



## County Government of Wajir

Department of Lands, Public Works, Housing & Urban  
Development

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



## FINAL PLAN REPORT

# PLAN APPROVAL

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## **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, among others. This comes with the need to control development, spur economic growth and guide the provision of robust infrastructure and services.

Given this context, preparing the Local Physical and Land Use Development Plan for Tarbaj 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 incorporating into future county-integrated development plans. The achievable benefits of the plan are only as good as its implementation.

I desire to give my commitment to the process of implementing this plan. Lastly, I call upon all stakeholders and the county’s development partners to take up active roles in achieving the vision articulated in this Plan and make the Tarbaj Town dream of being “*A well-governed town that is safe, economically vibrant, environmentally sustainable with adequate physical and social infrastructure*” a reality.

**H.E. FCPA AHMED ABDULLAHI,  
GOVERNOR.**



## ACKNOWLEDGEMENTS

The preparation of this plan was made possible by the earnest effort of the Governor, H.E. Ahmed Abdullahi, and his Deputy, H.E. Ahmed Muhumed Abdi. The Department of Lands, Housing and Physical Planning prepared the plan. I 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 Tarbaj Town, especially the elders, who provided understanding and leadership to enable the preparation of the plan. The residents' input throughout the plan preparation process has made the plan wholesome. With this in mind, policing of its intentions will be forthcoming during implementation.

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

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

**SAADIA AHMED ABDI**

**COUNTY EXECUTIVE COMMITTEE MEMBER,**

**DEPARTMENT OF LANDS, HOUSING AND PHYSICAL PLANNING.**



## EXECUTIVE SUMMARY

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Tarbaj 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 plan covers an area of approximately 108.63 km<sup>2</sup>.

Tarbaj Town is the headquarters of Tarbaj Sub-County. The town is located approximately 54km to the North of Wajir Municipality. It lies along a major transport corridor, the Wajir-Mandera (A13) highway.

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 Tarbaj Town was performed. The town is faced with challenges, including the lack of a spatial framework to guide its growth, increased urban population straining the available infrastructural facilities, informal settlements, lack of basic infrastructure such as sewer, water supply, solid waste management, storm water drainage and environmental degradation emanating from continuous use of wood fuel. In addition, the town receives little or no precipitation annually, causing extreme drought and famine, severely impacting livestock and the residents' quality of life.

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

The **Proposed Structure Plan for** the town describes the long-term (10-year) development framework for Tarbaj Town. It covers the entire planning area (108.63 km<sup>2</sup>). The Structure Plan is informed by various structuring elements of the town, including the seasonal rivers traversing the town from the Ethiopian Hills and the Moyale-Mandera (B80) road, stakeholder affirmations as well as the needs of the population of the town, including its function as a sub-county headquarter.

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

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

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

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## ACRONYMS

ABTC	Appropriate Building Technology Centre
ACC	Assistant County Commissioner
AP	Administrative Police
ASALs	Arid and Semi-Arid Lands
BOM	Board of Management
CBD	Central Business District
ECDE	Early Childhood Education
EARC	Education Assessment and Resource Centre
FGD	Focus Group Discussion
GIS	Geographic Information System
ICT	Information Communication Technology
KDHS	Kenya Demographic and Health Survey
KeNHA	Kenya National Highways Authority
KeRRA	Kenya Rural Roads Authority
KPLC	Kenya Power and Lighting Company
KURA	Kenya Urban Roads Authority
LPLUDP	Local Physical and Land Use Development Plan
NG-CDF	National Government Constituency Development Fund
NLC	National Lands Commission
NMT	Non-Motorized Transport
REA	Rural Electrification Authority
SDGs	Sustainable Development Goals
TOR	Terms of Reference
TSC	Teachers Service Commission
TV	Television
TVET	Technical and Vocational Training
UACA	Urban Areas and Cities Act
VIP	Ventilated Improved Pit Latrines
WHO	World Health Organization





# 1 INTRODUCTION

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## 1.1 Overview

The Tarbaj Local Physical and Land Use Development Plan (LPLUDP) is a spatial development framework that will guide the town's growth for the next ten (10) years up to 2033. The plan addresses various development challenges affecting the town in recent years.

The town is the Sub-County headquarters for the larger Tarbaj Sub-County. Planning interventions are required to ensure the town fulfils its obligations and ensures sustainability in infrastructural provision, environmental conservation, and proper governance. Preparing the Local Physical and Land Use Development Plan for Tarbaj Town is an earnest step toward achieving the county's vision of being "*A peaceful, cohesive and prosperous county, affording quality life for its citizens.*" The plan focuses on improving residents' living conditions and livelihood and spurring economic development.

The major planning challenges facing Tarbaj Town include but are not limited to lack of a spatial framework to guide its growth; increased urban population straining the available infrastructural facilities; informal settlements; lack of basic infrastructure developments such as sewer, water supply, solid waste management site, stormwater drainage and environmental degradation emanating from continuous use of wood fuel. In addition, the town receives little or no precipitation annually, causing extreme drought and famine, severely impacting livestock and the residents' quality of life.

The plan and its preparation process are 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 LPLUDP for Tarbaj Town will serve the following purposes:

- i. **Framework to guide land use within the planning area** - This plan designates areas for residential, industrial, agricultural, commercial, mixed development, educational, recreational, conservation and utility and transportation areas within Tarbaj area.

- ii. **The basis for attracting investment** - the designated areas for various activities such as industrial, housing, and commercial development will be priority areas for investment within the planning area.
- iii. **The framework for providing appropriate infrastructure and utility services** - The identified infrastructural development (that includes water, sewer, solid waste, and transportation) in this plan shall be prioritized for implementation to promote the transformation of Tarbaj Town.
- iv. **The basis for improving the town's liveability index** - The interventions in improving the economy, land use, environment, transportation, and governance in this plan shall lead to improved well-being of the people of Tarbaj Town. The interventions aim to achieve enhanced service delivery and peace and stability.
- v. **Basis for environmental management and conservation** - Resources shall be directed to the identified environmental problem areas and the environmentally significant areas in this plan for management and conservation to improve the quality of the built and natural environment.
- vi. **Basis of regulating day-to-day development in Tarbaj** - Based on the development framework proposed in this plan and the land management regulations attached to the various land uses, development in the area will be regulated. Development in the various zones will only be approved based on conformity to the land use and zoning regulations.

## 1.3 Vision and Objectives of the Plan

### Vision of the Plan

Preparing the Local Physical and Land Use Development Plan for Tarbaj Town required the formulation of a vision and guiding objectives that will provide a framework for the preparation of the plan. The vision and the objectives are as outlined below:

#### *Vision Statement*

The vision statement below was developed through a visioning process involving discussions and workshops with various government agencies, the business community, and other community representatives.

***“A well-governed town that is safe, economically vibrant, environmentally sustainable with adequate physical and social infrastructure”.***

The above vision was obtained from vision statements as presented below.

- i. Clean, liveable and a well-planned town
- ii. A well-conserved environment
- iii. Well-integrated transportation system
- iv. A functional, coordinated, inclusive and accountable administrative system
- v. Adequate social and physical infrastructure

The vision statements aimed to develop Tarbaj Town as clean and coordinated in terms of accessibility and infrastructural availability, a vibrant economy providing employment opportunities for the residents and a secure environment providing a safe, clean and liveable quality of life for all.

*Plate 1-1: Visioning Workshop and Shared Visions*







areas within residential communities and neighbourhoods.	recreational open spaces within each neighbourhood.	green connectors along roads through public parks and neighbourhood parks that offer seamless pedestrian connectivity throughout the town.
		Provide a stadium to serve the whole town.
Provide an efficient road network and integrate it with other residential areas.	Improve mobility and accessibility through road improvements and new road construction.	Establish a road network and a road hierarchy that suits the town.
To ensure green modes of transport, such as walking and cycling, within the planning area.	Create a conducive environment for walking and cycling within the town.	Develop a green connector network linking all green areas.
		Provide dedicated pedestrian walkways and cycling paths along roads and residential areas.
Provision of integrated, timely, cost-effective and eco-friendly infrastructure facilities.	Provide adequate power supply.	Possible use of off-grid power such as solar and wind to supplement electricity.
		Extend the existing power supply network to cover the whole planning area.
	Provide adequate water supply.	Extend the existing water reticulation system to cover the entire planning area.
		Supplement water supply through rainwater harvesting.
		Construction of more water pans

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

OBJECTIVES	STRATEGIES	RECOMMENDATIONS
		and seasonal rivers (laghas) damming.
	Provide drainage and flood control measures.	Construct drainage channels along major roads.
	Provide sewerage and wastewater treatment infrastructure.	Construct a decentralized oxidation pond.
		Construct a sewer reticulation system covering the existing and proposed build-up areas.
	Provide solid waste management facilities in all existing and new development areas.	Waste bins are to be provided in all residential areas.
		Transfer stations are to be established within residential and commercial areas.
		Establish a sanitary landfill site.

### Objectives of the Plan

The objectives of the plan are:

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

### 1.4 Description of the Project Assignment

The formulation of the LPLUDP for Tarbaj Town is grounded on the Terms of Reference (TORs) as provided by the Lands, Housing and Physical Planning Department. The Terms of Reference provided a guide on preparing the LPLUDP for Tarbaj Town and act as a benchmark

for subsequent evaluation of the work accomplished to achieve a common goal. 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 and plan in a digitally interactive format.
- iv. An integrated urban development plan that addresses the town's existing and future challenges.

## 1.5 Guiding Principles/ Values

The Tarbaj LPLUDP postulates three sustainability principles –equity, economy, and ecology- to guide the planning and development of Tarbaj Town. Derived from these principles, the planning of Tarbaj Town is based on the following principles:

- i. **Effective Public Participation:** The preparation of Tarbaj Town LPLUDP has been done through various consultative meetings with various key stakeholders, including the town's residents and the county government. The views given by these stakeholders formed the basis for the formulation of plan proposals.
- ii. **Compact development** –Urban activities will be concentrated within the same area to mitigate urban sprawl and protect grazing land.
- iii. **Liveability-** The plan aims to have a town with a high livability index, adequate physical and social services, affordable and adequate housing, efficient transportation infrastructure, and a safe, healthy, and environmentally friendly town with a vibrant economy.
- iv. **Smart and green urban growth-** The plan considers smart growth principles to achieve smart growth. Neighbourhood planning, mixed-use development, and urban greening through adequate green areas form the plan's basis.

- v. **Sustainable development-** The plan is anchored on providing essential services for the current and future population through carrying out a population needs assessment to provide adequate services that will serve the needs of the present generation and the coming generation.

## 1.6 Approach and Methodology

As part of the studies for the development of the Plan, the team undertook field visits to Tarbaj Town, obtained an aerial photograph of the town, mapped the town, conducted a visioning workshop, carried out focused group discussions (FGDs), detailed spatial and socioeconomic field surveys, key informant discussions, transect survey and direct observations. The process of developing the plan is summarized in Table 1-2.

Table 1-2: Steps in Plan Preparation

NO.	STEP	KEY ACTIVITY
1.	Project Inception	<ul style="list-style-type: none"> <li>➤ Notice of intention to plan</li> <li>➤ Start-up meetings</li> <li>➤ Identification of stakeholders</li> <li>➤ Developing a Mode of Operation/Action Plan</li> <li>➤ Appraisal of project area/reconnaissance</li> </ul>
2.	Scoping of context	<ul style="list-style-type: none"> <li>➤ Launch and preliminary Visioning;</li> <li>➤ Urban Study: <ul style="list-style-type: none"> <li>○ Literature review</li> <li>○ Key Informant interviews</li> <li>○ Stakeholder consultations/FGDs</li> <li>○ Observation (including photography)</li> <li>○ Administering questionnaires</li> </ul> </li> <li>➤ Stakeholder consultations;</li> <li>➤ Aligning the results thematically.</li> </ul>
3.	Mapping	<ul style="list-style-type: none"> <li>➤ Acquisition of high-resolution aerial image for the planning area;</li> <li>➤ Acquisition of digital topographical maps;</li> <li>➤ Preparation of thematic maps;</li> </ul>

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

NO.	STEP	KEY ACTIVITY
		<ul style="list-style-type: none"> <li>➤ Digitization and compilation of the digital information.</li> <li>➤ Preparation of a cadastral layer</li> <li>➤ Creation of a GIS data base.</li> </ul>
4.	Identification of planning issues	<ul style="list-style-type: none"> <li>➤ Analysis of the baseline information;</li> <li>➤ Sector consultations;</li> <li>➤ Validation of situational analysis findings and the planning issues identified;</li> <li>➤ Visioning;</li> <li>➤ Realigning /reaffirming the preliminary vision established at the launch of the project.</li> <li>➤ Incorporating stakeholder's concerns and comments.</li> </ul>
5.	Land optimization for Urban Development	<ul style="list-style-type: none"> <li>➤ Projection of Land requirements based on population needs;</li> <li>➤ Land suitability; <ul style="list-style-type: none"> <li>○ Slope analysis;</li> <li>○ Threshold analysis;</li> </ul> </li> </ul>
6	Preparation of Land use /Zoning plan	<ul style="list-style-type: none"> <li>➤ Preparation of a zoning/Land use Plan</li> </ul>
7	Formulation of Land Use and Land Management Policies.	<ul style="list-style-type: none"> <li>➤ Formulation of Land use and Land Management Policies /Guidelines based on zoning</li> </ul>
8	Action Area Planning	<ul style="list-style-type: none"> <li>➤ Identifying Action Areas</li> <li>➤ Undertaking Action Area Planning.</li> </ul>
9	Formulation of sector development strategies	<ul style="list-style-type: none"> <li>➤ Formulating sector development strategies;</li> <li>➤ Identifying strategic actions and measures;</li> <li>➤ Identification of programs and projects to be implemented to realise the strategies.</li> </ul>
10	Implementation	<ul style="list-style-type: none"> <li>➤ Identification of Capital Investment Projects.</li> </ul>

NO.	STEP	KEY ACTIVITY
	Framework	➤ Preparation sector of the implementation strategy
11	Stakeholder engagement (Validation Workshop for the Draft Plan)	<ul style="list-style-type: none"> <li>➤ Presentation of the Draft Plan</li> <li>➤ Collection of comments from the stakeholders.</li> </ul>
12	Preparation of the Final Draft Plan	<ul style="list-style-type: none"> <li>➤ Incorporation of the comments as raised by the stakeholders;</li> <li>➤ Packaging the reports for final submission.</li> </ul>
13	Submission of the Plan for approval and adoption.	<ul style="list-style-type: none"> <li>➤ Submitting the Final Plan to the office of the County Executive Member in charge of Lands, Housing and Physical Planning</li> <li>➤ Submission of the Final Plan to the county executive so as to follow the legal process for approval.</li> </ul>

## 1.7 Structure of the Report

The LPLUDP report for Tarbaj Town summarizes the existing conditions, plans and designs developed as part of the planning process and has the following chapters:

### Chapter 1: Introduction

This chapter provides the background to the project area by describing the plan's purpose, vision, and objectives, as well as the terms of reference, the methodology used in preparing the plan, and the organization of the plan report.

### Chapter 2: Planning Context

This chapter outlines the project location and its physiographic characteristics in terms of climatic conditions and geological attributes, the previous planning effort in the town and its existing functions and potential. A review of the policy and legal background guiding the plan's development is also provided.

### Chapter 3: Situation Analysis

This chapter summarises the existing situation within the project area by profiling the different development conditions prevalent in the town. This chapter takes stock of the current and projected population needs, provides an analysis of the site, and provides an assessment of the



current development conditions. A highlight of the town's current management structure and a summary of the emerging issues have been explained.

#### **Chapter 4: Plan Proposals**

The chapter outlines the proposals that have been prescribed for the betterment of the town and presents them in the form of maps and tables. The detailed structure plan for the town shows the urban limits and land uses for different sectors, as well as guiding regulations to be adhered to during implementation. A proposed scheme plan is also provided, showing the existing and proposed land cadaster for the town to be used during the survey process. Urban design solutions for urban betterment and an implementation framework for which different projects are to be phased have been given.

#### **Chapter 5: Capital Investment Plan**

This chapter gives the capital investment framework for implementing projects that have a high multiplier effect to the development of the town.



## 2 PLANNING CONTEXT

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### 2.1 Overview

The planning of Tarbaj 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 town

#### Regional Context

Tarbaj Town is located in Wajir County and is one of the major urban areas in the county. It serves the administrative function of being the sub-county headquarters for Tarbaj Sub-County. The town is 54 km to the South of Wajir Municipality and 293km from Mandera Town to the northeast, while Marsabit and Moyale are 468 and 242 kilometres to the west and northwest, respectively. It is situated at the junction of the Wajir-Mandera and Wajir–Sarman/Dambas Roads. The strategic location of the town in the region is an advantage and offers opportunities for:

- The regional flow of goods, people and capital
- Job creation
- Inter-county and intra-county connectivity

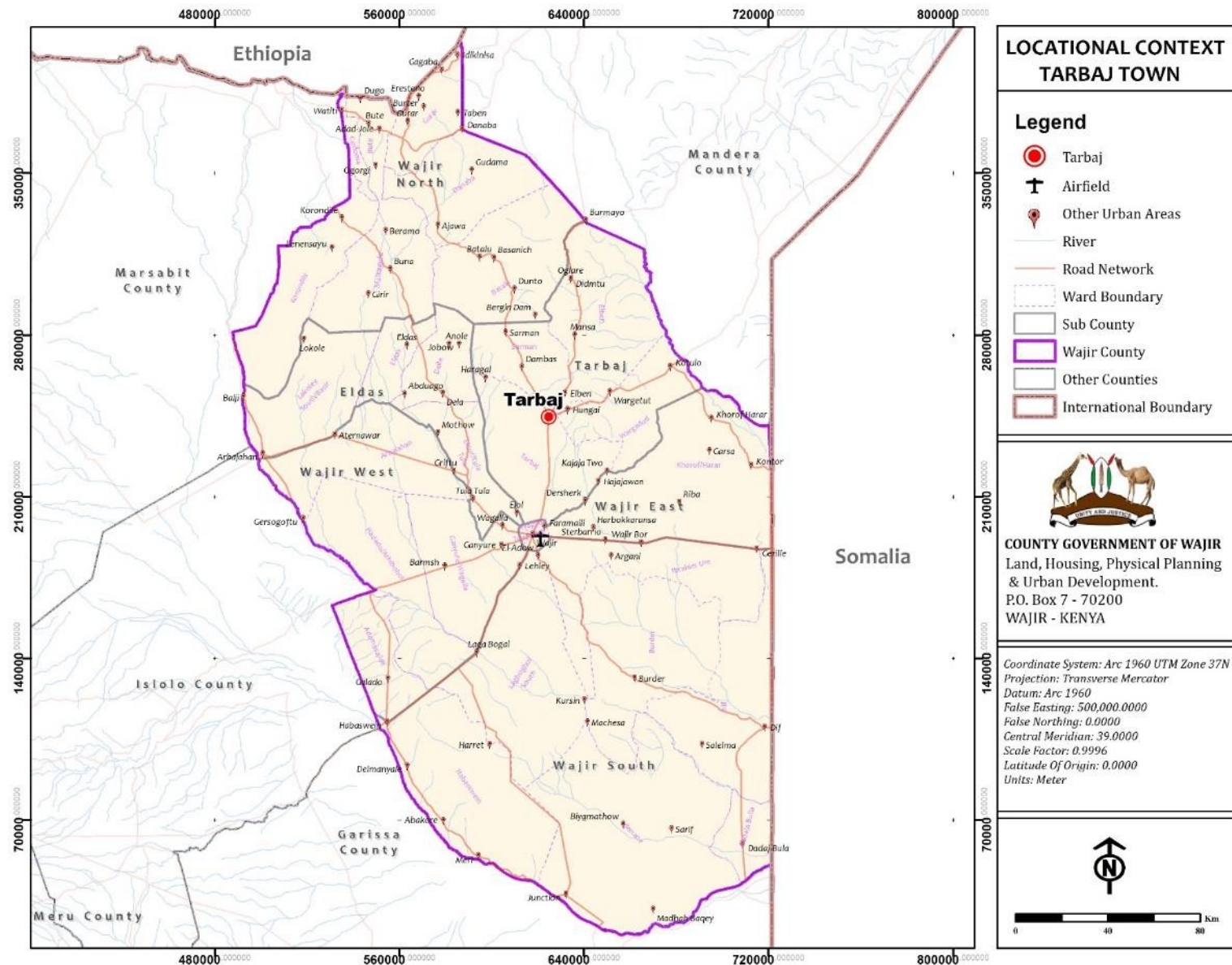
#### Local Context

The town covers an area of 108.63 km<sup>2</sup> (10863 hectares). It is located at 2.207926 (Latitude in decimal degrees) and 40.123434 (Longitude in decimal degrees) at 420 meters above sea level. The town is linked by road to Wajir (south), Mandera (east), and Griftu (west). The town's location plays a vital role in its relationship with other neighbouring towns, such as Griftu, Sarman, Haragal, Kotulo and Elben, which are linked by major road networks.



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Map 2-1: Locational Context for Tarbaj Town



## 2.3 Physiography

### 2.3.1 Climate

The climate is characterized by hot weather and long dry spells due to extreme temperatures received throughout the year. The town lies within the Sahelian (eco-climatic and bio-geographic transition zone between the Sahara Desert in the North and the savannahs) climatic region. The town receives an annual average rainfall of 29 mm. Long rains fall in April/May, and the short rains fall in June – September. At an average temperature of 28.8 °C, March is the hottest month of the year, whereas July is the coldest month of the year at 25.0 °C on average.

Figure 2-1: Annual Temperature for the Town

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	27.8	28.4	28.8	27.8	26.6	25.6	25	25.3	26.1	26.7	26.6	26.8
Min. Temperature (°C)	19.5	19.8	20.7	21	20.2	19.2	18.7	18.7	18.8	19.5	19.6	19.4
Max. Temperature (°C)	36.1	37.1	37	34.6	33.1	32.1	31.3	31.9	33.4	33.9	33.6	34.3
Avg. Temperature (°F)	82.0	83.1	83.8	82.0	79.9	78.1	77.0	77.5	79.0	80.1	79.9	80.2
Min. Temperature (°F)	67.1	67.6	69.3	69.8	68.4	66.6	65.7	65.7	65.8	67.1	67.3	66.9
Max. Temperature (°F)	97.0	98.8	98.6	94.3	91.6	89.8	88.3	89.4	92.1	93.0	92.5	93.7
Precipitation / Rainfall (mm)	6	8	38	103	35	1	3	3	3	41	77	25

Source: <https://en.climate-data.org/africa/kenya/wajir/tarbaj-103139/#temperature-graph>

### Altitude, Topography and Slope

Tarbaj Town is at an average altitude of 420 Meters above sea level and is situated on a flat, featureless plain. The flatness often makes the area prone to flooding during the rainy seasons, resulting to impassable roads. However, the relatively flat terrain allows easy construction of infrastructural facilities such as roads, electricity transmission and telecommunication lines.

### Hydrology and Drainage

No permanent rivers are flowing through the town. Instead, seasonal rivers (locally known as *laghas*) traverse the town, flow during the rainy seasons and dry up during the dry seasons.

### Vegetation

The vegetation is characterized by a pattern of short, thorny shrubs together with scattered grass cover. There are several species of acacia and scattered trees, such as the famous Commiphora tree. The vegetation type encourages pastoralism, the main activity practised in this area.

### **2.3.2 Geological and Soil Characteristics**

#### ***Rock Structure***

The town is characterized by hard rock outcrops and float blocks underlain by metamorphosed sediments which are enclosed in crystalline limestone. They are considered to form part of the Basement System. The Basement System rocks are quartzite, limestone, para-gneisses, schist, and amphibolite.

#### ***Soil Characteristics***

Tarbaj Town consists of sandy soils locally known as ‘Rama’ that are dark reddish brown, deep, well-drained, non –saline and non-sodic with high infiltration capacity.

## **2.4 Functions of the Town**

#### ***Commercial and Service Functions***

The town hosts formal and informal commercial activities ranging from hotels and lodges, mobile money transfer shops, wholesale and retail trade, food vending kiosks, barber shops, cybercafé, and tailoring. It also provides essential services such as education, residential, health, and security.

#### ***Administrative functions***

Tarbaj Town is the sub-county headquarters for Tarbaj Sub-County. It hosts the ward administrator’s office, town administrator’s office, sub-county administrator’s office and offices of the Deputy County Commissioner for Tarbaj Sub County.

#### ***Residential Function***

Although no clearly defined housing areas exist, the town plays a vital role in housing and accommodation. Housing development in the town faces a huge drawback as it lacks supportive infrastructure, and the majority are either neglected or of poor quality.

## **2.5 Potential of the Town**

#### ***Commercial and Service Potential***

The strategic location of the town provides greater opportunities for commercial investments. The town is a gateway to Mandera and other important urban areas in the region. Improving the



road conditions will link the town to other principal towns in the region, ensuring efficiency in trading activities.

### ***Transportation Potential***

Tarbaj Town has a huge transportation potential mostly because of its strategic location. With improved road conditions in terms of upgrading to tarmac, the town can offer efficient through-traffic flow to major towns in the larger North Eastern region.

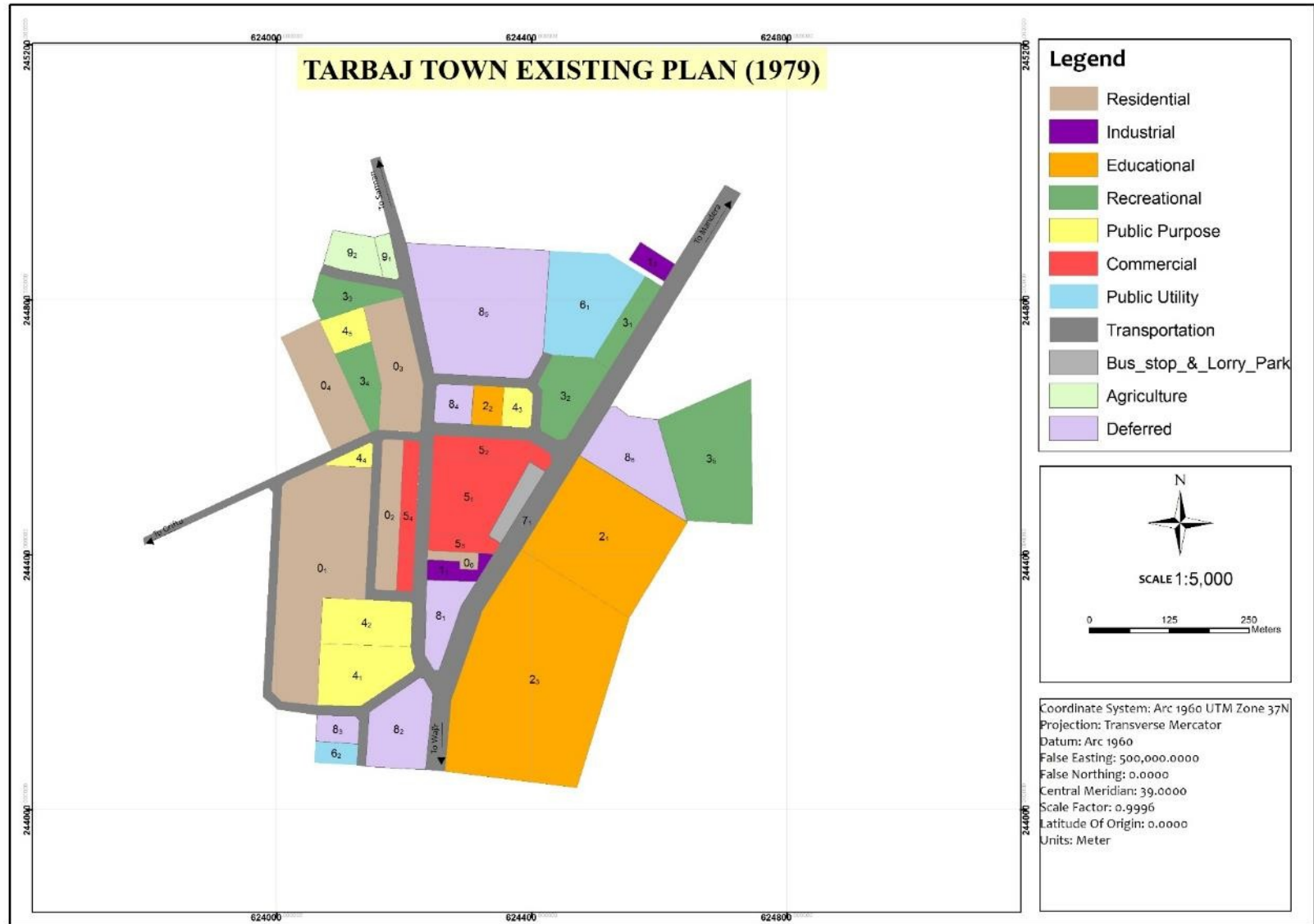
## **2.6 Previous Planning Effort**

The 1979 plan indicated the location of schools, a slaughterhouse, a cemetery, a water point, medium-density residential areas, a bus park, a lorry park and various roads connecting the town to the former Wajir town council. The plan was partially implemented as the proposed primary school, and the health centre were actualized, whereas other key proposals, such as bus and Lorry Park, were never implemented. The industrial zone has been converted into a residential zone due to a lack of industrial investment and the subsequent expansion of the town. Road reserves have been encroached upon, and some roads have been blocked due to uncontrolled growth and settlement within the town. The plan was detailed enough to provide a basis for other infrastructure development such as sewers, water, sanitary landfills, stormwater drainage, and public transport. The existing situation culminated with the need for improvement, which led to the preparation of the Tarbaj Local Physical and Land Use Development Plan that will guide the growth of the town from the years 2023 to 2033.



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Map 2-2: Tarbaj Previous Plan



## 2.7 Policy Direction

The mandate to prepare the LPLUDP for Tarbaj Town is derived from various statutory and policy provisions, giving the context within which the entire planning exercise was conducted. These legislations are discussed below.

Table 2-3: Global Conventions

GLOBAL BEST PRACTICES	DESCRIPTION
Sustainable Development Goals (Goal 11 :)	<p>The Sustainable Development Goals (SDGs) define global sustainable development priorities and aspirations for 2030 and seek to mobilize global efforts around a common set of seventeen goals and targets. Relevant components include aims for:</p> <ul style="list-style-type: none"> <li>• Providing access to adequate, safe and affordable housing and basic services</li> <li>• Providing access to a safe, affordable, accessible and sustainable transport system for all.</li> <li>• Enhancing inclusive and sustainable urbanization and improving capacity for participatory, integrated, sustainable human settlement planning and management.</li> <li>• Reduction of the number of deaths and the number of people affected by calamities</li> <li>• Reduction of the adverse environmental impact of urban areas by paying special attention to air quality and waste.</li> <li>• Provision of universal access to safe, inclusive and accessible green and public spaces</li> </ul>
The New Urban Agenda	<p>The New Urban Agenda provides a roadmap for building urban areas that can serve as engines of prosperity, inclusion and cultural and social well-being centres while protecting the environment. The agenda also provides guidance for achieving the SDGs and provides the underpinning for actions to address climate change. Additionally, the agenda provides a framework for urban policies, urban planning and design and governance, and rules and regulations to enhance urban finance.</p>

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Table 2-4: Constitutional and Policy Frameworks

LEGAL ARTICLE	SECTIONS RELEVANT TO THE PREPARATION OF THE PLAN
Constitution of Kenya	<ul style="list-style-type: none"> <li>Article 60 (1) provides that land in Kenya shall be held and managed in a manner that is equitable, efficient, productive and sustainable and in accordance with principles such as equity in access to land, security of land rights, sustainable and productive management of land resources, transparent and cost-effective management of land, sound conservation and protection of ecologically sensitive areas. It also advocates for the participation of people in decision-making.</li> <li>Article 61 (1), (2) describes land ownership and classification within Kenya.</li> <li>Article 63 of the Constitution of Kenya guarantees the rights of communities to their lands and territories. It states that community land consists of land lawfully held, managed or used by specific communities as community forests and grazing areas.</li> <li>Article 66 (1) states that the state may regulate the use of any land or right over land in the interest of public safety, order, health or land use planning.</li> <li>Article 174 outlines principles of promoting socio-economic development and provision of proximate and easily accessible services, which equally depend on proper planning, development and utilization of resources.</li> <li>Chapter Four of the Kenyan Constitution contains a progressive Bill of Rights that guarantees all citizens the right to a clean and healthy environment.</li> </ul>
Vision 2030	<p>This is the blueprint for Kenya’s long-term national development. It is anchored on three main pillars: Economic, Social and Political. The document is geared towards transforming Kenya into “ a newly industrializing, middle-income Country providing a high quality of life to all its citizens in a clean and secure environment” through the improvement of key sectors such as infrastructure, Energy, Security,</p>



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LEGAL ARTICLE	SECTIONS RELEVANT TO THE PREPARATION OF THE PLAN
	<p>Tourism, Agriculture, Wholesale/Retail Trade, Manufacturing, Financial services and Business Process Outsourcing.</p> <p>In addition , this development blueprint addresses:</p> <ul style="list-style-type: none"> <li>• Preparation of land use and physical plans for better urban planning.</li> <li>• Production of housing units to meet the housing demand.</li> <li>• Building of capacity in planning departments.</li> </ul>
National Spatial Plan	<ul style="list-style-type: none"> <li>• The NSP defines the general trend and direction of spatial development for the country by providing a framework for better national organization and linkages between different activities within national space hence informing the future use and distribution of activities.</li> <li>• The NSP advocates for providing services and facilities, such as providing and expanding sewerage and water reticulation systems and solid waste management facilities to meet its urban function.</li> </ul>
National Land Policy (2009)	<p>The National Land Policy guides the country towards sustainable and equitable use of land. It aims to provide a framework for land use planning and development control in all administrative levels, i.e., national, county, and town. It also calls for immediate actions to address environmental problems affecting lands, such as degradation, soil erosion, and pollution.</p>
National Land use Policy (2017)	<ul style="list-style-type: none"> <li>• This policy provides the legal, administrative, institutional, and technological framework for the sustainable and desirable utilization and productivity of land-related resources at national, county, and community levels.</li> <li>• The policy also provides the categorization of land uses in the country</li> <li>• Advocates for the development of land use plans for the country with full participation of all stakeholders</li> </ul>



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LEGAL ARTICLE	SECTIONS RELEVANT TO THE PREPARATION OF THE PLAN
	<ul style="list-style-type: none"> <li>Promoting environmental conservation and preservation</li> </ul>
Draft National Urban Development Policy	Creates a framework for orderly, competitive and sustainable urban development that enhances urban areas' physical, social and economic development.
Energy Policy 2004	This policy promotes the utilization of renewable energy sources to enhance Kenya's electricity supply capacity while mitigating climate change from fossil fuels.

Table 2-5: Legal Framework

LEGAL ARTICLE	SECTIONS RELEVANT TO THE PREPARATION OF THE PLAN
Physical and Land Use Planning Act, 2019	<ul style="list-style-type: none"> <li>An Act of Parliament to make provision for the planning, use, regulation and development of land and for connected purposes. It provides for the principles, procedures and standards for preparing and implementing physical and land use development plans at the national, county, urban, rural and cities level; a framework for equitable and sustainable use, planning and management of land among other objects. This plan has been undertaken pursuant to the Physical and Land Use Planning Act. Its approval shall also proceed following the advisory of this Act.</li> </ul>
County Government Act	<ul style="list-style-type: none"> <li>The Act provides for the powers, functions and responsibilities of County Governments who are mandated with the role of county planning according to the constitution of Kenya.</li> <li>The Act obligates county governments to prepare plans, without which no public funds shall be appropriated (section 104 (1))</li> <li>In addition, the Act provides that the respective county assembly approve all plans prepared for a county.</li> </ul>

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LEGAL ARTICLE	SECTIONS RELEVANT TO THE PREPARATION OF THE PLAN
Urban Areas and Cities Act of 2011 and its Amendment Act 2019	<ul style="list-style-type: none"><li>• The Act establishes a legislative framework for the classification of areas as urban areas or cities, governance and management of urban areas and cities and participation by the residents in the governance of urban areas and cities</li><li>• The Act provides a legal basis for establishing Urban Management Boards to oversee the affairs of urban areas.</li><li>• It also provides for the development of an Integrated Urban Development Plan.</li></ul>



## 3 SITUATION ANALYSIS

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### 3.1 Overview

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

### 3.2 Population and Demographic Characteristics

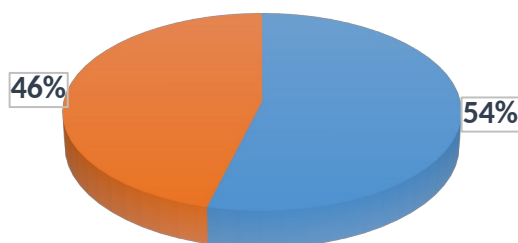
#### Population Size

Based on the 2019 housing and population census, the population of Tarbaj Town was found to be 3,146. A total of 2,060 were male, whereas 1,925 were female. Given the county's population growth rate of 1.67% per annum, the Tarbaj population is projected to increase to 3,361 by 2023 and 3967 by 2033. Based on the function of the town as a sub-county headquarters, the provision of facilities and amenities in the town has factored in the catchment population for the entire location. According to the 2019 population and housing census, there was a population of 12,445. This catchment population is projected to increase to 13,297 in 2023 and 15,693 in 2033.

#### Male – Female Ratio

The male population accounts for 54 % whereas the female population accounts for 46 % of the town's total population.

*Chart 3-1: Male to Female Ratio*



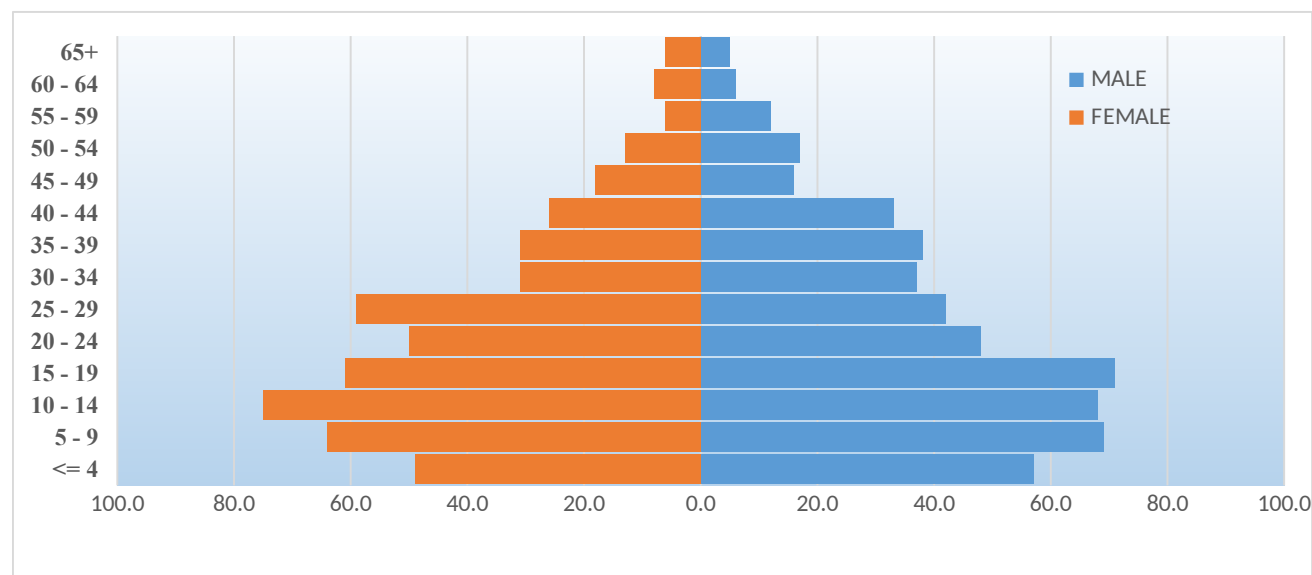
*Source: Field Survey, 2019*



## Population Structure

The population structure for Tarbaj Town reveals a youthful population as presented in Chart 3-2.

Chart 3-2: Tarbaj Town Population Pyramid



Source: Field Survey, 2019

## Implications of the Population Structure

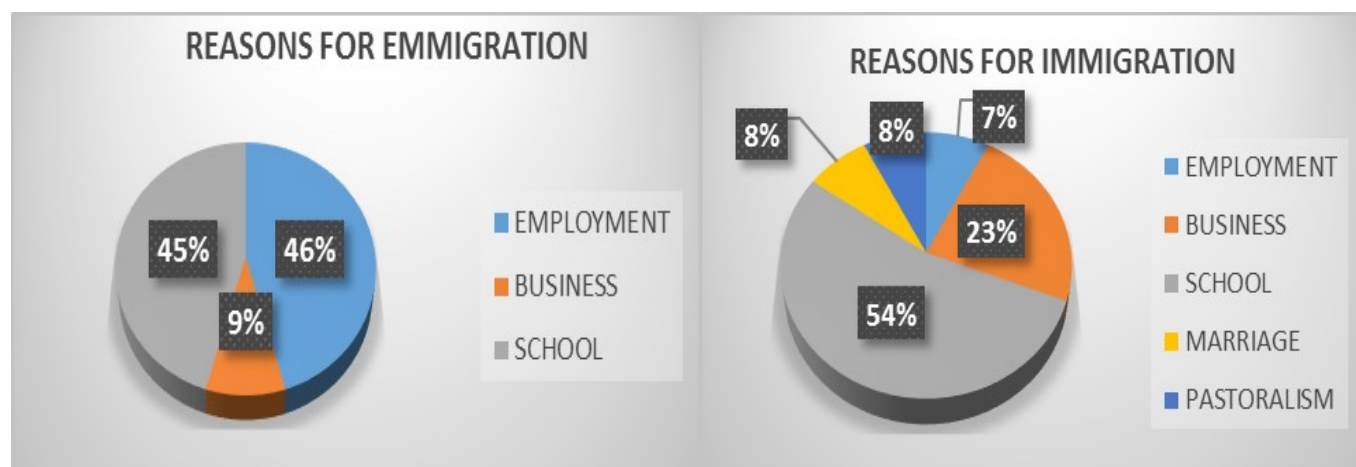
As shown in the population pyramid above, Tarbaj Town has a youthful population, constituting 78 %. Adequate educational and health facilities, recreational facilities and investment opportunities that provide employment opportunities for the youth are necessary. The lower proportion of 0-4-year-olds is due to high infant and under-five mortality rates. Investment in healthcare services is necessary to reduce deaths. It also depicts more males than females at young ages while women are more at older ages (65+). The low-aged population is attributed to poor eldercare services in the town. There is a need to establish an eldercare facility within the town.

## Immigration and Emigration trends

Since Tarbaj is a transit town to Mandera from Wajir, there are inter-country movements between Kenya and Somalia. Out-migration is more than in-migration because of factors such as the search for white-collar jobs and education facilities. There is also seasonal migration of pastoralists in search of pasture for livestock.



Chart 3-3: Reasons for Emigration and Immigration



Source: Field Survey, 2019

## Demographic Trends

### Fertility

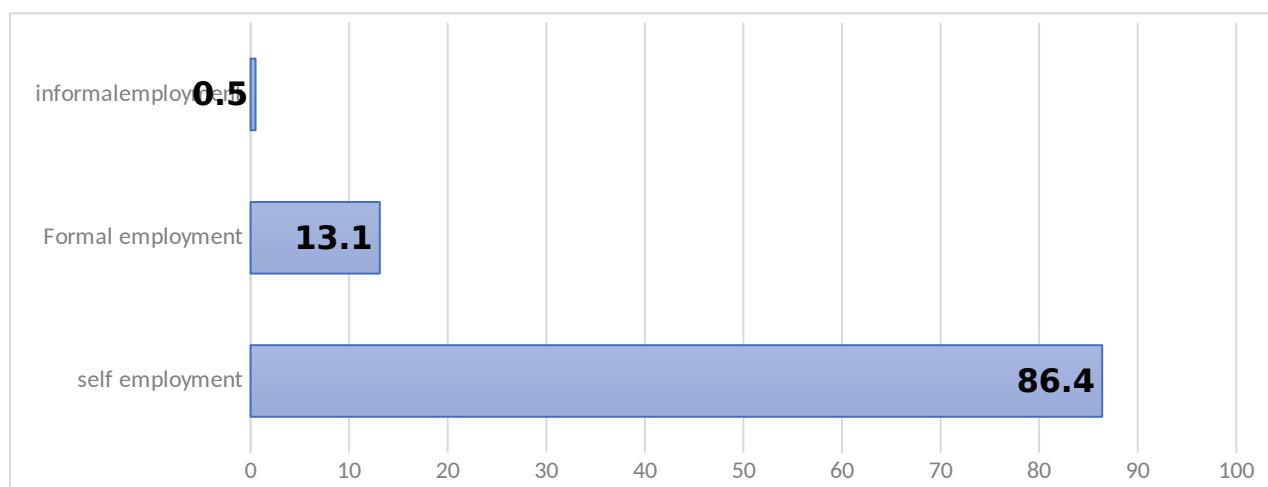
The total fertility rate for Wajir County is 7.8. This is much higher than the national fertility rate of 3.9 children per woman. This means that a woman in Wajir County can have up to 8 children in her lifetime. This is evidenced by the high youth population in the county, hence the need for adequate facilities and the creation of more employment opportunities.

### Income

Field survey revealed that about 86.4 % of households are self-employed, with the majority venturing into pastoralism as the major source of livelihood. Households that are formally employed amounted to 13.1 %, with most working in Government Institutions either as teachers, administrators or security personnel. Those employed in the informal sectors such as food vending, masonry and tailoring make up a total of 0.5 % of the total.

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Chart 3-4: Main sources of Income in Tarbaj Town

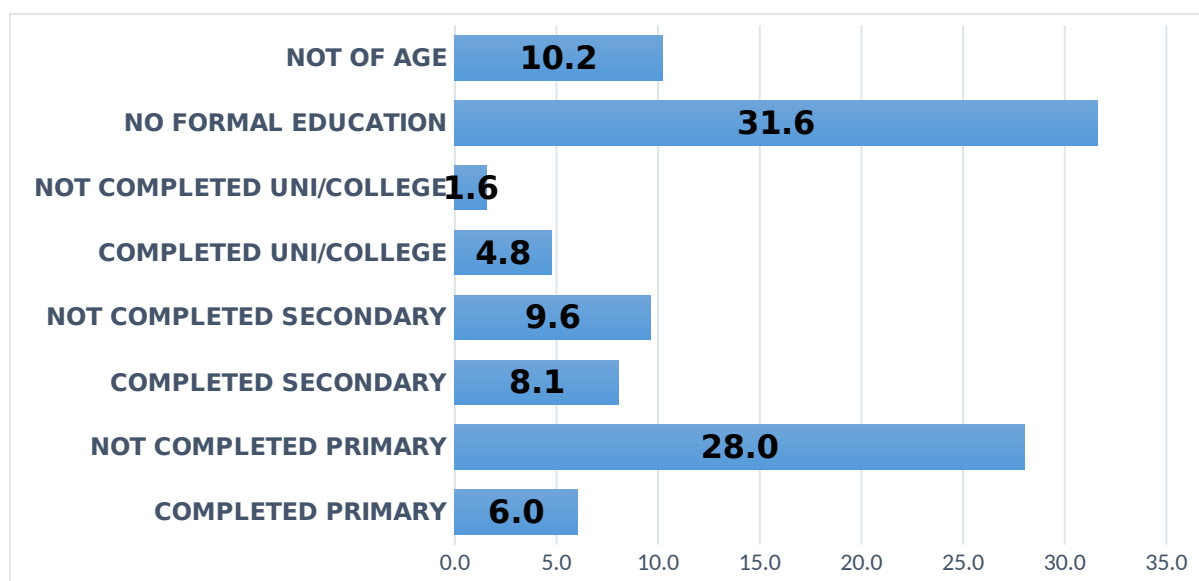


Source: Field Survey, 2019

### Literacy

According to a field survey in 2019, only 28% of the residents have completed primary school, whereas those who have completed secondary school account for 8.1% of the total population.

Chart 3-5: Literacy Level in Tarbaj Town



Source: Field Survey, 2019

### Life Expectancy

The current life expectancy for Wajir County is 62 years compared to the national one of 66.7 years. This low life expectancy is attributed to high levels of poverty, disease prevalence such as waterborne diseases, and low and unreliable rainfall, which leads to a shortage in food supply.

### **Emerging Issues in Population**

- There is a high dependency ratio, with the age cohort 0 – 64 years forming 71% while the aged take up 1.9% of the total population. There is a need to invest in employment creation ventures and establish more educational and health facilities to ensure quality in service delivery.
- The town's illiteracy levels are very high, accounting for 31.6% of the total population. The percentage of people who have completed secondary and primary school is 8.1% and 28%, respectively.
- More boys than girls are enrolled in primary schools, accounting for 54% of the school-going population. This is attributed to girls' early marriages, preference for boys' education and beliefs that discourage mixing boys and girls. Initiatives to spearhead gender parity in education are therefore necessary.
- Out-migration is more than immigration because of several factors, such as marriage, seeking employment, and education facilities.

### **Population and Needs Assessment**

Based on the function of the town as a sub-county headquarters, the provision of facilities and amenities in the town has factored the catchment population for the entire location, which, according to the 2019 population and housing census, had a population of 12,445. This catchment population is projected to increase to 13,297 in 2023 and 15,693 in 2033.

The population needs of the town are as presented in Table 3 -6. These needs contain the services required in a town as per the Urban Areas and Cities (Amendment) Act, 2019, as well as other services that are intended to facilitate its function as the sub-county headquarters.

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

*Table 3-6: Population Needs and Urban Land Use Requirement Assessment*

<b>Facilities</b>	<b>Current number of facilities</b>	<b>(1 per catchment population)</b>	<b>Area Per Unit in Ha.</b>	<b>Current demand 2023 (Pop. 13,297)</b>	<b>Projected demand 2033 (15,693)</b>	<b>Demand Gap 2033</b>	<b>Total area (Ha)</b>
Police Station	1	49,999	2	1	1	-	-
Town Halls	1	49,999	1.2	1	1	-	-
Lower court	-	49,999	1	1	1	1	1
Library	1	49,999	0.4	1	1	-	0.4
Post office	1	49,999	0.04	1	1	-	-
Primary	2	4,000	3.9	3	4	2	7.8
Secondary School	1	8,000	4.5	2	2	1	4.5
Vocational institution	1	15,000	10.2	1	1	-	-
Religious institution	4	15000	0.1	1	1	-	-
Community Centres	1	20,000	0.25	1	1	-	-
Level 2 (Dispensary)	-	10,000	1	1	2	2	2
Level 3 (Health Centres)	1	30,000	3	1	1	-	-
Level 4 (Sub-County Hospitals)	-		4	1	1	1	4
Child care facilities	-	49,999	0.1	1	1	1	0.1
Animal control office	-	49,999	0.1	1	1	1	0.1
Abattoirs	1	49,999	2	1	1	-	-

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Sports and cultural centre facilities	-	49,999	2	1	1	-	-
<b>TOTAL LAND REQUIREMENT FOR FACILITIES</b>							19.9



### 3.3 Land Analysis

Proper land utilization is critical to the economy of any urban area. It is a basic resource for all socio-economic activities and requires sustainable utilization for prosperity.

#### 3.3.1 Existing Land Uses

Land in Tarbaj Town and its surroundings serve numerous and diverse purposes. It is mainly used for residential and commercial purposes. However, land on the outskirts is commonly used for livestock grazing. The summary of the existing land use is presented in Table 3-7.

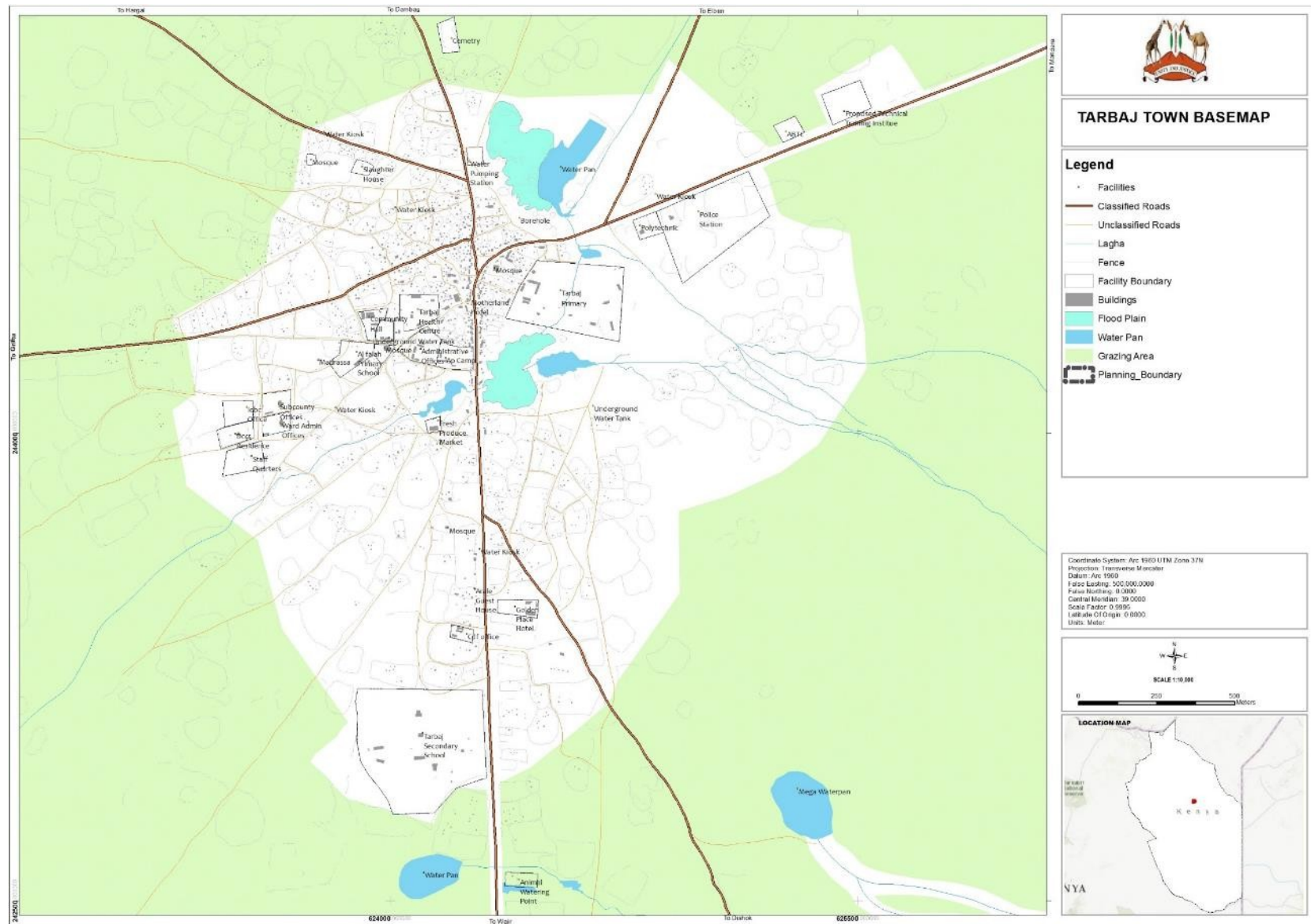
Table 3-7: Existing Land Uses

CODE	LAND USE	AREA (HA)	PERCENTAGE
0	Residential	114.54	23.8
1	Industrial	0.48	0.1
2	Educational	27	5.6
4	Public Purpose	15.71	3.3
5	Commercial	2.3	0.5
6	Public utility	37.58	7.8
7	Transportation	194.32	40.3
8	Undeveloped land	89.804	18.6

Source: Field Survey, 2019

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Map 3-3: Tarbaj Town Base Map

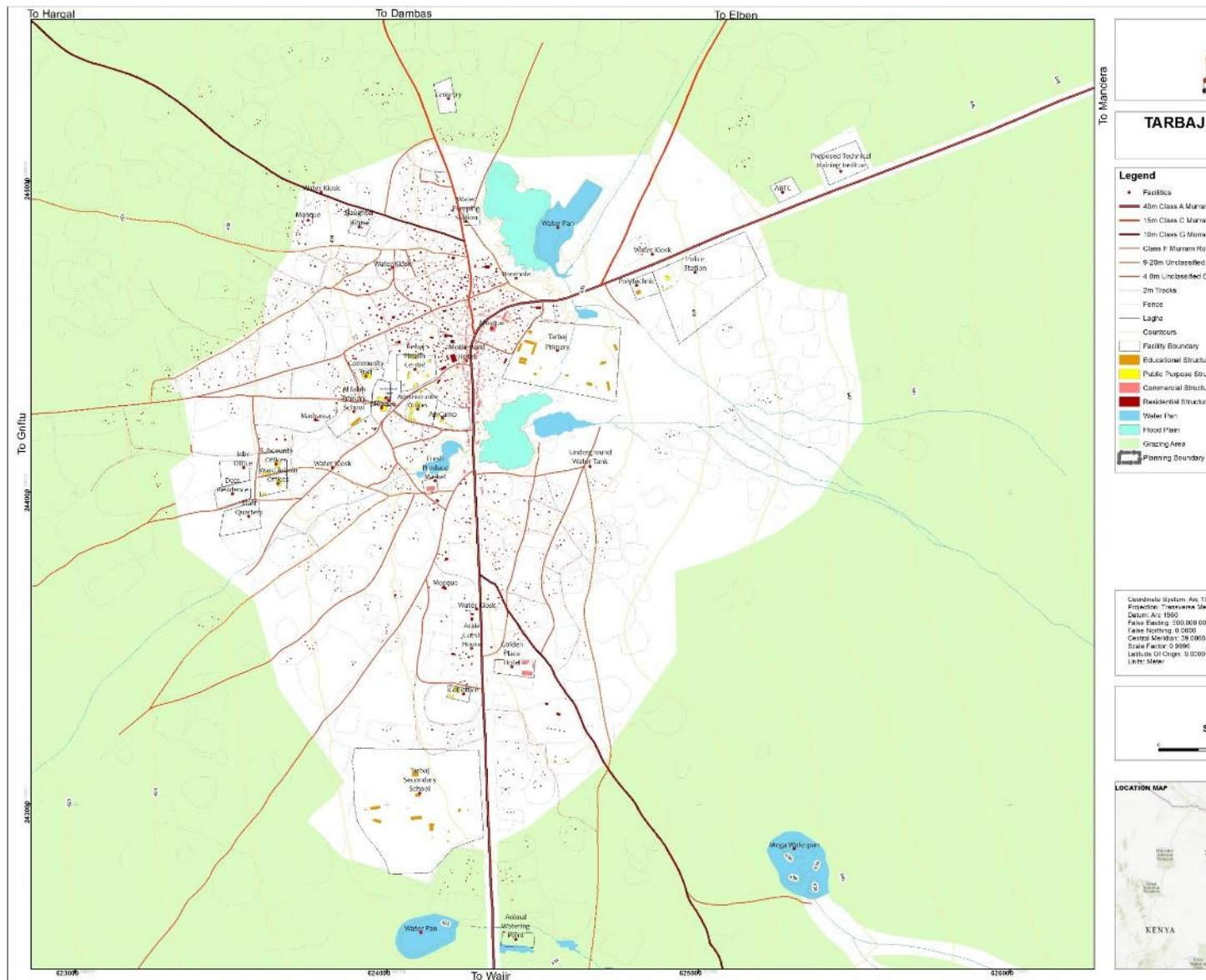


## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

*Map 3-4: Tarbaj Town Site Analysis*

### 3.3.2

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)



### Land ownership

Land ownership in Tarbaj Town is classified as community. Within this tenure system, public facilities have been allocated, and tenure has unofficially been converted to public land. A brief discussion of each type of ownership has been discussed herein.

#### Public Land

In Tarbaj, available public land accounts for only 9 %. The public land in Tarbaj Town is allocated to various government institutions and departments. Public land in Tarbaj Town includes land where county offices and departments are built and social amenities such as public educational facilities (Tarbaj primary and secondary), Tarbaj Health Centre, and a fresh produce

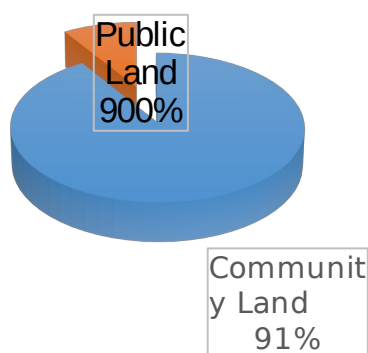


market. It includes police stations, the Office of the Deputy County Commissioner and the AP camp.

### Community Land

Communal land in Tarbaj Town accounts for 91 % of the total land in the town (*field survey 2019*). This is land within the built-up area of the town as well as the surrounding hinterland which is mostly undeveloped and comprising of rangelands.

*Chart 3-6: Land ownership in Tarbaj*



*Source: Field Survey, 2019*

### 3.3.3 Mean land holding size

The average holding size in the town is 0.6 hectares. This figure was arrived at after regularizing the parcels that exist in the developed areas and getting the average from the total area in hectares against the total number of plots.

## 3.4 Housing and Human Settlement

Adequate housing contributes directly to human health, security, and productivity, essential to the quality of life and the socio-economic development of any given society. Housing is also a major instrument for creating a better environment in urban areas.

### Housing Provision

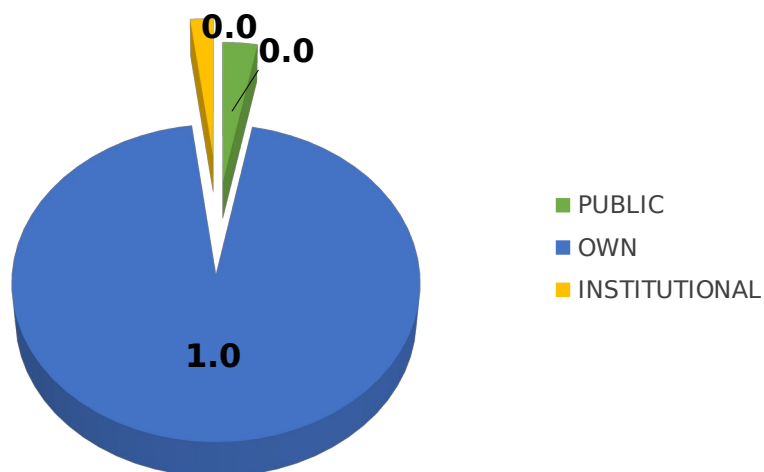
The following are the housing providers in Tarbaj Town.

- Owner-occupiers include individuals who have built their own houses for their habitation.
- Institutional providers are the housing stocks within institutions such as the primary and secondary schools and the health centres used by staff.

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

- Public providers comprise central government agencies' initiatives mainly inhabited by public servants such as police officers.

Chart 3-7: Housing provision in Tarbaj



Source: Field Survey, 2019

### Housing Typology

According to the Socioeconomic Survey 2019, housing typologies include row housing, bungalows and manyattas. Variations in income levels bring about the different types of housing in the town. The low-income earners inhabit the huts while the high and middle-income earners reside in row and single detached houses.

Chart 3-8: Housing Typology in the Town

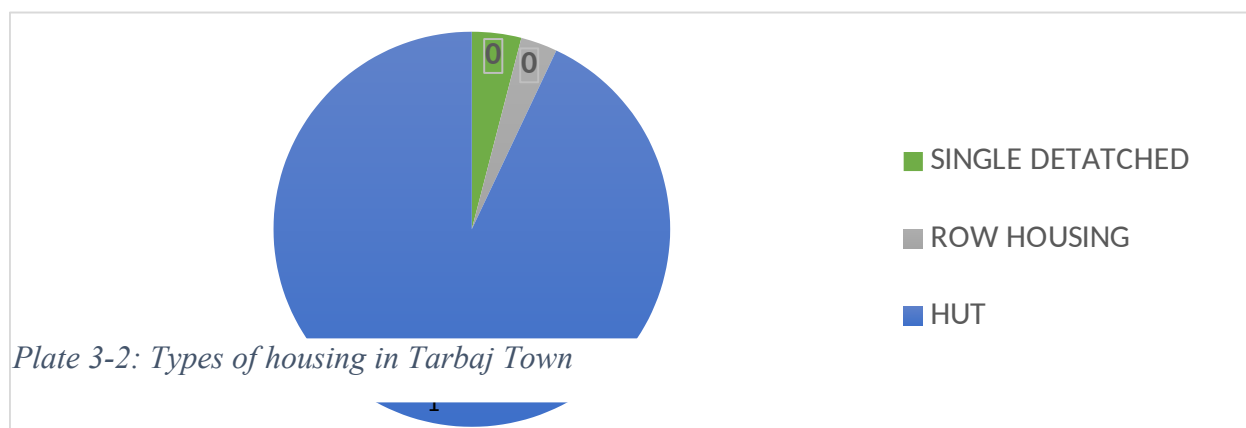


Plate 3-2: Types of housing in Tarbaj Town

Source: Field Survey, 2019

Plate 3-3: Housing Typologies in Tarbaj Town



Source: Field Survey, 2019

### 3.4.1 Building materials - Floor, roof, walls

#### **Floor Materials**

According to the 2019 socioeconomic survey, the most prevalent floor material is earth, which accounts for 87 % of the total. Concrete and tiles account for 12 % and 1 %, respectively.

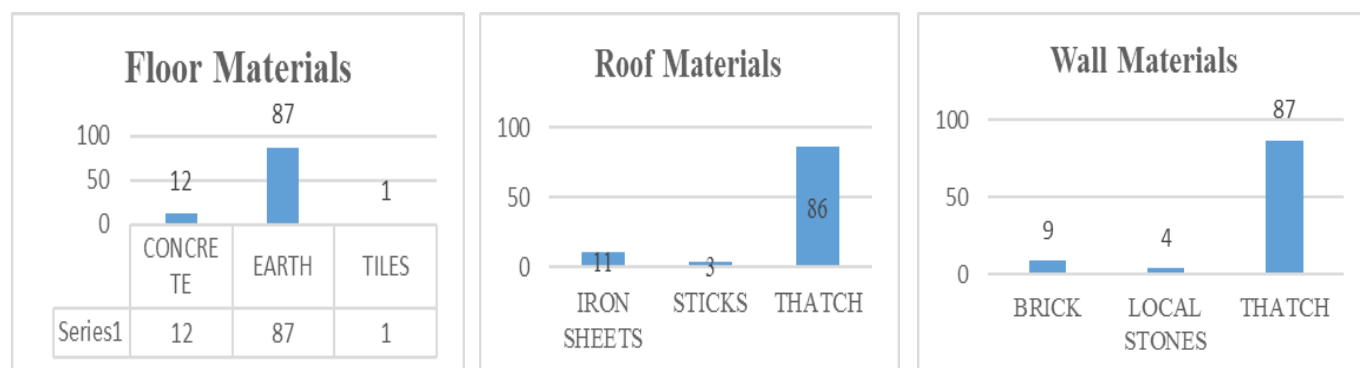
#### **Roof Materials**

According to the socioeconomic survey in 2019, the most common roof material in Tarbaj Town is thatch, which constitutes 86 %. Other commonly used materials are iron sheets and sticks, accounting for 11 % and 3 %, respectively.

#### **Wall Materials**

The 2019 socioeconomic survey revealed that thatch is the dominant wall material in Tarbaj town, at 87 %. Bricks and local stones account for 9% and 4 %, respectively.

Chart 3-9: Construction materials.



Source: Field Survey, 2019

### 3.4.2 Housing Demand Analysis

There is no existing plan or strategy for the supply of houses in the town. Housing supply is based on the needs of residents based on land allocation between community members. The state of building materials in the town reveals a lot of informality. However, it is worth noting that the building materials used to favour the hot climatic conditions experienced within the area.

Currently, the town has a demand of 659 houses. This demand is bound to rise to 778 houses by the year 2033. The inadequacy of housing units does not drive demand for housing in the town but rather an anticipation of the population needs of the town's residents when it grows.

### 3.4.3 Settlement Patterns in Tarbaj Town

The settlement pattern depicts how and where the population is most concentrated. There are two major settlement patterns in Tarbaj.

Linear settlement patterns along the roads. The whole stretch of the A13 and C303 roads exhibits a liners settlement pattern. The advantage of this type of pattern is easy accessibility. The disadvantages experienced in the town are encroachment of road reserves and congestion.

Clustered settlement pattern at the junction of Tarbaj-Sarman Road. The advantage of this pattern is the easy provision of essential services and shared open spaces. The disadvantages are congestion and poor connectivity due to the rise of unplanned structures.

There are also dispersed patterns in the outskirts of the built-up areas as shown in Chart 3-3.

#### Urban Growth trends

The town has grown organically from the main commercial area (CBD). It has expanded more to the west side due to the availability of land for development and the presence of primary roads that link the town to other regional urban areas. Outward growth towards the eastern side has been constrained by the presence of a water pan and Tarbaj Primary School, which is a major land use on this side and acts as a barrier for the eastward expansion of the town.

### **3.4.4 Structuring elements**

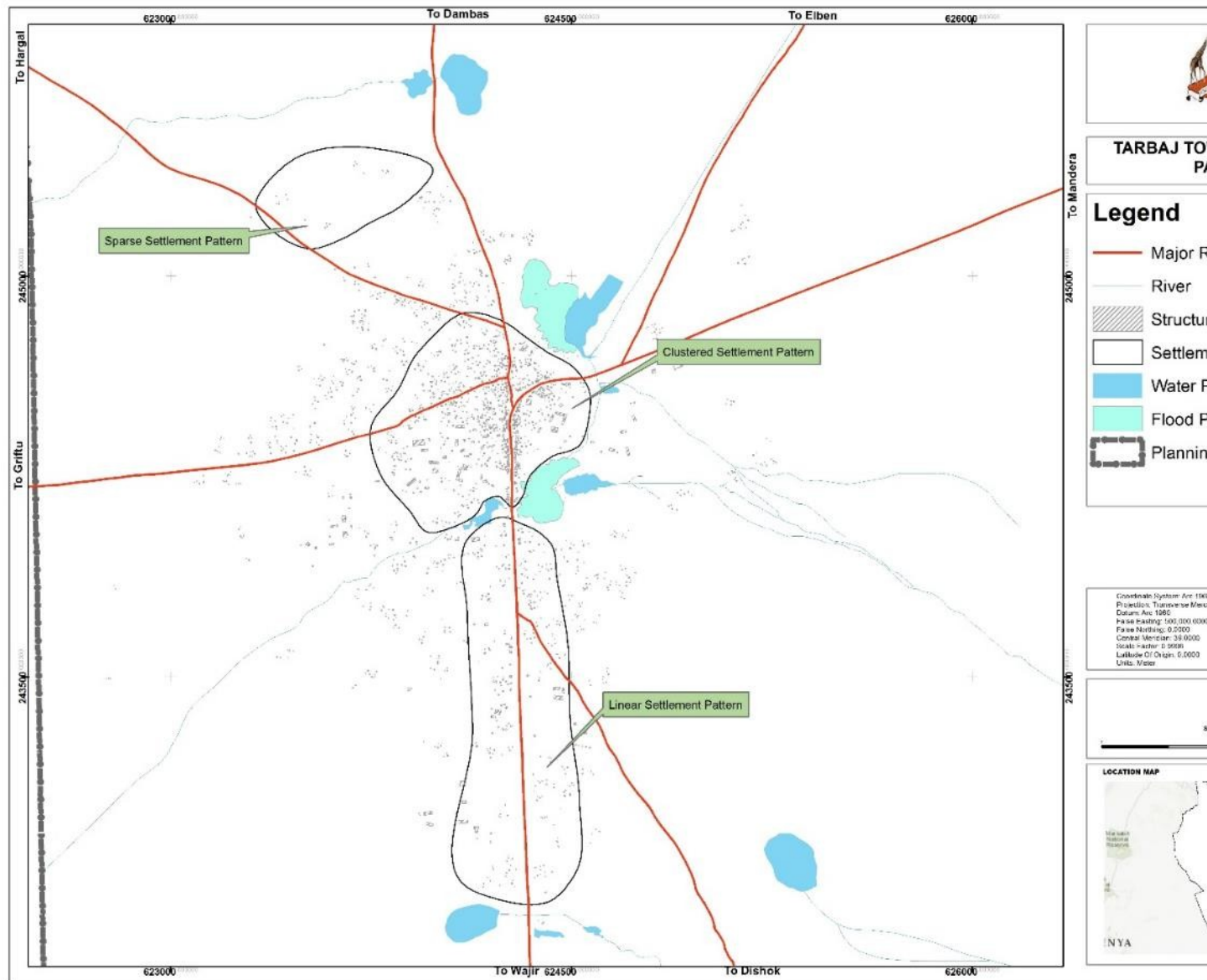
The key spatial elements dictating the direction of development in Tarbaj Town are the interconnector roads such as Wajir-Mandera (Class A13), Tarbaj-Griftu, Tarbaj-Sarman, Tarbaj-Hargal and Tarbaj- Elben Roads respectively. This type of settlement offers the opportunity to provide sewer and water infrastructure.



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

*Map 3-5: Tarbaj Settlement Pattern*

### 3.5



## Transportation

Transportation is an economic enabler, a growth industry offering investment and employment. In a nutshell, it is a mover of the economy. The purpose of this section is to present the existing modes and network of transportation in Tarbaj. The chapter also seeks to present the

investigation's findings on adequacies in terms of connectivity, access, surface conditions and capacities of transportation networks in Tarbaj.

The only available means of transport in Tarbaj is by road. The analysis herein, therefore, has deeply focused on road transport.

### **Road Transport**

Road transport is the main mode of transportation within the planning area. Road transport facilitates the movement of people, goods and services through differentiated means of transport from one destination to another.

#### ***Road Network***

The road network within the planning area has been classified into four level hierarchies ranging from international trunk road class A13 (Wajir-Mandera road) to minor roads. The road system contains unclassified tracks, and other semi-motorable routes traversing the town. The distinct categories of roads in the town are:

- Roads of international importance (Class A road)
- Inter-town roads (class C road)
- Urban roads (class G and F roads)
- Inter-cells roads (unclassified tracks).

The first category of roads (i.e., class A13) traverses the town and links Tarbaj to Mandera and Somalia. The inter-town roads link the town to other towns in the area, such as Griftu and Sarman. Urban roads and the inter-cells roads in the town majorly provide circulation within the town and facilitate the distribution of goods and services.

*Table 3-8: Road classification and Functions*

ROAD CLASS	ROUTE DESCRIPTION	DISTANCE (Km)	REMARKS
<b>A13 road</b>	Isiolo-Wajir-Mandera	6.66	An international highway that makes Tarbaj the gateway to major urban areas

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			such as Wajir and Mandera
<b>C303</b>	Tarbaj-Sarman	3.17	This road links Tarbaj to other significant towns such as Dambas and Sarman.
<b>C302</b>	Tarbaj-Elben	3.30	Links Tarbaj to Elben town to the North East.
<b>G5365</b>	Tarbaj-Hargal	3.98	The road provides link to the proposed solid waste disposal site
<b>G5305</b>	Tarbaj-Khorof	4.75	The road provides link between Tarbaj and Khorof Harar town
<b>G5355</b>	Tarbaj-Dishok	2.85	Connects Tarbaj town to Dishok town to the East
<b>F5009</b>	Tarbaj-Griftu	3.10	The road connects the town to Griftu town to the West.

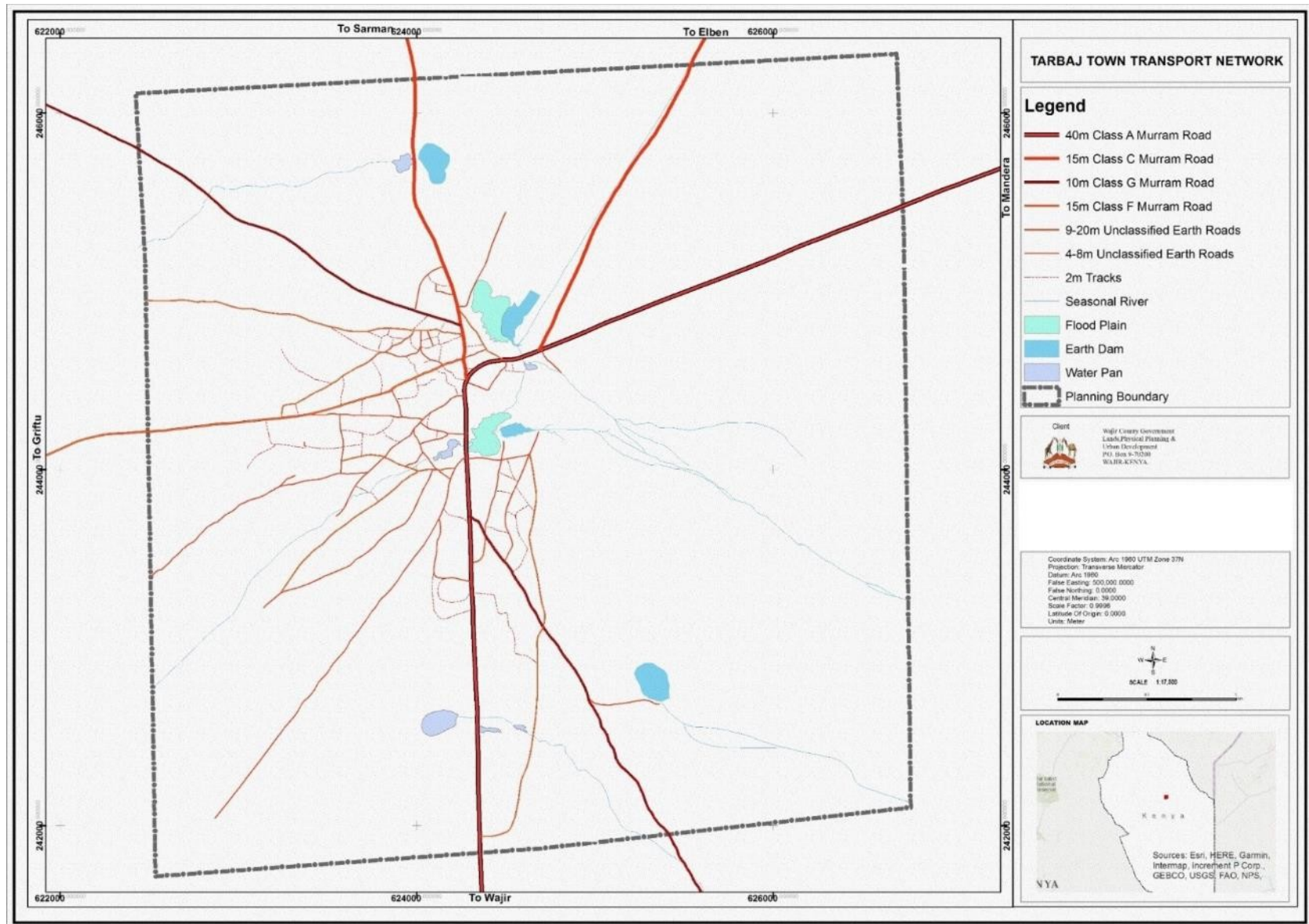
*Plate 3-4: The Tarbaj-Mandera Road*





## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Map 3-6: Existing Road Network





### 3.5.1 Road Conditions

The Wajir-Mandera road (Class A13) is the only road with a murram surface, whereas other roads in the planning area are earth roads. The roads are usually dusty during the dry season and muddy during the rainy season, impeding the mobility of goods and services. Moreover, the roads are only designed for motorized transport, and sidewalks for pedestrians and cycle lanes are lacking. Informal markets and small commercial businesses have also encroached on the road reserves. The town is linked to the hinterland through primary and secondary roads, most of which are earthen. The connectivity of Tarbaj town to the outskirts is relatively fair. However, the poor state and absence of NMT facilities are major concerns.

*Plate 3-5: Conditions of major roads in the town*



*Source: Field Survey, 2019*

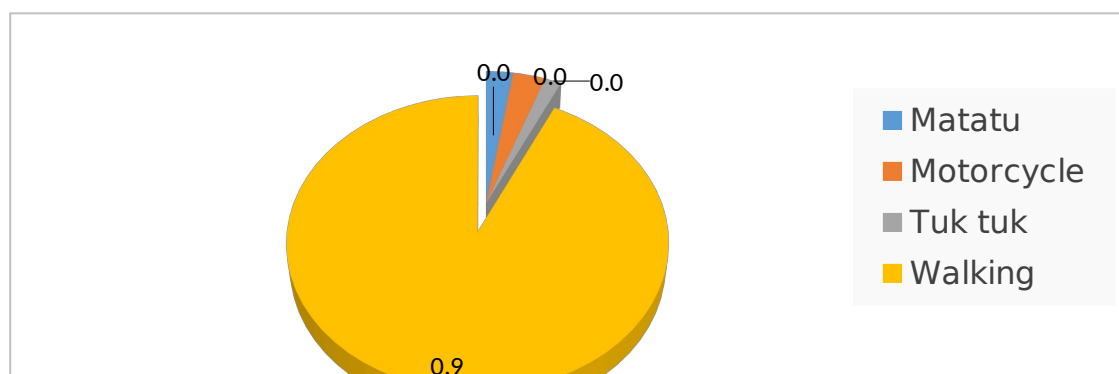
### Means of Transport

There are various means of public transport in Tarbaj Town, including Motorized (matatus, taxis, *tuktuks* and motorcycles) and non-motorized (includes bicycles, hand and animal carts, camels and walking). *Matatus* and buses are the main means of transport for long-distance travel, while motorcycles and tuk-tuks are mainly used within the town.

According to a field survey in 2019, walking is the most preferred means of transport at 93 % for access to employment, health, education and administrative services. The roads in the town need NMT facilities to ensure the safety of pedestrians.

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Chart 3-10: Preferred Means of Transport Tarbaj Town



Source: Field Survey, 2019

Plate 3-6: Transport means in Tarbaj Town



Source: Field Survey, 2019

### Transport Challenges in Tarbaj Town

- Poor road conditions (Muddy during rainy season and Dusty during dry periods)
- Encroachment on road reserves
- Poor connectivity inhibiting access to services
- Lack of NMT facilities such as pedestrian lanes and cycle tracks
- Inadequate public transport means

## 3.6 Physical Infrastructure

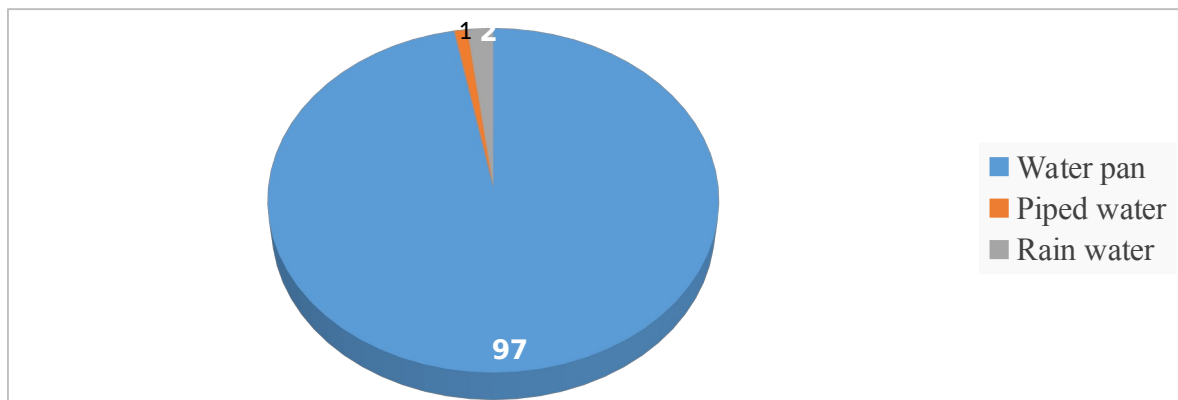
### 3.6.1 Water Infrastructure

Water is critical for sustaining all life forms and fuels economic and social activities within an urban set-up. Individuals need water for domestic use, whereas economies rely on water for electricity generation, agricultural and livestock development, industrial production, and other commercial purposes. Water is also increasingly becoming a commodity whose sale provides employment opportunities.

### ***Household Water Supply Sources***

Water sources in the town include boreholes, water pans, and potable water, with the source coming from Sarman Town. According to field survey 2019, 97 % of households rely on water pans for water whereas those relying on piped water and rain water is 1% and 2% respectively.

*Chart 3-11: Water Supply Source*



*Source: Field Survey, 2019*

*Plate 3-7: Communal water tank and Earth Dam*



### ***Water Demand Forecast***

As a requirement, water demand projections are normally made for the initial, future and ultimate horizons following the Ministry of Water Practice manual for water supply services in Kenya. With high population growth in Tarbaj town, water demand is bound to increase. The

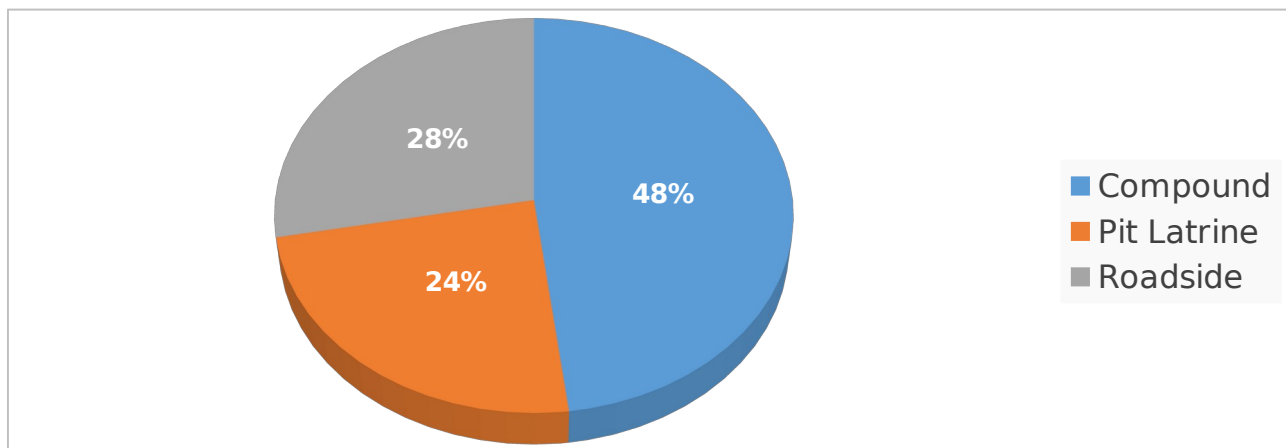
projected water demand for Tarbaj town by 2033 is approximately 4,504.10625 m<sup>3</sup>/day. This, therefore, calls for commensurate measures to be put in place to address this water deficit.

#### Sanitation

##### ***Grey Water Disposal***

According to a field survey, 48% of households dispose of grey water within the compound. Disposal through toilets, pit latrines, and roadsides accounts for 24% and 28%, respectively. A sewer reticulation does not serve Tarbaj Town centre and most dispose their waste on the roadside. The town's Grey water disposal methods are shown in Chart 3-12.

*Chart 3-12: Grey Water Disposal Methods*



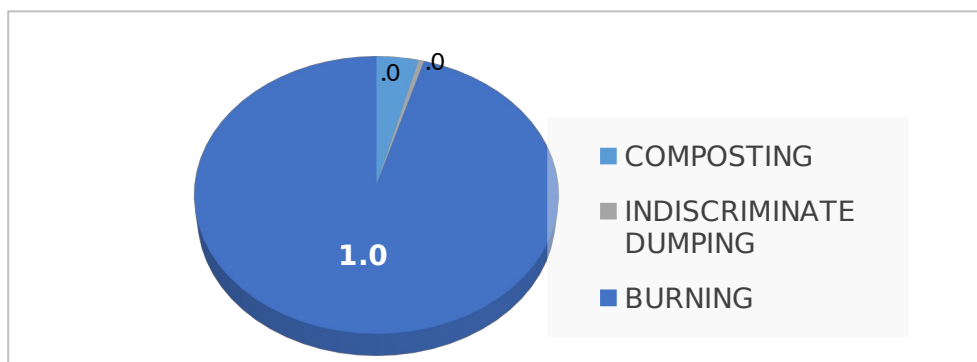
*Source: Field Survey, 2019*

### **3.6.2 Solid Waste Generation and Management.**

The main types of solid waste generated in the town are inorganic matter, such as glass and plastics and organic wastes.

The town lacks a solid waste management system. Burning is the common method of solid waste disposal at 95%, while composting and indiscriminate dumping account for 4 % and 1 %, respectively.

Chart 3-13: Solid waste disposal methods



Source: Field Survey, 2019

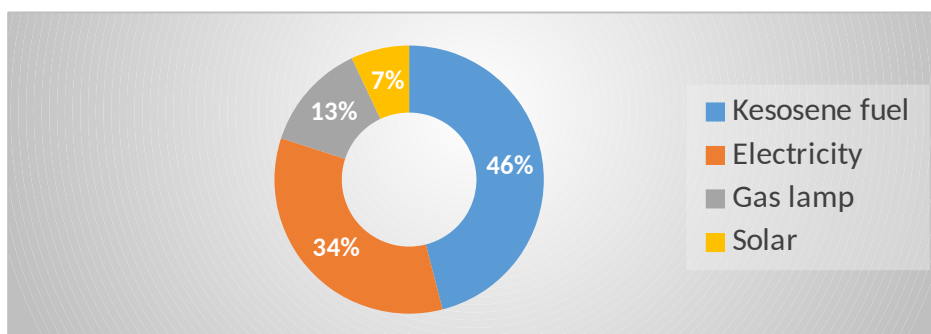
### 3.6.3 Energy

Energy is the driving force for economic growth of towns. Modern towns consume large amounts of fuel, and the energy industry is a crucial part of the infrastructure and maintenance of society in almost all urban areas around the world. The main energy sources in Tarbaj Town are electricity, petroleum and wood fuel. Most of the energy sources in Tarbaj are non-renewable sources of energy. The use of green energy, such as solar, that has minimal environmental impact.

#### *Energy Sources for Lighting*

From the field survey, 46 % of the population use kerosene as their main lighting source. Use of electricity and gas lamps is represented by approximately 34 % and 16 % respectively. Renewable energy, such as solar and wind, are not fully exploited and account for only 7% of the total energy consumption.

Chart 3-14: Sources of lighting



Source: Field Survey, 2019

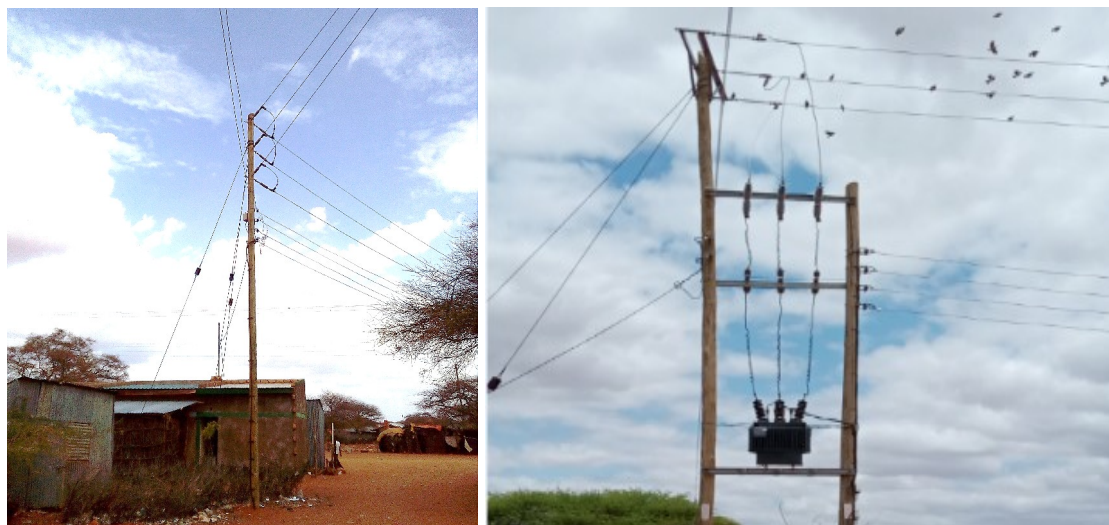
#### *Electricity*



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Kenya Power provides electricity in the town. The rural electrification Programme launched by the national government has greatly distributed electricity to the town. Areas near the town are well served with electricity compared to the other parts of the rural hinterland. This can be attributed to the economic competitiveness of the town center compared to other areas.

*Plate 3-8: Electricity Infrastructure in the Town*



*Source: Field Survey, 2019*

### ***Electricity demand and supply.***

An average household consumes about 3,100kWh of electricity annually (World Energy Council, 2010). This is approximately 7.29kWh per day. The demand for electricity in Tarbaj Town subsumes the general population of the location. This translates to a demand for an estimated 2,607 households in 2023, projected to increase to 3,077 households in 2033. The table below shows Tarbaj's electricity demand.

*Table 3-9: Peak electricity demand in MW*

YEAR	POPULATION	DEMAND IN KWH
2019	12,445	17,787.6
2023	13,297	19,005.03
2028	15,693	21,921.03

### ***Solar***

The field survey shows that 7 % of households use solar for lighting. Solar lighting is so vibrant in public institutions such as primary and secondary schools, administrative areas and health

centres. Streetlights along the major roads are also solar-powered. Some of the barriers affecting the exploitation of solar energy resources include high initial capital costs and low awareness of the potential opportunities and benefits solar technologies offer.

*Plate 3-9: Solar power infrastructure in the town*



*Source: Field Survey, 2019*

### **Wind Energy**

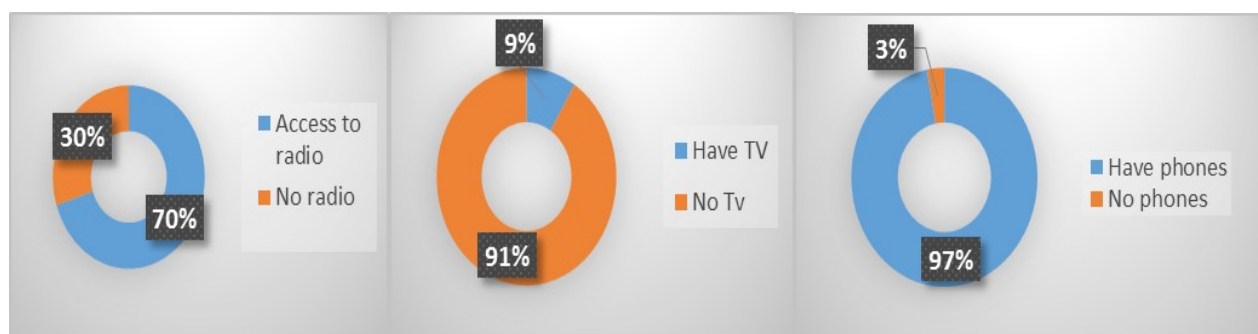
The wind speed for Tarbaj ranges between 5.2-5.6 m/s. This speed is relatively higher and hence should be exploited to provide clean energy for the town's residents. The main barrier affecting the exploitation of wind energy resources is high capital cost.

### **3.6.4 Information Communication Technology (ICT).**

According to a field survey in 2019, 70% have radio access, while 9% have television. Most national radio stations have good coverage and a considerable share in terms of listenership. There is also a local vernacular radio station with a high listenership in Tarbaj Town. Regarding mobile telephony communication, Tarbaj is served by phone networks- (Safaricom and Airtel). According to field survey 2019, about 97% of the population in Tarbaj Town have access to cell phones. The presence of M-Pesa shops indicates the demand for mobile money transfer technology. However, access to the internet is low since only 6.1 % enjoy access to internet services.

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Chart 3-15: Access to ICT Facilities in the town



Source: Field Survey, 2019

Plate 3-10: A Telecommunication Mast



### 3.7 Social Infrastructure

#### 3.7.1 Educational Facilities

Education is essential in improving the living standards of members in the society. It is therefore important to make provisions for educational facilities and services, as these will translate into higher rates of innovation, higher levels of productivity and faster adoption of new technology.



## Education Facilities Distribution.

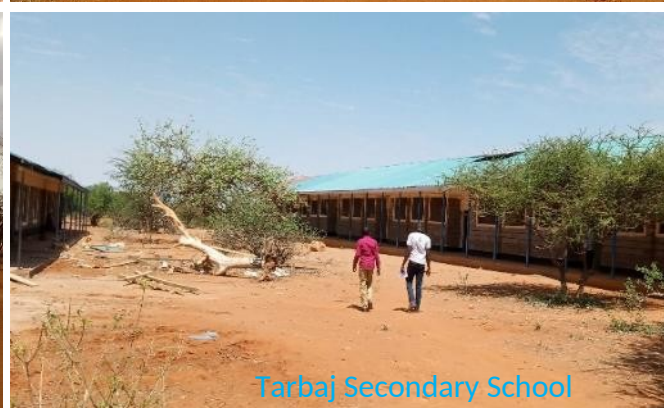
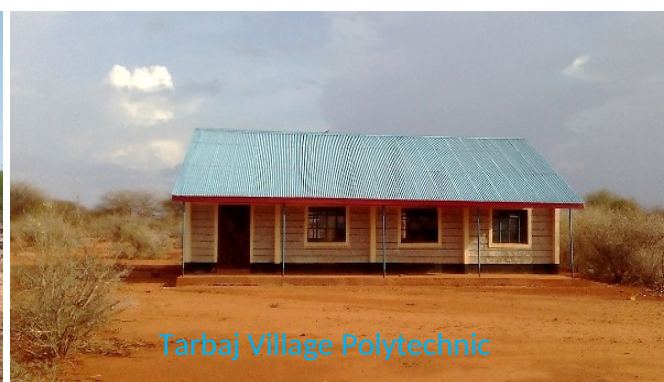
There are two primary schools within the planning area, i.e. Tarbaj and Al Falah Primary schools. ECDE centres are hosted within the primary schools. There is one secondary school and two tertiary institutions: a Polytechnic and a Technical Training Institute, which is under construction. With the completion of the TTI, the transition from secondary to higher learning institutions will be made possible, hence playing a significant role in equipping the youth with the necessary skills for job creation. There are also madrassas distributed within the planning boundary that offer religious teachings to the youth and young ones.

Table 3-10: Educational facilities in Tarbaj

Education Facility	No of Students/Pupils (2019)	No of teaching staff (2019)
Tarbaj Primary	558	8
Tarbaj Secondary	290	14
Al Fallah Primary	-	-

Source: Respective School Administrations

Plate 3-11: Educational Facilities in Tarbaj Town



Source: Field Survey, 2019

## Challenges Facing the Education Sector

1. Shortage of qualified teaching staff.
2. Low enrollment rate
3. Inadequate finance for operation and maintenance
4. Inadequacy of quality educational infrastructure and facilities such as libraries, dormitories and laboratories.
5. High rates of school dropouts due to teenage pregnancy, child labour and low regard to education over pastoralism.
6. Lack of adequate education institutions such as primary and secondary schools
7. Inadequate water supply.
8. Shortage of learning materials such as desks and stationery
9. Dilapidated boarding facilities

### 3.7.2 Health Facilities

The planning area has a level 3 health facility, the Tarbaj Health Centre. The health facility is underserved in terms of infrastructure and human resources. Table 3 -11 shows the number of medical personnel in the facility.

Table 3-11: Medical Practitioners in Tarbaj Health Centre

MEDICAL PRACTITIONER	NUMBER
Doctors	1
Resident Clinical officer	1
Nurses	4
Laboratory Technicians	1
Public Health Officer	1
Nutritionist	2
Bio-Medical Officer	1
Pharmtech	2

Source: Wajir County Health Department, 2018

### Health Facilities Demand

With the current standards and norms for health facilities, Tarbaj Town will need additional health facilities by 2033 as shown in Table 3 -12.

Table 3-12: Health Facility Demand

Facility	Catchment population	Current No (2019)	Demand 2033	Total facility required (2033)
Level 4	100,000	-	1	1
Level 3	30,000	1	1	-
Level 2	10,000	-	2	2

### 3.7.3 Religious Facilities

The majority of the population in Tarbaj Town are Muslims. In total, there are four mosques in the town.

### 3.7.4 Law and Order

Security facilities in the planning area consist of a police station and an AP camp. However, the town doesn't have a law court, so disputes are mostly resolved communally through village elders. A law court must be established within Tarbaj Town.

### 3.7.5 Recreational Facilities

There are no designated areas for recreational purposes. Residents use school playgrounds for sports tournaments, public *barazas* and rallies. There is a need to provide recreational facilities in the town.

### 3.7.6 Cemeteries

The town has one graveyard that is located along Tarbaj-Sarman Road. It cannot cater for the future population. The town, therefore, requires land to be set aside for this use.

### 3.7.7 Community Centres

The Kenya National Library Service operates a library in the town. The library has inadequate learning materials hence not properly utilized by the community. The town also has an ICT Centre that offers training in computer related courses such as computer packages and IT applications.



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Plate 3-12: Community facilities in Tarbaj



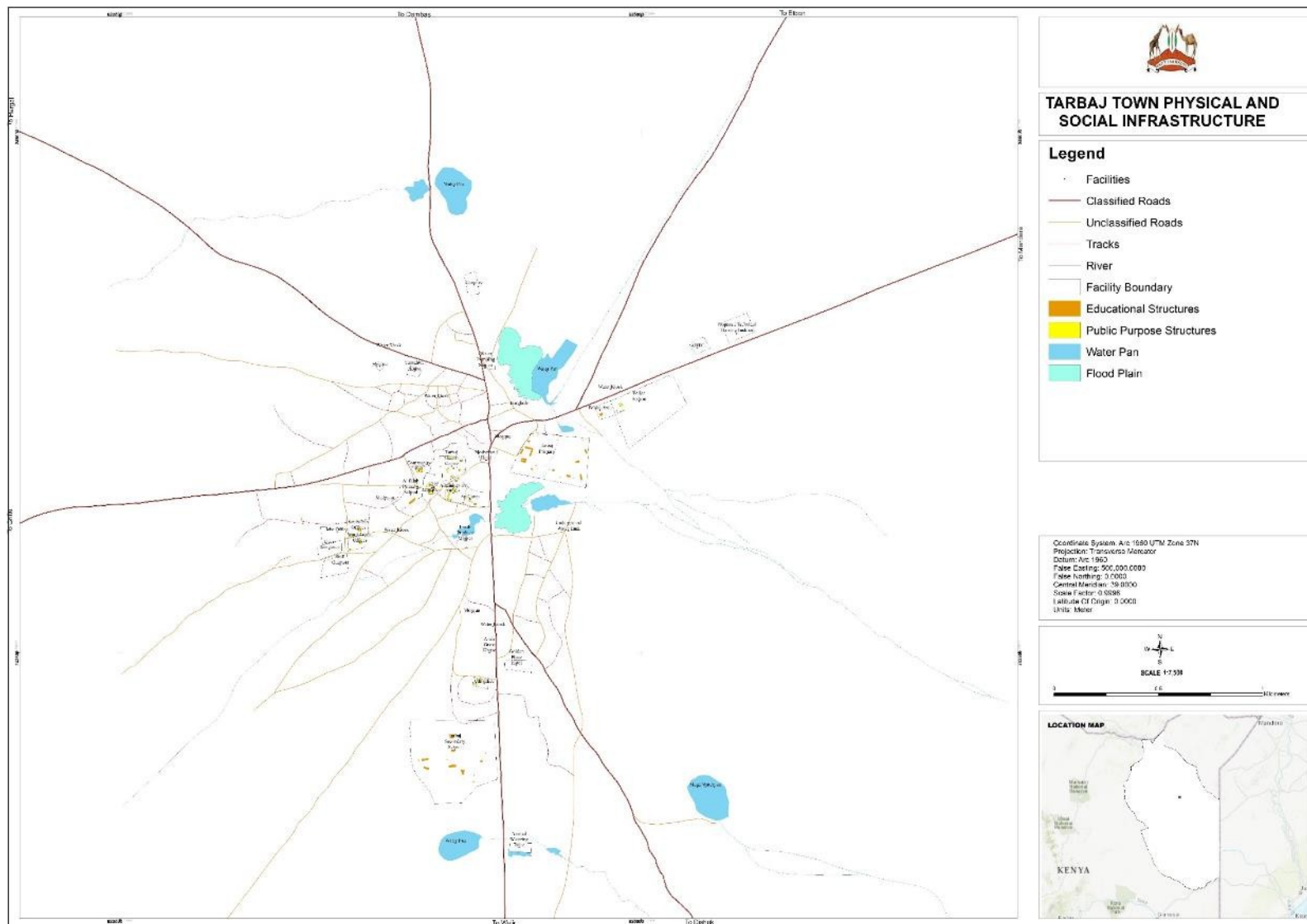
Source: Field Survey, 2019





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Map 3-7: Distribution of Social and Physical Facilities



Source: Field Survey, 2019

### 3.8 Local Economic Analysis

Within the town centre, the local economy is driven by trade and commerce, while pastoralism remains the mainstay for most residents.

#### *Trade and Commerce*

Trade is an important economic activity within the planning area. Commerce is concentrated mainly in the town centre along Wajir-Mandera road since it is the main commercial hub of the planning area. The town's strategic position along the A13 road links Wajir, Mandera, and Somalia. This provides opportunities for the regional flow of goods, people, capital, and job creation. The commercial activities have created employment opportunities and facilitated economic empowerment.

Formal commercial activities.

#### *Wholesale and Retail*

The town is dominated by small-scale retail activities that can be classified as micro and small enterprises (MSEs) and have an annual turnover of between 0-20,000. Wholesale traders supply retail shops that break the goods for sale into individual items. They are mainly located within the CBD and within the residential areas. Wholesale, retail, and general shops are sources of livelihood and employment in the town.

*Plate 3-13: Wholesale and Retail activities in the town*



*Source: Field Survey, 2019*

#### *Informal Commercial Activities*

The informal economy is essential to urban areas' economic activities and development process. Small-scale businesses are commonly practised in residential neighbourhoods, and some are in the town centre. These informal activities within the planning area include clothes selling, barber shops, fruit and vegetable vending, and tailoring. These activities have no designated areas and

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most of them are located within the road reserves; hence, the sector needs to be regularised by planning for the informal activities since the sector generates employment for an expanding labour force.

*Plate 3-14: Informal activities in the town*



*Source: Field Survey, 2019*

### **Service Industry**

The service industry or tertiary sector of industry provides services to businesses as well as final consumers. Such businesses in the town include cybercafés, MPESAs and hotels that provide hospitality service.

*Plate 3-15: Cyber cafe and Hotel in Tarbaj*



*Source: Field Survey, 2019*

### **Markets**

Markets are important for towns as they offer and create incredible opportunities for social, cultural, and economic wealth at the local level. Apart from contributing significant revenue generation to the county government, markets also enhance the town's local economy. Tarbaj closed market was constructed by the County Government of Wajir. The market has yet to be



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used as issues have been raised regarding its location, which is far from the town centre. Hence, the traders have opted to conduct business within the CBD as it is convenient and close to the customers.

*Plate 3-16: Tarbaj Fresh Produce Market*



### **Industry**

The industrial sector is not fully developed; nevertheless, there are informal industries, with light industries being the most common in the town.

### **Formal industry**

The only formal industry in the planning area is the slaughterhouse. This facility is currently not being utilized. This is attributed to its location in residential areas, which negatively affects the well-being of the local residents.

*Plate 3-17: Tarbaj Slaughterhouse*



*Source: Field Survey, 2019*

### ***Informal Industrial sector***

Types of informal industrial activities in the town include tailoring, workshops and brickmaking. The brick-making industry is not properly developed, and more investment in the industry will be encouraged to improve the town's economic potential.

*Plate 3-18: Informal industries in Tarbaj*



*Source: Field Survey, 2019*

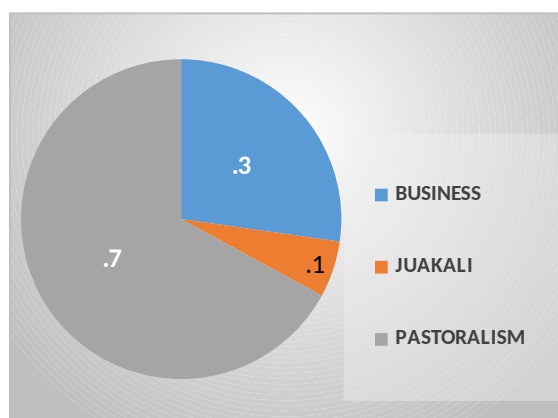
### ***Agriculture and Livestock Rearing***

Crop farming and livestock rearing account for 60% of the county's GDP. Pastoralism is the main economic activity in the planning area, with about 67% of the population depending directly or indirectly on pastoralism for their livelihoods. The main types of livestock reared are cattle (mostly Borana type), goats (dominantly Totenberg goats), camels and donkeys. Poultry farming is practised in a few homesteads specifically for subsistence use. Although the planning area is predominantly pastoral, there is little to no effort to add value to animal products. Additionally, there are inadequate established markets for pastoral products such as milk and meat.



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Chart 3-16: Main economic activities in Tarbaj



Source: Field Survey, 2019

Plate 3-19: Livestock reared in the town



Source: Field Survey, 2019

### **Hospitality Industry**

Tarbaj Town has few hotels that provide good rooms for visitors. Some of these hotels include Motherland Hotel, Golden Palace and Arale Hotel.

Table 3-13: Emerging Issues in Local Economy

SUB-SECTOR	POTENTIAL/OPPORTUNITIES	CONSTRAINTS
Trade and Commerce	<ul style="list-style-type: none"> <li>High population in the town provides market for goods and services</li> </ul>	<ul style="list-style-type: none"> <li>Inadequate infrastructure (water, electricity, sanitation)</li> </ul>

SUB-SECTOR	POTENTIAL/OPPORTUNITIES	CONSTRAINTS
	<ul style="list-style-type: none"> <li>Strategic location of the town along Class A13 road Wajir-Mandera</li> </ul>	<ul style="list-style-type: none"> <li>Poor transport conditions</li> <li>Lack of Trade policy</li> <li>Inadequate market places</li> <li>Lack of micro-finance institutions</li> </ul>
<b>Pastoralism</b>	<ul style="list-style-type: none"> <li>The presence of large livestock herds</li> <li>The strategic location of the town along Class A13 road Wajir-Mandera</li> </ul>	<ul style="list-style-type: none"> <li>Lack of market for livestock products</li> <li>Climate change leading to drought and famine</li> </ul>
<b>Industry</b>	<ul style="list-style-type: none"> <li>The presence of the brick-making industry</li> <li>The presence of large livestock herds in the meat industry</li> <li>Presence of gum trees</li> </ul>	<ul style="list-style-type: none"> <li>Lack of a designated industrial zone</li> <li>Absence of infrastructure like sewer, water reticulation and solid waste disposal sites</li> </ul>

### 3.9 Environment

#### Land Use Effects on the Environment

##### *Energy Use*

Excessive use of firewood and charcoal releases greenhouse gases that deplete the ozone layer, leading to global warming. This further raises the temperature of Tarbaj and its environment to unbearable levels. It also leads to a reduction of vegetation cover, hence soil erosion. Human lives are also not spared as they are at risk of suffering chronic lung diseases brought about by too much inhalation of dust.

##### *Liquid Waste Disposal*

This pollution can occur gradually through chemicals or other dangerous liquid waste. Surface water contamination can affect drinking water and make it dangerous for both human and animal consumption. The water causes harm to plants growing in the soil and the residents and local consumers of foods from such soils. It can also disrupt natural ecosystems and even lead to the extermination of terrestrial life, such as that of domestic animals.

Flash floods also easily disrupt shallow pit latrines by altering the water's chemical composition. As contaminated liquid waste penetrates the ground, it contaminates groundwater, making it unfit for consumption. Liquid wastes emit a foul smell into the air that may end up causing respiratory problems to both humans and animals.

### ***Solid Waste Disposal***

Poor management of non-biodegradable waste (plastic, glass, metals, construction wastes and electronic wastes) leads to land pollution. These wastes are dumped haphazardly within compounds and by the roadside, altering the aesthetic beauty of the town and its environs.

*Plate 3-20: Indiscriminate waste disposal*



*Source: Field Survey, 2019*

### **Environmental Challenges**

- The lack of a proper waste management system has left room for underground water pollution, especially during rainy seasons.
- The flat nature of the terrain cannot prevent flooding during rainy seasons.
- Dust particles and fumes from unmanaged solid waste, vehicles, and human waste cause air pollution in the town.
- Overreliance on wood fuel is a cause for vegetation cover.

### **3.10 Urban Management**

The management of a town is vested upon a town committee which prescribes the functions of a town administrator in consultation with the residents/stakeholders. The management of Tarbaj Town is as described below.

#### ***Current Town Management Structure***

Section 31 (1 and 2) of the Urban Areas and Cities (Amendment) Act (UACA) stipulates for 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 Act section 31 (3). Within this prescribed law, Wajir County appointed a town administrator for Tarbaj Town, whose office is located within the town. The town, however, lacks a town committee.

Tarbaj Town lacks a town committee. 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 the delivery of services.
- Control land use, land sub-division, land development, and zoning by public and private sectors for any purpose, including industry, commerce, markets, shopping and other employment centers, residential areas, recreational areas, parks, entertainment, passenger transport, agriculture, and freight and transit Adopt policies and plans.
- 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



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- Facilitate and regulate public transport

### Rights of Stakeholders/Residents in Town Management

- Contribute to decision-making by submitting written or oral presentations or complaints to a town committee through the town administrator.
- Be informed of decisions of a town committee that affect their rights, property, and reasonable expectations.
- Be privy to regular disclosure of the state of affairs of the town, including its finances.





### 3.11 Summary of Emerging Issues in Thematic Areas

SECTOR	EMERGING ISSUES	RECOMMENDATIONS
<b>Housing</b>	<ul style="list-style-type: none"> <li>• Lack of quality residential neighbourhoods for the majority of middle- and low-income groups.</li> <li>• Inadequate infrastructure and services such as electricity and potable water, waste collection, storm drainage, roads for emergency access, street lighting, paved footpaths;</li> <li>• Absence of social housing programmes that target the low-income bracket</li> <li>• Underutilization of local building materials.</li> <li>• High cost of building materials.</li> <li>• Lack of land ownership documents.</li> </ul>	<ul style="list-style-type: none"> <li>• Promote research and use of modern construction technologies and use of local building materials.</li> <li>• Land re-adjustment to create order and ease the provision of requisite facilities.</li> <li>• Set aside land for future development of affordable housing for low-income households.</li> <li>• Promote public-private partnerships for financing and developing infrastructure and affordable housing.</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>• Indiscriminate solid waste disposal.</li> <li>• Lack of sewer reticulation system.</li> <li>• Surface water pollution</li> <li>• Disasters such as drought and flooding</li> <li>• Overreliance on wood fuel leads to an increase in carbon emissions.</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of a sanitary landfill</li> <li>• Establishment of a solid waste management system</li> <li>• Establish a drainage network along all roads of the town</li> <li>• Establish a sewer reticulation system</li> <li>• Encourage use of clean energy such as LPG, solar and wind.</li> </ul>

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SECTOR	EMERGING ISSUES	RECOMMENDATIONS
<b>PHYSICAL INFRASTRUCTURE</b>		
<b>Water supply</b>	<ul style="list-style-type: none"> <li>• Inadequate water supply</li> <li>• Poor water quality from the water pans.</li> <li>• Low coverage of piped water</li> <li>• Lack of adequate water storage facilities</li> <li>• Inadequate water kiosks</li> <li>• Vandalism of piped water infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Regular desilting of water pans and dams to increase capacity</li> <li>• Construct more water pans and dams</li> <li>• Expand the water reticulation system to cover the entire town.</li> <li>• Encourage rainwater harvesting at the household level</li> <li>• Protect water pans through fencing and buffering</li> <li>• Construct more water kiosks (radius of 600m)</li> </ul>
<b>Energy</b>	<ul style="list-style-type: none"> <li>• Low connectivity (only 34% connected)</li> <li>• Regular power outages</li> <li>• High cost of electricity connection.</li> <li>• Lack of an electricity sub-station</li> <li>• Overreliance on wood fuel for cooking</li> <li>• High potential for green energy, such as wind and solar</li> </ul>	<ul style="list-style-type: none"> <li>• Install a sub-station to step down the electricity supply</li> <li>• Extend the power distribution networks to cover the whole planning area.</li> <li>• Install solar-powered street lights to cover the whole town.</li> <li>• Encourage the use of clean energy such as solar, wind and LPG.</li> <li>• Provision of subsidies for electricity connection</li> </ul>
<b>Sewer &amp; Sanitation</b>	<ul style="list-style-type: none"> <li>• Lack of sewerage infrastructure for liquid waste management.</li> <li>• Lack of designated solid disposal points in commercial and residential areas.</li> <li>• Lack of public toilets in commercial areas</li> </ul>	<ul style="list-style-type: none"> <li>• construct liquid waste disposal facilities (septic/sewer line)</li> <li>• Commissioning of the sanitary landfill</li> <li>• Litter bins and skips should be placed at strategic locations within commercial and residential areas.</li> </ul>

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

SECTOR	EMERGING ISSUES	RECOMMENDATIONS
	<ul style="list-style-type: none"> <li>Non-functional sanitary landfill site</li> </ul>	
<b>SOCIAL INFRASTRUCTURE</b>		
<b>Education</b>	<ul style="list-style-type: none"> <li>Inadequate infrastructure and facilities such as laboratories and dormitories.</li> <li>Lack of adequate learning materials such as stationary and desks</li> <li>Shortage of teaching personnel</li> <li>Inadequate learning institutions.</li> <li>Low transition rates</li> </ul>	<ul style="list-style-type: none"> <li>Provide support infrastructure such as electricity, water, sanitation, and construction of laboratories and libraries.</li> <li>Sensitize the residents on the importance of education.</li> <li>Provide adequate security in the town to create a safer teacher working environment.</li> <li>Redevelop and upgrade the current polytechnic.</li> <li>Employ more teaching staff in the schools.</li> </ul>
<b>Health</b>	<ul style="list-style-type: none"> <li>lack of specialist doctors</li> <li>Poor infrastructural conditions</li> <li>Inadequate medical staff quarters.</li> </ul>	<ul style="list-style-type: none"> <li>Establish more health facilities</li> <li>Recruit more medical staff,</li> <li>Provide support infrastructure such as water and electricity</li> <li>Supply the health facilities with adequate drugs</li> <li>Expand, maintain and rehabilitate existing health facilities</li> </ul>
<b>Transport</b>	<ul style="list-style-type: none"> <li>Poor road surface conditions (impassable during rainy seasons as it is Earthened)</li> <li>Lack of drainage systems leads to stagnation of stormwater.</li> <li>Absence of a bus terminal and parking facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Upgrade of Wajir- Manderla (A13) road from Murram to bitumen standards</li> <li>Construct a modern bus park</li> <li>Construct drainage systems on both sides of major roads and in the residential neighbourhoods.</li> <li>Upgrade all intra-connector roads from earth to gravel</li> </ul>

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

SECTOR	EMERGING ISSUES	RECOMMENDATIONS
	<ul style="list-style-type: none"> <li>Absence of pedestrian and cycle lanes.</li> <li>Missing links limit access to commercial and public facilities such as hospitals and schools.</li> </ul>	<ul style="list-style-type: none"> <li>standards</li> <li>Construction of Non-Motorised lanes.</li> </ul>
<b>Local Economy Development</b>	<ul style="list-style-type: none"> <li>Poor infrastructure (Street lights, electricity, water)</li> <li>Inadequate market places</li> <li>Lack of micro-finance institutions</li> <li>Lack of market for livestock products</li> <li>Overreliance on pastoralism as the main economic activity</li> <li>Industrial potential due to the availability of livestock</li> </ul>	<ul style="list-style-type: none"> <li>Skills development for better management of SMEs</li> <li>Need for improvement of access to infrastructure and services.</li> <li>Investments in markets for livestock produce.</li> <li>Industrial development to explore the town's industrial potential</li> </ul>
<b>Governance</b>	<ul style="list-style-type: none"> <li>Inadequate capacity of the physical planning department</li> <li>Lack of a development control department</li> <li>Lack of public participation</li> <li>Inadequate resource allocation for the town</li> <li>Lack of a town committee and hence a limitation on the duties of the town administrator.</li> </ul>	<ul style="list-style-type: none"> <li>Institute a town committee to define the roles of the town administrator.</li> <li>Institute a development control unit within the department posted in the town.</li> <li>Recruit more qualified staff.</li> <li>Establish a public information management system to facilitate knowledge-sharing between authorities and residents.</li> </ul>





## 4 TARBAJ LAND USE PLAN

### 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.

### 4.2 Tarbaj Structure Plan

The proposed land use plan for Tarbaj will be used as a guiding framework for spatial development in the town. Residential areas based on various densities have been proposed, considering the variations in income levels. The plan also includes the main commercial, civic, and grazing areas.

The land use plan will address various challenges, including inadequate infrastructure and services, poor connectivity and mobility, uncontrolled growth and land use conflicts. Key strategies adopted include:

- Containment of the continued urban sprawl;
- Providing an opportunity for the development of an integrated public transport system.
- Promoting smart growth through mixed-use and neighbourhood development
- Urban greening through the provision of a system of open spaces

The percentage of proposed land use is presented in Table 4-14.

*Table 4-14: Proposed Land Use Coverage by Area*

CODE	LAND USE	AREA (HA)
0	Residential	657.74
1	Industrial	11.81
2	Educational	51.35
3	Recreational	56.67
4	Public purpose	18.27
5	Commercial	13.31

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

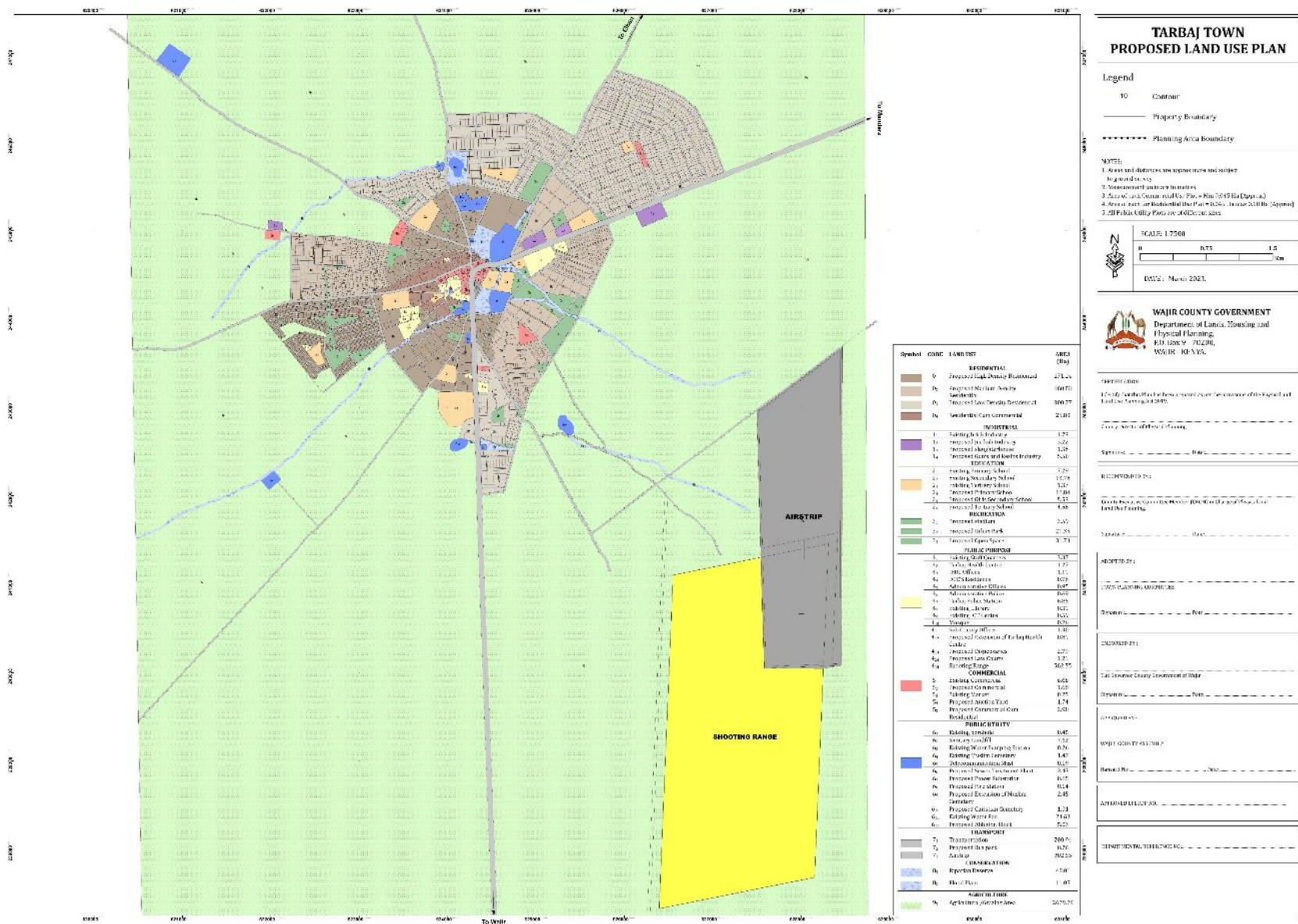
CODE	LAND USE	AREA (HA)
6	Public utility	46.37
7	Transportation	311.21
8	Conservation	59.06





## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

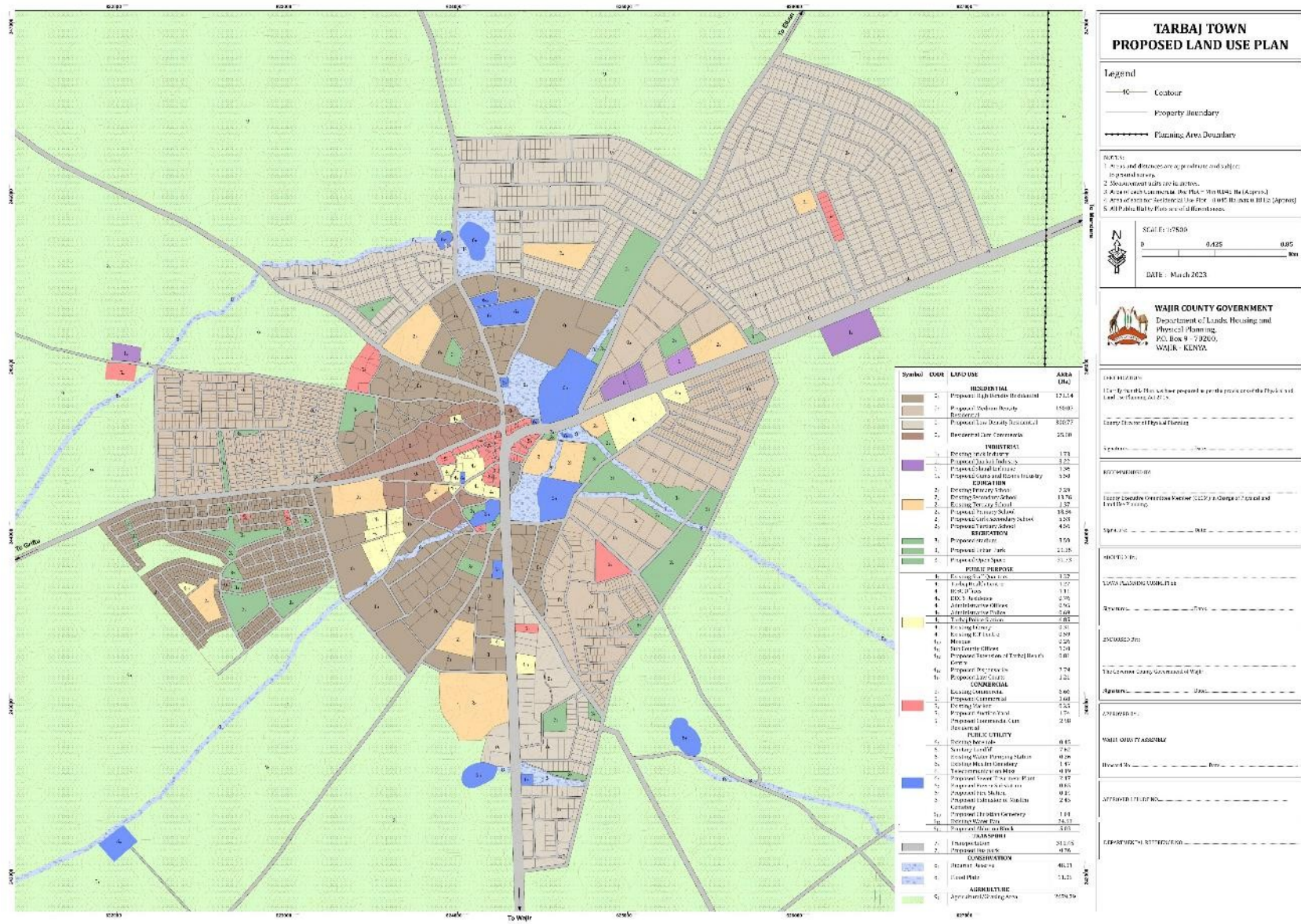
Map 4-8: Tarbaj Town Structure Plan (Whole)





## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

*Map 4-9: Tarbaj Town Plan (Zoomed in)*



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Table 4-15: Land Use Plan Description

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
<b>Residential</b>	0 <sub>1</sub>	Proposed High-Density Residential	171.14	<ul style="list-style-type: none"> <li>• Provide/service the residential areas with adequate local distributor roads measuring 18-21m and access roads measuring 9-12m.</li> <li>• Provide open areas/neighbourhood parks for recreation. Every open space highlighted should have a public toilet.</li> <li>• Service these areas with trunk infrastructure, including electricity and street lighting, stormwater drainage infrastructure, and water, and provide a sewer reticulation system to serve the anticipated population.</li> <li>• Increase the institutional capacity of educational and health facilities to aptly serve the resident population.</li> <li>• Institute garbage collection points/disposal sites and institutions to clean the areas regularly.</li> </ul>
	0 <sub>2</sub>	Proposed Medium-Density Residential	160.03	
	0 <sub>3</sub>	Proposed High-Density Residential	300.77	
	0 <sub>4</sub>	Residential cum Commerical	25.80	
<b>Industrial</b>	1 <sub>1</sub>	Existing Brick Making	1.73	<ul style="list-style-type: none"> <li>• Service the site with water and electricity</li> <li>• Install machinery for brick-making</li> </ul>
	1 <sub>2</sub>	Proposed <i>Juakali</i> Industry	3.22	<ul style="list-style-type: none"> <li>• Service the site with water and electricity</li> </ul>
	1 <sub>3</sub>	Proposed Slaughterhouse	1.36	<ul style="list-style-type: none"> <li>• Adopt technology in the slaughterhouse for meat handling and processing</li> </ul>



### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
				<ul style="list-style-type: none"> <li>Fence and buffer the slaughterhouse with trees.</li> <li>Maintain proper hygiene regulations.</li> <li>Service the site with adequate water and provide electricity. (use of solar energy is encouraged within the facility)</li> </ul>
	1 <sub>4</sub>	Proposed Gums and Resins Industry	5.5	<ul style="list-style-type: none"> <li>Service the site with adequate water and provide electricity. (use of solar energy is encouraged within the facility)</li> <li>Install machinery for drying and processing of gums and resins</li> </ul>
<b>Educational</b>	2 <sub>1</sub>	Existing Primary School	7.29	<ul style="list-style-type: none"> <li>Maintain use and improve the existing facilities by constructing more classrooms and or properly maintaining the existing facilities.</li> <li>Connect and improve physical infrastructure, e.g. electricity and water within the schools. (Ensure the use of solar energy for lighting in the schools)</li> <li>Increase the number of streams to a maximum of three</li> <li>Construct proper ablution blocks within the schools and ensure regular maintenance.</li> </ul>
	2 <sub>2</sub>	Existing Secondary Schools	13.76	

### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
	2 <sub>3</sub>	Existing Tertiary Institution	1.37	<ul style="list-style-type: none"> <li>• Provide proper learning facilities such as labs, a library and necessary equipment.</li> <li>• Construct more lecture halls to accommodate more learners.</li> <li>• Connect the facility to sewerage, electricity and water (ensure the use of solar energy for lighting in the schools)</li> </ul>
	2 <sub>4</sub>	Proposed Primary School	18.49	<ul style="list-style-type: none"> <li>• Construction 3 streamed classrooms</li> <li>• Connect the school to electricity and install high-capacity water storage tanks (ensure the use of solar energy for lighting in the schools)</li> <li>• Construct proper ablution blocks within the schools and ensure regular maintenance.</li> </ul>
	2 <sub>5</sub>	Proposed Girls Secondary School	5.53	<ul style="list-style-type: none"> <li>• Provide proper learning facilities, including labs (science and computer), a library, and books.</li> <li>• Provide adequate classrooms to cater for higher capacities.</li> <li>• Connect the facility to electricity and water. (use of solar energy is encouraged within the school)</li> </ul>
	2 <sub>6</sub>	Proposed Tertiary	4.56	<ul style="list-style-type: none"> <li>• Provide proper learning facilities, including labs</li> </ul>

### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
		Institution		<p>(science and computer), workshops, a library, and books, among others.</p> <ul style="list-style-type: none"> <li>• Provide adequate lecture halls to cater for higher capacities.</li> <li>• Connect the facility to electricity and water. (use of solar energy is encouraged within the facility)</li> </ul>
<b>Recreational</b>	3 <sub>1</sub>	Proposed Stadium	5.26	<ul style="list-style-type: none"> <li>• Service the stadium with trunk infrastructure, including electricity, stormwater drainage infrastructure, and water and provide a sewer reticulation system.</li> <li>• Tarmacking of the road to the facility to offer accessibility to the site</li> </ul>
	3 <sub>2</sub>	Proposed Urban Park	21.35	<ul style="list-style-type: none"> <li>• Undertake proper landscaping and provide specific species (drought-resistant) of trees to be planted for aesthetics.</li> <li>• Fence the site using trees.</li> <li>• Provide benches and sheds as well as directed walkways</li> <li>• Provide a public ablution block within the park and ensure regular maintenance.</li> </ul>

### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
				<ul style="list-style-type: none"> <li>No development or permanent businesses are to be allowed within the park, and strictly reserved for public use.</li> </ul>
	3 <sub>3</sub>	Proposed Open Space	31.76	<ul style="list-style-type: none"> <li>Sites to be fenced using trees to avoid encroachment</li> <li>Landscape the spaces with grass and trees.</li> <li>No development allowed.</li> </ul>
<b>Public Purpose</b>	4 <sub>1</sub>	Existing KP Staff Quarters	3.37	<ul style="list-style-type: none"> <li>Redevelopment of the housing units within the premises</li> <li>Provision of requisite infrastructure, including water, electricity, and street lighting (solar energy is encouraged), and sewerage services are to be provided on-site.</li> </ul>
	4 <sub>2</sub>	Tarbaj Health Centre	1.27	<ul style="list-style-type: none"> <li>Equip the health facility with drugs, construct more wards and adequately equip the laboratory to make it more functional.</li> <li>Employ more personnel (nurses, clinical officers, and doctors) to be permanently stationed in the town.</li> <li>Provide adequate water and install electricity to the facility. Solar energy is highly recommended as a</li> </ul>

### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
				backup or main energy supply.
	4 <sub>3</sub>	IEBC office	1.11	<ul style="list-style-type: none"> <li>• Maintain use</li> <li>• Service the facility with water, electricity and sewerage infrastructure.</li> <li>• Deploy adequate security to the facility all year round.</li> </ul>
	4 <sub>4</sub>	DCC's Residence	0.76	<ul style="list-style-type: none"> <li>• Maintain Use.</li> </ul>
	4 <sub>5</sub>	Administrative Offices	0.95	<ul style="list-style-type: none"> <li>• Maintain use.</li> <li>• Service the offices with water, electricity and sewerage infrastructure. The use of solar energy as an alternative source of energy is encouraged.</li> <li>• Adequately fence the offices.</li> </ul>
	4 <sub>6</sub>	Administrative Police	0.69	<ul style="list-style-type: none"> <li>• Provide institutional housing on-site</li> <li>• Service the facilities with water, electricity, flood lights (solar powered) and sewerage infrastructure.</li> <li>• Adequately fence the facilities.</li> </ul>
	4 <sub>7</sub>	Tarbaj Police Station	6.85	
	4 <sub>8</sub>	Existing Library	0.31	<ul style="list-style-type: none"> <li>• Provide electricity and water to the facility</li> <li>• Provide learning materials (books) and computers to the facility</li> <li>• Install solar panels to augment the energy supply to the facility</li> </ul>
	4 <sub>9</sub>	Existing ICT Centre	0.59	<ul style="list-style-type: none"> <li>• Service the facility with piped water, electricity and sewerage infrastructure. (use of solar energy for power supply within the facility is encouraged.</li> </ul>



### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
				<ul style="list-style-type: none"> <li>Equip the centre with computers and other facilitative infrastructure to ensure frequent use and proper utility to the residents</li> <li>Construct functional ablution blocks within the facility.</li> </ul>
	4 <sub>10</sub>	Existing Mosque	0.26	<ul style="list-style-type: none"> <li>Maintain use</li> <li>Provide water, electricity and sewerage infrastructure.</li> </ul>
	4 <sub>11</sub>	Sub County Offices	1.3	<ul style="list-style-type: none"> <li>Provide water and electricity</li> <li>Adequately fence the facility</li> <li>Provide round-the-clock security to the facility.</li> <li>Install high masts within the facility.</li> </ul>
	4 <sub>12</sub>	Proposed Extension for Tarbaj Health Centre	0.81	<ul style="list-style-type: none"> <li>Acquire land</li> <li>Develop the land to incorporate a bigger incinerator and more parking space or wards based on the prevailing demand for land in the institution.</li> </ul>
	4 <sub>13</sub>	Proposed Dispensary	2.79	<ul style="list-style-type: none"> <li>Equip the health facility with drugs, wards and a functional laboratory</li> <li>Employ more personnel (nurses) to be permanently stationed in the town.</li> </ul>

### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
				<ul style="list-style-type: none"> <li>• Provide adequate water and install electricity to the facility. Solar energy is highly recommended as a backup or main energy supply.</li> </ul> <p>Waste produced by the facility should be transported and adequately handled at the incinerator in Sub-County Hospital.</p>
	4 <sub>14</sub>	Proposed Law Courts	1.21	<ul style="list-style-type: none"> <li>• Service the facility with sewerage infrastructure, electricity and water to the facility.</li> <li>• Provide parking facilities</li> <li>• The site is to be adequately fenced, and security provided throughout.</li> </ul>
	4 <sub>15</sub>	Shooting Range		<ul style="list-style-type: none"> <li>• Maintain use.</li> <li>• Fence the site as proposed</li> </ul>
<b>Commercial</b>	5 <sub>1</sub>	Existing Commercial	6.66	<ul style="list-style-type: none"> <li>• Provide utilities such as sewerage, electricity and water.</li> <li>• Install and maintain solar-powered streetlighting</li> <li>• Maintain road length of 6m for all service lanes and 9-12m for access roads.</li> <li>• Maintain the building setbacks as provided in the zoning regulations.</li> </ul>
	5 <sub>2</sub>	Proposed Commercial	1.68	

### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
	5 <sub>3</sub>	Existing Fresh Produce Market	0.25	<ul style="list-style-type: none"> <li>Construct animal watering troughs</li> <li>Install/construct high-capacity water storage tanks</li> <li>Construct animal holding pens</li> </ul>
	5 <sub>4</sub>	Proposed Livestock Auction Yard	1.74	<ul style="list-style-type: none"> <li>Construct animal holding pens</li> <li>Construct a cattle dip/crash</li> <li>Construct an animal control office in the yard and employ a vet officer to be posted on site.</li> <li>Service the auction yard with adequate water and solar harvesting equipment for pumping and electricity.</li> </ul>
	5 <sub>5</sub>	Proposed Commercial cum Commercial	2.98	<ul style="list-style-type: none"> <li>Provide utilities such as sewerage, electricity and water.</li> <li>Install and maintain solar-powered street lighting.</li> <li>Maintain road length of 6m for all service lanes and 9-12m for access roads.</li> <li>Maintain the building setbacks as provided in the zoning regulations.</li> </ul>
<b>Public Utility</b>	6 <sub>1</sub>	Existing Borehole	0.45	<ul style="list-style-type: none"> <li>Install a solar harvesting system to power water distribution to the rest of the town.</li> </ul>
	6 <sub>2</sub>	Sanitary Landfill	7.62	<ul style="list-style-type: none"> <li>Develop the sanitary landfill to its intended</li> </ul>

### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
				<p>standards</p> <ul style="list-style-type: none"> <li>• Provide adequate access to the site. Road to measure 12-15m.</li> <li>• Buffer site with trees.</li> <li>• Provide equipment such as tractors and garbage trucks for handling solid waste within the town and onsite.</li> </ul>
	6 <sub>3</sub>	Existing Water Pumping Station	0.26	<ul style="list-style-type: none"> <li>• Install a solar harvesting system to power water distribution to the rest of the town</li> <li>• Purchase high-capacity water storage tanks of 250m<sup>3</sup>.</li> <li>• Construct water management offices and fence the site.</li> </ul>
	6 <sub>4</sub>	Existing Muslim Cemetery	1.47	<ul style="list-style-type: none"> <li>• Fence the site</li> <li>• Undertake regular maintenance of the site through landscaping</li> </ul>
	6 <sub>5</sub>	Telecommunication Mast	0.19	<ul style="list-style-type: none"> <li>• Maintain use.</li> </ul>
	6 <sub>6</sub>	Proposed Sewer Treatment Plant	2.47	<ul style="list-style-type: none"> <li>• Fence the site</li> <li>• Develop the sewer treatment plant</li> </ul>

### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
				<ul style="list-style-type: none"> <li>Create an access road leading to the site. Road to have a width of 12m.</li> <li>Buffer the site with trees.</li> </ul>
	6 <sub>7</sub>	Proposed Power Substation	0.65	<ul style="list-style-type: none"> <li>Adequately fence the site</li> <li>Install solar harvesting equipment to augment the town's energy provision.</li> </ul>
	6 <sub>8</sub>	Proposed Fire Station	0.14	<ul style="list-style-type: none"> <li>Service the facility with water, electricity and sewerage infrastructure.</li> <li>Provide acceleration and deceleration lanes of 6m to the facility.</li> </ul>
	6 <sub>9</sub>	Proposed Extension of Muslim Cemetery	2.45	<ul style="list-style-type: none"> <li>Fence the sites</li> <li>Undertake regular maintenance of the site through landscaping</li> </ul>
	6 <sub>10</sub>	Proposed Christian Cemetery	1.01	
	6 <sub>11</sub>	Existing Water Pan	24.63	<ul style="list-style-type: none"> <li>Maintain use</li> <li>Adequately fence the water pans</li> </ul>
	6 <sub>12</sub>	Proposed Ablution Block	5.03	<ul style="list-style-type: none"> <li>Facilities to serve both men and women independently.</li> <li>Provide adequate water and electricity. Connect the facility to a sewerage reticulation network (the use</li> </ul>



### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
				of septic tanks before construction of the sewerage network is encouraged)
<b>Transportation</b>	7 <sub>1</sub>	Road Network	280.94	<ul style="list-style-type: none"> <li>• Access roads have a width of 6-9m</li> <li>• Major roads linking the town to other urban areas to have a width of 30m.</li> <li>• Local distributor roads to have a width of 18-21m.</li> <li>• The main road (Wajir-Mandera) is to have a reserve of 60m. Details of use of the reserve are as provided in section 4.3</li> </ul>
	7 <sub>2</sub>	Proposed Bus Park	0.76	<ul style="list-style-type: none"> <li>• Construct a functional bus park with infrastructure including passenger bays, retail shops and two toll stations.</li> <li>• Install support infrastructure such as sewerage, water and electricity.</li> </ul>
	7 <sub>3</sub>	Tarbaj Airstrip	302.55	<ul style="list-style-type: none"> <li>• Adequately fence the facility.</li> <li>• Construct an 18m road to the facility</li> <li>• Install street lighting facilities next to the airstrip.</li> <li>• Undertake gravelling of the airstrip.</li> </ul>
<b>Conservation</b>	8 <sub>1</sub>	Riparian Reserve	48.01	<ul style="list-style-type: none"> <li>• Buffer with 30-60m reserves</li> <li>• Plant trees along all areas earmarked for reserve</li> </ul>

Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

LAND USE	CODE	DESCRIPTION	LAND SIZE (HA)	PROPOSED INTERVENTIONS
				<ul style="list-style-type: none"> <li>No development is allowed along areas earmarked as reserves</li> </ul>
	8 <sub>2</sub>	Flood Plain	11.05	<ul style="list-style-type: none"> <li>No development is allowed.</li> <li>Plant trees (drought resistant) within these zones.</li> </ul>
	8 <sub>3</sub>	Hill	67.66	<ul style="list-style-type: none"> <li>To be maintained as is.</li> <li>Forms the barrier for the Kenya Police shooting range.</li> </ul>
<b>Agriculture</b>	9 <sub>1</sub>	Agriculture	2679.79	Land use should be strictly for agriculture or other compatible uses.

### 4.3 Tarbaj Town Zoning Plan

This section provides zoning regulations for zones proposed for the town. The zoning regulations shall serve as a basis for 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.

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Table 4-16: Zoning Regulations

Zone	Standards						Permitted uses	Prohibited uses
	Minimum Plot size (Ha)	Setbacks			Plot Ratio %	Plot Coverage %		
		F	S	R				
1. Commercial	0.045	4	-	2	240	80	<ul style="list-style-type: none"><li>• Offices</li><li>• Wholesale and retail shops</li><li>• Restaurants and hotels</li><li>• Banks and ATM machines</li><li>• Parking areas</li><li>• Postal offices or courier services</li><li>• Government/institutional offices</li><li>• Police post</li><li>• Waste Disposal sites</li></ul>	<ul style="list-style-type: none"><li>• Polluting, obnoxious industries,</li><li>• Go-downs of perishable/goods,</li><li>• Bus and truck depots, gas installation and gas works,</li><li>• Junk yards,</li><li>• Sports facilities</li><li>• Garages</li><li>• Slaughter facilities</li><li>• Water treatment plant</li><li>• Solid waste dumping yards</li><li>• Residential houses</li></ul>
2. High Density Residential	0.045 (15*30 M)	3	1.5	1	140	70	<ul style="list-style-type: none"><li>• Residential development (multiple units-flats/row housing)</li><li>• Corner shops</li><li>• Health facilities (dispensary/clinic)</li><li>• Educational facilities</li><li>• Police Station</li></ul>	<ul style="list-style-type: none"><li>•Slaughter facilities</li><li>•Work offices</li><li>•Warehousing, storage go-downs of perishables, hazardous goods,</li><li>•Workshops for matatus/ boda boda/buses,</li><li>•Wholesale markets/shops</li></ul>

### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Zone	Standards						Permitted uses	Prohibited uses
	Minimum Plot size (Ha)	Setbacks			Plot Ratio	Plot Coverage (%)		
		F	S	R				
							<ul style="list-style-type: none"><li>• Open spaces and recreational centres</li><li>• Public Utilities</li><li>• Cemetery (only sites existing)</li><li>• Indoor games stadium</li></ul>	<ul style="list-style-type: none"><li>•Sewage/Water treatment</li><li>•Solid waste dumping yards</li><li>•Entertainment spots</li></ul>
3. Medium Density Residential	0.09 (20*45 M)	6	2	2	1.3	65	<ul style="list-style-type: none"><li>• Residential development (multiple units)</li><li>• Corner shops</li><li>• Health facilities (dispensary/clinics)</li><li>• Educational facilities</li><li>• Police posts</li><li>• Open spaces and recreational centres</li><li>• Administrative Offices</li><li>• Shopping area</li><li>• Bus Park</li><li>• Water Utility Services</li><li>• Disaster Management Centre</li></ul>	<ul style="list-style-type: none"><li>• High-density residential developments (flats)</li><li>• Any form of industrial activities: large, medium or small-scale</li><li>• Entertainment spots</li><li>• Malls</li><li>• Indoor or outdoor stadium</li><li>• Solid waste dumping yards</li></ul>
4. Low Residential 1	0.18 (30*60M)	9	10	6	50	50	<ul style="list-style-type: none"><li>• Residential development (Single dwelling residential units including Maisonettes and Bungalows)</li><li>• Shopping Centre</li><li>• Health facilities</li></ul>	<ul style="list-style-type: none"><li>• High density residential development</li><li>• Any form of industrial activities such as; large, medium and small scale</li><li>• Entertainment spots</li><li>• Malls</li></ul>
5. Low Density Residential 2	0.18 (30*60M)	9	10	6	50	50		

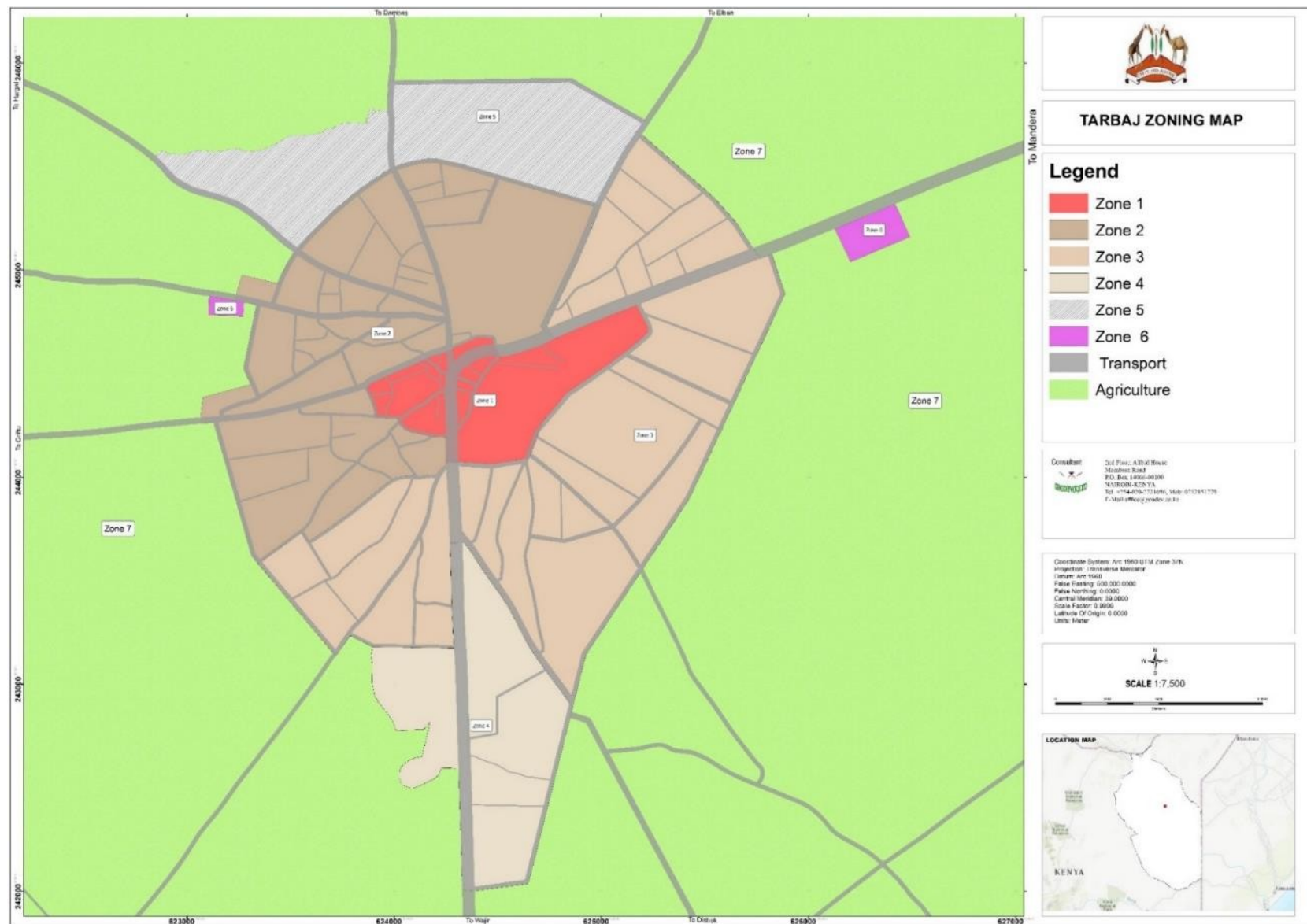


### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Zone	Standards						Permitted uses	Prohibited uses
	Minimum Plot size	Setbacks			Plot Ratio	Plot Coverage		
		F	S	R				
							<div>(dispensary/clinics)</div> <ul style="list-style-type: none"><li>• Educational facilities</li><li>• Police post</li><li>• Open spaces and recreational centres</li></ul>	<ul style="list-style-type: none"><li>• Stadium</li><li>• Garages</li><li>• Solid waste disposal grounds</li><li>• Water treatment plant.</li></ul>
6. Industrial	0.05	5	3	2	75	75	Only developments to which the use has been indicated.	All other uses except those permitted
7. Agricultural	-	-	-	-	-	-	<ul style="list-style-type: none"><li>• Livestock Auction Yard</li><li>• Shooting Range</li><li>• Airstrip</li><li>• Solid Waste Landfill</li><li>• Oxidation Ponds</li></ul>	All other uses except those permitted

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

*Map 4-10: Tarbaj Town Zoning Plan*



## 4.4 Subdivision 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:

- a) To aid in the generation of a plot register for the town, which will aid the land survey process and provide title deeds after that.
- b) To Promote accessibility within the town,
- c) To Promote organization in development
- d) For improvement and promotion of development standards

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

- Minimum disturbance to existing properties by maintaining current plot boundaries.
- Improving plot access by expanding and regularizing existing roads.
- Adopting the right sizes of properties in the town;
  - **15\*30 for High Density**
  - **20\*45 for Medium Density**
  - **30\*60 for Low Density**
- Projected Population consideration in determining the number of plots within the town.

The number of plots created in the scheme plan by land use category is shown in the table below.

*Table 4-17: Plots in the Tarbaj Scheme Plan*

S/NO	LAND USE	NO. OF PLOTS
1.	High Density Residential	1,225
2.	Medium Density Residential	942
3.	Low Density Residential	1,584
4.	Mixed Use (Commercial cum Residential)	101
5.	Industrial	5
6.	Educational	12
7.	Recreational	40
8.	Public Purpose	24
9.	Commercial	97
10.	Public Utility	18

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Map 4-11: Tarbaj Town Scheme Plan



## 4.5 Urban Design

If Tarbaj town is to achieve a distinctly urban character, a comprehensive urban design framework needs to be formulated based on the following. The design area for Tarbaj Town covers the existing built-up area, which covers a total area of 1500 ha.

### 4.5.1 Rationale of the Design

The reasons for the chosen area's design can be categorized into spatial, social, environmental, and economic.

1. **Spatial reasons:** This is to promote optimal utilization of land and land-based resources by adequately integrating the land uses to improve the functionality of the town's centre. Compatibility of land uses is also considered, whereby land uses known or expected to cause environmental problems for one another when in proximity are separated from each other.
2. **Environmental reasons:** The design will also provide specific measures to protect the environment from urbanization activities and enhance urban aesthetics. It will also aim to protect the area from the effects of flooding that occurs during flash floods.
3. **Social reasons:** Social reasons addressed in the design include providing open spaces and recreational parks in between the built-up areas where people can relax. Also, improving access to public open space can increase physical activity levels, provide mental health benefits, and reduce healthcare and other costs. Incorporating the place-making concept, we can create places where people begin to see urban spaces in their entirety: by how they play in animating communities' social and economic life. It's about communities owning and reclaiming their spaces, participating in civic life, and directly impacting how their public spaces look, function, and feel.
4. **Economic reasons:** The design provides specific measures to beautify the town and make it attractive to investors who may need to bring businesses there.

### 4.5.2 Opportunities Presented through Design

1. **Conservation** of the dry river beds and flood-prone areas presents an opportunity to preserve the natural environment and promote landscaping within these zones. These areas shall act as breathing sites/carbon sinks for the town. They shall also help improve the town's aesthetics aside from acting as areas for floodwater evacuation.



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. This will, in turn, bring about cooling effects for the town.
3. **Order in development-** Building heights within high residential and commercial zones shall be used to define the town's skyline. Through regulated building lines, the alignment of buildings will be used to create orderliness within the built-up area.
4. **The distinction of areas of activity-** Residential and commercial buildings and 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 (3) and four (4) floors, respectively. The civic areas will also display a distinct building design and organisational characteristics.

#### **Analysis of Design Elements used in Design**

1. **Activity streets:** Streets rank amongst the most valuable assets in any urban area. They not only ensure residents' mobility, allowing them to travel from one place to another, but also are a place for people to meet, interact, do business, and have fun. Streets make a town liveable. They foster social and economic bonds, bringing people together. The Design Framework for Tarbaj Town provides a functional and environmental hierarchy of streets.
2. **Buildings:** Buildings are the most pronounced elements of urban design - they shape and articulate space by forming the street walls of the city. Well-designed buildings and groups of buildings work together to create a sense of place. The buildings in Tarbaj can be used to define the town's skyline; thus, alignment along a uniform line will bring order. For instance, this can be done by allowing a maximum of three levels for commercial and two levels for medium and low residential. The building lines also present an opportunity to put up temporary furniture for seating and relaxation, onsite parking, landscaping, etc.

3. **Public spaces/Open spaces:** The town presents an opportunity by having green spaces which can be protected and used as recreational areas and open spaces. In designing open and public spaces, public art can help establish a unique identity, enhance civic pride, depict a cultural or historical event, and add interest to public spaces. Landmarks and iconic structures can be set up in institutions for easy navigation throughout the town, providing reference points and giving the town uniqueness. The open spaces can be integrated with walkways, cycle tracks and landscaping. The challenge facing this is the use of wood fuel as the dominant energy source, which causes deforestation and endangers the available green spaces within the town.
4. **Landscaping:** Landscaping improves the liveability of streets. It plays a functional role in providing shade to pedestrians, cyclists, vendors and public transport passengers. It also enhances the aesthetic qualities of streets. Practical greening of Tarbaj Town with street trees reduces the street temperature, making it comfortable for people to walk, cycle or gather for social activities, even during the summer afternoons, especially in places with humid climates or harsh daytime sun.

### 4.5.3 Urban Design Interventions

#### Streetscape

The legibility of a town is very important as it helps people orient themselves inside and outside the town. Streetscape treatments that create memorable urban corridors and nodal spaces can help reinforce the basic legibility of the road system.

The treatment of roads could include, amongst other devices, the theme of planting, hardscape, street furniture and signage.

#### Rationale for Streetscape

The design considers solving the following challenges in the town.

- Poor street designs
- Lack of street furniture
- Absence of NMT lanes
- Lack of stormwater drainage
- Road reserve encroachment by informal commercial activities such as food kiosks.

The hierarchy of roads in the planning area varies from the main collectors.

- Collector roads that feed into main roads
- Ring roads that help direct traffic within the town
- Green corridors along the streets
- Non-motorized lanes.

### **Street Design and Road Transport**

The street design depends on the various classes of roads in the town. These include service lanes (6m), access roads (9-12m), local distributor roads and the main primary 60m road. The streetscape proposals aim to achieve the following:

- Provision of NMT lanes
- Ring roads that offer alternative routes and decongest the major roads
- Beautification of the road by greening and creating green corridors

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 shall only direct one-way traffic.

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Plate 4-21: 6m Road Profile

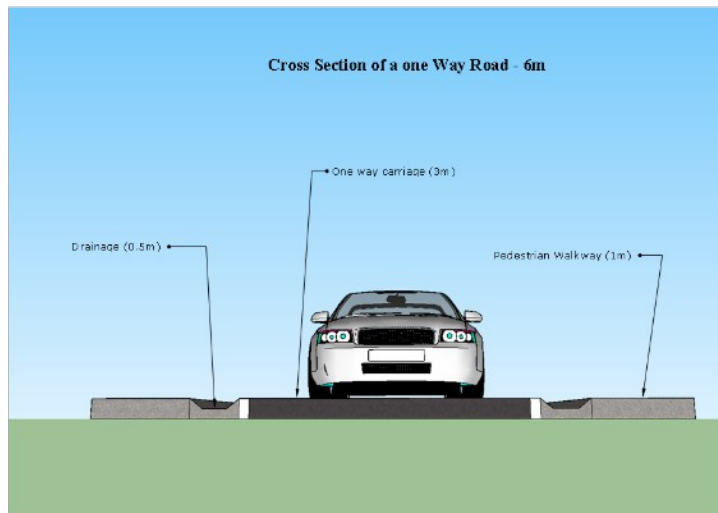
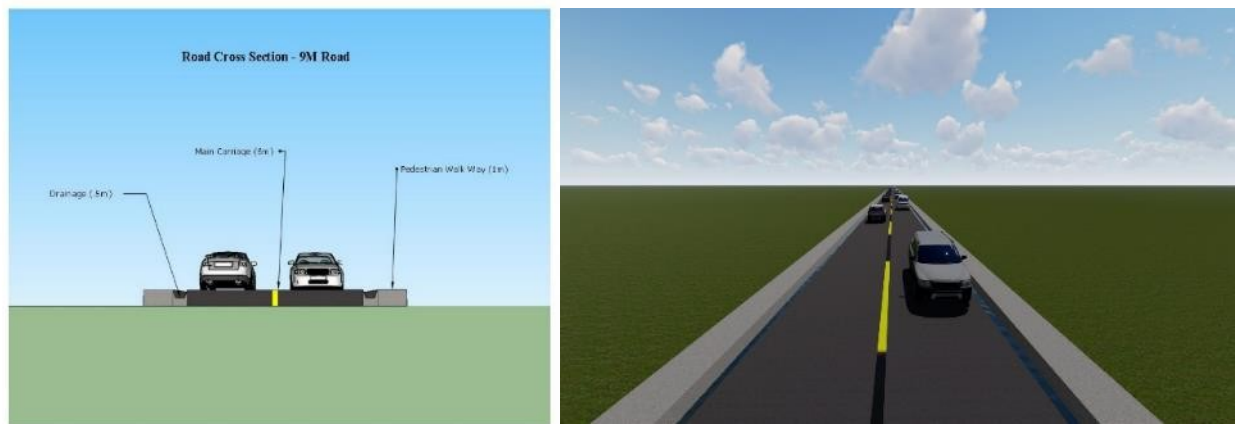
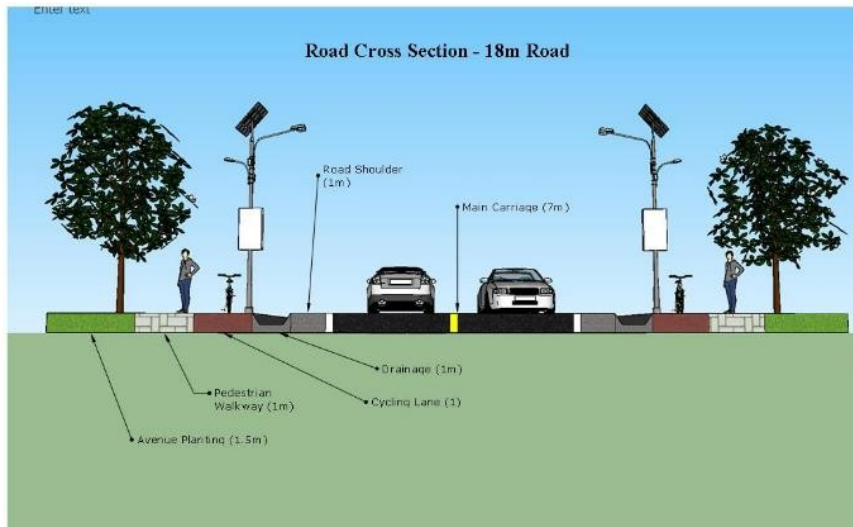


Plate 4-22: 9m Road Profile



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 each of 1.5 metres shall also be constructed. 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 4-23: 18m Road Profile



The main road, Wajir-Mandera (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 long, shall be constructed after road drainage (on either side of the road) of 1.5 metres. This is as shown in Plate 4 -24. This shall be incorporated for the road passing through Tarbaj Town. The incorporation of speed humps on the bend adjacent to Tarbaj Primary School as well as the erection of traffic signs shall form a key element in reducing road user conflicts.



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

Plate 4-24: 60m Road Profile

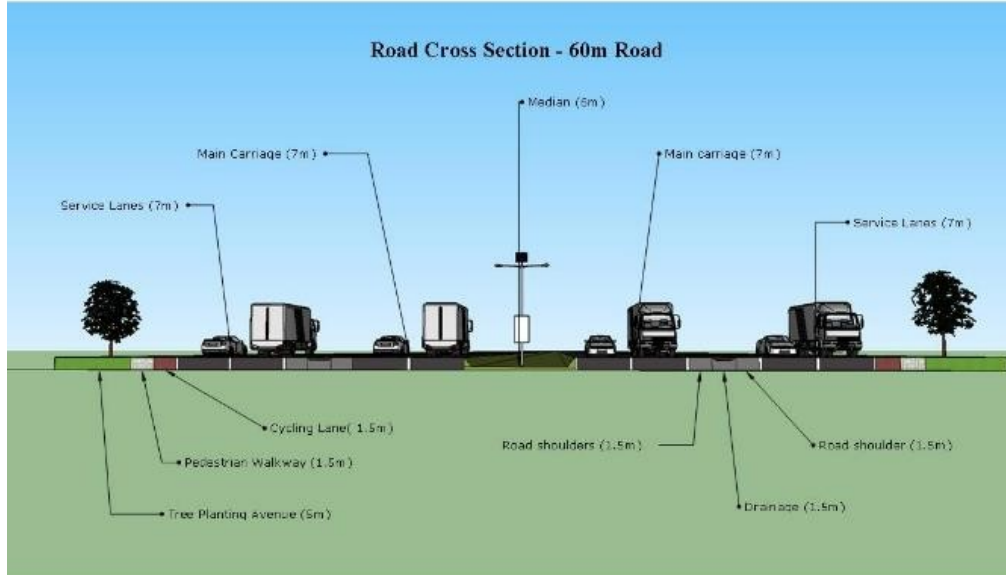


Plate 4-25: Graphic presentation of 60m road profile



### Recreation

To promote recreational activities, parks/open spaces will 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.

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

*Plate 4-26: Recreational Park*



*Plate 4-27: Recreational Park (2)*



*Plate 4-28: Recreational Park (3)*



### **Built-Up Areas (Commercial and Residential Areas)**

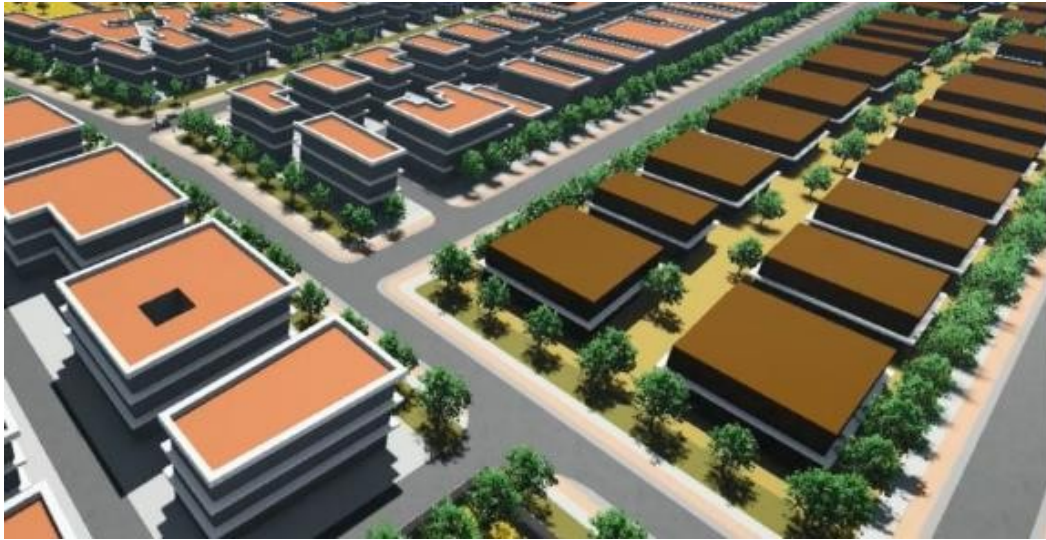
The design gives life to the building standards prescribed in the zoning regulations for the different activity zones. Building lines will be used to create orderliness in development, ensuring uniformity. This will ease the provision of trunk infrastructure such as electricity, sewer lines, and piped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

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



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

*Plate 4-29: Orderly Built-Up Area*



*Plate 4-30: On Street Car Parking*



## 4.6 Urban Improvement Strategies

This chapter provides strategies and specific measures to be taken to achieve the set vision for Tarbaj Town. The strategies focus on individual sectors, including transportation, housing, local economic development, physical infrastructure, social infrastructure and governance. The chapter recognizes that strategies require specific projects to achieve the proposals; hence, the plan has proposed different projects in each thematic area.

### 4.6.1 Housing

#### Strategy

Increasing access to affordable housing.

#### Objective

To provide adequate and affordable housing for all.

#### *Proposed Projects and programmes*

- Involve the private sector and corporate societies in housing stock development to seek housing finance and develop infrastructure.
- Promote using local building materials and technology in constructing affordable housing stocks for the residents.
- Provision of Institutional housing to ensure the safety of public employees.
- Survey and provide title deeds of the plots resulting from the town's scheme plan.
- Establish an appropriate building and technology centre in the town as shown in the structure plan. Subsidize the building materials from the centre to ensure wider use/uptake by town residents.
- Construct public housing for health workers, teachers and county staff at the proposed site as shown in the structure plan.

### 4.6.2 Local economic development strategy

#### Strategy

Promoting agro-based industries.

#### Objective

To strengthen the local economic capacity of Tarbaj Town.

#### Proposed Projects and Programmes



- Improve livestock husbandry to enhance milk and beef production through stock improvement, enhanced spraying and dipping, milk collection, and establishing other livestock management programmes.
- Construct a new slaughterhouse at the proposed site and equip it with adequate infrastructure.
- Construct a livestock auction yard on the far western side of the town.
- Expand small business development support through the provision of credit to registered SMEs;
- Improve the road surface conditions to open up the town to investors
- Strengthen tertiary institutions to provide entrepreneurial training to provide the necessary skills and knowledge for the best investment skills.

#### **4.6.3 Transportation Strategy**

Development and maintenance of transport modes, especially roads, are key to rapid economic growth and poverty reduction. Production costs, employment creation, access to markets, and investment depend on the quality of roads. The transportation strategy aims to create an effective and efficient road transport system in Tarbaj. To facilitate inter- and intra-circulation within the planning area, neighbouring towns, and the hinterland to promote trade and economic growth and enhance connectivity and accessibility.

##### **Strategy**

Improving connectivity and accessibility.

##### **Objective**

To create an efficient and inclusive transport network in Tarbaj Town.

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

- Upgrade the major road corridor (Wajir-Mandera Road –A13) from murram to bitumen standard. The road through the town has a reserve of 40m, while the main road passing on the outer eastern edge has a reserve of 60m.
- Provide appropriate bus terminals and passenger drop-off points to the neighbouring towns of Kotulo and Elben.
- Upgrade Tarbaj-Griftu, Tarbaj Sarman, Tarbaj-Elben, and Tarbaj-Harghal roads from earth to bitumen standards.
- Create and upgrade all access roads to gravel standards.

- Construct a modern bus park for passenger collection and drop-off.
- Provide non-motorized transport infrastructure such as pedestrian walkways and cycle tracks on all roads.
- Provide/install traffic calming facilities such as zebra crossings and road signs at every junction in the town.

#### 4.6.4 Physical Infrastructure Strategy

The strategy aims to guide the improvement of physical infrastructure that will enhance the quality of life by providing robust, reliable and sustainable physical infrastructure.

##### 4.6.4.1 Water Supply

###### Strategy

Increasing the quantity and reliability of water supply

###### Objective

To improve accessibility and supply of clean and adequate water.

###### Proposed Projects and Programmes

- Expand the capacity of the water supply infrastructure for Tarbaj town through the provision of adequate water storage tanks.
- Construct two more mega pans to facilitate extensive harvesting of surface run-off and ensure availability during dry seasons.
- Provide adequate water storage tanks in public institutions for rainwater harvesting and storage.
- Construct water kiosks at strategic points within residential areas.
- Increase maintenance of water pipes to curb vandalism and improve ageing infrastructure.
- Protect all water pans through fencing and greening through tree planting.
- Rainwater harvesting to be a mandatory requirement for development approval. This will also increase stored levels of freshwater.
- Create an overall body to operate and centrally manage water sources for the town.

##### 4.6.4.2 Sanitation

###### Strategy

Improving sanitation in the town.

###### Objective

To provide healthy sanitary conditions.

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

- Install a sewerage reticulation system covering the whole urban area.
- Provide public toilets within the commercial areas. Public areas such as the proposed bus park, the existing markets (auction yard and fresh produce market), and the commercial area are to have public toilets.
- Construct communal septic tanks within the residential areas. One septic tank is proposed to be shared with at least six (6) households.
- Construct a sewer treatment plant as proposed in the plan.
- Provide litter bins in the CBD and the proposed commercial areas.
- Provide (procure) standard waste collection and transfer trucks responsible for waste collection, transportation and disposal.
- Employ garbage collection and sorting staff.
- Create public awareness on methods of sorting and management of waste at the household level.
- Improve the management of the proposed solid waste management site in the following ways:
  - Fencing and planting of trees to aerate the site,
  - Promoting sorting, recycling and reusing of waste rather than burning to reduce air pollution and,
  - Incorporation of appropriate technology in waste management.

#### **4.6.4.3 Storm Water Management**

##### **Strategy**

Ensuring proper surface water drainage in the town.

##### **Objective**

To prevent flooding in the town.

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

- Undertake stormwater drainage and management feasibility study in the town.
- Install a robust stormwater drainage system in the town that connects all roads and drains at common points. The feasibility study will provide points for stormwater outfalls.

- Conduct routine maintenance and cleaning of the stormwater drains and provide trap mechanisms in the stormwater drainage systems.

#### 4.6.4.4 Energy Supply

##### Strategy

Providing reliable power supply.

##### Objective

To achieve a constant and steady supply of electricity for all.

##### Proposed Projects and Programmes

- Construct a power substation to facilitate power transmission. Installation of solar and wind harvesting equipment is encouraged to provide unlimited energy.
- At the local level, create awareness of green, renewable, reliable, and sustainable energy sources for lighting and cooking. These can include biogas, conversion of manure into fuel bricks, energy-saving *jikos*, etc.
- Extension of power transmission lines to cover the entire town, including the proposed sites at the periphery of the town.
- Educate residents on how to produce biofuel at the household level. The availability of large herds of livestock gives a baseline for biogas production.

#### 4.6.5 Social Infrastructure Strategy

This strategy aims to ensure that the social infrastructure, including health care and educational facilities, are easily accessible and provide world-class services. Therefore, the strategy seeks to ensure that the facilities are upgraded and furnished with the requisite infrastructure to improve Tarbaj town's community well-being.

##### 4.6.5.1 Education Facilities

###### Strategy

Improving access and performance in basic education.

###### Objective

To provide competitive, quality education, training and research.

###### Projects and Programmes

- Establish additional schools within the town (four primary schools and one girls' secondary school) as proposed in the structure. One of the four proposed primary schools can be appropriated as a special school for the challenged.
- Employ skilled staff to fill the capacity deficit in the town.
- Promote research in education by constructing libraries and laboratories in all existing learning institutions.
- Introduce a school feeding programme in all primary and secondary schools.
- Encourage investment in education by the private sector.
- Initiate bursary programmes aimed at increasing children's access to education.
- Provide support infrastructure such as water and electricity and facilities such as dormitories and well-equipped laboratories in all schools (existing and proposed).
- Promote education sensitization programs.
- Facilitate the construction of more private schools to bridge the existing gaps.
- Working together with the national government, County government of Wajir and the local community to enhance community policing/developing institutional capacity to contain insecurity issues in the area and the larger region.



#### 4.6.5.2 Health Facilities

##### Strategy

Providing affordable healthcare for all.

##### Objective

To provide accessible and affordable healthcare for all.

##### Projects and Programmes

- Upgrade the Tarbaj Health Centre to a Sub-County Referral hospital. Equip and staff the facility to provide services proportional to its upgraded status. The facility shall, therefore, offer outpatient care, inpatient services, emergency obstetric services, oral health services, surgery on an inpatient basis, client health education, more specialized laboratory tests and radiology services.
- Employ more qualified medical personnel.
- Establish two dispensaries to complement the health centre at the sites proposed in the structure plan.
- Equip the health facilities with the necessary support for basic infrastructure such as water, electricity and sewer infrastructure. The installation of solar harvesting equipment in all hospitals (existing and proposed) is highly encouraged to augment supply and reduce costs.
- Provide medical supplies (drugs, equipment and tools) regularly.
- Provide specialized equipment and have specialized staff for the hospital. Upgrading the Tarbaj Health Centre to a sub-county hospital will require the employment of resident doctors, resident clinical officers, nurses, laboratory technicians, public health officers, nutritionists, bio-medical Officers, and pharmacy technicians.
- Sensitize residents on good health practices, including giving birth under trained professionals, regular medical check-ups,
- Establish investigation centres within the existing and proposed hospitals in the town to help research strange diseases in the planning area.
- Construct two more dispensaries to reduce the demand over-reliance in the health centre and help deliver quality services. Adequately staff these facilities with clinical officers and nurses.

#### 4.6.5.3 Community Facilities

##### Strategy

Enhancing social well-being

##### Objective

- i. To enhance cohesiveness and interaction.
- ii. To provide appropriate and adequate recreational facilities.

##### Projects and Programmes

- Equip the existing ICT centre and social hall with adequate indoor and outdoor facilities such as computer laboratories.
- Upgrade the existing library to accommodate the ever-increasing reader population.
- Improve the management of the library, provide more reading materials, increase solar harvesting equipment, and ensure the facility is open for regular use during the week.
- Construct a modern stadium at the proposed site and equip it with adequate indoor facilities.
- Establish public parks in the areas proposed (shown in the structure plan). Undertake extensive tree-planting within these open spaces and provide permanent sitting benches, walkways, and high mast lighting.
- Construct a modern sports complex at the proposed site. The complex is to house a playground, parking facilities, ablution blocks and spectator stands.
- Undertake extensive tree planting along the major roads and provide permanent benches.

#### 4.6.6 Environmental Management Strategy

##### Strategy

Protecting and conserving the environment.

##### Objective

To protect and conserve the environment for improved well-being and ensuring sustainability.

##### Proposed Projects and Programmes

- Waste disposal bins should be appropriately placed in all public areas of the town and emptied regularly.
- Create awareness among businesses and residents, encouraging waste separation and composting.

- Create awareness of the use of clean sources of cooking energy and the effects of deforestation.
- Undertake extensive tree planting in areas highlighted as flood plains and riparian reserves.
- Waste storage skips should be made available on every street corner in town;
- Solid waste disposal sites should be effectively managed to minimize the risk of odours and disease.

#### **4.6.7 Urban Governance Strategy**

The capacity to enforce urban planning regulations is lacking and should be given special attention. The regulation of land and property development through statutory plans and development permits is a vitally important role of the urban planning system. The town lacks a planning department to oversee planning, implementation of plans, development control and enforcement.

##### **Strategy**

Promoting good town governance.

##### **Objective**

To enhance proper urban governance and public participation in the town.

##### ***Key actions to support the strategy***

- Uphold inclusion and representation of all groups in Tarbaj Town in decision-making as much as possible;
- Encourage accountability, integrity, and transparency of County Government action in defining and pursuing shared goals.
- Institute capable urban management (Town Committee) through deliberate and structured capacity building to fulfil public responsibilities with knowledge, skills, and resources;
- Fostering regular, formal interaction between County Government and residents (including through community-based and non-governmental organizations)—in approaches such as participatory planning and budgeting and public oversight of expenditure and service delivery;
- Foster continuous improvement in accountability and performance, which are essential to combat corruption problems.

- Detailed capacity building and training of county staff in urban development projects should be supplemented by greater use of benchmarking for exchanges of experience and best practices, training, and technical assistance among the county governments and even beyond Kenya.
- A Town Planning Unit comprising of multiple disciplines, such as Environmentalists, Planners, Engineers etc., should be formed to coordinate the implementation of the proposals made by the LPLUDP:

## 4.7 Implementation Framework

The following detailed Implementation Plan should be adopted and approved as a framework to provide direction on the sequence and prioritization of the projects and programs. This includes prioritized initiatives with defined timelines, resources, actors and responsibilities.

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

### Governance

Implementation of Tarbaj Integrated Strategic Urban Plan should be based on good governance. And as a result, stakeholders should ensure that the following values are observed:

- ✓ **Transparency** - The public should be notified of any planning and implementation activity in Tarbaj town. Cost and working procedures should be clear; requirements from the public to get specific services should be made clear, including the offices which handle tasks and the optimum time required to accomplish the tasks.
- ✓ **Accountability**- The implementing bodies should be held accountable for their decisions. Duties and responsibilities should be known ahead of time.
- ✓ **Public participation** - The public should be consulted during the design and implementation of projects proposed in this plan. Proper mechanisms should be established to ensure maximum public participation in plan implementation activities. The private sector should be encouraged to actively engage in projects through different participation models as part of public participation.

### Institutional Framework

Town departments involved in implementation of the Tarbaj LPLUDP should appoint dedicated staff resources to the Implementation Unit as needed. County Physical Planning Department

should commit operating resources and support staff as necessary, either full-time or part-time, to support the implementation of the plan. The town administrator and their team should:

- ✓ Provide a management entity to coordinate efforts and guide the implementation of the plan;
- ✓ Build leadership, innovation and organizational capacity among town departments and staff to instil and implement the policies of the LPLUDP;
- ✓ Instil confidence amongst investors and developers by providing an effective decision-making entity that is committed to establishing an environment for change;
- ✓ Build and maintain interdepartmental relationships and public-private business partnerships to implement the LPLUDP, while minimizing conflicts of interest;
- ✓ Develop clear accountability, performance and review measures to ensure successful implementation of the Plan over the long term (including any adjustments in the phasing or capital improvements priority plan) and to put key milestones in perspective;
- ✓ Coordinate economic development, marketing and research initiatives specifically for Tarbaj Town;
- ✓ Encourage Tarbaj Town self-management;
- ✓ Provide mechanisms for public input and consultation into Tarbaj planning and revitalization initiatives; and
- ✓ Train staff to address urban development and management matters, such training would serve the purpose of:
  - Enhancing staff understanding of land use development issues in Tarbaj Town and the surrounding,
  - Equipping decision-making staff with urban design and development control issues,
  - Help build community capacity and understanding of urban planning and development issues;

#### **4.7.1 Mechanisms for Plan Implementation**

##### **Indirect Implementation**

The implementation and related monitoring of the planned measures should be transferred to the local program partners (government organizations, NGO's or self-help groups) as soon as



possible. Periodic evaluations, in which all program partners should participate, create the basis for joint learning based on the experiences gained during the implementation.

### **Decentralized Implementation**

Independent of the planning and negotiation levels selected, the implementation of the plan will always be locally organized via local structures. This means that organizations and institutions should be established, reinforced or coordinated locally to guarantee the plan implementation.

### **Participatory Implementation**

It would be ideal for organizations, institutions, and beneficiary group representatives who are directly or indirectly affected by a planning project to be included from the initiation to the monitoring and evaluation stage.

### **Project Prioritization and Sequencing**

To effectively implement the plan proposals, the projects need to be sequenced in a structured and rational manner as quick wins, short-term, medium-term, long-term, catalyst/strategic, key capital works, and special projects.

#### **(a) Quick-wins (1-100 days)**

These are projects/programmes to be achieved for the first 100 days after plan approval, with high visibility and impact using minimal resources to win the confidence/trust of the executive in the eyes of the citizens and stakeholders. They include:

1. Establishment of Tarbaj Town Committee to handle its mandate as outlined in the Urban Areas and Cities Amendment Act of 2019.
2. Expansion/opening of access roads;
3. Installation and repair of street lights within residential areas;
4. Commissioning of the solid waste management site and equipping it with prerequisite facilities.
5. Street beautification by planting drought-resistant tree species and provision of street furniture such as benches;
6. Provision of garbage collection bins and skips.

**(b) Short-term Activities**

These are projects/programmes to be achieved within 1-3 years, from 2023 to 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.

**(c) Medium-term activities**

These are projects/programmes to be achieved within a period of 4-6 years, from 2027 to 2029. They require more collaborators than short-term, require more inquiry before commencement, land acquisition and more comprehensive consultations among all the involved partners.

**(d) Long Term Projects**

These are projects/programmes to be achieved within 7 – 10 years, from 2030-2033. Considering the expected intensity required for implementation, these projects are expected to have been achieved by the end of the planning period or beyond. They require phasing, feasibility studies, major capital investments, donor funding, and wider consultation.

Section 4.7.2 outlines the implementation matrix for implementing the projects outlined under the urban improvement strategies.

#### 4.7.2 Implementation Log frame

STRATEGY	PROJECT	ACTOR	TIME FRAME
<b>HOUSING</b>			
Increasing access to affordable housing	Involve the private sector and corporate societies in housing stock development.	<ul style="list-style-type: none"> <li>County Department of Lands, Public Works, Housing and Urban Development</li> </ul>	Long Term by 2033 and continuous
	Promote using local building materials and technology in constructing affordable housing stocks for the residents.	<ul style="list-style-type: none"> <li>Private partners/investors</li> <li>Residents/NGOs and CBOs</li> <li>Town Administration</li> </ul>	Long Term by 2033 and continuous
	Survey and provide title deeds of the plots resulting from the town's scheme plan.	<ul style="list-style-type: none"> <li>County Department of Lands, Public Works, Housing and Urban Development</li> <li>Survey of Kenya</li> <li>Ministry of Lands, Public Works, Housing and Urban Development</li> </ul>	Short term by 2026
	Establish an appropriate building and technology centre in the town as shown in the structure plan. Over time, subsidize the building materials from the centre to ensure wider use/uptake by town residents.	<ul style="list-style-type: none"> <li>County Department of Lands, Public Works, Housing and Urban Development</li> <li>Town Administration</li> </ul>	Short term by 2026
	Construct public housing for health workers, teachers and county staff at the proposed site as shown in the structure plan.	<ul style="list-style-type: none"> <li>County Department of Lands, Public Works, Housing and Urban Development</li> <li>Town Administration</li> <li>Private partners/investors</li> </ul>	Medium-Term by 2027
<b>LOCAL ECONOMIC DEVELOPMENT</b>			
Promoting agro-	Improve livestock husbandry to enhance milk and beef	<ul style="list-style-type: none"> <li>County Department of Agriculture,</li> </ul>	Short Term by 2026

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

STRATEGY	PROJECT	ACTOR	TIME FRAME
based industries.	production through stock improvement, enhanced spraying and dipping, milk collection, and establishing other livestock management programmes.	<ul style="list-style-type: none"> <li>Livestock &amp; Veterinary Services</li> <li>Ministry of Agriculture and Livestock Development</li> <li>KALRO</li> </ul>	
	Construct a new slaughterhouse at the proposed site and equip it with adequate infrastructure.	<ul style="list-style-type: none"> <li>County Department of Agriculture, Livestock &amp; Veterinary Services</li> <li>County Department of Lands, Public Works, Housing and Urban Development</li> <li>Private partners/investors</li> <li>Town Administration</li> </ul>	Short Term by 2026
	Construct a livestock auction yard on the far western side of the town.		Medium-term by 2028
	Expand small business development support through the provision of credit to registered SMEs;	<ul style="list-style-type: none"> <li>County Department of ICT, Trade, Investment and Industry</li> <li>Private partners/investors</li> </ul>	Short Term by 2026
	Strengthen tertiary institutions to provide entrepreneurial training to provide the necessary skills and knowledge for the best investment skills.	<ul style="list-style-type: none"> <li>County Department of Education, Social Welfare and Family Matters</li> <li>Private partners/investors</li> </ul>	Long-term by 2033 and continuous
<b>TRANSPORTATION</b>			
Improving connectivity and accessibility.	Upgrade the major road corridor (Wajir-Mandera Road – A13) from murrum to bitumen standard. The road through the town has a reserve of 40m, while the main road passing on the outer eastern edge has a reserve of 60m.	<ul style="list-style-type: none"> <li>County Department of Lands, Public Works, Housing and Urban Development</li> <li>KENHA</li> </ul>	Long-term by 2033
	Provide appropriate bus terminals and passenger drop-off points to the neighbouring towns of Kotulo and Elben.	<ul style="list-style-type: none"> <li>County Department of Roads and Public Transport</li> <li>KURA</li> <li>KeRRA</li> </ul>	Medium-term by 2027
	Upgrade Tarbaj-Griftu, Tarbaj Sarman, Tarbaj-Elben, and Tarbaj-Harghal roads from earth to bitumen standards.	<ul style="list-style-type: none"> <li>County Department of Lands, Public Works, Housing and Urban</li> </ul>	Medium-term by 2027

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

STRATEGY	PROJECT	ACTOR	TIME FRAME
	Create and upgrade all access roads to gravel standards.	<ul style="list-style-type: none"><li>Development</li><li>County Department of Roads and Public Transport</li><li>KURA</li><li>Town Administrator</li></ul>	Long Term by 2033
	Construct a modern bus park for passenger collection and drop-off.		Medium Term by 2029
	Provide non-motorized transport infrastructure such as pedestrian walkways and cycle tracks on all roads.		Long Term by 2033
	Provide/install traffic calming facilities such as zebra crossings and road signs at every junction in the town.		Long Term by 2033
PHYSICAL INFRASTRUCTURE			
Water Supply			
Increasing the quantity and reliability of water supply	Expand the capacity of the water supply infrastructure for Tarbaj town through the provision of adequate water storage tanks.	<ul style="list-style-type: none"><li>WAJWASCO</li><li>Town Administration</li><li>County Department of Lands, Public Works, Housing and Urban Development</li><li>County Department of Water Services</li><li>Private investors/partners</li></ul>	Medium Term by 2029
	Construct two more mega pans to facilitate extensive harvesting of surface run-off and ensure availability during dry seasons.		Short Term by 2026
	Provide adequate water storage tanks in public institutions for rainwater harvesting and storage.		Short Term by 2026
	Construct water kiosks at strategic points within residential areas.		Medium Term by 2029
	Increase maintenance of water pipes to curb vandalism and improve ageing infrastructure.		Medium Term by 2029



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

STRATEGY	PROJECT	ACTOR	TIME FRAME
	Protect all water pans through fencing and greening through tree planting.		Short term by 2026
	Rainwater harvesting to be a mandatory requirement for development approval. This will also increase stored levels of freshwater.		Long-term by 2033 and continuous
	Create an overall body to operate and centrally manage water sources for the town		Short Term by 2026
Sanitation			
Improving sanitation in the town.	Install a sewerage reticulation system covering the whole urban area.	<ul style="list-style-type: none"><li>• WAJWASCO</li><li>• Town Administration</li><li>• County Department of Lands, Public Works, Housing and Urban Development</li><li>• County Department of Water Services</li><li>• Private investors/partners</li></ul>	Long Term by 2033
	Provide public toilets within the commercial areas. Public areas such as the proposed bus park, the existing markets (auction yard and fresh produce market), and the commercial area are to have public toilets.		Long Term by 2033
	Construct communal septic tanks within the residential areas. One septic tank is proposed to be shared with at least six (6) households.		Medium Term by 2028
	Construct a sewer treatment plant as proposed in the plan.		Long Term by 2033
	Provide litter bins in the CBD and the proposed commercial areas.	Town Administration	Short Term by 2026
	Provide (procure) standard waste collection and transfer trucks responsible for waste collection, transportation and	<ul style="list-style-type: none"><li>• County Department of Finance and Economic Planning</li><li>• Town Administration</li></ul>	Medium Term by 2028

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

STRATEGY	PROJECT	ACTOR	TIME FRAME
	disposal.		
	Employ garbage collection and sorting staff.	<ul style="list-style-type: none"> <li>Town Administration</li> <li>County Public Service Board</li> </ul>	Short Term by 2026
	Create public awareness on methods of sorting and management of waste at the household level.	<ul style="list-style-type: none"> <li>Town Administration</li> </ul>	Short Term by 2026
	Improve the management of the proposed solid waste management site in the following ways: <ul style="list-style-type: none"> <li>Fencing and planting of trees to aerate the site,</li> <li>Promoting sorting, recycling and reusing of waste rather than burning to reduce air pollution and,</li> <li>Incorporation of appropriate technology in waste management.</li> </ul>	<ul style="list-style-type: none"> <li>Town Administration</li> <li>Private investors/partners</li> </ul>	Short Term by 2026
<b>Storm Water Management</b>			
Ensuring proper surface water drainage in the town.	Undertake stormwater drainage and management feasibility study in the town.	<ul style="list-style-type: none"> <li>County Department of Lands, Public Works, Housing and Urban Development</li> </ul>	Short Term by 2026
	Install a robust stormwater drainage system in the town that connects all roads and drains at common points. The feasibility study will provide points for stormwater outfalls.	<ul style="list-style-type: none"> <li>County Department of Roads and Public Works</li> <li>KURA</li> </ul>	Long Term by 2033
	Conduct routine maintenance and cleaning of the stormwater drains and provide trap mechanisms in the stormwater drainage systems.	<ul style="list-style-type: none"> <li>Town Administration</li> </ul>	Long Term by 2033 and continuous
<b>Energy</b>			

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

STRATEGY	PROJECT	ACTOR	TIME FRAME
Providing reliable power supply.	Construct a power sub-station to facilitate power transmission. Installation of solar and wind harvesting equipment is encouraged to provide unlimited energy.	<ul style="list-style-type: none"> <li>Kenya Power</li> <li>REREC</li> </ul>	Short Term by 2026
	At the local level, create awareness of green, renewable, reliable, and sustainable energy sources for lighting and cooking. These can include biogas, conversion of manure into fuel bricks, energy-saving <i>jikos</i> , etc.	<ul style="list-style-type: none"> <li>Town Administration</li> <li>Private investors/partners</li> </ul>	Short Term by 2026
	Extension of power transmission lines to cover the entire town, including the proposed sites at the periphery of the town.	<ul style="list-style-type: none"> <li>Kenya Power</li> <li>REREC</li> <li>Private investors/partners</li> </ul>	Medium-term by 2027
	Educate residents on how to produce biofuel at the household level. The availability of large herds of livestock gives a baseline for biogas production.	<ul style="list-style-type: none"> <li>Town Administration</li> <li>Private investors/partners</li> </ul>	Short Term by 2026
<b>SOCIAL INFRASTRUCTURE</b>			
<b>Education Facilities</b>			
Improving access and performance in	Establish additional schools within the town (four primary schools and one girls' secondary school) as proposed in	<ul style="list-style-type: none"> <li>Ministry of Education</li> <li>County Department of Lands, Public Works, Housing and Urban</li> </ul>	Long Term by 2033

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

STRATEGY	PROJECT	ACTOR	TIME FRAME
basic education.	the structure. One of the four proposed primary schools can appropriated as a special school for the challenged.	Development <ul style="list-style-type: none"> <li>County Department of Water Services</li> </ul>	
	Employ skilled staff to fill the capacity deficit in the town.	<ul style="list-style-type: none"> <li>Ministry of Education</li> <li>Teacher Service Commission</li> </ul>	Short Term by 2026
	Promote research in education by constructing libraries and laboratories in all existing learning institutions.	<ul style="list-style-type: none"> <li>Ministry of Education</li> <li>Private investors/partners</li> </ul>	Short-term by 2026 and continuous
	Introduce a school feeding programme in all primary and secondary schools.		Short-term by 2026 and continuous
	Encourage investment in education by the private sector.		Long Term by 2033 and continuous
	Initiate bursary programmes aimed at increasing children's access to education.	<ul style="list-style-type: none"> <li>National Government through the office of the Member of Parliament</li> <li>County Department of Education, Social Welfare and Family Matters</li> <li>The civil society (CBOs, FBOs and NGOs)</li> </ul>	Long Term by 2033 and continuous
	Provide support infrastructure such as water and electricity and facilities such as dormitories and well-equipped laboratories in all schools (existing and proposed).	<ul style="list-style-type: none"> <li>Ministry of Education</li> <li>National Government through the office of the Member of Parliament</li> <li>County Department of Education, Social Welfare and Family Matters</li> </ul>	Medium-term by 2029
	Promote education sensitization programs.	<ul style="list-style-type: none"> <li>County Department of Education, Social Welfare and Family Matters</li> <li>The civil society (CBOs, FBOs and NGOs)</li> <li>Town Administration</li> </ul>	Short-term by 2026 and continuous
	Facilitate the construction of more private schools to bridge the existing gaps.	<ul style="list-style-type: none"> <li>Town Administration</li> <li>Private investors/partners</li> </ul>	Long Term by 2033

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

STRATEGY	PROJECT	ACTOR	TIME FRAME
	Working together with the national government, County government of Wajir and the local community to enhance community policing/developing institutional capacity to contain insecurity issues in the area and the larger region.	<ul style="list-style-type: none"> <li>Town Administration</li> <li>Town Residents</li> <li>Kenya Police</li> </ul>	Short-term by 2026 and continuous
<b>Health Facilities</b>			
Providing affordable healthcare for all.	Upgrade the Tarbaj Health Centre to a Sub-County Referral hospital. Equip and staff the facility to provide services proportional to its upgraded status. The facility shall, therefore, offer outpatient care, inpatient services, emergency obstetric services, oral health services, surgery on an inpatient basis, client health education, more specialized laboratory tests and radiology services.	<ul style="list-style-type: none"> <li>County Department of Health Services</li> <li>Ministry of Health</li> <li>Kenya Medical Practitioners and Dentist Council (KMPDC)</li> </ul>	Medium Term by 2028
	Equip the health facilities with the necessary support for basic infrastructure such as water, electricity and sewer. The installation of solar harvesting equipment in all hospitals (existing and proposed) is highly encouraged to augment supply and reduce costs.	<ul style="list-style-type: none"> <li>County Department of Health Services</li> <li>Ministry of Health</li> <li>Private investors/partners</li> </ul>	Medium Term by 2029
	Provide medical supplies (drugs, equipment and tools) regularly.		Short-term by 2026 and continuous
	Provide specialized equipment and have specialized staff for Tarbaj Health Centre. Upgrading the Tarbaj Health Centre to a sub-county hospital will require the employment of resident doctors, resident clinical officers,		Medium Term by 2028



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

STRATEGY	PROJECT	ACTOR	TIME FRAME
	nurses, laboratory technicians, public health officers, nutritionists, bio-medical Officers, and pharmacy technicians.		
	Sensitize residents on good health practices, including giving birth under trained professionals, regular medical check-ups,	<ul style="list-style-type: none"> <li>County Department of Health Services</li> <li>Private investors/partners</li> </ul>	Short-term by 2026 and continuous
	Establish investigation centres within the existing and proposed hospitals in the town to help research strange diseases in the planning area.		Medium Term by 2028
	Construct two more dispensaries to reduce the demand over-reliance in the health centre and help deliver quality services. Adequately staff these facilities with clinical officers and nurses.	<ul style="list-style-type: none"> <li>County Department of Lands, Public Works, Housing and Urban Development</li> <li>County Department of Health Services</li> <li>Ministry of Health</li> <li>Kenya Medical Practitioners and Dentist Council (KMPDC)</li> </ul>	Long Term by 2033
<b>Community Facilities</b>			
Enhancing social well-being	Equip the existing ICT centre and social hall with adequate indoor and outdoor facilities such as computer laboratories.	<ul style="list-style-type: none"> <li>Town Administration</li> <li>Private investors/partners</li> </ul>	Short Term by 2026
	Upgrade the existing library to accommodate the ever-increasing reader population.		Short Term by 2026
	Improve the management of the library, provide more reading materials, increase solar harvesting equipment,		Short Term by 2026

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

STRATEGY	PROJECT	ACTOR	TIME FRAME
	and ensure the facility is open for regular use during the week.		
	Construct a modern stadium at the proposed site and equip it with adequate indoor facilities.	<ul style="list-style-type: none"> <li>County Department of Lands, Public Works, Housing and Urban Development</li> <li>County Department of Education, Social Welfare and Family Affairs</li> <li>Private investors/partners</li> <li>Town Administration</li> </ul>	Long Term by 2033
	Establish public parks in the areas proposed (shown in the structure plan). Undertake extensive tree-planting within these open spaces and provide permanent sitting benches, walkways, and high mast lighting.	<ul style="list-style-type: none"> <li>Town Administration</li> <li>County Department of Lands, Public Works, Housing and Urban Development</li> <li>Private investors/partners</li> </ul>	Medium Term by 2029
	Construct a modern sports complex at the proposed site. The complex is to house a playground, parking facilities, ablution blocks and spectator stands.	<ul style="list-style-type: none"> <li>County Department of Lands, Public Works, Housing and Urban Development</li> <li>County Department of Education, Social Welfare and Family Affairs</li> <li>Private investors/partners</li> <li>Town Administration</li> </ul>	Long Term by 2033
	Undertake extensive tree planting along the major roads and provide permanent benches.	<ul style="list-style-type: none"> <li>Town Administration</li> <li>Private investors/partners</li> </ul>	Medium Term by 2029
<b>ENVIRONMENTAL MANAGEMENT</b>			
Protecting and conserving the	Waste disposal bins should be appropriately placed in all public areas of the town and emptied regularly.	<ul style="list-style-type: none"> <li>Town Administration</li> <li>Private investors/partners</li> </ul>	Short Term by 2026

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

STRATEGY	PROJECT	ACTOR	TIME FRAME
environment.	All residential and commercial areas should have adequate waste storage infrastructure and removal services.		Short Term by 2026
	Create awareness among businesses and residents, encouraging waste separation and composting.		Short Term by 2026
	Create awareness of the use of clean sources of cooking energy and the effects of deforestation.		Short Term by 2026 and continuous
	Undertake extensive tree planting in areas highlighted as flood plains and riparian reserves.		Medium Term by 2029
	Waste storage skips should be made available on every street corner in town;		Short Term by 2026
	Solid waste disposal sites should be effectively managed to minimize the risk of odours and disease.		Short Term by 2026 and continuous
URBAN GOVERNANCE			
Promoting good town governance.	Uphold inclusion and representation of all groups in Tarbaj Town in decision-making as much as possible;	<ul style="list-style-type: none"><li>Town Administration</li></ul>	Short Term by 2026 and continuous
	Encourage accountability, integrity, and transparency of County Government action in defining and pursuing shared goals.	<ul style="list-style-type: none"><li>County Executive</li><li>Office of the Auditor General</li></ul>	Continuously done during plan implementation
	Institute capable urban management (Town Committee) through deliberate and structured capacity building to fulfil public responsibilities with knowledge, skills, and	<ul style="list-style-type: none"><li>County Department of Lands, Public Works, Housing and Urban Development</li><li>Office of the Governor</li></ul>	Short Term by 2026

### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

STRATEGY	PROJECT	ACTOR	TIME FRAME
	resources;		
	Fostering regular, formal interaction between County Government and residents (including through community-based and non-governmental organizations)—in approaches such as participatory planning and budgeting and public oversight of expenditure and service delivery;	<ul style="list-style-type: none"> <li>Town Administration</li> </ul>	Continuously done during plan implementation.
	Foster continuous improvement in accountability and performance, which are essential to combat corruption problems.	<ul style="list-style-type: none"> <li>Town Administration</li> </ul>	Continuously done during plan implementation.
	Detailed capacity building and training of county staff in urban development projects should be supplemented by greater use of benchmarking for exchanges of experience and best practices, training, and technical assistance among the county governments and even beyond Kenya.	<ul style="list-style-type: none"> <li>Office of the Governor</li> <li>County Department of finance and economic planning</li> <li></li> </ul>	Continuously done during plan implementation.
	A Town Planning Unit comprising of multiple disciplines, such as Environmentalists, Planners, Engineers etc., should be formed to coordinate the implementation of the proposals made by the LPLUDP:	<ul style="list-style-type: none"> <li>Office of the Governor</li> </ul> <b>All county departments</b>	<b>Short Term by 2026</b>





## 5 CAPITAL INVESTMENT PLAN

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

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

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

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

### 5.2 Criteria for Selection of Capital Projects

The process began with enlisting all the projects and programmes proposed in the Tarbaj LPLUDP. A selection criterion was undertaken based on the importance/urgency of each project. The selected projects were then valued against the subsequent benefits to the town's development and the ability to achieve the plan's objectives adequately. This ability/capacity is indicated by the attributes listed below.

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

- 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 building base/trunk infrastructure, which will enable 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 in 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.

## **5.3 Selected Capital Investment Projects and Plan**

After a critical assessment of all the projects required to implement the urban plan for Tarbaj Town, the following capital investment projects were selected.

*Table 5-18: Selected Capital Investment Projects*

SECTOR	PROJECT
Land Administration	Survey and provide title deeds of the plots resulting from the town's scheme plan.
Local Economic Development	Construct a slaughterhouse at the proposed site.

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

SECTOR	PROJECT
Transportation	<ul style="list-style-type: none"> <li>• Upgrade Wajir-Mandera Road (A13) to bitumen standards.</li> <li>• Upgrade Tarbaj-Griftu, Tarbaj-Sarman, Tarbaj-Elben, Tarbaj-Harghal roads to bitumen standards.</li> <li>• Construct access roads to gravel standards.</li> <li>• Construct a modern bus park.</li> </ul>
Water Supply	<ul style="list-style-type: none"> <li>• Construct two high-capacity water storage tanks.</li> <li>• Construct two mega dams.</li> </ul>
Sanitation	<ul style="list-style-type: none"> <li>• Design and construct a sewerage reticulation system (Trunk Sewer Lines and Oxidation Ponds).</li> <li>• Construct a sanitary landfill.</li> </ul>
Energy	<ul style="list-style-type: none"> <li>• Install a power substation and transformers.</li> </ul>
Education	<ul style="list-style-type: none"> <li>• Construct five (5) primary and one (1) secondary school</li> <li>• Construct a special needs school for the PWD</li> </ul>
Health	<ul style="list-style-type: none"> <li>• Construct three dispensaries.</li> </ul>
Public Administration	<ul style="list-style-type: none"> <li>• Construct a Law court.</li> </ul>
Community facilities	<ul style="list-style-type: none"> <li>• Expand the existing library.</li> <li>• Construct a modern stadium at the proposed site.</li> </ul>

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Table 5-19: Capital Investment Framework

PROJECT	DESCRIPTION OF WORKS	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
Survey and provide title deeds of the plots resulting from the town's scheme plan.	<ul style="list-style-type: none"> <li>• Survey</li> <li>• Creation of a plot register</li> <li>• Beaconing</li> <li>• Titling</li> </ul>	3,892 plots	Kshs155,680,000	<ul style="list-style-type: none"> <li>• National government</li> <li>• County Government</li> </ul>
Construct a slaughterhouse at the proposed site	<ul style="list-style-type: none"> <li>• Environmental and Social Impact Assessment</li> <li>• Construction of an animal holding bay</li> <li>• Construction of a slaughterhouse</li> <li>• Perimeter fencing</li> </ul>	1	Kshs15,000,000	<ul style="list-style-type: none"> <li>i. Public Private Partnerships</li> <li>ii. County Government through the Department of</li> <li>• Roads, Transport and Public Works</li> <li>• Public Health, Medical Services and Sanitation</li> </ul>
Upgrade Wajir-Mandera Road (A13) to bitumen standards.	<ul style="list-style-type: none"> <li>• Environmental and Social Impact Assessment</li> <li>• Clearing and Excavation</li> <li>• Mounting</li> <li>• Fine Grading</li> <li>• Aggregate Base</li> <li>• Tarmacking</li> </ul>	Wajir-Tarbaj Road-53km	Kshs3,180,000,000	<ul style="list-style-type: none"> <li>• Donors</li> <li>• Kenya Roads Board</li> <li>• Kenya National Highway Authority</li> </ul>
Upgrade Tarbaj-Griftu, Tarbaj-Sarman, Tarbaj-Elben, Tarbaj-Harghal roads to bitumen standards.	<ul style="list-style-type: none"> <li>• Environmental and Social Impact Assessment</li> <li>• Clearing and Excavation</li> </ul>	<ul style="list-style-type: none"> <li>• Tarbaj-Griftu-3.08km</li> <li>• Tarbaj-Sarman-3.17km</li> </ul>	Kshs 811,200,000	<ul style="list-style-type: none"> <li>i. KURA</li> <li>ii. County Government through the department of</li> <li>• Roads, Transport and</li> </ul>

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PROJECT	DESCRIPTION OF WORKS	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
	<ul style="list-style-type: none"> <li>Mounting</li> <li>Fine Grading</li> <li>Aggregate Base</li> <li>Tarmacking</li> </ul>	<ul style="list-style-type: none"> <li>Tarbaj-Elben-3.29km</li> <li>Tarbaj-Hargal-3.98km</li> </ul> <p>Total Distance for Tarmacking-13.52km</p>		<p>Public Works</p> <ul style="list-style-type: none"> <li>Lands, Housing and Urban Development</li> </ul>
Construct access roads to gravel standards.	<ul style="list-style-type: none"> <li>Environmental and Social Impact Assessment</li> <li>Clearing and Excavation</li> <li>Gravelling</li> </ul>	Length of all access roads-100km	Kshs4,000,000,000	<p>County Government through the department of</p> <ul style="list-style-type: none"> <li>Roads, Transport and Public Works</li> </ul> <p>Lands, Housing and Urban Development</p>
Design and construct a modern bus park along the Wajir-Mandera Highway	<ul style="list-style-type: none"> <li>Environmental and Social Impact Assessment</li> <li>8 Passenger Bays</li> <li>Construction of 10 retail Shops</li> <li>Construction of 2 toll stations</li> <li>Tarmacking of the road surface</li> </ul>	<ul style="list-style-type: none"> <li>Construction of shops, toll stations, passenger bays-20 units</li> <li>Length of road for tarmacking within bus park-1km</li> </ul>	<ul style="list-style-type: none"> <li>Kshs14,000,000</li> <li>Kshs60,000,000</li> </ul>	<p>i. Public Private Partnerships</p> <p>ii. County Government through the department of</p> <ul style="list-style-type: none"> <li>Roads, Transport and Public Works</li> <li>Lands, Housing and Physical Planning</li> </ul>
Construct a water treatment facility and 2 high capacity water storage tanks.	<ul style="list-style-type: none"> <li>Construction of a water treatment facility with a capacity of 200,000m<sup>3</sup></li> <li>Construction a high capacity storage tank of 100,000m<sup>3</sup></li> </ul>		Kshs50,000,000	<p>i. National Government through NGCDF</p> <p>ii. Public Private Partnerships</p> <p>iii. County Government through the</p>



## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

PROJECT	DESCRIPTION OF WORKS	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
				<ul style="list-style-type: none"> <li>department of</li> <li>• Roads, Transport and Public Works</li> <li>• Water, Energy, Environment and Natural Resources</li> </ul>
Construct two (2) mega pans.	<ul style="list-style-type: none"> <li>• Environmental and social impact assessment</li> <li>• Hydrogeological survey</li> <li>• Ground Excavation</li> <li>• Ground level compaction and lining</li> <li>• Perimeter fencing</li> </ul>	2	Kshs12,000,000 (@mega dam to cost Kshs6,000,000)	<ul style="list-style-type: none"> <li>i. Public Private Partnerships</li> <li>ii. County Government through the department of</li> <li>• Roads, Transport and Public Works</li> <li>• Water, Energy, Environment and Natural Resources</li> </ul>
Design and construct a sewerage reticulation system (Trunk Sewer Lines and Oxidation Ponds).	<ul style="list-style-type: none"> <li>• Environmental and social impact assessment</li> <li>• Construction of the trunk sewer lines</li> <li>• Construction of oxidation ponds</li> </ul>	<ul style="list-style-type: none"> <li>• Length of sewer-5.45km</li> <li>• Area of Oxidation Ponds-2.47Ha</li> </ul>	Kshs218,000,000 Kshs10,000,000	<ul style="list-style-type: none"> <li>i. Donors</li> <li>ii. Public Private Partnerships</li> <li>iii. County Government through the department of</li> <li>• Roads, Transport and Public Works</li> <li>• Lands, Housing and Urban Development</li> <li>• Public Health, Medical Services and Sanitation</li> <li>• Water, Energy,</li> </ul>

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

PROJECT	DESCRIPTION OF WORKS	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
				Environment and Natural Resources • WAJWASCO
Construct a sanitary landfill along the road to Hargal	<ul style="list-style-type: none"> <li>Hydrogeological survey</li> <li>Environmental and Social Impact Assessment</li> <li>Excavation and grading</li> <li>Compaction and</li> <li>Fencing of site</li> </ul>	Area of proposed landfill-7.62Ha Costing done for the development of 1Ha as the first phase of development of the site	Kshs50,000,000	iv. Public Private Partnerships v. County Government through the Department of <ul style="list-style-type: none"> <li>Roads, Transport and Public Works</li> <li>Lands, Housing and Urban Development</li> <li>Public Health, Medical Services and Sanitation</li> </ul> Water, Energy, Environment and Natural Resources
Install of a power sub-station and transformers	<ul style="list-style-type: none"> <li>Environmental and social Impact Assessment</li> <li>Installation of Transformers and power lines</li> <li>Solar and wind harvesting equipment</li> </ul>		Kshs158,000,000	<ul style="list-style-type: none"> <li>Kenya Power</li> <li>Rural Electrification And Renewable Energy Corporation</li> <li>Public Private Partnerships</li> </ul>
Construct 5 primary school schools	<ul style="list-style-type: none"> <li>Environmental and social Impact Assessment</li> <li>Construction of Classes 1-8, 3 streams per class</li> <li>Construction of 20</li> </ul>	160 units	Kshs38,350,000 (Kshs7,670,000 per primary school)	i. National Government through NGCDF ii. County Government through the department of

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

PROJECT	DESCRIPTION OF WORKS	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
	<ul style="list-style-type: none"> <li>Ablution Blocks (4 per primary school)</li> <li>Construction of 20 units for Staffroom and offices (4 units per primary school)</li> <li>Perimeter Fencing</li> </ul>			<ul style="list-style-type: none"> <li>Roads, Transport and Public Works</li> <li>Lands, Housing and Physical Planning</li> <li>Education, Youth, Culture, Gender and Social Services</li> </ul>
Construct a secondary school	<ul style="list-style-type: none"> <li>Environmental and Social Impact Assessment</li> <li>Forms 1-4, 3 streams per class</li> <li>3 Laboratories</li> <li>10 dormitories</li> <li>1 Library</li> <li>7 Ablution Blocks</li> </ul>	33 units	Kshs42,000,000	<ul style="list-style-type: none"> <li>i. National Government through NGCDF</li> <li>ii. County Government through the department of</li> <li>Roads, Transport and Public Works</li> <li>Lands, Housing and Physical Planning</li> <li>Education, Youth, Culture, Gender and Social Services</li> </ul>
Construct a special needs schools for the PWD	<ul style="list-style-type: none"> <li>Construction of Classes 11, 1 stream per class (Primary and secondary integrated)</li> <li>Construction of 4 Ablution Blocks</li> <li>Construction of 2 units for Staffroom and offices</li> <li>Perimeter Fencing</li> </ul>	16 units	Kshs12,000,000	<ul style="list-style-type: none"> <li>iii. National Government through NGCDF</li> <li>iv. County Government through the department of</li> <li>Roads, Transport and Public Works</li> <li>Lands, Housing and Physical Planning</li> </ul>

## Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

PROJECT	DESCRIPTION OF WORKS	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
				<ul style="list-style-type: none"> <li>Education, Youth, Culture, Gender and Social Services</li> </ul>
Construct 3 dispensaries.	i. Environmental and Social Impact Assessment ii. For each facility construct: <ul style="list-style-type: none"> <li>Waiting Area</li> <li>4 Offices and a Pharmacy</li> <li>2 Ablution Blocks</li> </ul>	24	Kshs16,800,000 (Kshs5,600,000 allocated for each dispensary)	i. National Government through NGCDF ii. County Government through the department of <ul style="list-style-type: none"> <li>Roads, Transport and Public Works</li> <li>Public Health, Medical Services and Sanitation</li> </ul>
Construct a Law court.	i. Construct: <ul style="list-style-type: none"> <li>3 offices</li> <li>1 courtroom</li> <li>2 ablution blocks</li> <li>1 security section</li> </ul> ii. Parameter Fencing	7	Kshs5,000,000	i. National Government through NGCDF ii. County Government through the department of <ul style="list-style-type: none"> <li>Roads, Transport and Public Works</li> </ul>
Expand the existing library.	Construct: <ul style="list-style-type: none"> <li>3 more rooms</li> <li>2 ablution blocks</li> </ul>	5	Kshs3,500,000	i. Kenya National Library Services ii. National Government through NGCDF iii. County Government through the department of Roads, Transport

### Local Physical and Land Use Development Plan for Tarbaj (2023-2033)

PROJECT	DESCRIPTION OF WORKS	NUMBER OF UNITS	ESTIMATED COST	FINANCING OPTIONS
				and Public Works
Construct a modern stadium at the proposed site	<ul style="list-style-type: none"> <li>• Leveling and growing grass on playing ground</li> <li>• Construct the main and spectator dias</li> <li>• Changing rooms</li> <li>• Ablution Blocks</li> </ul>		Kshs50,000,000	<ul style="list-style-type: none"> <li>i. Public Private Partnerships</li> <li>ii. County Government through the department of</li> <li>• Roads, Transport and Public Works</li> <li>• Education, Youth, Culture, Gender and Social Services</li> </ul>