-Wajir (A13) road	• Clearing and Excavation • Installation of road bridges • Mounting • Fine Grading • Aggregate Base • Tarmacking • ESIA	• Length for tarmacking the Habaswein-Dadaab (C293) road 8.20km • Length for Tarmacking the Isisolo-Wajir hijghway-156km	• Kshs492,000,000 • Kshs10,920,000,000	i. National government ii. KENHA iii. KRB (Kenya Roads Board) iv. County Government through the Department of: • Roads, Transport and Public Works • Lands, Housing and Physical Planning
8.	Upgrade all proposed secondary roads to bitumen standards	• Clearing and Excavation • Mounting • Fine Grading • Aggregate Base • Tarmacking • ESIA	• Length of all secondary roads within the planning area is 20.16km	• Kshs806,400,000	i. KURA ii. KERRA iii. County Government through the Department of: • Roads, Transport and Public Works • Lands, Housing and Physical Planning

NO.	PROJECT	UNIT	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
9.	Upgrade all proposed local distributor roads to bitumen standards	• Clearing and Excavation • Mounting • Fine Grading • Aggregate Base • Tarmacking • ESIA	• Length of all local distributor roads within the planning area is 5.07km	• Kshs202,800,000	i. KERRA ii. County Government through the Department of: • Roads, Transport and Public Works • Lands, Housing and Physical Planning
10.	Construct all proposed access roads to gravel standards.	• Clearing and Excavation • Mounting • Fine Grading • ESIA	• 47.57km	• Kshs713,550,000	i. KERRA ii. County Government through the Department of: • Roads, Transport and Public Works • Lands, Housing and Physical Planning
11.	Installation of a solar and wind harvesting plant.	• ESIA • Perimeter fencing • Solar panels installation • Wind turbines installation	• Amount of electricity to be generated by the plant to amount to 11,166kW/hr per day	• Kshs158,000,000	• Development Partners/ Donors • Rural Electrification and Renewable Energy Corporation • KPLC • County Government through the Department of Roads, Transport and Public Works
12.	Construct gabions in flood-prone areas.	• Gabion Installation • Topographical survey	Three flood-prone areas. Length of identified flood-	Kshs71,000,000	i. Public Private Partnerships ii. County Government through the:

NO.	PROJECT	UNIT	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
		• ESIA	prone areas: • 8.89Km • 5.36Km • 7.13Km		• Water, Energy, Environment, and Natural Resources • Roads, Transport, and Public works • Lands, Housing and Physical Planning
13.	Construct a secondary school.	i. ESIA ii. Construction of: • Forms 1-6 (3 streams per class) • 3 Laboratories • Staffrooms • 10 dormitories • 1 Library • 7 Ablution Blocks • Perimeter fencing	40	Kshs28,000,000 (Kshs700,000 per classroom)	i. National government through the NGCDF ii. County Government through the: • Department of Roads, Transport and Public Works • Department of Education, Youth, Culture, Gender and Social Services
14.	Construct a primary school.	• ESIA • Construction of: ✓ Class 1-8 ***(3 streams per class)*** ✓ Staffroom and offices ✓ **3**Ablution block	31	Kshs21,700,000 (Kshs700,000 per classroom)	i. National Government through NGCDF ii. Development Partners/ Donors iii. County Government through the: • Department of Roads, Transport and Public Works

NO.	PROJECT	UNIT	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
		✓ Library			• Department of Education, Youth, Culture, Gender and Social Services
15.	Construct a Technical Training Institute.	• ESIA • Perimeter Fencing • Construction of: ✓ 3 Laboratories ✓ 6 Classrooms ✓ 3 Ablution blocks ✓ 1 Library	14	Kshs9,800,000 (Kshs700,000 per classroom)	County Government through the Department of: • Roads, Transport and Public Works • Department of Education, Youth, Culture, Gender and Social Services
16.	Construct a health centre.	Construction of: • 4 Ablution Blocks • 2 Labour wards • 2 General wards • 6 Consultation rooms • 3 Offices • 1 Pharmacy • 1 Waiting Bay • 1 Kitchen • 2 Staff Quarter • Perimeter fencing	22	Kshs20,000,000	i. National Government through the NGCDF ii. County Government through the: • Department of Public Health, Medical Services and Sanitation • Department of Roads, Transport and Public Works • Department of finance and economic planning
	Set up an agricultural research and development station within the	• 3 Laboratories • 4 Showrooms	12	Kshs8,400,000 (Kshs700,000 per	i. Public private partnerships

NO.	PROJECT	UNIT	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
	town	• 5 Offices		ward)	ii. County Government through the: • Agriculture, livestock and Fisheries. • Education, Youth, Culture, Gender and Social Services.
	Construction of Landfills ✓ **1 in Ademasajida** ✓ **1 in Habaswein**	• Hydrogeological survey • ESIA • Surveying by acity engineer • Excavation • Compaction of the clay liner • Compaction of the final layers.	Each Landfill is proposed to be 2.53Ha **Costing done for development of 1Ha for each site**	Kshs110,000,000(each site to cost Kshs55,000,000)	i. Development partners/donors ii. County Government through the Department of: • Public health, Medical Service and Sanitation • Roads, Transport and Public Works