

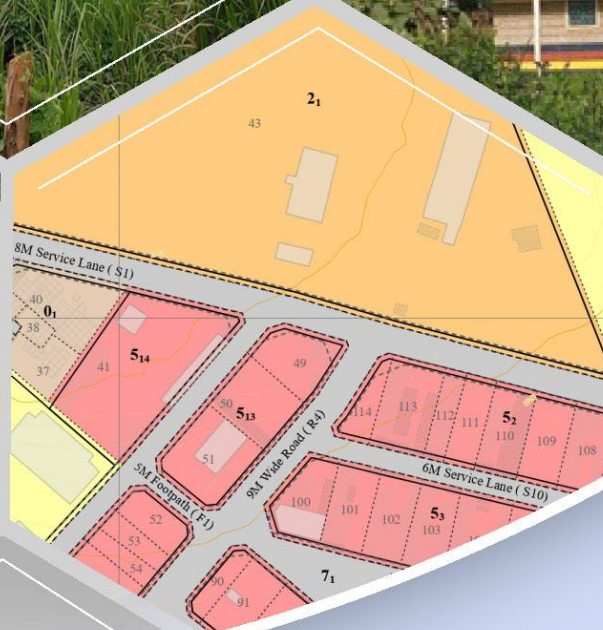


MINISTRY OF LANDS, PUBLIC WORKS, HOUSING & URBAN DEVELOPMENT
STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

SECOND KENYA INFORMAL SETTLEMENTS
IMPROVEMENT PROJECT (KISIP 2)

CONSULTANCY SERVICES TO UNDERTAKE PHYSICAL PLANNING,
CADASTRAL SURVEY AND DETAILED TOPOGRAPHICAL SURVEY
OF 12 SELECTED INFORMAL SETTLEMENTS IN NYERI,
KIRINYAGA AND MARSABIT COUNTIES,
LOT VII – CLUSTER 1

GITUNDUTI INFORMAL SETTLEMENT
LOCAL PHYSICAL AND LAND USE
DEVELOPMENT PLAN REPORT



Submitted to:

The National Coordinator, KISIP 2,
P.O. Box 30199 – 00100,
Nairobi

Submitted by:



GEOSURV SYSTEMS LTD

📍 Garden Estate, Mukima Drive, House No. M76
✉ P.O. BOX 7811-00100, Nairobi,
✉ info@geosurv.co.ke

May, 2025

Catherine K. Katuma

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

I certify that the plan has been prepared and published as per the requirements of the County Governments Act, 2012 (amended 2020), Physical and Land Use Planning Act No. 13 of 2019, Urban Areas and Cities Act, 2011 (amended 2019) and Planning Guidelines & Adoptive Standards.

Date _____

County Director in charge of Physical and Land Use Planning

Date _____

CEC Member in charge of Physical and Land Use Planning

APPROVAL

County Assembly Hansard No..... Date

ENDORSED

.....
Signature Date

Name:
.....

H.E Governor, Nyeri County Government

Plan Reference No:

Approved Plan No:

EXECUTIVE SUMMARY

Gitunduti informal settlement Local Physical and Land Use Development Plan (2025 – 2035) is one of the deliverables for the consultancy services to undertake physical planning, cadastral survey and detailed topographical survey of twelve (12) selected informal settlements in Nyeri, Kirinyaga and Marsabit Counties Lot VII – Cluster 1. The settlement is one of the two (2) selected informal settlements in Nyeri County. It is located along the Karatina-Gaikuyu-Gitunduti Road, Magutu ward, Mathira East Sub-County of Nyeri County, Kenya and covers approximately 6.88 Ha. The LPLUDP aims at upgrading Gitunduti informal settlement through provision of tenure security, provision of infrastructure and basic services to the community. The plan has been prepared through a comprehensive consultative process from the consultancy inception phase to the draft plan formulation phase. The plan report is presented in six chapters as outlined below:

Chapter one details out the KISIP 2 background information, guiding principles that informed the plan preparation, and project methodology employed for the successful execution of the assignment. The consultancy main objective is to facilitate the conferment/formalization of secure land tenure for the beneficiaries in the informal settlement. The community's common vision, **"To be a modern urban informal settlement with security of tenure and modern infrastructure facilities"** was arrived at through a participatory process where the area residents provided their aspirations with regard to the kind of informal settlement they would love to reside in. The project methodology phases include; inception, topographical mapping and digital base map and environmental status map preparation, environmental and social screening, socio-economic survey and formulation of the draft LPLUDP for the informal settlement.

Chapter two highlights the planning context with regard to the settlement's location in the national, regional, county and local context. It also offers a brief description of the informal settlement and presents the policy and legal context that guided the plan preparation. It further presents the various stakeholders' engagements held that were critical in the plan formulation.

Chapter three presents the informal settlement's existing situation. It details out the physiography and natural conditions as well as the socio-economic survey findings of the project area. The socio-economic survey findings have been presented in several thematic sectors namely; population and demographic characteristics, social services and amenities, economic activities, infrastructure and utilities, land, land use and housing. Some of the key findings are:

Population and demographic characteristics

Gitunduti informal settlement has a total population of 95 people comprising of 44 males and 51 females and is projected to be 141 people in 2035. The settlement has relatively high working population (18 – 65 years) at 64%. This indicates a need to diversify economic activities and offer more employment opportunities to the area residents.

Social services and amenities

The social facilities present within the settlement include; Gitunduti Secondary School and Gitunduti Little Angels Academy located within A.I.P.C.A Church. There are only two religious facilities within the boundaries of the settlement namely; St. Charles Lwanga Catholic Church and AIPCA Church. The residents have access to public ECDE and primary schools located outside the project area but within the recommended distances. The projected population within the settlement is too small to meet the threshold population required to sustain these facilities as the provision of educational facilities is always dictated by the prevailing demand conditions.

Economic assessment

Residents of Gitunduti informal settlement are mainly engaged in business/self-employment as their main economic activity. They carry out both formal and informal businesses within the settlement

in an effort to ensure ease of access to essential goods and services for residents. According to the socio-economic survey, business/self-employment is the leading occupation for 20% of households. Farming and casual labourers are also significant occupations for 16% of households with just 2% of respondents formally working as employees of national government. Majority of the population is however unemployed as represented by 47% of the population.

Infrastructure and utilities

Karatina – Gaikuyu – Gitunduti Road (E602) is the main road traversing Gitunduti settlement. The road connects the settlement to Karatina Town, the Sub-County headquarters. At the local level, the interconnectivity is well laid out providing access to land parcels and activity spaces. Electricity is the main lighting energy source used by 82% of the residents, 16% use kerosene while 2% use candles for lighting. Firewood is the main cooking energy source at 51% followed by LPG at 13%. Some households use a combination of energy sources; firewood/LPG at 9%, firewood/charcoal at 9%, LPG/firewood/charcoal at 7%. A small segment of the population uses only electricity and charcoal for cooking at 4%.

Water supply in the settlement is undertaken by West Magut Water Project. About 32% of the residents have access to piped water which is piped into their compounds, 29% harvest rain water, 16% fetch water from a nearby stream, 11% have piped water in their houses, while 4% and 2% access water from a community tap and mobile vendors respectively. The settlement is faced by a number of challenges among them inadequate storm water drainage channels and improper waste disposal and management. Solid waste is managed improperly by the residents through burning (60%), composting (27%), burning/composting (9%), burning/collected (2%) and indiscriminate dumping at 2%. According to the survey, about 91% of the households use pit latrines, while 9% use flush toilets.

Land, land use and housing

The settlement covers an approximate area of 6.88 Ha. The existing land uses include; residential, industrial, educational, public purpose, commercial/business cum residential, transportation and agricultural. Educational land use is the dominant one at 25.44% followed closely by agriculture and public purpose at 24.71% and 20.78% respectively. The settlement is on a public land managed by the County Government of Nyeri from the defunct County Council.

Originally, the planning area covered only Gitunduti informal settlement boundaries with an approximate area of 6.88 Ha leaving out the commercial section and adjoining public purpose facilities. During the base map and environmental status map presentation, the County Government officials and the local leadership requested the inclusion of the commercial section as well as the adjoining public facilities to benefit from the tenure regularization process. This led to increment in the project area acreage to 10.68 Ha.

The chapter also offers a synthesis of the socio-economic survey findings with respect to the challenges and opportunities in the informal settlement. The challenges include; insecurity of land tenure, poor accessibility, inadequate water supply, inadequate basic infrastructure, lack of storm water drainage channels, improper waste management, urban decay and poor housing quality. The opportunities are; strategic location along the Karatina – Gaikuyu – Gitunduti Road (E602) which connects the settlement to Nairobi– Nanyuki Highway (A2), presence of Karatina University is a key growth factor for the settlement, favourable topography for development, favourable climatic conditions for agricultural activities and government good will on social housing.

Chapter four details out the plan proposals outlining the structural elements, alternative planning options, proposed land use zones and the development guidelines and regulations. The structuring elements which guided the plan proposals are; claimed plot boundaries, the existing service lanes and footpaths, existing developments and stakeholders' concerns. Gitunduti informal settlement is

characterized by relatively narrow footpaths. In order to achieve a well-planned settlement with access roads and minimize and/or prevent any form of displacement or impact of the plan proposals to the structures, three design options have been explored namely; standard planning approach, adoptive planning approach and hybrid planning approach.

The standard planning approach resulted to a total of 67 affected structures. This makes it challenging for the County Government of Nyeri to facilitate their resettlement as well as offer compensation for the affected structures. To minimize the level of impacts, and reduce the number of Project Affected Persons (PAPs), the adoptive approach was explored to just provide the basic minimums. This approach however had the disadvantages of limited connectivity and accessibility to individual plots. The hybrid approach was thus explored so as to ultimately achieve wider roads. The approach proposes the incremental road expansion in accordance to the plan. The plan also outlines development control guidelines that will guide the implementation of the plan proposals.

Chapter five highlights the sectoral development strategies based on the findings from the socio-economic survey and the stakeholders' concerns. These development strategies include; transportation improvement strategies, environmental protection strategies, water provision improvement strategies, housing improvement strategies and economic improvement strategies.

Chapter six presents the implementation, monitoring and evaluation framework aimed at ensuring efficient plan implementation. The implementation framework outlines the project activities, objectives, indicators, actors and timeframe required to achieve the objectives. The implementation of the plan will be two phased. Phase one will entail the plan approval and cadastral survey to aid with the attainment of tenure security. Phase two provides for the implementation of the plan proposals. An implementation and coordination committee has also been provided as part of the implementation framework.

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LIST OF ABBREVIATIONS

ACK	Anglican Church of Kenya
AIPCA	African Independent Pentecostal Church of Africa
BCR	Business Cum Residential
CEREB	Central Region Economic Bloc
CIDP	County Integrated Development Plan
CGN	County Government of Nyeri
CO ₂	Carbon (IV) oxide
CPCT	County Project Co-ordination Team
CT-OVC	Cash Transfer for Orphans and Vulnerable Children
DGNSS	Differential Global Navigation Satellite System
DSM	Digital Surface Model
DTM	Digital Topographical Model
ECDE	Early Childhood Development and Education
EMCA	Environmental Management and Coordination Act
ESIA	Environmental and Social Impact Assessment
ESMF	Environment and Social Management Framework
GIS	Geographical Information System
GoK	Government of Kenya
GPS	Global Positioning System
GRC	Grievance Redress Committee
Ha	Hectare
ID	Identification
ICT	Information and Communications Technology
INTP	Integrated National Transport Policy
KENSUP	Kenya Slum Upgrading Programme
KDHS	Kenya Demographic and Health Survey
KES	Kenya Shillings
KISIP	Kenya Informal Settlements Improvement Project
Km	Kilometre
KNBS	Kenya National Bureau of Statistics
KRA PIN	Kenya Revenue Authority Personal Identification Number
LIS	Land Information System
LPG	Liquefied Petroleum Gas
LPLUDP	Local Physical and Land Use Development Plan
M&E	Monitoring and Evaluation

MES	Monitoring & Evaluation System
m/s	Metre/second
NARIGP	National Agricultural and Rural Inclusive Growth Project
NEMA	National Environment Management Authority
NGOs	Non-Government Organizations
NLC	National Land Commission
NMT	Non-Motorized Transport
NPCT	National Project Coordination Team
NSP	National Spatial Plan
ODK	Open Data Kit
PAD	Project Appraisal Document
PAPs	Project Affected Persons
PCEA	Presbyterian Church of East Africa
PICC	Project Implementation and Coordination Committee
PM	Particulate Matter
POM	Project Operation Manual
PWD	Person With Disability
RAP	Resettlement Action Plan
RIM	Registry Index Map
RTK	Real Time Kinematics
SDA	Seventh Day Adventist
SDGs	Sustainable Development Goals
SEC	Settlement Executive Committee
SEF	Stakeholder Engagement Framework
SEP	Stakeholders Engagement Plan
SMP	Social Management Plan
SPSS	Statistical Package for the Social Sciences
TORs	Terms of Reference
TV	Television
TVET	Technical and Vocational Education and Training
UACA	Urban Areas and Cities Act
UAV	Unmanned Aerial Vehicle
UNDP	United Nations Development Programme
VIP Latrine	Ventilated Improved Pit Latrine
WHO	World Health Organization

CHAPTER ONE INTRODUCTION

1.1 Background Information

Informal settlements in the country are sprawling at an alarming rate within cities, towns and emerging urban centres. This is as a result of rampant squatting, lack of urban planning and the increasing population of the urban poor. These informal settlements are characterized by tenure insecurity, relatively high poverty incidences due to economic vulnerability, congestion, housing informality and substandard living conditions as well as inadequate infrastructural and social facilities and services. It was against this backdrop that the Kenya Informal Settlement Improvement Project (KISIP) was initiated by the Government of Kenya supported by Development Partners in 2011 to address the challenges facing urban development in the country. KISIP complements the Kenya Slum Upgrading Programme (KENSUP), established in 2003. The programme is domiciled at Ministry of Lands, Public Works, Housing & Urban Development; State Department of Housing and Urban Development. Based on the lessons and experiences of KENSUP and KISIP 1, KISIP 2 was initiated to further improve informal settlements building on the success of KISIP 1.

1.1.1 Project Components

KISIP 2 comprises of the following four components: Component 1: Integrated Settlement Upgrading, Component 2: Socio-Economic Inclusion Planning, Component 3: Institutional Capacity Development for Slum Upgrading and Component 4: Programme Management and Coordination. These components are as outlined below:

Component 1: Integrated Settlement Upgrading

This component supports settlement upgrading through two main interventions classified under two sub-components:

- *Sub-component 1.1: Tenure regularization*

Coordinates regularization of tenure for people living on uncontested public lands whose process includes: Development of a local physical and land use development plan (LPLUDP) for the settlement which lays out land parcels and wayleaves for infrastructure like roads, drainage, walkways; Surveying with physical placement of beacons to demarcate the parcels as per the plan; Preparation of list of beneficiaries and or issuance of letters of allotment based on the survey plan; and Issuance of titles.

- *Sub-component 1.2: Infrastructure Upgrading*

Coordinates infrastructure investment portfolio which constitutes of water and sanitation systems, storm water drainage, solid waste collection and settlement sorting, pedestrian walkways, cycle paths, roads, street and security lighting, vending platforms, public parks, and green spaces. It further includes investments related to prevention of crime and violence, including but not limited to community centres.

Component 2: Socio-Economic Inclusion Planning

This component supports community development plans to enhance social and economic inclusion, identifies beneficiaries who fit the eligibility criteria of government programs but are excluded and connects them appropriately, supports participatory crime and violence mapping, monitors the employment of local labor, carries out community capacity building and awareness raising for various project interventions including community-based solid wastemanagement.

Component 3: Institutional Capacity Development for Slum Upgrading

This component supports institutional and policy development at national and county levels; develops a capacity building plan for national and county levels to implement the strategy and to develop understanding of slum upgrading processes; also supports technical assistance, training, workshops and learning events, experience sharing and peer-learning activities with other counties, and other capacity building activities.

Component 4: Program Management and Coordination

This component supports activities of the National Project Coordination Team (NPCT) and County Project Coordination Teams (CPCTs) related to national and county-level project management and coordination, including planning, surveying, engineering, fiduciary (financial management and procurement), safeguards compliance and monitoring, monitoring and evaluation (M&E), communication and community development.

The implementation of the project components is geared towards achieving the overall KISIP 2 objective which is to improve access to basic services and land tenure security of residents in participating urban informal settlements and strengthen institutional capacity for slum upgrading in Kenya. The consultancy services are anchored on the first KISIP 2 component under the tenure regularization sub-component. The component's objective is to coordinate & facilitate the conferment/formalization of secure land tenure for selected informal settlements in uncontested public lands. This is achieved through planning, surveying and title registration.

1.1.2 Consultancy Main Objective

The main objective of the consultancy is to facilitate the conferment/formalization of secure land tenure of the twelve (12) Selected Informal Settlements in Nyeri, Kirinyaga and Marsabit Counties, Lot VII – Cluster 1.

1.1.3 Scope of Services

The scope of assignment was to undertake physical planning, cadastral survey and detailed topographical survey for Gitunduti informal settlement covering an area of 6.88 Ha. The plan for the informal settlement is envisaged to cover a period of 10 years.

1.1.4 Deliverable

Gitunduti informal settlement Local Physical and Land Use Development Plan (2025 - 2035) is one of the deliverables for the consultancy services. The plan aims at regularizing the informal settlement by providing land tenure security and a spatial framework for infrastructure development. This will help in transforming the informal settlement into a more livable and sustainable community.

1.1.5 Vision Statement

The vision statement for the informal settlement is, **“To be a modern urban informal settlement with security of tenure and modern infrastructure facilities”**. This was developed through a participatory process where the community members aired their aspirations on the character of informal settlement they would love to live in.

1.2 Guiding Principles

The plan formulation has been guided by a number of principles among them; stakeholder participation, tenure security, sustainability, adoptive planning approach and provision of basic services as explained below:

- **Stakeholder participation**

The plan preparation has been participatory and engaged all the stakeholders including the project beneficiaries, relevant National and County Government officials and service providers among others. The project beneficiaries were involved in all the stages of the consultancy services and were crucial in offering local information for a better understanding of the informal settlement. During the participatory visioning and planning workshop, the stakeholders helped coin the settlement's vision which has guided the plan proposals.

- **Tenure security**

The settlement is characterized by land tenure insecurity, a phenomenon that contributes to the informality of the existing developments. The aim of the plan is in tandem with the consultancy main objective; conferment/formalization of secure land tenure. Gitunduti Local Physical and Land Use Development Plan (LPLUDP) offers a framework for the subsequent cadastral survey and titling processes. Thus, the LPLUDP aims at enhancing tenure security.

- **Sustainability**

The preparation of this plan takes into account the social, economic and environmental needs of the community. These various needs were well highlighted during the several stakeholders' engagement forums. To tap into these needs, the plan provides physical and social infrastructure, promotes use of renewable energy sources and aspires to minimize the impact of development on the environment. In addition, the stakeholders' concerns highlighted during the engagement forums have also been considered to ensure the project viability and sustainability.

- **Adoptive planning approach**

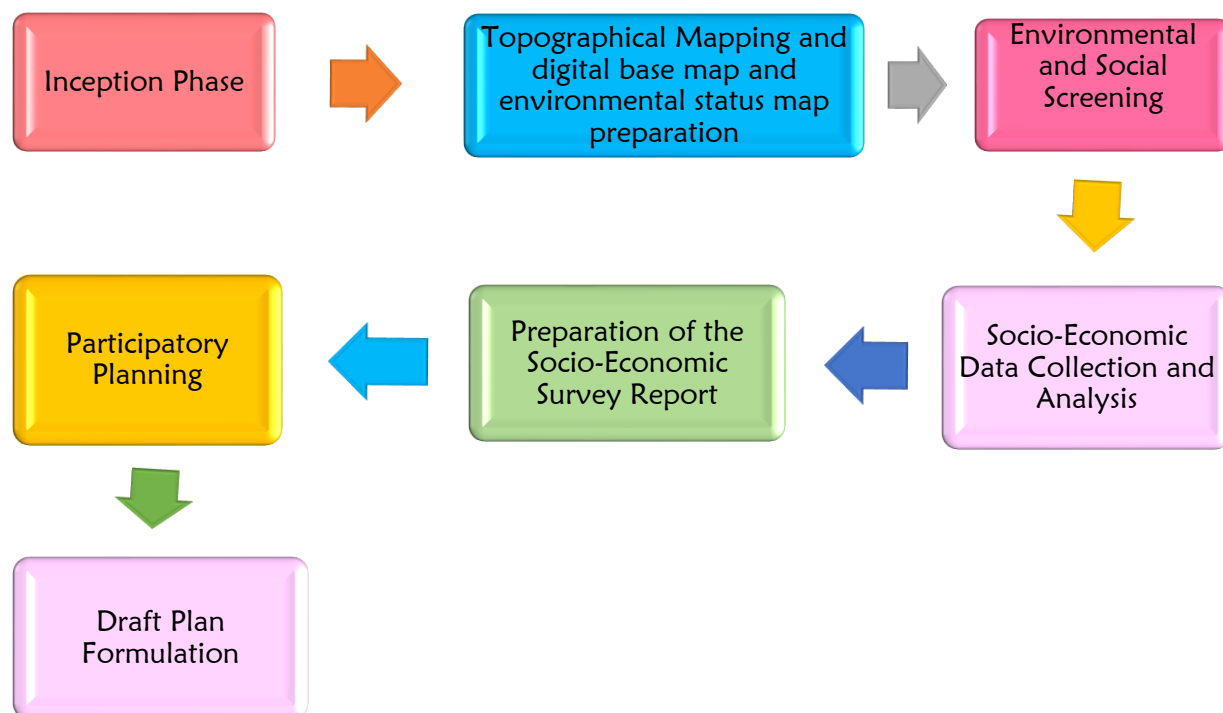
The informal settlement is fully developed with very minimal room for any major adjustments on its spatial structure. In this regard, an adoptive planning approach has been employed in the drafting of the LPLUDP. This approach proposes provision of a primary road ranging from 9m - 12m, 6m – 8m services lanes and footpaths ranging from 2m to 5m for immediate implementation depending on the intensity of development. In the long run, the plan proposes the widening of some of the roads through incremental implementation.

- **Provision of basic services**

As stated above, the settlement is fully developed to warrant any major basic services provision. The plan proposes the provision of basic services such as roads, water, sanitation and solid waste management as part of its development improvement strategies. These strategies have been formulated based on the socio-economic survey findings which highlighted the sector development challenges within the informal settlement.

1.3 Project Methodology

The LPLUDP preparation for Gitunduti Informal Settlement has been undertaken as per the stages summarized in the schematic chart overleaf.

Figure 1: Project Methodology

Source: Geosurv Systems Ltd, 2025

1.3.1 Inception Phase

This entailed the initial stage of the plan formulation process. The phase entailed several activities namely: commencement meeting; preparation of the inception report; introduction meeting of the consultant to the County KISIP 2 team, SEC and GRC members; stakeholders' mapping; stakeholders' sensitization, mobilization and awareness creation workshop and issuance of notice of intention to plan.

1.3.1.1 Commencement Meeting

The kick-off/commencement meeting was an introductory (first) meeting between the client and the consultancy team, whereby issues on modalities of engagement and assignment execution were discussed. The meeting was held on the 7th October, 2024 at Prism Towers, 15th floor boardroom.

1.3.1.2 Preparation of the Inception Report

The inception report was a representation of the consultant's understanding and interpretation of the terms of reference and methodology to be employed in the assignment execution. It was prepared taking into account the preliminary data reviewed. It detailed out the tasks, method of execution and the work plan for carrying out the assignment. It also provided a review of the policy and legal underpinnings guiding the assignment and offered a stakeholders' engagement plan.

1.3.1.3 Introduction Meeting of the Consultant to the County KISIP 2 Team, SEC and GRC Members

The consultant was introduced to the Nyeri county officials during a courtesy call held on 22nd October, 2024 at Karatina Town Hall, Nyeri County. Those present comprised of the KISIP officials, County Government officials and the consultant. The introduction meeting was held on 22nd October, 2024 at PCEA Gitunduti multi-purpose hall (plate 1). The consultant was introduced to the Settlement Executive Committee Members (SECs), Grievance Redress Committee Members (GRC) and other stakeholders by the client (KISIP) and the County Government officials. During

the meeting, the background and objective of KISIP 2 as well as the consultant's tasks were presented and explained.

Plate 1: Introduction Meeting



Source: Field Survey, 2024

1.3.1.4 Stakeholders Mapping

The consultant, in close consultation with the relevant county officials and National KISIP 2 liaison officers mapped the stakeholders and defined their roles. The stakeholders were also categorized into affected and interested parties depending on their role on the project. Affected parties are individuals or groups who are directly or indirectly impacted by the project and are located either within or outside the project area, but have personal or business interests that may be directly affected by the project activities. Interested parties are stakeholders who are not directly affected by the project but consider or perceive their interests as being affected by the project and/or who could affect the project and the process of its implementation in some way as stipulated in the stakeholders' analysis and community engagement report. The communication channels were also discussed and agreed upon.

1.3.1.5 Stakeholders' Sensitization, Mobilization and Awareness Creation Workshop

The workshop was held on 22nd November 2024 at PCEA Gitunduti multi – purpose hall (plate 2). The meeting comprised of the following stakeholders: Settlement Executive Committee members, Grievance Redress Committee Members, County Government officials, project beneficiaries, administration officers (the area assistant chief) and the area MCA representative. The purpose of the workshop was to sensitize the stakeholders on the land tenure regularization process, project outputs, tenure options, assignment period and the grievance redress mechanism. The roles of all the key stakeholders were also spelt out.

Plate 2: Stakeholders' Sensitization, Mobilization and Awareness Workshop



Source: Field Survey, 2024

1.3.1.6 Issuance of Notice of Intention to Plan

The notices of intention to plan annexed as appendix 1 and 2 were placed in the Daily Nation and *Taifa Leo* on Wednesday, 25th December, 2024. They were meant to inform the wider public on the intended planning and surveying exercise so as to seek their participation, views and inputs on the project.

1.3.2 Preparation of Base Map and Environmental Status Map

1.3.2.1 Data identification and acquisition

The consultant carried out a desk study to determine the required topographical survey maps, Registry Index Maps (RIMs), and control data from the Survey of Kenya. The following relevant data sets were identified;

- i. Existing topographical map sheet 121/3,
- ii. Existing survey controls, namely 121.T.5, SKP211, MU24, MU01, NYK1, ISIO, and MCO4,
- iii. Triangulation Charts and Standard Traverse charts (TC & ST), TC & ST 1678, 1679, and 1680.
- iv. Trigonometric Index Cards (for coordinates and point description); SKP 211
- v. Registry Index Maps (RIMs); Location Magutu/ Sublocation Gaikuyu Sheet no. 5, parcel number 634.

Land search was also conducted to determine the current owner of the land parcel.

1.3.2.2 Existing Data Review

The datasets required for efficiency and planning of the base map's preparation and cadastral survey were analyzed and acquired. This involved georeferencing and digitization of the Location Magutu / Sublocation Gaikuyu Sheet no. 5, parcel number 634 Registry Index Map, the topographical map sheet number 121/3 and TC & ST 1678 and 1680. The geo-referencing procedure ensured acceptable accuracies as depicted by the Root Mean Square Error (RMSE) was achieved. Feature layers were vectorised to form a GIS database that could be integrated in GIS software for analysis. The available information of the existing control points for the area of interest was obtained from the Director of Surveys.

1.3.2.3 Control Surveys using Geodetic GNSS Observation

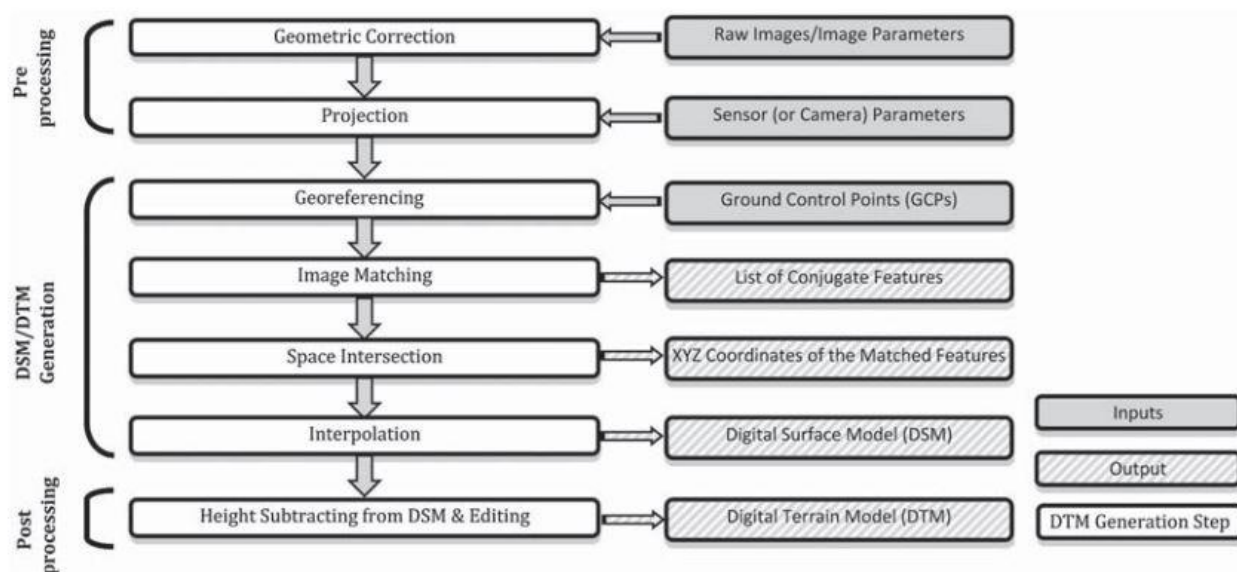
Densified control network was used to support the preparation of the base map, ground surveys and also cadastral surveys for the parcels that will establish the Land Information System. The densification network ensured that all the spatial data was defined in a uniform datum for seamless flow of operations and avoidance of overlaps.

1.3.2.4 Unmanned Aerial Vehicle Survey

To effectively create a detailed, accurate and georeferenced representation of the informal settlement, the consultant carried out aerial mapping of the settlement using Unmanned Aerial Vehicle (Drone) which yielded high resolution imagery that was used to complement the capture of topographical details and ensuring accurate project implementation. This yielded to the generation of a high resolution orthophoto, a Digital Surface Model and a Digital Terrain Model that were achieved by photogrammetric data processing. Topographical features that were clearly visible from the acquired high resolution imagery were then digitized.

1.3.2.5 DTM Generation Photogrammetric Data Processing

Digital Terrain Models (DTMs) were generated from a stereo pair of images, which had an overlapping region but taken from different viewpoints. The modelling started with the raw data obtained via imaging sensors mounted either on the airborne platforms as shown in the figure overleaf:

Figure 2: DTM Generation process for Aerial Imagery

The generation of a DTM was performed by subtracting the height of above ground objects from the DSM. A Digital Terrain Model covering the whole corridor was generated. The downloaded data was analyzed against ground control to check on consistency and to ensure any deviations are within threshold.

1.3.2.6 Ground Truthing

This entailed the validation and verification of remotely sensed data by comparing it with real world measurements or observations on the ground. It ensured that the data obtained from the UAV survey accurately represented the physical conditions on the surveyed area. This involved field measurements using GNSS receivers and total stations, where key points in the project area were physically visited to obtain measurements (E.g., elevation, distance, or area) and comparing them with the corresponding data from the UAV survey.

The Ground Control Points Coordinates were compared with those from the UAV-derived orthophotos to check for spatial accuracy. Elevation measurements at specific locations were taken using an RTK GPS and compared with the UAV-derived Derived Terrain Model. This was further done by comparing UAV data with existing Topographic maps to check significant differences in elevation. An accuracy assessment was performed to determine how well the UAV data matched the real - world conditions. The Ground truthing helped in detecting discrepancies and confirming that the UAV data was accurate.

The ground truthing exercise confirmed that the high-resolution imagery tallied well with the points picked using the GNSS receivers. The ground truthing data was combined with UAV data to refine the final products (e.g., orthophotos, DTMs or 3D models) ensuring that the results were spatially accurate.

1.3.2.7 Topographical Survey

The consultant first sensitized the project beneficiaries on their roles during the topographic survey exercise and scheduled the commencement dates for the exercise. The SEC, GRC, and County Government representatives accompanied the consultant team during the collection of detailed data on claimed parcel boundaries. This was vital in identifying the correct parcel boundaries and solving the disputes that arose, ensuring parcel beaconing would be a seamless activity after the spatial plan is prepared.

Using the established control points, all the topographical features were surveyed and recorded electronically using state-of-the-art survey equipment, which included GNSS Receivers working in RTK mode and total stations in dense canopy areas. The picked features included existing positions of parcels of land inhabited by the local community, rivers, and infrastructure (E.g. powerlines, road culverts, streetlights, exiting earth roads and footpaths, waste collection points, roads, buildings). Attribute and descriptive data useful for planning and engineering design like place names, institution names, utility inverts, and diameters, or any underground feature were also collected through ground surveys.

1.3.2.8 Data Processing and Map Compilation

The picked topographic data was downloaded on a daily basis for back up and continuous plotting of parcels by the survey team using Auto CAD software. The plotted features included existing positions of parcels of land inhabited by the local community, seasonal river, swampy areas and infrastructure. Boundary corner points were compared with the georeferenced images to check conformity with the picked boundaries and the ground positions. Contour interval of 0.5 metres for minor contours and 2.5 metre for major contours were generated from the DTM to show the elevations. This information was used to generate the base map Geodatabase, encompassing all relevant data and providing a comprehensive foundation for further analysis and planning.

The controls, digitized data and ground survey pickings resulted in layered thematic data that needed symbology to depict the information the best way possible in the base map. Additional information on the map included location of features, names of places and location of boundaries or gridlines. The scale of the base map was selected to ensure legibility of information and fitting in standard paper size using standard scale. The scale bar, north arrow, legend, map properties and project information were added in to the map layouts for best interpretation and interoperability with other data sets. The consultant drafted the base map by combining vectorised data and ground survey data to ensure accurate georeferencing, positioning and for good presentation.

Data compilation was guided by the accepted guidelines in the TORs that determined data formats and map properties. The consultant prepared digital base maps drawings for submission in KISIP GIS System, CAD (DXF) and PDF formats including surface models to ensure engineering designs could be carried out

1.3.3 Environmental and Social Screening

The purpose of undertaking the environmental and social screening was to determine the anticipated impacts which might result from the tenure regularization process. This involved conducting a desktop review to understand the project's nature, objectives and program interventions. The environmental and social screening tool provided by the client was used in the data collection during the field survey. The data collected formed the basis for determining the preliminary anticipated impacts and the mitigation measures.

1.3.4 Socio-Economic Survey and Physical Mapping

The purpose of this exercise was to collect socio-economic data that formed the basis for the preparation of the LPLUDP. The activity entailed collecting, analyzing and interpreting data related to several social and economic factors that influence the social and economic development of the settlement residents. The activities carried out during the socio-economic survey are as discussed:

1.3.4.1 Identification of Data Collection Methods and Tools

This entailed identification of the appropriate and effective data collection methods for the exercise. These methods included; administering household questionnaires, conducting interviews, field observation, mapping and photography. The client provided household and mapping questionnaires to be used by the consultant in the socio-economic exercise. The consultant and the client's team assessed the provided questionnaires to ensure that all the attributes of the expected outputs as outline in the terms of reference (TORs) were comprehensively covered. In addition, the consultant identified and availed some of the equipment that would be used in the field data collection such as; android mobile phones, digital cameras, hand-held GPS sets, note pads, pencils, and erasers among others.

1.3.4.2 Stakeholder's Engagement Workshop on Sensitization of Socio-Economic Survey

This was held on the 4th February, 2025 at PCEA Gitunduti multi-purpose hall (plate 3). The purpose of the workshop was to present the base map and environmental status map to the project beneficiaries for their comments and validation as well as sensitize them on the subsequent socio-economic survey exercise. The consultant explained to the community the importance of carrying out the socio-economic survey was to aid in understanding; the community's livelihood status, available amenities in the settlement, general challenges facing the residents; enumerate all existing structures and plot owners. It was also highlighted that the socio-economic survey findings would inform the formulation of the LPLUDP for Gitunduti informal settlement.

Plate 3: Stakeholders' Workshop on Sensitization of Socio-Economic Survey



Source: Field Survey, 2025

1.3.4.3 Preparation for the Socio-Economic Survey

With the help of the SEC members, the consultant recruited and trained youths (enumerators) from within the settlement to help with the socio-economic survey. The consultant then trained the enumerators on the socio-economic exercise and specifically on the use of ODK collect application for efficiency and quality data collection. The application was preloaded with a household questionnaire that was used to conduct the socio-economic survey. The consultant's team took the enumerators through all the sections of the socio-economic (household), structure enumeration and mapping questionnaires to ensure they fully understood the assignment.

1.3.4.4 Field Data Collection and Analysis

This entailed administering the household questionnaires to the residents and mapping of all the structures within the project area using ODK Collect Application. The data that was captured included; demographic characteristics, education, livelihood, housing, health access, mobility and development, water and sanitation, community facilities, energy, information and communication technology and land, housing and structure characteristics. The public facilities were also mapped using the ODK Collect Application. The data collected was cleaned and analyzed by use of Microsoft Office (Excel) and ArcGIS software.

1.3.5 Preparation of the Socio-Economic Survey Report

The report was prepared containing the information on the status of the residents' livelihood in terms of the available infrastructure and services, population & demographic characteristics, vulnerable groups, social services and amenities available, economic, housing and structures characteristics. The report also contained the list of beneficiaries and list of structures.

1.3.5.1 Presentation of the Socio-Economic Survey Findings to the County Technical Team and Stakeholders

The findings were presented to the county technical team on 24th April, 2025 at GIS lab boardroom, Nyeri, for comments and validation (plate 4a). They were also presented to the stakeholders on 25th April, 2025 at Gitunduti PCEA multi – purpose hall for their comments and validation (plate 4b). The stakeholders validated the social economic findings.

Plate 4: Socio-Economic Survey Presentation



Source: Field Survey, 2025

Plate 4a



Plate 4b

1.3.6 Participatory Planning

Participatory Planning is a community-based planning approach whereby the stakeholders are fully involved in formulating plan proposals under the guidance of the technical personnel. This approach entailed several activities among them; holding of the stakeholders' workshop on visioning and participatory planning, evaluation of alternative proposals and stakeholders' resolutions.

1.3.6.1 Stakeholders' Workshop on Visioning and Participatory Planning

The stakeholders' workshop was held on 25th April 2025, at Gitunduti PCEA multi – purpose hall (plate 4b). During the workshop, the consultant team led the stakeholders in the critical assessment of the base map and socio-economic survey findings. The assessment of the findings confirmed a settlement characterized by insecurity of tenure, poor accessibility, inadequate supply of portable water, unsustainable development, poor housing quality, lack of basic social infrastructure, lack of storm water drainage, improper waste management system, urban decay and encroachment on the riparian reserve. After a comprehensive analysis of the settlement with regard to the challenges and opportunities, the consultant guided the stakeholders on the visioning process.

The visioning process entailed defining of the long-term goals and a shared vision for the current and future development of the settlement with the main purpose of enhancing the community's living standards. The project beneficiaries were asked to highlight their visions for the settlements which were all recorded by the consultant's team. Once all the community members had exhausted their visions, harmonization of all the stakeholders vision statements was done so as to arrive at one common vision.

1.3.6.2 Evaluation of Alternative Proposals

With regard to the stakeholders' concerns and the findings from the socio-economic survey, three alternative plan scenarios were discussed during the workshop; standard approach, adoptive planning approach and a hybrid of standard and adoptive planning approaches.

Standard approach

This approach entails the provision of standard hierarchical roads. The workshop participants discussed on the impact of providing standard roads comprising of 12m primary roads, 9m secondary roads and 6m service lanes within the informal settlement. Due to the settlement's informal nature, the participants noted that this approach would result to significant impacts on the structures and plots. They thus advocated for an alternative approach which would significantly reduce the impact, ensure all the plots are accessible and realize tenure security.

Adoptive planning approach

This approach entailed provision of the bare minimum access paths of 9m – 12m roads, 6m – 8m service lanes and 2.5m – 5m foot paths depending on the available space as depicted from the intensity of development highlighted in the basemap. This approach affects only two temporary structures. All the stakeholders endorsed this alternative as it resulted to no significant impact. However, they all agreed to the provision of wider roads where the available spaces could allow. In addition, they endorsed the incremental widening of the roads through the development regularization mechanism developed by the county government.

Hybrid of standard and adoptive planning approaches

This approach combines the standard and adoptive approaches. The approach provides standard access roads and foot paths based on the available space. The stakeholders endorsed adoptive approach for immediate implementation. However, the major roads within the project area would be incrementally expanded in future to standard roads. The stakeholders agreed that the beneficiaries of the plots abutting these roads would be required to surrender the recommended widths for road expansion during plan implementation.

1.3.5.3 Stakeholders' Resolutions

The stakeholders unanimously agreed on the following:

- Use of adoptive planning approach to minimize the level of impacts
- The beneficiaries abutting the service lanes and footpaths that are to be expanded to surrender the recommended width in accordance to the plan
- Declaration of 25th April, 2025 as the cut-off date to allow the consultant proposed and implement interventions such as the provision of access roads based on the current conditions without disruption from new constructions.

1.3.7 Draft Plan Formulation

Based on the socio-economic survey findings, participatory planning outcome and the stakeholders' resolutions, the draft plan for Gitunduti informal settlement has been formulated. The plan contains; a detailed land use plan, development guidelines and regulations, development strategies and implementation framework as well as a monitoring and evaluation framework.

CHAPTER TWO

PLANNING CONTEXT

2.1 Overview

This chapter presents the location context, description of the informal settlement, policy and legal underpinnings that guide the plan formulation process and summarizes all the stakeholders' engagements held to ensure effective public participation during the plan preparation.

2.2 Location Context

This section describes the spatial setting of the planning area in the national, regional, county and local context.

2.2.1 National Context

Gitunduti's settlement's exact geographical coordinates, latitude and longitude are: - 0.393127, 37.131517 respectively. The Trans-African Road, Nairobi - Nanyuki Road (A2) which connects the region to the Republic of Ethiopia through the Moyale border is located in close proximity to Gitunduti settlement. The settlement is connected to A2 Road through Road E602 (Karatina – Gaikuyu - Gitunduti Road) at Karatina. Road A2 also links the settlement to the Kenya's Capital, Nairobi.

2.2.2 Regional Context

Gitunduti informal settlement is located within the Mt. Kenya and Aberdares/Central Region Economic Bloc (CEREB). The economic bloc presents the socio-economic aspirations of the 10 counties in the region namely; Nyeri, Nyandarua, Meru, Tharaka Nithi, Embu, Kirinyaga, Murang'a, Laikipia, Nakuru and Kiambu. It is intended to spur economic growth within the region through policy harmonization and resource mobilization. CEREB's main objective is to influence the economies of scale in joint development projects and activities so as to promote sustainable regional socio-economic development for the citizens' welfare. The settlement is linked to the regional hinterland through the Nairobi - Nanyuki Road (A2).

2.2.3 County Context

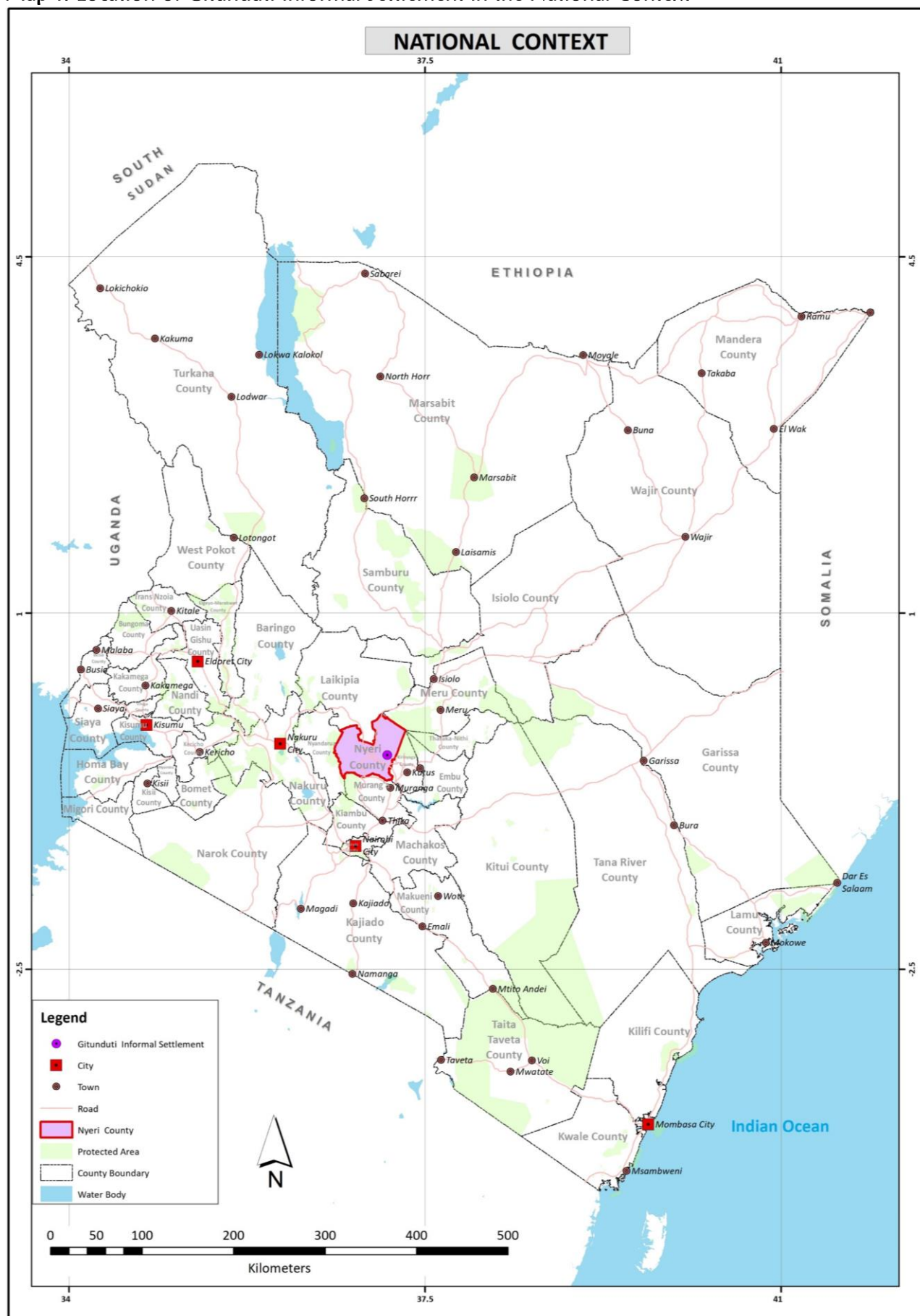
The settlement is located within the jurisdiction of the County Government of Nyeri. Nyeri County is located in the central region of the country. It borders Laikipia County to the North, Kirinyaga County to the East, Murang'a County to the South, Nyandarua County to the West and Meru County to the North East. The county lies between the equator and latitude 0° 38' S and longitudes 36°38' East and 37°20' East (County Government of Nyeri, 2018).

2.2.4 Local Context

Gitunduti informal settlement is located along the Karatina-Gaikuyu-Gitunduti Road which connects to Nairobi – Nanyuki (A2) at Karatina. Administratively, the settlement is situated in Magutu ward, Mathira East Sub-County of Nyeri County, Kenya. The ward borders Ruguru Ward to the North, Iriani Ward to the East and South and Karatina Town Ward to the South and West. The settlement measures approximately 6.88 Hectares.

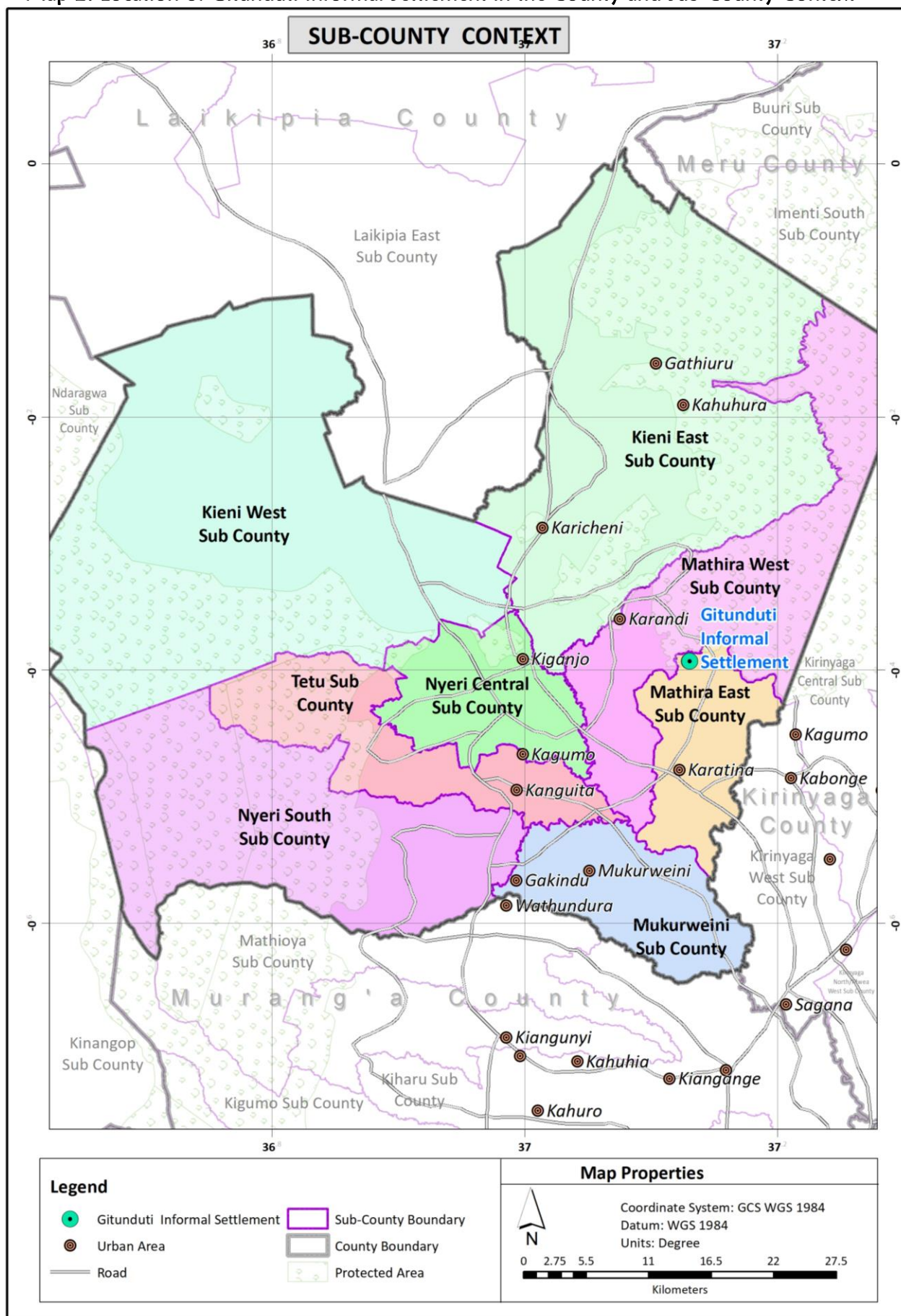
The maps below show the location of the informal settlement in the national, county/sub-county and ward context:

Map 1: Location of Gitunduti Informal Settlement in the National Context



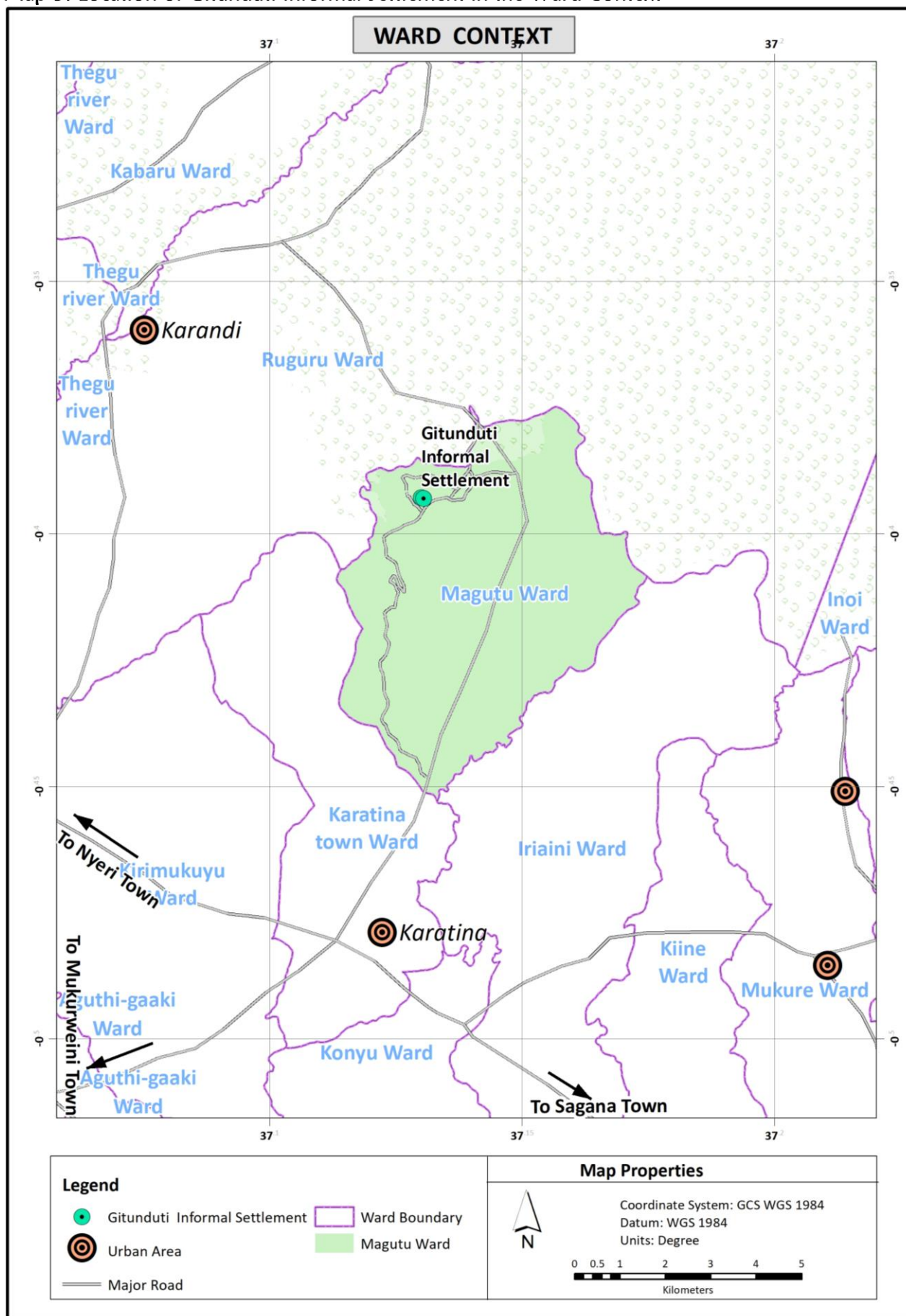
Source: Geosurv Systems Limited, 2025

Map 2: Location of Gitunduti Informal Settlement in the County and Sub-County Context



Source: Geosurv Systems Limited, 2025

Map 3: Location of Gitunduti Informal Settlement in the Ward Context



Source: Geosurv Systems Limited, 2025

2.3 Description of the Informal Settlement

Gitunduti informal settlement was established during the colonial era in the year 1952 to serve as a communal concentration camp during the period of state of emergency. After independence, people started going back to their ancestral lands while some of the inhabitants migrated to other areas. Those who did not have place to go where allocated some plots in the informal settlement by the local leadership. With time, a few shops sprouted to offer low order goods and services to the people. As the population grew, people continued to subdivide the land without any guiding framework. The construction of Gitunduti secondary school and the two churches become an impetus of growth as they attracted more people into the settlement. The tarmacking of the Karatina – Gaikuyu – Gitunduti Road helped propel developments within the settlement and enhanced the accessibility of the settlement.

In addition, the construction of Karatina University, about 1.5 kilometres from the informal settlement propelled the area's economic growth and development. The student population of about 15,000 students has increased the demand for good and services providing a ready market for the farm produce. Since the university can only offer accommodation facilities to about 1,000 students, Gitunduti area and its environs offer conducive accommodation facilities for the students. This explains the sprouting of hostels along Karatina – Gaikuyu – Gitunduti Road as the area residents tap into the ready market. The project area is dominantly inhabited by the Kikuyu community.

Despite the fact that the settlement developed without any spatial framework to guide its developments, there is some order with regard to the existing developments. Roads of access have been observed though not within the recommended widths as there is no plot without a road of access. The settlement is however characterized by; insecurity of land tenure, poor accessibility/road condition, inadequate water supply, poor housing conditions, informality, inadequate basic social infrastructure, lack of storm water drainage channels, improper waste management system and urban decay.

2.4 Policy and Legal Framework

Gitunduti Informal Settlement Local Physical and Land Use Development Plan has been prepared based on the policy and legal frameworks for spatial (physical) planning. The frameworks were analysed detailing out the relevant sections/articles and their relevance to the assignment. The tables below summarize the relevant policy and regulatory frameworks governing the preparation of the LPLUDP and its relevance to the assignment.

Table 1: Relevant Policy and KISIP Instruments Governing Plan Preparation

No.	Relevant Policy	Description of the Policy	Relevant Provisions	Relevance to the Assignment
1.	Sustainable Development Goals (SDGs), 2015 - United Nations Development Programme (UNDP)	The SDGs are global goals which are a collection of 17 interlinked objectives designed to serve as a shared blueprint to achieve a better and a more sustainable future for all by 2030.	The blueprint acknowledges that eradicating poverty and other deprivations must go hand-in-hand with strategies aimed at improving health & education, reducing inequality, and spurring economic growth while tackling climate change and working to preserve our forests. While all SDGs are relevant and interconnected, those that will significantly guide the KISIP 2 project include; ○ (SDG 11) which aims at making cities and human settlements inclusive, safe, resilient and sustainable. ○ (SDG 6) which focuses on ensuring availability and sustainable management of water and sanitation for all. ○ (SDG 1) goal aims at eradicating poverty in all its forms. ○ (SDG 3) objective is to ensure healthy lives and promote well-being for all at all ages. ○ (SDG 4) targets to ensure an all-inclusive & equitable quality education and promote lifelong learning opportunities for all. ○ (SDG 5) aims at achieving gender equality and empowering all women and girls. ○ (SDG 7)-aims at ensuring access to affordable, reliable, sustainable and modern energy for all. ○ (SDG 9) advocates for building of resilient infrastructure.	The plan aims at formalizing/regularizing the informal settlement land tenure and infrastructure provision such as road accessibility networks, storm water drainage channels and developing strategies targeting improvement of the living standards.
2.	The Kenya Vision 2030, 2008 - Government of Kenya	The Kenya Vision 2030 is the national development blue print covering the period 2008-2030 aimed at transforming the country into a newly industrializing middle-income country providing a high-quality life to all citizens by the year 2030. It is anchored on	In accordance to Chapter 5 on Social Strategy , the document advocates for urban planning, promoting environmental conservation and ensuring that improved water and sanitation are available and accessible to all residents.	Just as vision 2030 addresses the social and economic wellbeing of the citizens, the plan has provided development strategies meant to improve the living standards of the beneficiaries and the general

No.	Relevant Policy	Description of the Policy	Relevant Provisions	Relevance to the Assignment
		foundations of ensuring enhanced equity and wealth creation opportunities for the poor.		residents living in the informal settlement.
3.	Project Appraisal Document (PAD) for Kenya Informal Settlements Improvement Project 2, 2019	The project appraisal document details out the success and challenges faced during implementation of the KISIP 1 activities for further planning of KISIP 2. It provides measures aimed at mitigating against the challenges faced during KISIP 1 project implementation for successful implementation of KISIP 2 activities. It also introduces new interventions to deepen its overall project impact to the residents.	Under Section B.14, the document explains the interventions of KISIP 2 as to support regularization and infrastructure upgrading through; - Enhancing tenure security of informal settlements residents. - Upgrading roads to improve connectivity and link informal settlements to other areas of socio-economic opportunities. - Ensuring access to clean and safe water as well as hygiene. - Street lighting to improve security and reduce crime in the settlement. Section B.15 of the document introduces new interventions to deepen its overall impact. It enhances socio-economic inclusion by linking vulnerable people (women, elderly, orphans, and the disabled) of informal settlements to government programs. It further integrates the socio-economic and infrastructure benefits to the community. On the same section, KISIP 2 increases focus on resilience to natural hazards, on crime and violence prevention and on closing the gender gap across its interventions.	The plan has taken into account accessibility, sanitation, street lights and storm water drainage among other infrastructure provision as recommended by the document.
4.	Project Operation Manual, (2021)	The manual was developed to provide project implementation procedures to ensure effective execution of KISIP 2 project components.	The manual details out the project objectives as to improve accessibility to basic services and land tenure security of residents in the informal settlements. It also highlights the indicators of achievement of the project objectives as; population with enhanced land tenure security, access to enhanced infrastructure and services and number of beneficiaries linked to socio-economic opportunities. This is in accordance to Section 1.2 on Project Development Objective .	The plan has been prepared with a view of regularizing the land tenure in the informal settlement and provision of infrastructural services to the residents.
5.	Guidelines for Land Tenure	The guidelines have been developed to provide mechanism for addressing tenure	The Principles of Tenure Regularization as provided in Section 2.3 are listed overleaf:	The plan was preparation was informed by the Guidelines for Land

No.	Relevant Policy	Description of the Policy	Relevant Provisions	Relevance to the Assignment
	Regularization in Informal Settlements, 2018	insecurity in informal settlements and improvement of living conditions.	- Public participation - Transparency and accountability - Non-discrimination and protection of the most vulnerable groups The guidelines identify stakeholder engagement as the key component in tenure regularization. Some of the most critical stakeholders identified include; National Government, County Government, National Land Commission (NLC), Informal Settlement Community, Civil Society Organizations (CSOs), relevant professionals, regulatory agencies, service providers, the private sector and development partners as provided in Chapter 4 on Key Stakeholders in Tenure Regularization. Due to the nature of the informal settlements which are characterized by haphazard development, small & inaccessible plots and lack of social amenities, the guidelines in Chapter 5 on Tenure Regularization Options Section 5.3 on Tenure Arrangement Options provides several tenure options as; Individual lease certificate: - this occurs when a lease certificate is registered under one person/beneficiary. Co-tenancy lease certificate: - applicable when a lease certificate is registered under two or more persons/ beneficiaries. Block lease certificate: - occurs where several adjacent plots are too small to be registered individually and the issued lease certificate will bear the names of all the beneficiaries claiming the small plots.	Tenure Regularization in Informal Settlements.
6.	Safeguard Procedures Manual (SPM), 2022	The manual provides safeguards instruments to ensure that environmental and social impacts are adequately identified, assessed and mitigated to protect the environment and people from negative impacts in accordance to	The manual details out the recommended safety instruments in Section 2.4 , while Section 2.5 provides the procedures to be used in carrying out the various tasks of the project as explained overleaf:	Screening for potential impacts was done during the environmental and social screening phase and mitigations for all negative impacts addressed. Every provision of the Safeguard Procedure Manual was

No.	Relevant Policy	Description of the Policy	Relevant Provisions	Relevance to the Assignment
		the World Bank safeguard policies and Government of Kenya's legal and policy frameworks.	○ Screening for potential impacts: - the screening will be done during social economic survey using a checklist provided in the ESMF. ○ Assessment of potential environmental and social impacts (preparation of ESIA): - an ESIA will be prepared if the screening outcome determines it's required. ○ Resettlement Action Plans (RAPs): in case of adverse impacts, RAPs will be prepared in accordance with the procedures provided for in the Resettlement Policy Framework (RPF). ○ Social Management Plan- the manual provides that the SMP should be prepared and implemented in parallel with the ESIA during the planning stage of tenure regularization. ○ Vulnerable and Marginalized Groups- it provides procedure for identification of the Vulnerable and Marginalized Groups impacted by a project. ○ Grievance Redress: - Under section 9.7 the manual provides the process for receiving, processing and closing grievances as indicated below; ✓ Receiving and recording grievances. ✓ Analysis and classification of the grievances. ✓ Investigation, resolution/action and documentation. ✓ Update the grievance logs and give feedback. ○ Stakeholder Engagement and Disclosure: - The manual provides that a Stakeholders Engagement Plan (SEP) be prepared to promote inclusivity in stakeholder participation/ engagement.	strictly adhered to at every stage of the plan preparation process.
7.	Stakeholder Engagement Framework	The SEF is designed to ensure effective engagement with the local communities directly affected by the project and other	According to Section 1.5 on Roles and Responsibilities , the framework provides the criteria for stakeholders mapping and defines their roles and	The plan was prepared through a participatory process in line with the Constitution of Kenya, 2010, the

No.	Relevant Policy	Description of the Policy	Relevant Provisions	Relevance to the Assignment
	(SEF), 2019	key different stakeholders whose roles are identified, analysed and modalities for engagement defined.	responsibilities. The key stakeholders identified by the framework include; KISIP Team, consultants, County Governments, communities, Settlements Executive Committees and settlements Grievance Redress Committees. For the engagement process to be effective, the framework provides the following principles as per Section 4.3 ; - o Accessible venues. - o Cultural appropriateness with due respect to the local customs, norms and inclusiveness. - o Engaging all segments of the local society including disabled persons, the elderly, minorities and other vulnerable individuals.	Physical and Land Use Planning Act, 2019, Urban Areas and Cities Act, 2011 (amended 2019), County Governments Act, 2012 (amended 2020) and other relevant legislations and policy frameworks.
8.	National Spatial Plan 2015 – 2045 (NSP), 2017	The NSP provides a national spatial planning framework to guide the preparation of regional, county and local spatial plans.	Chapter 4 on Policies and Measures , provides for proper human settlements in line with sound environmental and natural resources conservation geared towards improving living conditions. It also advocates for provision of appropriate infrastructure to improve access to water and sanitation, education, health, energy, Information and Communication Technology (ICT), recreational and community facilities.	The Local Physical and Land Use Development Plan was prepared in cognizance of the principles contained in the NSP, the County Spatial Plan and other development plans.
9.	National Slum Upgrading and Prevention Policy, 2016	The policy aims at promoting security of tenure and improvement of the living conditions in the informal settlements by providing the necessary infrastructure and services and prevention of new formations of informal settlements through adherence to planning and development control.	The policy recognizes lack of security of tenure as a major challenge in land administration in slums and informal settlements. It further recommends development and implementation of a land tenure regime that recognizes differentiated rights; right to access, transfer, manage and own land as per 3.3 Section on Land Tenure and Administration . Most informal settlements lack space for infrastructural services, provisions due to failure of planning. The policy thus recommends for planning of slums and informal settlements through a participatory process as stipulated in Section 3.4 on Planning, Development and Management .	The informal settlement Local Physical and Land Use Development Plan is aimed at providing tenure security and improvement of the settlement through provision of basic social amenities and access roads. Once the plan is approved, it will provide the framework for development of the informal settlement in an orderly manner.

No.	Relevant Policy	Description of the Policy	Relevant Provisions	Relevance to the Assignment
10.	National Urban Development Policy, 2016	The policy provides framework for governance and management of urban areas for sustainable development.	According to Chapter 6 of the policy on Urban Land, Environment and Climate Change , the policy recommends formalization of land ownership in informal neighbourhoods to improve their living standards. It also calls for the need to have a proper and efficient digital Land Information System (LIS) data for land management. Under Chapter 10 , it advocates for spatial planning to ensure the provision of social amenities such as; education facilities, public open spaces, parks and recreational facilities.	Gitunduti Informal Settlement Plan was prepared in conformity to the National Urban Development Policy which advocates for sustainable urban development through effective spatial planning to provide a framework for infrastructure services development.
11.	The National Land Policy, Sessional Paper No. 3 of 2009- Ministry of Lands and Physical Planning	The policy offers a framework for land administration and management for sustainable growth.	The policy advocates for planning and surveying as a tool for effective land administration and management as stipulated in Chapter Three under Sub-Sections on Land Management 3.4 and Land Administration 3.5 . Informal settlements issues are discussed under Section 3.6.9 as follows; - o Ensure that land subject to informal settlement is developed in an orderly and sustainable manner - o Facilitate the regularization of existing squatter settlements found on public and community land for purposes of upgrading or development - o Develop, in consultation with affected communities, a slum upgrading and resettlement programme under specified flexible tenure systems - o Put in place measures to prevent further slum development - o Facilitate the carrying out of informal commercial activities in a planned manner - o Regulate the disposal of land allocated to squatters and informal settlers	The informal settlement plan has proposed interventions aimed at enhancing orderly development and optimal utilization of land. The plan was also prepared in line with the policy advocacy for a well-planned informal settlement.
12.	National Land Use Policy, 2017- Ministry of Lands and Physical Planning	The National Land Use Policy gives guidance on the optimal utilization and productivity of land related resources in a sustainable and desirable manner.	Under Section 2.5.3 on Social Infrastructure , the policy advocates for human settlements that are adequately provided with infrastructure such as safe water, sanitation, drainage, solid waste disposal services, security, recreation, education and health	The plan has provided provisions for access roads and social infrastructure aimed at improving the resident's standard of living.

No.	Relevant Policy	Description of the Policy	Relevant Provisions	Relevance to the Assignment
			facilities. The policy stresses the need for upgrading the informal settlements as they are an integral part of the urban economy as indicated in Section 2.5.5. on urban land uses section	
13.	Urban Land Use Planning: Monitoring and Oversight Guidelines	The guidelines were prepared by National Land Commission to provide the process of preparing, approving and implementing land use plans and instruments of monitoring and oversight of land use planning.	The guidelines provide the following major steps for plan preparation and approval process: preparatory stage, stakeholder awareness sensitization and visioning engagement, situation analysis, stakeholders' engagement for situational analyses report, plan proposal formulation, stakeholder's engagement for draft plan validation, final plan, approval and implementation as provided in section 3.0 on planning process.	The Informal Settlement Local Physical and Land Use Development Plan was prepared in accordance to the guidelines.
14.	National Housing Policy Sessional Paper No.3 of 2016	The policy envisages creation of an environment where every Kenyan has a right to access adequate shelter at an affordable cost especially in urban and peri-urban areas where the majority low-income earners reside.	Section 1.1.5 on Housing Provision advocates for access to standard housing, proper sanitation and water as envisaged in article 43 of the Kenyan constitution, 2010. Under Section 3.2.3 on Infrastructure the policy advocates for proper land use planning and zoning in all urban areas. This is aimed at integrating provision of infrastructural services in all housing developments by prioritizing provision of social amenities such as theatres, social halls, and markets, play grounds and trunk infrastructural services especially access road, water, sewer and electricity.	The plan has regularized the settlement by ensuring all the plots are accessible and there is connectivity. It has provided various strategies such as waste management, water provision and housing development strategies. It has also provided spaces for provision of the physical and social infrastructure with the aim of improving general living conditions of the residents in the settlement.
15.	Integrated National Transport Policy (INTP)	The urban transport policy aims at creating and integrating land use and transport network which is environmentally sound with all modes of transport working harmoniously.	According to Section 4.8.4 on Land Use and Spatial Development for Road Passenger Transport , the policy has identified lack of integration of land use planning and transport development. It further indicates that inadequate capacity to undertake urban planning has given rise to spatially dislocated settlements, urban sprawl, and long travel distances and times.	In order to ensure an efficient and effective mobility of the residents, the plan has used a combination of adoptive and standard planning on road provision.
16.	National Sustainable Waste Management	The policy aims at developing a sustainable waste management system to ensure a clean, healthy, safe and secure	The policy advocates for provision of sufficient land for waste management activities according to the waste hierarchy which recommends for establishment	The Local Physical and Land Use Development Plan has proposed waste management strategies in

No.	Relevant Policy	Description of the Policy	Relevant Provisions	Relevance to the Assignment
	Policy (Revised, 2019)	environment in a manner that is affordable, environmentally friendly and socially acceptable.	and improvement of waste management infrastructure to promote source segregation, collection, reuse, set up materials recovery facilities and controlled disposal in engineered landfills as stipulated in Chapter 3 on Achieving Sustainable Waste Management in Kenya . Section 3.1.3 on Re- Use of Products and Components , the policy advocates for provision of well managed central waste collection centres.	conformity with the provisions of this policy. Within the project area, use of skip bins will be appropriate given the small sizes of plots.
17.	National Environment Policy, 2013	The policy aims at providing a framework for an integrated approach to planning and sustainable management of the environment and natural resources for economic growth and improved livelihoods.	The policy expounds on Article 42 of the Kenyan Constitution, 2010 which provides for citizens' right to a clean and healthy environment. The policy is premised on the following principles as stipulated in section 3.2 ; - o Environmental right - o Public participation in environmental protection - o Community empowerment	Environmental protection strategies were prepared under the guidance of the policy.
18.	National Disaster Risk Management Policy, 2017	This Policy creates an integrated and coordinated disaster risk management system that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, enhancing preparedness, rapid and effective response to disasters, and post- disaster recovery.	As per Section 3.1.4 , the policy aims at enhancing resilience at the local and county level to the impact of disaster risk and climate change by; - o Promoting the main-streaming of disaster risk assessment into land-use policy development and implementation - o Promoting the main-streaming of disaster risk assessment, mapping and management into rural development planning. The policy under Section 3.1.5 further gives strategies on effective and coordinated disaster preparedness, prevention, response, mitigation and recovery. The major one being on the need for community centres to be established for the promotion of public awareness and stockpiling of necessary materials to implement rescue and relief activities.	Noting the project area is prone to disasters such as floods and drought, the plan has provided strategies aimed at mitigating and preventing the disasters.

Table 2: Relevant Legal Framework Governing Plan Preparation

No.	Legal	Description	Relevant Provisions	Relevance to the Assignment
1.	Constitution of Kenya, 2010	It is the supreme law of republic that contains basic principles and laws that determines the powers and duties of the government and guarantee certain right to the people.	The Constitution of Kenya 2010, advocates for the citizens' right to live in a clean and healthy environment under Article 42. Article 43(b) states that each citizen should have access to proper housing and reasonable standards of sanitation. Article 62 defines public land as Government land while Article 60 (1) highlights the principle to ensure sustainable utilization of the land as follows; - o Equitable access to land - o Sustainable and productive management of land resources - o Transparent and cost-effective administration of land - o Sound conservation and protection of ecologically sensitive areas - o Elimination of gender discrimination in law, customs and practices related to land and property in land - o Encouragement of communities to settle land disputes through recognized local community initiatives consistent with the Constitution. Further, the constitution of Kenya, 2010, Article 66 recognizes the need to regularize the use of land through land use planning.	In line with the provisions of the constitution, the plan has provided environmental protection strategies to enhance clean and healthy environment for the residents.
2.	County Governments Act, 2012 (Amended, 2020)	The Act gives effect to Chapter Eleven of the Constitution of Kenya, 2010 which provides county governments' powers, functions and responsibilities.	The Act under Section 102 and 103 recognizes the need for protecting the interest of minorities and marginalized groups and communities; facilitating the development of a well-balanced system of settlements and ensuring productive use of scarce land, water and other resources of social, ecological across the county; provide the preconditions for integrating underdeveloped and marginalized areas to bring them to the level generally enjoyed by the rest of the count; make reservations for public security and other critical national infrastructure and other public utilities.	The plan provides the platform for regularization of land tenure and development of infrastructure services to improve the living conditions of the people.
3.	Urban Areas and Cities Act, 2011 (Amended, 2019)	The Act gives effect to Article 184 of the Constitution of Kenya, 2010 . It provides for the classification, governance and management of urban areas and cities. It also provides principles of governance and	Under Second Schedule, Section 22 the Act recognizes the importance of public participation during plan preparation process. Third Schedule - Section 38 of the Act, advocates for assessment of the social, cultural, economic and environmental conditions among others during planning process. It also advocates for identification of the community needs and promotion of the interests of minorities and marginalized groups.	The plan was prepared in accordance with the requirements of the act, which emphasizes on public participation. The process involved several forums such as awareness, sensitization and visioning workshop, socio-economic survey

No.	Legal	Description	Relevant Provisions	Relevance to the Assignment
		participation of residents during plan preparation process.		findings (situational analyses) report presentation workshop and data collection focus groups. Additionally, the plan aligns with the previous development plans of the county, such as the County Integrated Development Plan
4.	Physical and Land Use Planning Act No. 13 of 2019	This is the principal Act of parliament which stipulates the following; types of plans, planning process/methodology, purpose & contents of various plans, and the plans approval process.	The principles and norms of the physical and land use planning are clearly stipulated in Section 5 as follows; - Physical and land use planning should promote sustainable use of land and liveable communities which integrates human needs in any locality. - Development activities should be planned in a manner that integrates economic, social and environmental needs of present and future generations. - Physical and land use planning should be inclusive and must take into consideration the culture and heritage of the residents. - Physical and land use planning should take into account new approaches to achieve sustainable development and more efficient use of natural resources. The Act grants county governments powers to prepare local physical and land use development plans as stipulated in Section 45. The contents of a local physical and land use development plan are clearly stipulated in Section 48 while schedule 2 provides the flow of the contents in outline form. The plans purposes as indicated in Section 46 are to guide and coordinate development of infrastructure, regulate the land use and land development and provide framework for coordinating various sectoral agencies. The draft Local Physical and Land Use Plan for Gitunduti Informal Settlement Development plan was prepared principally according to the Physical and Land Use Planning Act 2019 and other relevant policy, legal and regulatory frameworks applicable. The Act also encourages public participation during plan preparation process under Section 38. In addition, Section 49 provides for placement of	The principles of the act guided plan preparation in terms of contents, procedure, and format, noting that the plan was being carried out in an informal settlement characterized by uncontrolled developments, congestion, and inaccessibility of some structures, narrow roads and inadequate basic infrastructure services. Adoptive planning approach was used to ensure all the plots are accessible. The aim was to achieve minimal or no displacement within the project area. To achieve the planning standards, standard roads have been prepared that would be implemented incrementally.

No.	Legal	Description	Relevant Provisions	Relevance to the Assignment
			notice of intention to plan in at least two newspapers before the start of the plan preparation process.	
5.	Physical Planners Registration Act, of 1996	It provides qualifications and procedure for the registration of physical planners in Kenya.	According to Section 21 of the Physical Planners Registration Act, no individual or any corporate body is allowed to practice as physical planner unless they are registered or recognized by the Physical Planner's Registration Board. The qualifications for registration of the physical planners are highlighted under Section 12 as listed below; (a) Be a holder of a bachelor's or postgraduate degree in urban or regional planning or both from any university which is recognized for the time being by the Board and has passed an examination prescribed by the Board (b) Has been admitted as a corporate member of an approved professional institution.	The plan was prepared in compliance with the act's regulations by registered physical planners who met the required qualifications.
6.	Land Act No. 6 of 2012 (Amended 2016)	This Act gives effect to Article 68 of the constitution of Kenya, to provide for the sustainable administration and management of land and land-based resources. The Act also describes various forms of tenure, methods of acquisition of title to land and outlines the process of acquiring interests on land and process of compensation in case of compulsory acquisition.	The Act stipulates that every public land should be planned and surveyed as per Section 12(7) and also provides the various forms of tenure under Section 5. The forms of tenure provided are; ○ Freehold; ○ Leasehold The procedure for formation of the land database through evaluation and georeferencing for potential land use planning are clearly stipulated in Section 8(a).	The plan was prepared in accordance with the provisions of the Act in section 8(a), which require proper evaluation and georeferencing of land databases. Additionally, the act emphasizes the importance of proper planning of public land before issuing any ownership documents. Therefore, the data used in preparing the plan adheres to these regulations, ensuring the plan aligns with the act's aspirations.

No.	Legal	Description	Relevant Provisions	Relevance to the Assignment
7.	Survey Act CAP 299 (Revised Edition 2012 [2010])	The Act makes provisions in relation to land surveys, geographical names and licencing of land surveyors.	The Act provides guidelines for land surveyors registration under Part IV of the act Section 10 to 14 . PART VI – section 24 highlights the process of survey plans preparation while PART VII of the same Act describes the process of approval of the survey plans by the Director of Survey.	The base map that informed the plan preparation was done in accordance with the Survey Act.
8.	The Land Registration Act, 2012	The Act principally concerns the registration of interests in land. It applies to: (a) registration of interests in all public land as declared by Article 62 of the Constitution of Kenya, 2010 .	The office in charge of surveying should prepare and maintain cadastral maps for every registration unit. In addition, the parcel boundaries on such maps should be geo- referenced and surveyed to such standards as to ensure compatibility with other documents required under this Act or any other law. This is in accordance to Part II, Section 15 of this Act. Under section 30 (2) on Certificate of Title and Certificate of Lease , the Act provides that only one certificate of title or certificate of lease should be issued in respect of each parcel.	The approved Local Physical and Land Use Development Plan will inform the Cadastral survey which will entail beaconing and preparation of the survey plan as per the provisions of the Act.
9.	Environmental Management and Coordination Act (EMCA) of 1999, (Amended 2015)	The Act provides for the establishment of an appropriate legal and institutional framework for the management of the environment in the country.	The Act under Part II gives effect to Article 42 of the Kenyan constitution, 2010 which states that every person in Kenya is entitled to a clean and healthy environment and has the duty to safeguard and enhance the environment. The Act outlines the need for protection and conservation of forests, biological diversity and protection of environmentally fragile areas as stipulated in Part V of the Act. It also prohibits discharging or applying poisonous, toxic, noxious or obstructing matter, radioactive or any other pollutants into aquatic environments as stipulated in Part VIII, Section 72 . Legal Notices Nos. 31 and 32 of Gazette Notice No. 62 of EMCA 1999 (Amended 2015) of the Act categorizes all the projects that require environmental impact assessment (EIA), Environmental and Social Impact Assessment (ESIA) among other environmental assessments.	The socio-economic survey results on environment informed the preparation of the environmental protection and management strategies. The strategies were prepared in accordance to the Act.
10.	Water Act, 2016	This is an Act that provide for the management, conservation, use and control of water resources	The Act actualizes the provisions of the Fourth Schedule of the Kenyan Constitution, 2010 which indicates that every person is entitled to access to clean water. The Act advocates for formulation of National Water Resource Strategy which shall majorly deal with identification existing water	The socio-economic component of the plan preparation process demonstrated a settlement

No.	Legal	Description	Relevant Provisions	Relevance to the Assignment
		and for the acquisition and regulation of rights to use water.	resources and their defined riparian areas and measures for the protection, conservation, control and management of water resources and approved land use for the riparian area, institutional capacity among others as stipulated in Section 10 (3). It establishes Water Resources Authority under Part III and provides functions stipulated in Section 12 as; - o Formulating and enforcing standards, procedures and regulations for the management and use of water resources and flood mitigation - o Regulating the management and use of water resources and enforce Regulations made under this Act. It further establishes National Water Harvesting and Storage Authority under Part II whose functions are stipulated in Section 32 as to develop a water harvesting policy and enforce water harvesting strategies.	characterized by inadequate water supply. The plan has provided the water supply efficiency strategies among other sectoral improvement strategies.
11.	Climate Change Act No. 11 of 2016	The Act provides for a regulatory framework for enhanced response to climate change and measures to achieve low carbon climate development.	Section 3 of the Act establishes National Climate Change Action Plan in accordance to the Article 10 of the Constitution of Kenya, 2010. It further prescribes measures and mechanisms that should be addressed by the National Climate Change Action Plan as outlined below; - o To guide counties toward the achievement of low carbon climate resilient sustainable development - o For adaptation to climate change - o For mitigation against climate change - o To set out actions for mainstreaming climate - o Change responses into sector functions to specifically identify all actions required as enablers to climate change response - o To mainstream climate change disaster risk reduction actions in development programmes - o To review and determine mechanisms for climate change knowledge management and access to information - o To enhance energy conservation, efficiency and use of renewable energy in industrial, commercial, transport, domestic and other uses - o To strengthen approaches to climate change research and development training and technology transfer. The Act advocates for public consultations under Part V, Section 24 (2) to be undertaken in a manner that ensure the public contribution makes an	Given the significant impact of climate change on the project area, the plan has incorporated climate-resilient strategies in accordance with the act.

No.	Legal	Description	Relevant Provisions	Relevance to the Assignment
			impact on the threshold of decision making when developing climate change mitigation strategies.	
12.	Public Health Act, Cap 242 (Revised Edition 2012 [1986])	This Act concerns the protection of public health in Kenya and lays down rules aiming at securing and maintaining public health.	The Act recognizes need for proper sanitation and standard dwelling fitted with adequate basic amenities such as water as stipulated under Part IX – Sanitation and Housing .	The act guided preparation of environmental conservation and improvement strategies.
13.	National Land Commission Act (Sessional Paper No. 5 of 2012)	The Act gives effect to the objects and principles of devolved county governments in land management and administration.	Section 5 & 6 of the Act outlines functions and powers of the commission while Section 15 gives powers to the commission on investigations of the historical land injustices in pursuant to Article 67 (3) of the Constitution of Kenya, 2010. Some of the functions of National Land Commission as stipulated in section 5 include; ○ To manage public land on behalf of the national and county governments ○ To encourage the application of traditional dispute resolution mechanisms in land conflicts ○ To monitor and have oversight responsibilities over land use planning throughout the country ○ To advise the national government on a comprehensive programme for the registration of title in land throughout Kenya It recognizes the need for cooperation and consultation between the commission, national and county governments subject to Article 10 and Article 232 of the Constitution.	The NLC representatives were involved in all stages of plan preparation process. The informal settlement is on uncontested public land which is managed by the NLC on behalf of the National and County Government

2.5 Stakeholders' Participation and Engagement

Stakeholder engagement is a critical component in the plan preparation process. Indeed, effective stakeholder engagement in the plan preparation process enhances project ownership and sustainability. Stakeholder engagement is important as it improves stakeholder's understanding of their roles in the project, key in building community support through their active participation and enhances better decision making as well as the project sustainability during both implementation and operational phases. For effective and adequate public participation, several stakeholders' participation and engagement forums have been held as tabulated below:

Table 3: Stakeholder Engagement and Participation Forums

Method of Engagement	Date	Venue	Objective	Outcome
Introduction meeting	22 nd October 2024	PCEA Gitunduti multi-purpose hall	To introduce consultant to the GRC, SEC, relevant county officials and other community opinion leaders.	The consultant was introduced to the GRC, SEC, relevant county officials and other community opinion leaders
Stakeholder's Sensitization, Mobilization and Awareness Workshop	22 nd November, 2024	PCEA Gitunduti multi-purpose hall	To sensitize the community members and other stakeholders on the project activities.	The participants understood: ○ The importance of the project towards improving their livelihood status ○ The activities to be undertaken during the exercise ○ Their roles towards successful project execution
Publishing of the notice of intention to plan	25 th December 2024	Daily Nation newspaper <i>Taifa leo</i>	To inform the wider public on the proposed planning and surveying exercise and seek their participation in the project execution process.	Enhanced public participation process
Base map and environmental status map validation and sensitization of the community members on socio-	4 th February, 2025	PCEA Gitunduti multi-purpose hall	To present the base map and environmental status map for comments and validation To sensitize the community members on the	Validation of the base map and environmental status map Participants understood the activities to be undertaken during the socio-economic survey.

economic survey workshop			socio-economic survey process	
Administration of household questionnaires and key informant interviews	February 2025	Project area	To collect socio-economic data for a better understanding of the area's social and economic characteristics	The project beneficiaries and other stakeholders provided the required socio-economic data
Technical meeting - Presentation of the socio-economic survey findings	24 th April 2025	GIS Boardroom, Nyeri	To present the socio-economic survey findings to the county technical team	The county technical team provided the necessary comments on the findings.
Stakeholders workshop on the presentation of the socio-economic survey findings for validation and undertaking of visioning & participatory planning exercise	25 th April 2025	PCEA Gitunduti multi-purpose hall	To present the socio-economic survey for comments and validation. To undertake participatory planning and visioning	The socio-economic survey findings were validated The project beneficiaries discussed and agreed on the plan proposals Beneficiaries coined the settlement vision

CHAPTER THREE

BASELINE INFORMATION AND SOCIO-ECONOMIC SURVEY FINDINGS

3.1 Overview

This chapter presents the informal settlement's existing situation with regard to physical and natural environment, population and demographic characteristics, social services and amenities, economic activities, infrastructure and utilities, land and housing. It also identifies the growth challenges and opportunities within the project area. The findings in this chapter form the basis for the formulation of the plan proposals and the development guidelines and regulations.

3.2 Physical and Natural Environment

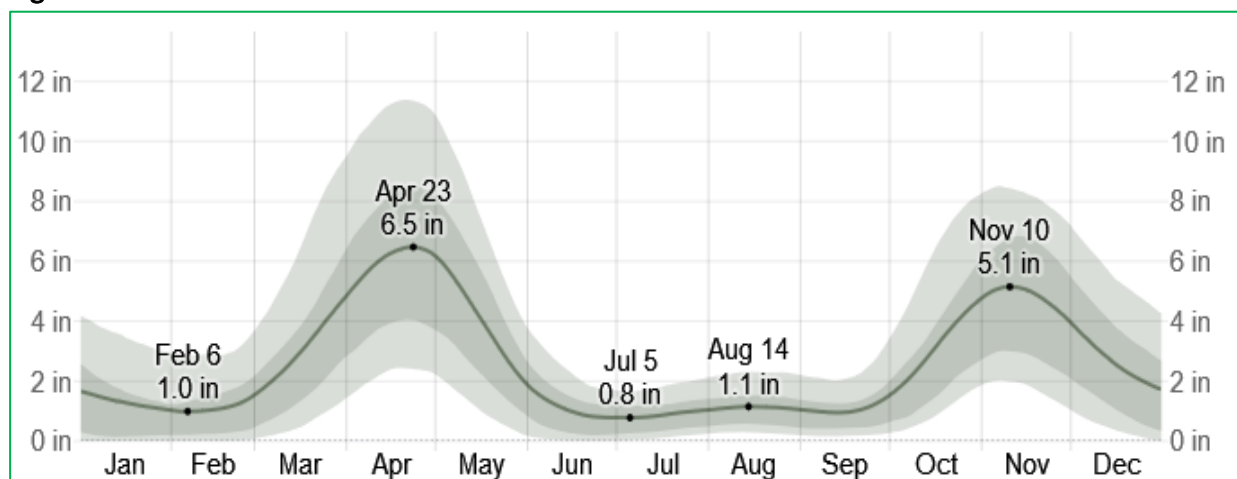
3.2.1 Climatic Conditions

Gitunduti informal settlement has a tropical climate and an equatorial rainfall pattern. The climatic condition is influenced by the settlement's position along the equator and on the windward side of Mt Kenya.

3.2.1.1 Rainfall

The location of Nyeri County within the country's highland zone enables it to receive conventional rainfall. Rain falls throughout the year. There are however two distinct rain seasons; long rains occurring from March to May and the short rains from October to December. The annual rainfall ranges between 1,200mm – 1600mm during the long rains and 500mm – 1,500mm during the short rains (County Government of Nyeri, 2023). The month of April has the highest precipitation with an average rainfall of 6.2 inches. The months between June to September have the lowest with July having the least rain of about 0.9 inches of rainfall on average.

Figure 3: Rainfall Patterns



Source: <https://weatherspark.com/y/99559/Average-Weather-in-Nyeri-Kenya-Year-Round>, 2024

The high rainfall potential in the settlement necessitates the need for rain water harvesting programs. The rains present an opportunity for the creation of large-scale runoff collection reservoirs that could be used during the relatively dry seasons in the year. In addition, proper, functional and well-laid out storm water drainage system is required to enhance the livability of the settlement.

3.2.1.2 Temperature

Most parts of Nyeri County experience mean temperatures ranging between 12.8°C to 20.8°C with February and March being the hottest months while July is the coldest month of the year.

(County Government of Nyeri, 2023). The summers are short, warm and overcast and the winters are short, cool, dry and partly cloudy. Throughout the year, the temperature varies from 10.6°C to 26.1°C and is rarely below 8.3°C or above 27.8°C. The warmest time of the year is from mid-August to mid-October. The table below summarizes the county's temperature. The temperatures in Gitunduti informal settlement and its environs are favorable for livestock keeping, human habitation, and crop production.

Table 4: Annual Temperatures

Temp.	Jan.	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
High (°C)	24.4	25.6	25.6	23.3	22.2	20.6	19.4	20.0	22.2	23.3	22.2	23.3
Average High (°C)	17.8	18.3	18.9	18.3	17.8	16.7	15.6	15.6	17.2	18.3	17.2	17.2
Low (°C)	11.1	11.3	12.8	14.4	14.4	13.3	12.2	12.2	12.8	13.9	13.3	11.7

Source: <https://weatherspark.com/y/99559/Average-Weather-in-Kerugoya-Kenya-Year-Round,2025>

3.2.1.3 Wind

The wind experienced at any given location is highly dependent on local topography among other factors. The average hourly wind speed in the county experiences mild seasonal variation throughout the year. The windier part lasts for about 3.3 months from September 7 to December 16 with average wind speeds of more than 7.6mph (12.23km/h – 3.4m/s). The windiest month of the year is October with an average hourly wind speed of 8.4mph (13.5km/h). The calmer time of the year lasts for 8.7 months from December 16 to September 7. The calmest month of the year is July with an average hourly wind speed of 6.7mph (10.8km/h).

The average wind speed is beyond the cut-in-speed for small turbine to start generating energy which is set at 8km/h (2m/s). However, the wind potential in the settlement is not at the required maximum (10-15m/s) for large scale wind power generation. Thus, the wind can only generate power for households and medium industrial consumption but doesn't have the threshold for large scale wind power generation. The distribution of the wind speed and the general direction influences the harnessing of wind energy and building orientation to achieve natural ventilation in the settlement.

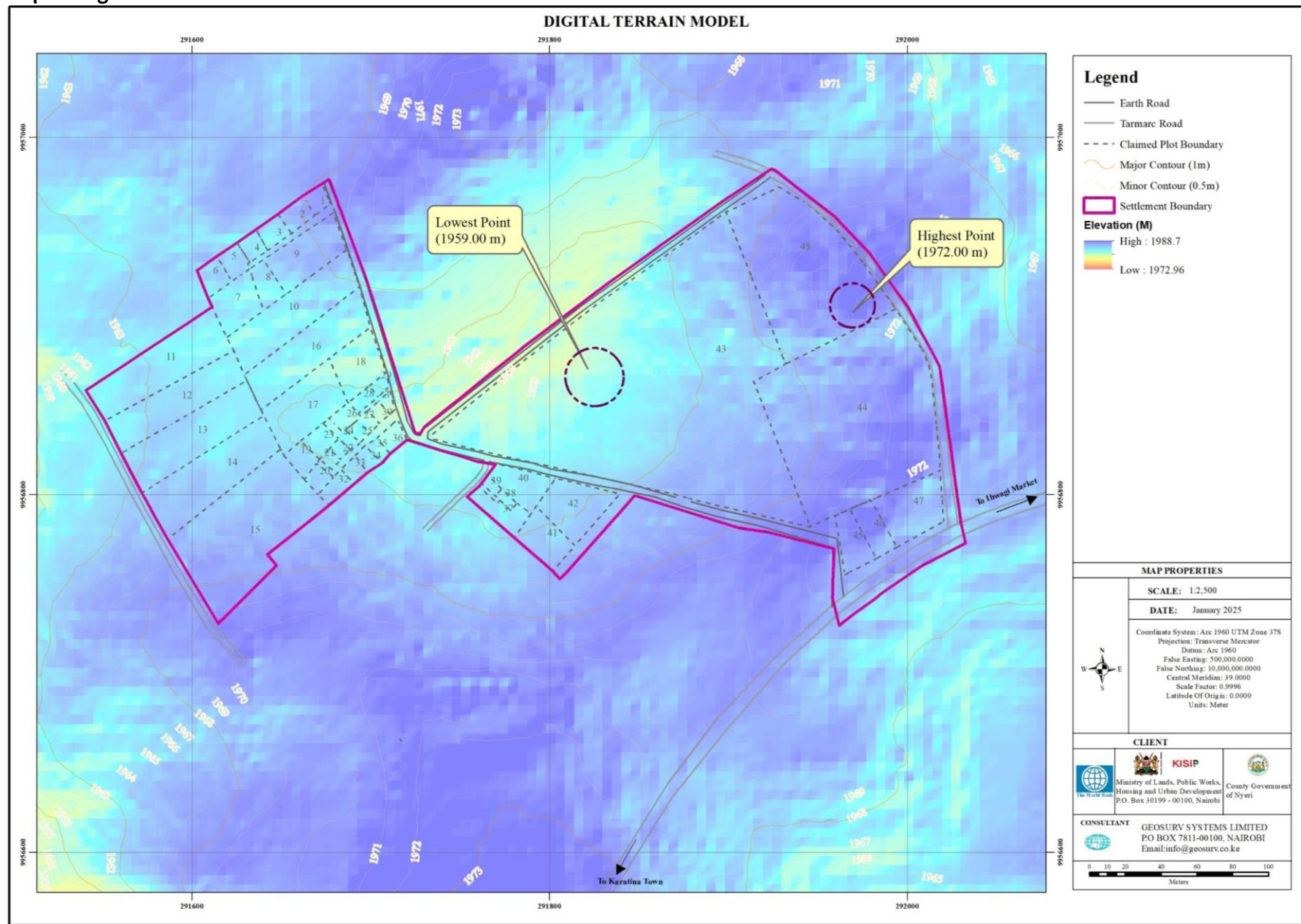
3.2.2 Topography

Gitunduti informal settlement has gentle to moderate slope making it favorable for human settlement and infrastructural development. The highest point in the settlement has an altitude of 1972 m at the boundary of St. Lwanga Catholic Church and A.I.P.C.A Church while the lowest point is at 1959m above sea level at Gitunduti Secondary School. The elevation range is 13 metres. This topographical configuration is conducive for a blend of residential, agricultural, and commercial activities.

This settlement's topography plays a significant role in influencing various environmental aspects such as drainage patterns, distribution of natural resources and soil erosion dynamics. There are no major physiographic features within the vicinity of the settlement. The settlement's drainage is influenced by its topography and surface run-off drains into the seasonal stream to the West of the settlement.

The map overleaf presents the settlement's digital terrain model:

Map 4: Digital Terrain Model



3.2.3 Water Sources and Supply

In Gitunduti settlement, the primary source of water is the West Magut Water Project, which charges a monthly fee of 200 shillings. However, only a limited number of households have access to piped water due to the high installation costs. The water supply is inadequate, and occasioned by seasonal rationing. To address the water supply shortages, some residents resort to borrowing water from their neighbors with piped water supply, while others traveled approximately two kilometers to Muthera River to fetch water. Additionally, there are several households and institutions that have erected water tanks for rain water harvesting and storage (plate 5 b).

Plate 5: Water Supply and Storage Facilities



Source: Field Survey, 2024

Plate 5 a



Plate 5 b

3.2.4 Geology and Soils

The county is characterized by volcanic rocks formed from the extrusions of Mt. Kenya and Aberdare Ranges (County Government of Nyeri, 2023). Gitunduti informal settlement and its environs is made up of basalt rocks, high in silica content which is good for ceramics and building stone. Soils impact development by determining the economic activities to be ventured into as dictated by soil type, characteristic and distribution. Depending on stability and fertility, decision making with regard to cultivation, construction and conservation occur. There are six main types of soils in Nyeri County namely greyzems, luvisols, phaeozems, podzols, regosols and vertisols. The soils found in Gitunduti consist of silty loams, characterized by a composition of 13% sand, 78% silt, and 10% clay. These soils exhibit inadequate drainage, resulting in water-logging within the settlement following intense rainfall as shown in the plate overleaf.

Plate 6: Soil Characteristics



Source: Field Survey, 2025

3.2.5 Biodiversity

Biodiversity refers to all kinds of life found within an area including the variety of animals, plants, fungi and micro-organisms like bacteria that make up the natural world. This section outlines the flora and fauna found within Gitunduti informal settlement.

3.2.5.1 Flora

Flora is defined by trees, shrubs and grass which collectively constitute the vegetation cover within the settlement. Gitunduti informal settlement had both natural and planted vegetation. The natural vegetation consists of shrubs and indigenous trees such as grassland and shrubs. It is commonly found along the road reserves forming boundary vegetation, on some virgin lands which haven't been cultivated and within the church and secondary school compounds. Natural vegetation has however been on the decline due to various human activities in pursuit of farm land and settlement.

Planted vegetation is found within the farm land and homestead compounds. It comprises of coffee plants, exotic trees, nappier grass, maize, beans, sweet potatoes, mango tress, avocado trees, sugar cane and vegetables among others. Threats facing the existing vegetation are; intensified human settlement and rapid logging for construction, furniture and firewood. The plate below exemplifies some of the existing vegetation.

Plate 7: Vegetation Cover



Source: Field Survey, 2025

The distribution of the vegetation cover within the settlement is shown in the map overleaf. The settlement has a very high vegetation cover which constitutes about 84% of the land. About 9.3% of the settlement is built-up area while 6.6% is bare land.

3.2.5.2 Fauna

This comprises of the domestic animals reared within the homesteads. This activity is mainly done in small scale and mainly for subsistence due to the relatively small land parcels which cannot support large scale livestock farming. The kept animals include; cows, goats, chicken and pigs. The insects and rodents that inhabit the settlement also constitute part of the fauna.

3.2.6 Green Spaces

The green spaces within the settlement constitute the areas that are covered with vegetation like plants, trees and other greenery. These spaces act as breathers and carbon sinks within the settlement thus offering a natural and aesthetically pleasing environment. Despite the settlement's high vegetation cover, there are no designated green spaces within the settlement or in proximity where the residents can relax and recreate.

3.2.7 Environmental Concerns

Gitunduti Informal Settlement has several environmental concerns that warrant attention. Cooking energy sources such as firewood and charcoal and poor waste disposal mechanisms are some of the causes of environmental hazards in the settlement. These hazards include; air pollution, water contamination, solid waste management, deforestation and climate change.

3.2.7.1 Air Pollution

The commonly used cooking fuel sources in the settlement are firewood and charcoal. The combustion of these fuels can result in the release of hazardous pollutants into the immediate environment posing significant health risks to the household members. Firewood and charcoal produce fine particulate matter (PM_{2.5}), which can cause respiratory illnesses. These fuels also release carbon (II) oxide (CO), which can cause headaches, dizziness, and nausea, and can be fatal in high concentrations. In addition, burning firewood can produce nitrogen oxides (NO_x) and volatile organic compounds (VOCs). The combustion of kerosene, a common fuel for lamps, can release a range of air pollutants that are a threat to the climate. These pollutants are commonly referred to as Short-Lived Climate Pollutants (SLCPs), including PM_{2.5}, tropospheric ozone and black carbon. Other gaseous emissions include sulfur dioxide (SO₂), and nitrogen dioxide (NO₂) which can cause respiratory problems, eye irritation, and other health problems.

Plate 8: Openly Burning of Solid Waste



During open waste burning, some of the gaseous emissions include black carbon, carbon (IV) oxide, methane, nitrous oxides, fine particulate matter of particles up to 2.5 μ m and 10 μ m (PM_{2.5} and PM₁₀). The suspended particulate matter is harmful to the ecosystem as they can lead to severe environmental degradation and result in contamination of water and soils. This can result in imbalances in ecosystems and reduced biodiversity, directly damaging plants and animals as well as contributing to climate change.

Source: Field Survey, 2025

Exposure to particulate matter (PM) and other air pollutants has been linked to a variety of conditions which impact on human health. Short term exposures to PM have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic

bronchitis, asthma attacks and respiratory problems. In addition, PM reduces atmospheric visibility as PM_{2.5} affects visibility by altering the way light is absorbed and scattered in the atmosphere.

The burning of charcoal is usually done in a limited oxygen supply where wood is strongly heated to remove water and other volatile constituents. This process releases a range of pollutants into the air including carbon (II) oxide, fine particulate matter (PM_{2.5}), nitrogen oxides, and volatile organic compounds. These pollutants have serious health implication including respiratory problems, increased risk of heart disease and also contribute to climate change. In addition, charcoal production contributes to low vegetation cover and habitat destruction for fauna which significantly affects the climate. Trees play a vital role as carbon sinks as they absorb and store carbon dioxide from the atmosphere. Thus, when destroyed, this carbon is released back into the atmosphere.

3.2.7.2 Poor Solid Waste Management

Different categories of solid waste are produced in the Gitunduti settlement, with the most prevalent being household waste, which comprises of agricultural residues and kitchen scraps. Additionally, other forms of solid waste include plastics and paper products. The settlement lacks a designated solid waste management site. Some residents resort to burning their solid waste after collection within their homesteads, while others discard their waste indiscriminately in their gardens and along the roadside, particularly on the obstructed route from the police post to Gitunduti Secondary School.

Plate 9: Solid Waste Disposal



Source: Field Survey, 2025

Improper management of solid waste in Gitunduti poses a significant risk to public health. The presence of uncontrolled waste disposal sites draws flies, exacerbating environmental deterioration. In addition, these unauthorized dumping areas invite various pests, including rodents and insects, which facilitate the spread of diseases. Additionally, the leachate from these sites contaminates soil, air, and groundwater, thereby undermining the overall quality of the environment.

3.2.7.3 Water Contamination

Gitunduti settlement has no conventional waste water disposal and treatment system. Domestic waste water (grey water) flows freely in the homesteads. The waste water is generated from activities such as laundry, hand washing, bathing, and dish washing. Laundry and dish washing activities are carried out outside the houses where the waste water is discarded to the open ground.

Plate 10: Human Waste Disposal

The households in Gitunduti Settlement have no access to modern toilet facilities, which are crucial to preventing open defecation. They instead use pit latrines to dispose of their human waste as shown in the plate alongside. Bathrooms are located outside the houses. Incorrect handling and management of wastewater and human waste in the settlement increases the danger of developing water-borne diseases.

Improper waste management practices such as use of pit latrines, discharge of grey water to land and open solid waste dumping and burning are significant contributors of water contamination.

Source: Field Survey, 2025

The use of pit latrines and discharging of grey water to the land can lead to infiltration of pollutants to underground water sources, causing possible contamination. As a result, consumption of contaminated water may lead to outbreak of diseases like cholera owing to the high number of people who use pits latrines. This raises the need to promote and invest in the utilization of sustainable liquid management system suitable for urban population.

In addition, the ash formed as a result of open solid waste burning causes possible water contamination as it may contain a variety of pollutants, including heavy metals and organic compounds, that can leach into the soil and water. When ash is left on the ground, rainwater and groundwater can wash contaminants out of the ash and into the neighboring rivers. This can lead to water contamination and potentially raise health concerns for the residents who use the water for drinking, cooking, bathing and other purposes.

3.2.7.4 Deforestation

Deforestation in the settlement is as a result of the need for fuel wood which is the main cooking energy for the area residents. The high proportion of the population using wood fuel for cooking could result to detrimental environmental effects.

Plate 11: Wood Fuel

Kenya already has a deficit in the production of wood fuel and the current consumption is depleting the already endangered remaining forest cover, a phenomenon that could result to desertification. Mitigation measures should therefore be put in place to address the high demand for wood fuel in the settlement. Some of the measures would include: ensuring the required forest cover by regular tree planting exercises and utilizing alternative renewable energy sources such as solar and wind energy.

Source: Field Survey, 2025

Other negative impacts of deforestation include:

- Climate change: deforestation increases the amount of carbon dioxide in the atmosphere, which contributes to global warming.
- Habitat loss; deforestation destroys the habitats of animals and other organisms
- Erratic weather patterns; in the long run, deforestation leads to extreme droughts and floods negatively impacting on livelihood and food security.
- Loss of biodiversity; deforestation reduces the variety of life on earth
- Soil erosion; the roots of trees are crucial in soil stabilization. However, deforestation removes them hence exposing the soils to wind and rain.
- Flooding; deforestation increases flooding especially in lower areas.
- Increased temperatures; trees are natural coolants. Once they are fell down, temperatures automatically increase.

3.2.7.5 Climate Change

Climate change is a global concern that directly affects humanity and biodiversity. It is fueled by a number of factors among them; land use changes, pollution and environmental degradation. There are several activities that contribute to climate change in Gitunduti informal settlement like the cutting down of trees for fuelwood and house construction materials – timber, clearing of vegetation for settlement and farm expansion. In addition, pollution as a result of poor waste disposal is also a contributing factor. Consequently, the settlement and its environs has been vulnerable to effects of climate change. The settlement experiences increasing frequency and intensity of extreme weather events such as erratic rainfall which has a significant social, economic and environmental effects.

3.2.8 Emerging Issues

Physical features play a critical role in the development of the settlement. The favorable topography of the settlement promotes easier construction works. The climatic conditions of the settlement and its environs coupled with suitable ecological zones and fertile soils present favorable environment for the thriving of agricultural activities. The entire Nyeri County is a major food basket in the region supplying food commodities to the country's capital, Nairobi and other towns.

Resources such as wind and solar energy present an opportunity for the development of renewable energy in the settlement. Tapping into these renewable energy sources would subsidize and complement power generated from thermal sources hence reducing carbon print and cost of access to power. The relatively high rains in the settlement presents a challenge; with the gradual increase in impervious cover, the settlement's susceptibility to flooding is imminent.

The settlement is endowed with stable geology which can support urban development. Soils in the settlement impact development as they influence the economic activities to be undertaken as dictated by the soil type, distribution and characteristics. Soil characteristics such as texture, depth and drainage influence the fertility and stability of such soils. Decision making with regard to the crops to be cultivated, type of structures to be erected depend on the soil fertility and stability.

Waste management in the settlement is of critical concern, a phenomenon that would be gradually amplified with the increase of population and developments. There are no designated areas for solid waste management forcing the residents to indiscriminately dump or burn their waste within their compounds, along the road reserves or near the social hall. In addition, pit latrines are the main method for liquid waste disposal. The use of pit latrines has detrimental effects to underground water resources as the infiltration of sewer water contaminates the water resources.

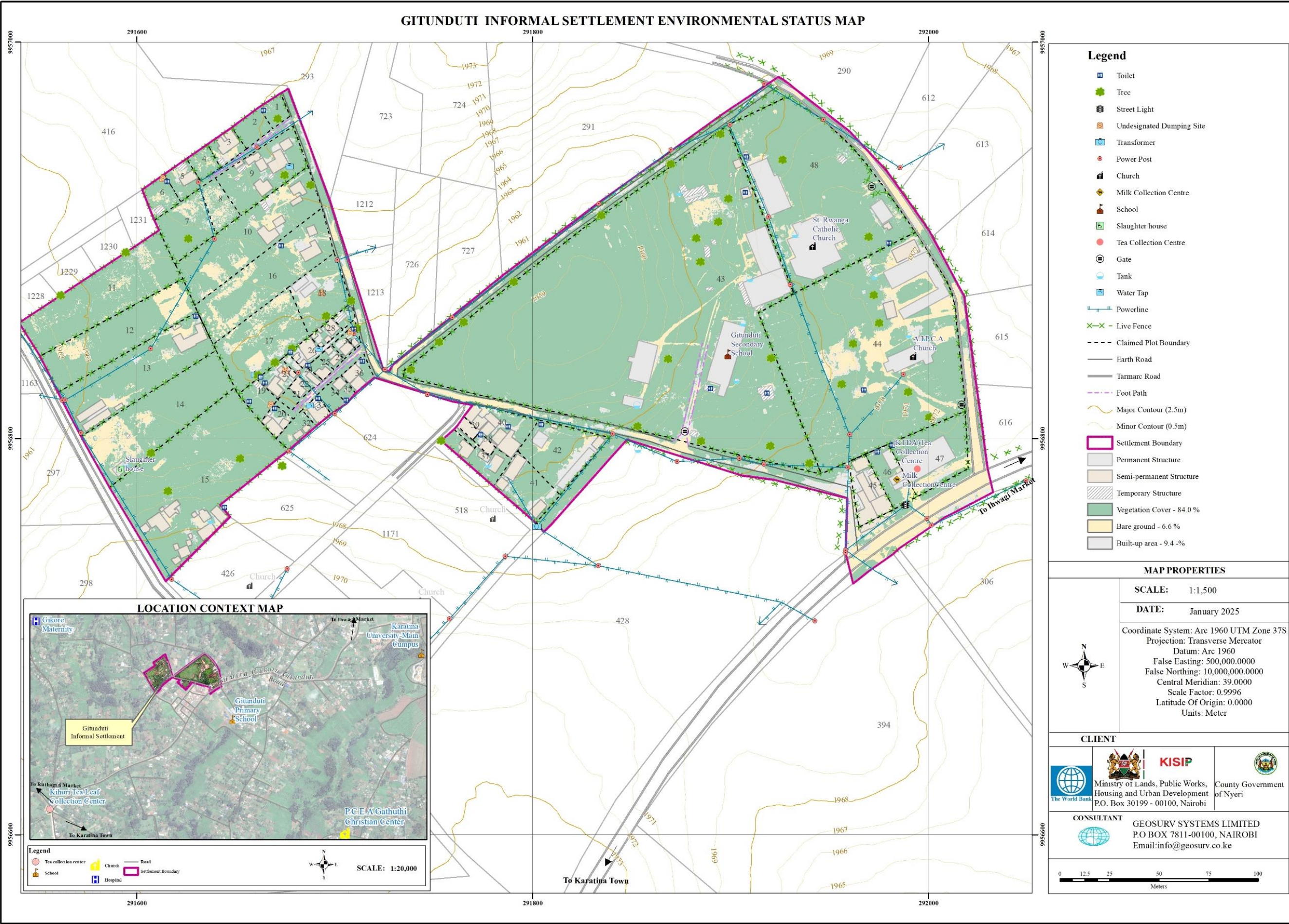
The table overleaf summarizes the emerging issues with regard to the settlement's physiography and natural environment.

Table 5: Emerging Issues – Physiography and Natural Environment

Element	Potential/Opportunities	Constraints
Climatic conditions	○ Favorable rainfall amounts for agricultural activities as its located within the Kenyan highland areas	○ High rainfall amounts and increase in impervious cover makes the market susceptible to flooding ○ Changing weather patterns
Topography	○ Favorable topography promotes easier construction works	○ Relatively flat topography reduces the flow of surface run-off
Environment	○ Existence of appropriate waste handling technologies that can be tapped into ○ Availability of land for the setting up of waste management sites ○ 4Rs waste mechanisms – Reduce, Reuse, Recycle and Recover	○ No designated waste management site ○ Pollution due to poor waste disposal methods – use of pit latrines for human waste disposal results to contamination of underground water sources
Geology and soils	○ Stable geology and soils that can support urban development ○ Soils contain all the plant nutrients required for plant growth.	○ The soils are too acidic/infertile to sustain quality food production
Vegetation cover	○ Relatively high vegetation cover of 84%	○ Depletion of the vegetation cover due to deforestation and human encroachment ○ Planting of eucalyptus tree species – - Risk to buildings and people as they are prone to toppling. - Extensive water users causing water depletion.
Climate change	○ Better adaptation and mitigation strategies like tree planting	○ Pollution by poor waste disposal methods ○ Felling of trees for fuel wood and house construction materials

The map overleaf presents the informal settlement's environmental status:

Map 6: Environmental Status Map



3.3 Population and Demographic Characteristics

The preparation of Gitunduti LPLUDP, survey and subsequent title registration processes are being undertaken for the benefit of the settlement population. Analysis of the population lays the basis upon which the needs of the current and future population are determined. Resource allocation and utilization is heavily dependent on population dynamics of an area. In addition, population dynamics provide a tool for defining equity with regard to provision of essential services. They are also key determinants of labour force provision, appraisal of resource exploitation and allocation as well as utilization of social amenities/ facilities. The knowledge of these variables is thus crucial in making essential decisions for provision of services. This necessitated the analysis and interpretation of the population dynamics of Gitunduti informal settlement to aid in evaluating applicable perspectives in resource allocation and use.

3.3.1 Population Size

As per the 2019 Kenya Population and Housing Census, Nyeri County had a population of 759,164 people comprising of 374,288 males, 384,845 females and 31 intersex. The county has an estimated 248,050 households and average household size of 3.0 people. Mathira East Sub-County where Gitunduti informal settlement is located had a total population of 99,065 people comprising of 48,070 males, 50,992 females and 3 intersex. It had estimated 35,044 households and an average household size of 2.8 people. As per the household socio-economic survey conducted in February 2025, Gitunduti informal settlement has a total population of 95 people comprising of 44 males and 51 females. The table below summarizes the population characteristics.

Table 6: Population Size

Geographical Area	Male	Female	Intersex	Total
Nyeri County	374,288	384,845	31	759,164
Mathira East Sub-County	48,070	50,992	3	99,065
Gitunduti Informal Settlement	44	51		95

Source: Field Survey, 2025 & KNBS, 2019

Majority of the settlement population are females, 54% while males are 46%. This population by gender align to the national, county and sub-county gender dynamics where females are more than males. Nyeri County population by gender is similar to that of Mathira East Sub-County where 51% are females and males are 49% (KNBS, 2019). This match national population statistics where males are 49% and females 51% and a sex ratio of 98 males per 100 females ((UN (World Population Prospects), 2024).

3.3.2 Population Distribution/Density

Settlement patterns are influenced by soil fertility, topography, road networks, infrastructural facilities and services and rainfall patterns. Nyeri County has a current population density of 228 persons per sq.km. Gitunduti informal settlement has a very high population density of 1,381 persons per square kilometer and is projected to grow to 2,049 persons per square kilometer in the year 2035 as outlined in the table below. The planning exercise, subsequent survey and title registration processes are projected to attract major investments as it will make the settlement more livable. In addition, attainment of tenure security will enable the construction of better structures.

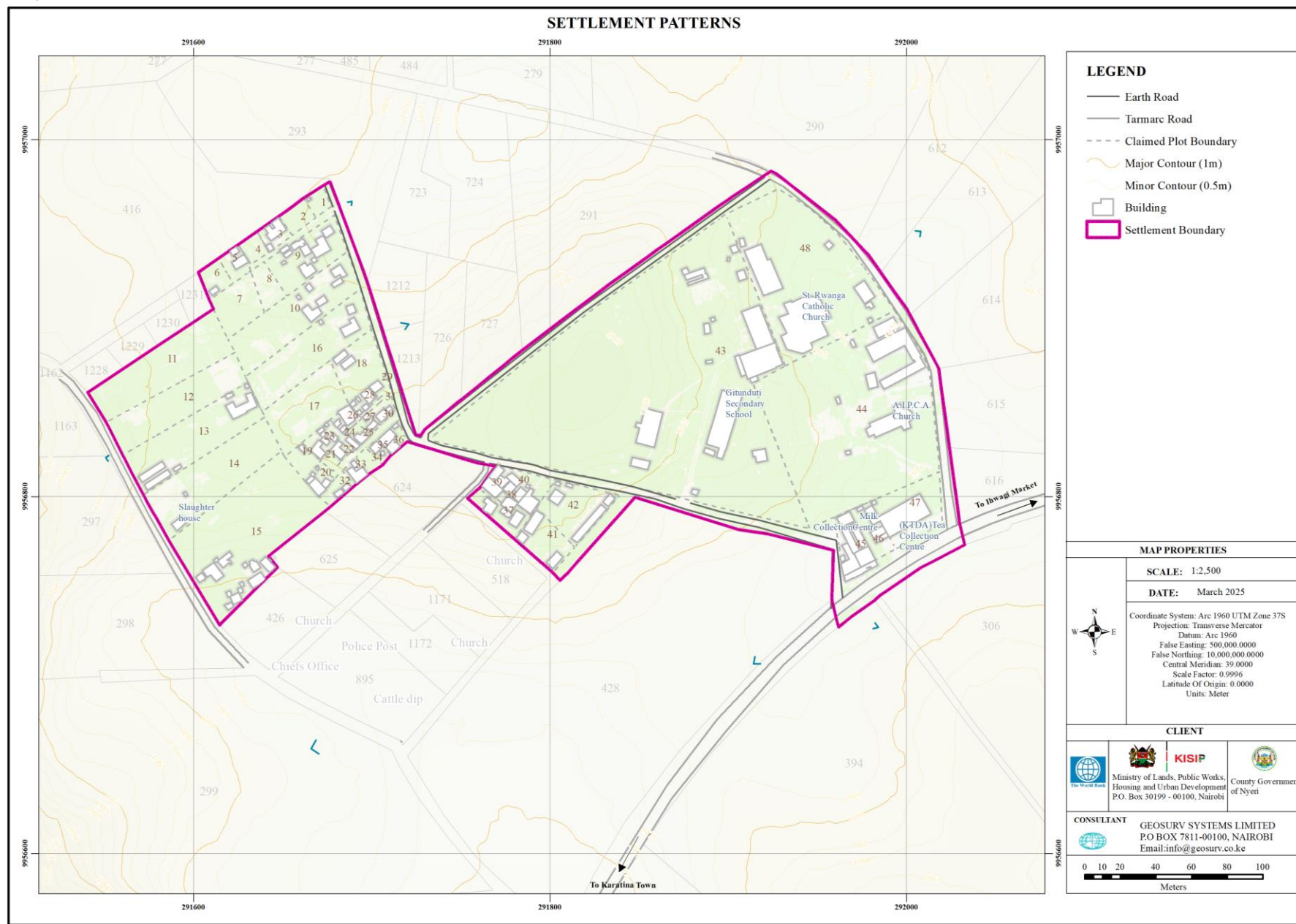
Table 7: Population Density

Administrative Unit	Population Size	Area (Km²)	2019 Density	Projected Population Densities		
				2025	2030	2035
Nyeri County	759,164	3,325	228	253	275	300
Mathira East Sub-County	99,065	130.4	760	842	916	998
Gitunduti Informal Settlement		0.0688		1,381	1,686	2,049

Source: KNBS, 2019 Volume I and Field Survey, 2025

The high population density within the settlement calls for the provision of services like; adequate water, reliable power supply, quality housing, proper solid and liquid waste management systems, high quality education and health facility as well as a clean – habitable environment. Due to the flat nature of the topography, the density is evenly distributed across the entire settlement though intensity of development is higher within the market (business cum residential area) as seen in the settlement patterns map overleaf:

Map 7: Settlement Patterns



3.3.3 Population Projection

Population growth is influenced by several factors among them; growth rate, immigration, emigration and fertility rates. Gitunduti informal settlement is located at the periphery of Gitunduti market and has an estimated population of 95 people. Nyeri County population annual growth rate is 1.72 (CIDP, 2023). However, the urban population growth rate in Kenya is 4%, higher than the rural and national annual population growth rate. Gitunduti is therefore poised to grow at this rate, which could even grow faster owing to the location of Karatina University in close proximity. This has impact on local population growth due to increased income opportunities from the concentration of more than 15000 students. Other factors influencing a high population growth rate in the planning area include high fertility rates, 3.1 for Nyeri county and low mortality rates (though Nyeri county has higher mortality rates compared to the national figures (KNBS, 2022)) – net natural increase of population, immigration and emigration factors among others. Based on these, the population of the planning area will increase to 116 people by 2030 and 141 people by 2035 as shown in the table below.

Table 8: Population Projections

Year	Base Year	Projection		
Geographical Area	2019	2025	2030	2035
Nyeri County	759,164	840,957	915,810	997,326
Mathira East Subcounty	99,065	109,738	119,506	130,143
Gitunduti Informal Settlement		(Base Year) 95	116	141

Source: Field Survey 2025 & KNBS 2019

3.3.4 Demographic Characteristics

3.3.4.1 Population Structure

The Young Population (0-17 years): This cohort comprises of children and teenagers under 18 years. In Gitunduti informal settlement, this young population accounts for 28% of the total population, being the second highest age group in the settlement. The high proportion of this population is school going. Being just a small proportion of the population, school going children are few in the planning area.

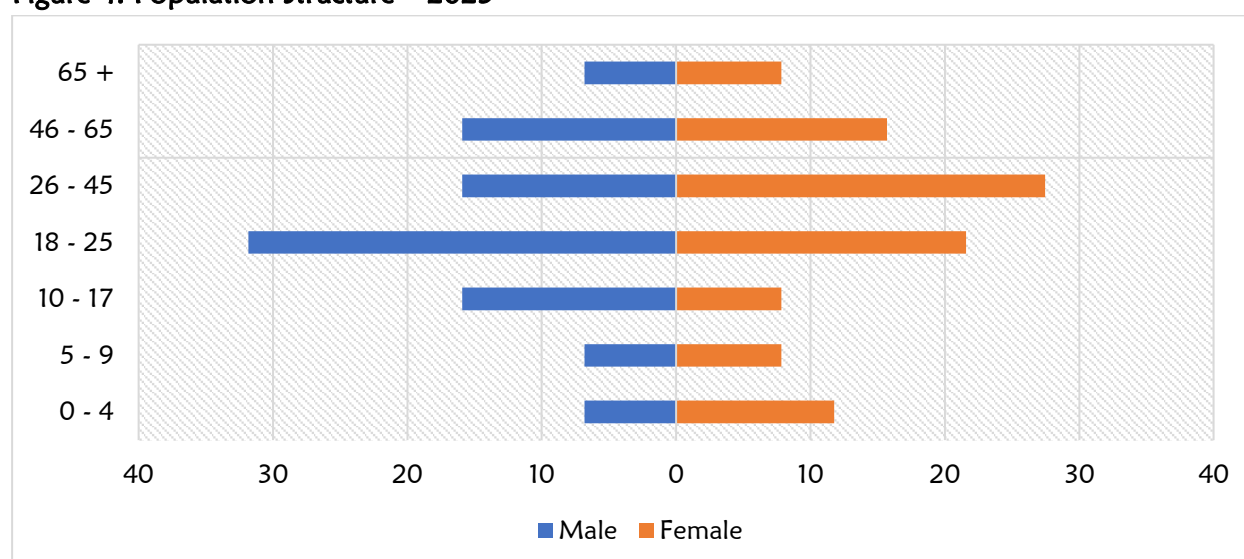
The labour force (18-65 years): This working population group comprises of individuals aged between 18 and 65 years. The working population is the fulcrum for a country's socio-economic development. It avails its skills, capacities and abilities in the labour market for steering the nations development agenda. It also enhances continuity and population growth since it's the segment of the population involved in child bearing and procreation. It therefore holds the future prosperity of the society and nation. It is highly depended on by the elderly and young population to provide for their essential needs. Within the planning area, this population is the majority at 64% of the settlement population, higher than the 60% national average. It is female dominated with 54% of the cohort population being females while males are 46%. Investments are needed in provision of better opportunities for income generation for this segment of population within the planning area. Investments in agriculture, manufacturing, processing, technology is key to providing jobs to the labour force population. Having Karatina University in proximity is key to helping them access higher education including technical and vocational skills and capacities to meet labour market needs and qualifications.

Elderly population (Above 65 years): This is represented by the senior citizens and retirees within the settlement whose age exceeds 65 years. It is the least segment of the population since it accounts

for just 7% of the settlement population. Majority, 57% of the elderly population are females, with males being only 43%. Perhaps an indication of females having a high life expectancy than males. It calls for special programs to support senior members of the society by relevant government departments and agencies.

The dependent population is the sum total of the children/young population and the elderly population. Within the planning area, the dependent population accounts for 36% of the entire settlement population. It is therefore a small proportion of the population. Dependants are hardly involved in any gainful income generating activities. They rely on the working population for supplies of basic needs including food, shelter, clothing, and education for school going children. Together with income levels of the depended, they influence the living standards of households within the planning area. The population structure of the settlement is demonstrated by the population structure below.

Figure 4: Population Structure – 2025



Source: Field Survey, 2025

The majority age group is between 18 - 25 years and 26 - 65 years accounting for 26 and 22 percent of the settlement population respectively. Age groups 5 to 9 years and seniors above 65 years are the least populated age groups in the settlement at 7% apiece. The settlement population is more youthful with the majority 77% of residents being under 45 as outlined in the table below.

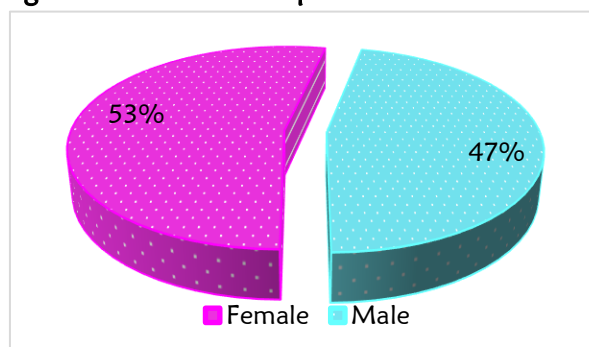
Table 9: Population Structure- 2025

Age Group	Male	Female	Total	Male	Female	Total
0 - 4	3	6	9	3%	6%	9%
5 - 9	3	4	7	3%	4%	7%
10 - 17	7	4	11	7%	4%	12%
18 - 25	14	11	25	15%	12%	26%
26 - 45	7	14	21	7%	15%	22%
46 - 65	7	8	15	7%	8%	16%
65 +	3	4	7	3%	4%	7%
Total	44	51	95	46%	54%	100%

Source: Field Survey, 2025

3.3.4.2 Gender of Respondents

Figure 5: Gender of respondents



The settlement has a total population of 140 people housed in 45 households. All the 45 households were represented in the socio-economic survey by a single respondent. Majority of the respondents were females, 53%, while males were 47%. This was commensurate to the settlement population dynamics where females are more than males at 54 and 46 percent respectively.

Source: Field Survey, 2025

3.3.4.3 Marital Status

Most of the respondents of the socio-economic survey were married. These were about 51% of all respondents. There were an estimated 38% of survey participants who were single, 9% were widowed and 2% separated. The marital status of socio-economic survey participants is shown in the table below.

Table 10: Marital Status of Respondents

Marital status	Percentage
Single	38%
Married	51%
Widowed	9%
Separated	2%
Total	100%

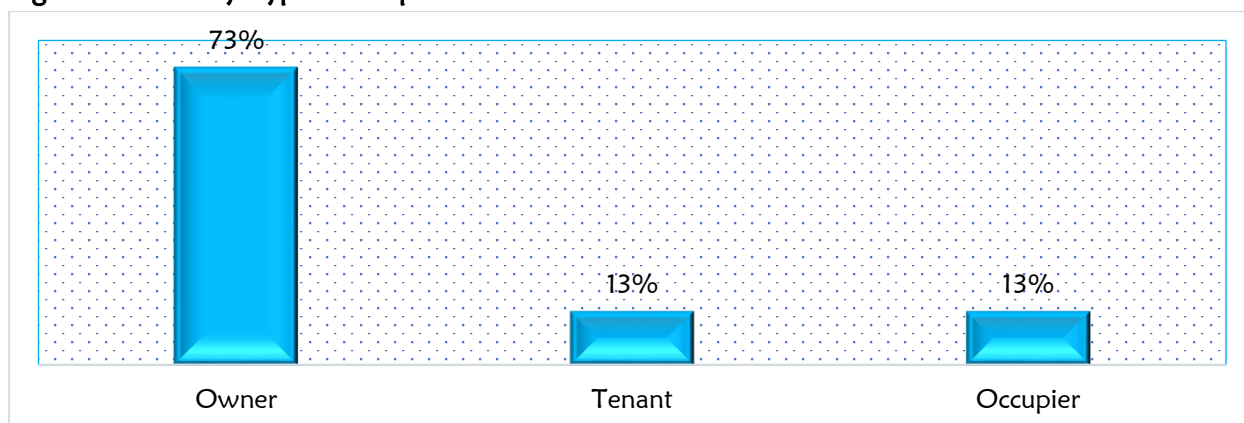
Source: Field Survey, 2025

3.3.4.4 Residence Profile

a. Type of respondent

The socio-economic survey participants were categorized on the tenancy type of occupying their dwelling units. The majority 73% of the respondents were owners of the buildings/land parcels where they live. Tenants (those who rented their living units) and occupiers were 13% each. Occupiers refer to individuals residing in dwelling houses on being seconded by landlords with task to care and maintain the building without paying rent for the units they occupy. The forms of tenancy by respondents are shown in the chart below.

Figure 6: Tenancy Type of Respondent



Source: Field Survey, 2025

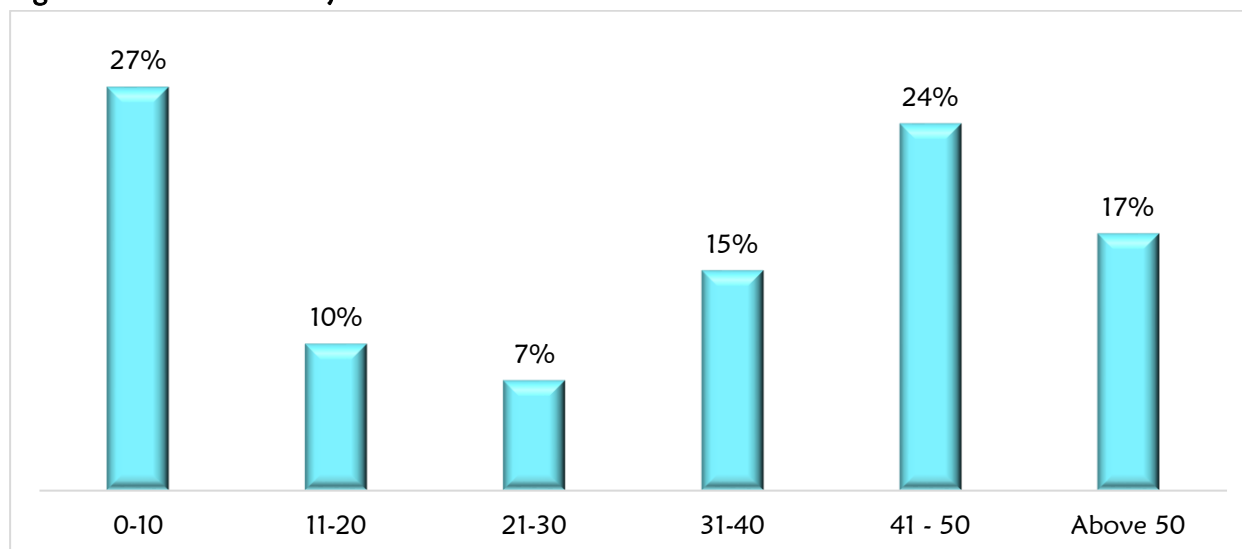
b. Residential Status

A high proportion of about 91% of the respondents reside within the settlement. There were just 9% of the survey participants who live outside the settlement. The main reasons for living outside the settlement was because they either do not like living with their tenants or they have plot elsewhere in the town where they live at 25% apiece. However, 50% of the participants who live outside the settlement indicated other unspecified reasons for staying outside the settlement.

c. Duration of Stay in Gitunduti Informal Settlement

On average respondents have lived in Gitunduti informal settlement for 31.7 years. The majority have resided in the settlement for between 0 and 10 years. They account for 10% of respondents. Another 24% have lived in the settlement for between 41 and 50 years. It can be deduced from the chart below that most of the socio-economic survey respondents have been residents of Gitunduti informal settlement for over 20 years. These make up 63% of all respondents and have broader knowledge and understanding of the socio-economic affairs of the settlement. The longest period one has been a resident in the settlement is 76 years while the least is under a year.

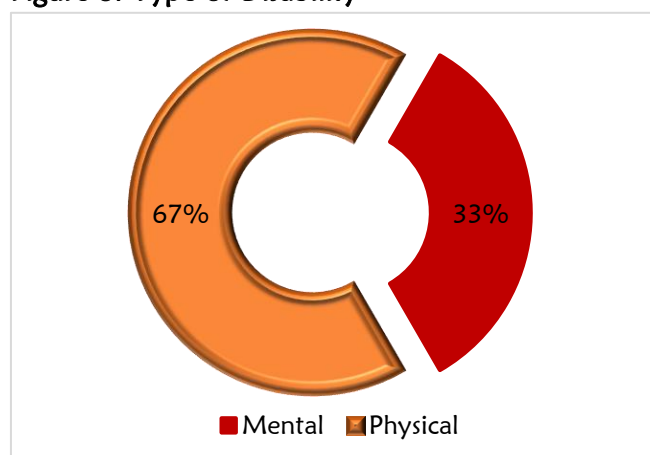
Figure 7: Duration of stay in Gitunduti Informal Settlement



Source: Field Survey, 2025

3.3.4.5 Household with People Living with Disability

Figure 8: Type of Disability



The socio-economic survey findings show that majority 87% of households did not live with any disabled person. There were however 13% of all households which had members with disability. Out of the 13% households with disability, majority were physically challenged at 67% while the other 33% were mentally challenged. The types of disability suffered by household members within the settlement are shown in the figure alongside.

Source: Field Survey, 2025

Disabled persons constitute part of the vulnerable members of the society. Majority of the people with disability are not registered with the relevant government departments and agencies for social support and assistance. These are approximately 67% of all people living with disability within the settlement. They are only 33% of differently abled persons who are registered with government for social assistance and support.

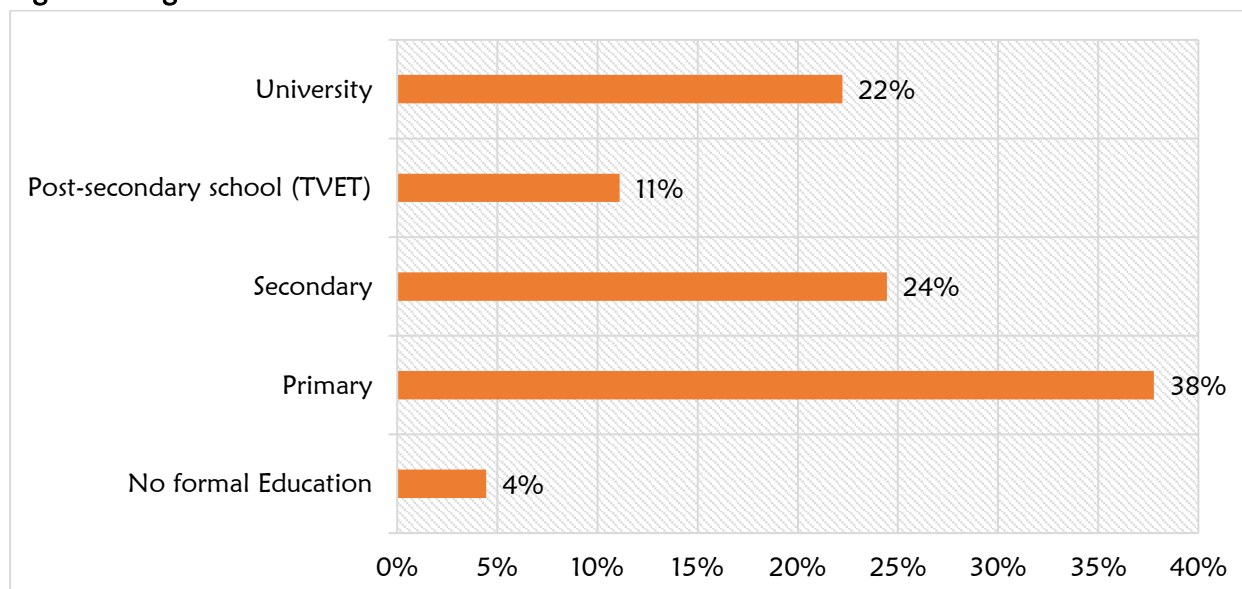
3.3.4.6 Households with Vulnerable Persons

Vulnerable members of the households constitute of the widowed, orphaned, chronically ill, elderly, those who are differently abled, and those who are socially and economically marginalized. Within Gitunduti informal settlement, 13% of households had vulnerable members living with them. The majority however did not have any vulnerable member of their household dwelling with them. Half of the vulnerable individuals were registered with the relevant ministry department and agency for social support and assistance while the other half of the vulnerable persons are not registered with the government for support. Majority 67% of the vulnerable individuals do not get any support or social assistance from the government. There just 33% of vulnerable members of the settlement who received aid and social support from the government. Of the 7% households with disabled members, 56% of them were registered with the respective government ministry and department, while 44% remained unregistered.

3.3.4.7 Education Level

There were 4% of respondents who have not attended any formal education. They are the least among the residents of the settlement. The majority of 38% of survey respondents have attained primary education as their highest completed education level. There were 24% of respondents who have completed secondary education while those with post-secondary training are 11%. This is a significant share of the population with technical and vocational skills needed in the labour market. A significant share of 22% of respondents have attained university education as shown in the figure below.

Figure 9: Highest Education Level Attained



Source: Field Survey, 2025

Based on these findings, there exists a potential correlation between attaining university education of residents and the location of Karatina University in proximity to the planning area which has opened up higher education opportunities for residents. Further, there appears to be a close

correlation to the population structure where more young population is invested in education and training hence the relatively high proportion of the population having attained post-secondary training and university education. The literacy levels are significantly high within the settlement where majority of residents have attained at least primary education, hence able to read and write. The education status of residents within the planning area is demonstrated in the above chart. There is need for more investments in awareness and sensitization initiatives to increase the rate of transition from primary to secondary and to post-secondary institutions. This will support the highly youthful population to be well equipped with skills and capacities needed in current labour market.

3.3.5 Emerging Issues

The population structure has an implication on the settlement's development. The working population (18 - 65 years) constitutes the largest segment of the settlement population at 67%. This indicates a need to diversify economic activities and offer more employment opportunities to the area residents. The aging population which together with the young population (0-14 years) forms part of the dependent population, requires investment in health services so as to improve the health and life expectancy levels in the settlement.

The under 5 year's population calls for the establishment of proper health care so as to prevent cases of neonatal, infant and under five mortalities. Investment in the education system is required for the school going population so as to equip them with the prerequisite skills and knowledge to enhance their employability once they finish school.

The youthful population which forms part of the labor force requires massive investment in skill development, through creation and equipping of mid-level and higher educational institutions as well as job creation through the establishment of agro-processing industries. In this regard, a conducive environment for investors needs to be created in the region for the creation of job opportunities so as to tap on the readily available labor force. In addition, this population requires investment in facilities like resource centres and sports facilities to enable them showcase their talents, entrepreneurial skills and innovations.

The table below summarizes the emerging issues with regard to the settlement's population and demographic characteristics.

Table 11: Emerging Issues – Population and Demography

Element	Potential/Opportunities	Constraints
Population size and distribution	- High day population in the settlement's market presents a ready market for goods and services - High university student population – high demand for goods and services	- Low night population within the settlement's market reduces its vibrancy - Student population - social-cultural challenges
Population density	- High population density is ideal for development of compact structures - Available market for the goods and services sold in the market	Encroachment on farmlands and environmental sensitive areas for farming and settlement activities
Population structure	Availability of skilled and unskilled labour force – 64%	High dependent population – 35%

3.4 Social Services and Amenities

3.4.1 Education Facilities

Access to education is a fundamental right enshrined in the Kenya Constitution, 2010. Education is essential in improving the living standards of members in the society as it provides them with an opportunity to realize their full potential and fulfill their dreams. It is therefore important to make provisions for education facilities and services, as these will translate into higher rates of innovation, higher levels of productivity and faster adoption of new technology.

The provision of adequate educational facilities implicates positively on a society's wellbeing. An educated population provides valuable human capital which is able to invest its knowledge in productive activities like the adoption of technology in production, managerial skills, and promotion of entrepreneurial activities. In addition, the right skills empower citizens to participate in various development forums and government initiatives for the betterment of their communities.

The only existing educational facilities within the settlement are Gitunduti Secondary School and Gitunduti Little Angels Academy within AIPCA Church grounds. In addition, Gitunduti Primary School is located opposite the settlement. Despite this, the school-going children and the students within the settlement have access to four public primary schools, two private primary schools, and three secondary schools as per the requirements of the Physical Planning Handbook, 2007. These facilities are outlined in the following table:

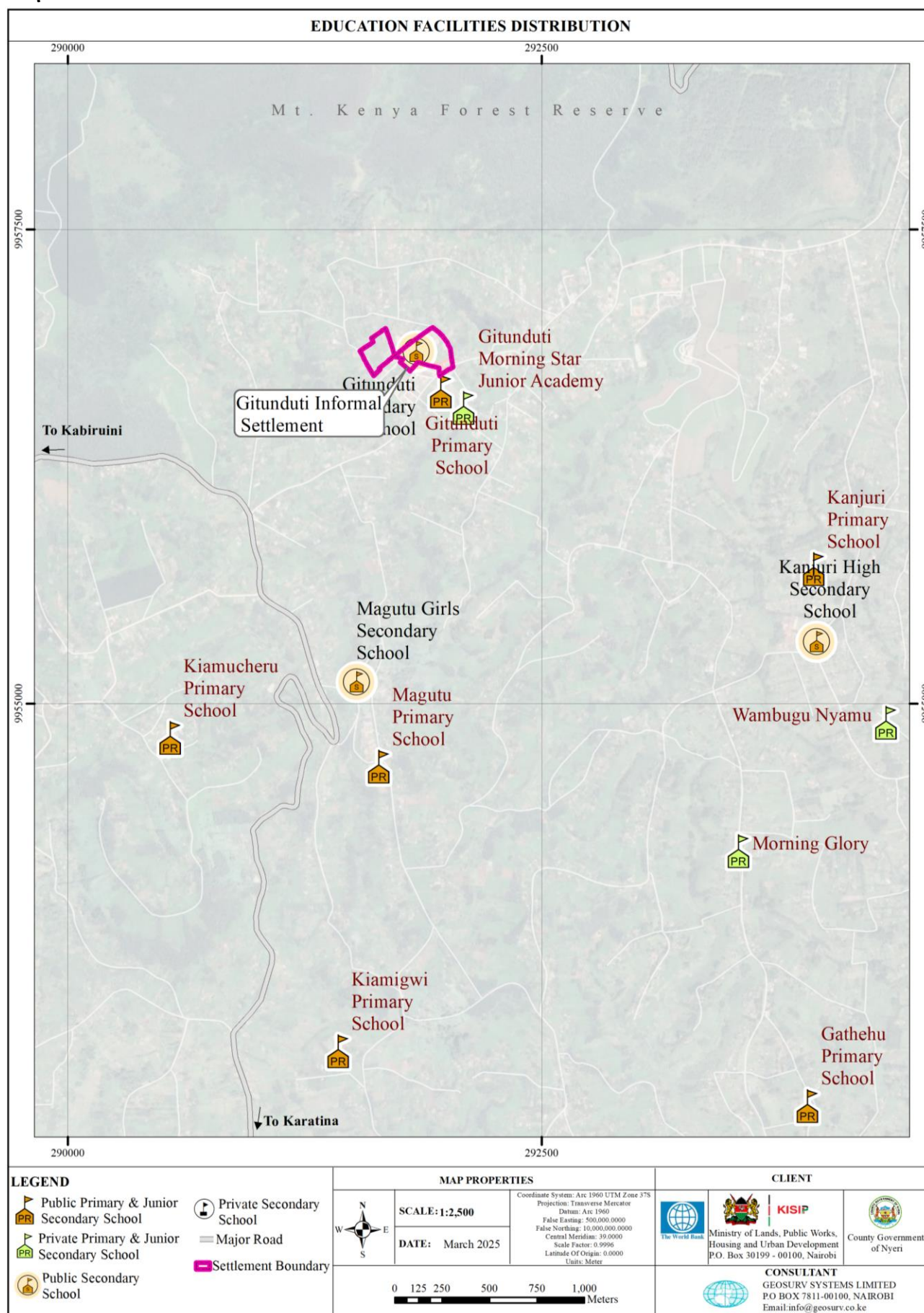
Table 12: Educational Facilities

No.	Name	Level	Ownership	Location		Distance from the project area (km)
				Sub County	Ward	
1.	Gitunduti Primary school	Primary	Public	Mathira East	Magutu	0.1
2.	Magutu Primary school	Primary	Public	Mathira East	Magutu	2.3
3.	Kiamucheru primary School	Primary	Public	Mathira East	Magutu	2.4
4.	Kianjuri Primary School	Primary	Public	Mathira East	Magutu	2.4
5.	Gitunduti Secondary school	Secondary	Public	Mathira East	Magutu	Within the settlement
6.	Magutu Secondary school	Secondary	Public	Mathira East	Magutu	1.7
7.	Kianjuri Secondary school	Secondary	Public	Mathira East	Magutu	2.5

Source: Field Survey, 2025

Map 8 overleaf shows the educational facilities distribution in close proximity to the project area.

Map 8: Educational Facilities Distribution



Source: Geosurv Systems Limited, 2025

3.4.1.1 Early Childhood Development and Education Centre (ECDE)

The nursery school-going children from the project area have access to only one public ECDE facility (Gitunduti ECDE within Gitunduti Comprehensive school) which is located within 0.1km from the central point of the project area. There are also two private facilities, Gitunduti Little Angels Academy within AIPCA Church grounds and Gitunduti Morning Star Junior Academy. In addition, the pupils can access Magutu Primary School ECDE, Kiamuchere Primary School ECDE and Kianjuri Primary School ECDE located about 2.3 km, 2.4km and 2.4km respectively from the settlement. The Physical Planning Handbook, 2007 recommends a walking distance of 500m for nursery school-going children. Using an accessibility index of 0.5km, the entire section of the households within the planning area are within the recommended accessibility index and can comfortably access Gitunduti ECDE as shown in map 9.

3.4.1.2 Primary Schools

There is no public primary school within the project area. However, Gitunduti Comprehensive Primary School is located adjacent to the settlement. Magutu primary school, Kiamucheru Primary School and Kianjuri Primary School are also accessible to the primary school-going pupils within the project area, though outside the recommended walking distance. Using an accessibility index of 2km as stipulated in the Physical Planning Handbook, (2007), all the homesteads are within the recommended proximity distance as shown in map 10.

3.4.1.3 Secondary Schools

Plate 12: Gitunduti Secondary School

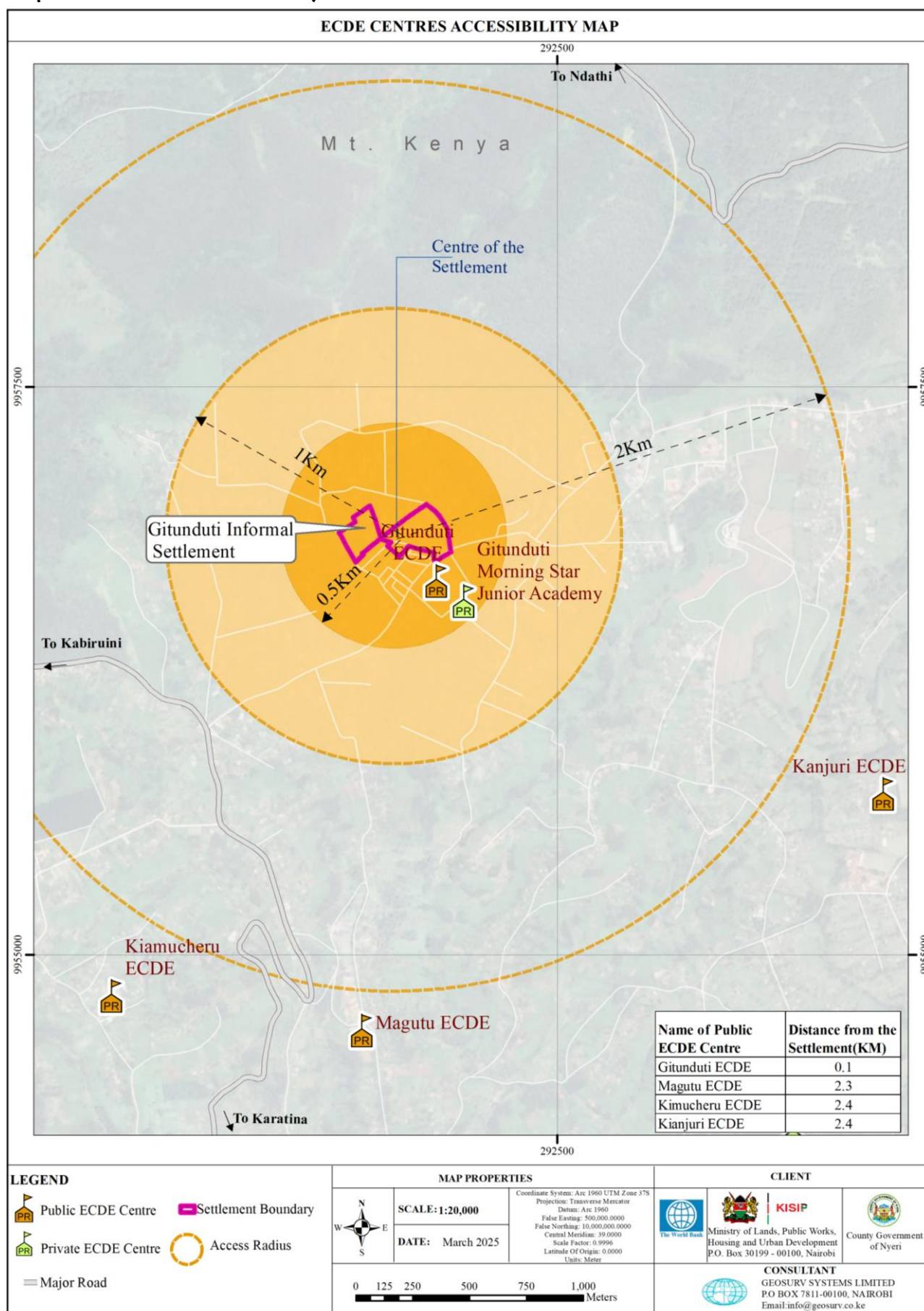


Gitunduti Secondary School is located within the informal settlement (plate 9). In addition, the secondary school going children can access Magutu Girls Secondary School and Kianjuri Secondary School located about 1.7km and 2.5km respectively away from the settlement and thus within the recommended 2.5km walking distance for secondary school going students as per the Physical Planning Handbook, 2007.

Source: Field Survey, 2025

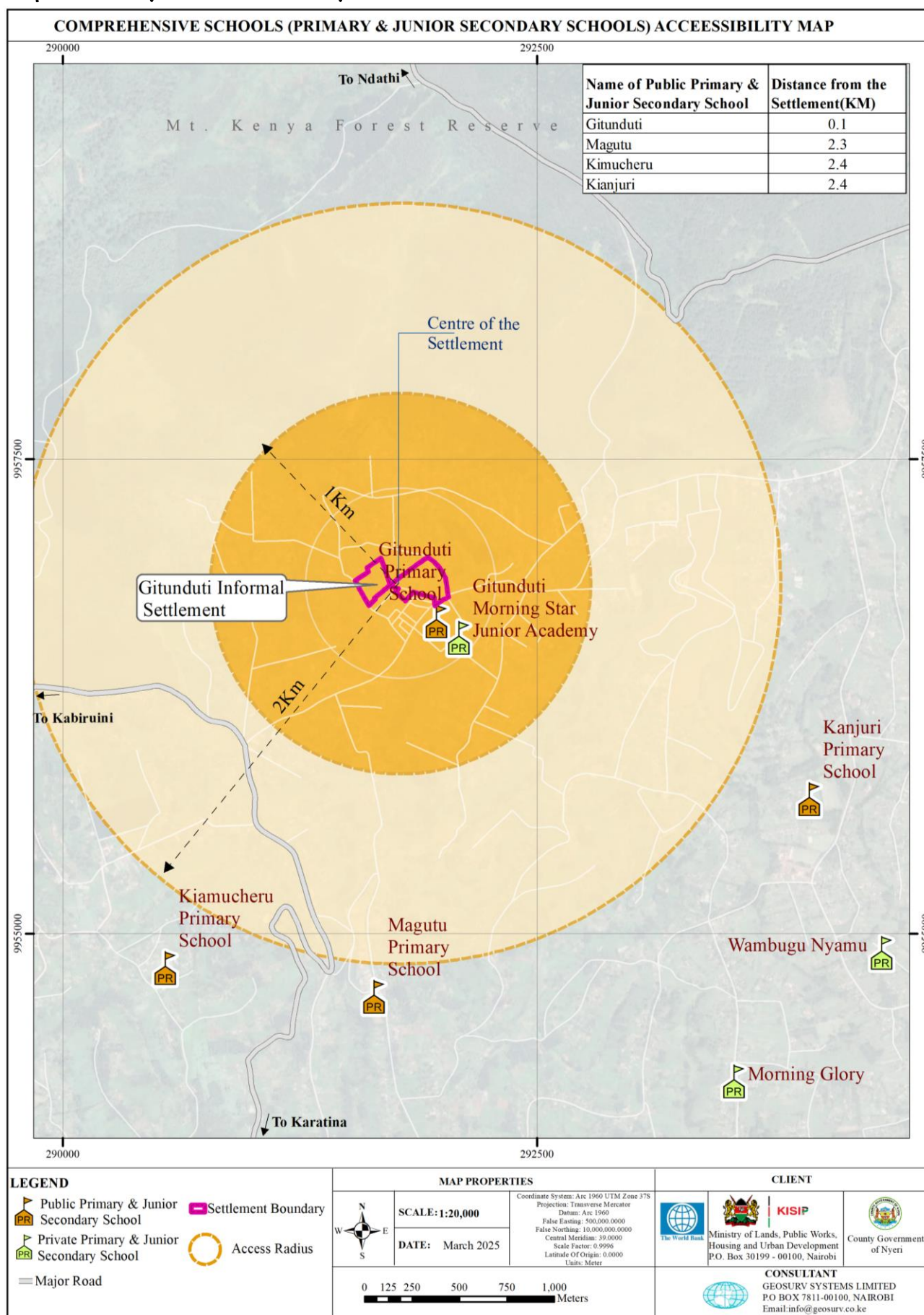
Map 11 shows the accessibility index of secondary schools within the planning area.

Map 9: ECDE Centres Accessibility Index



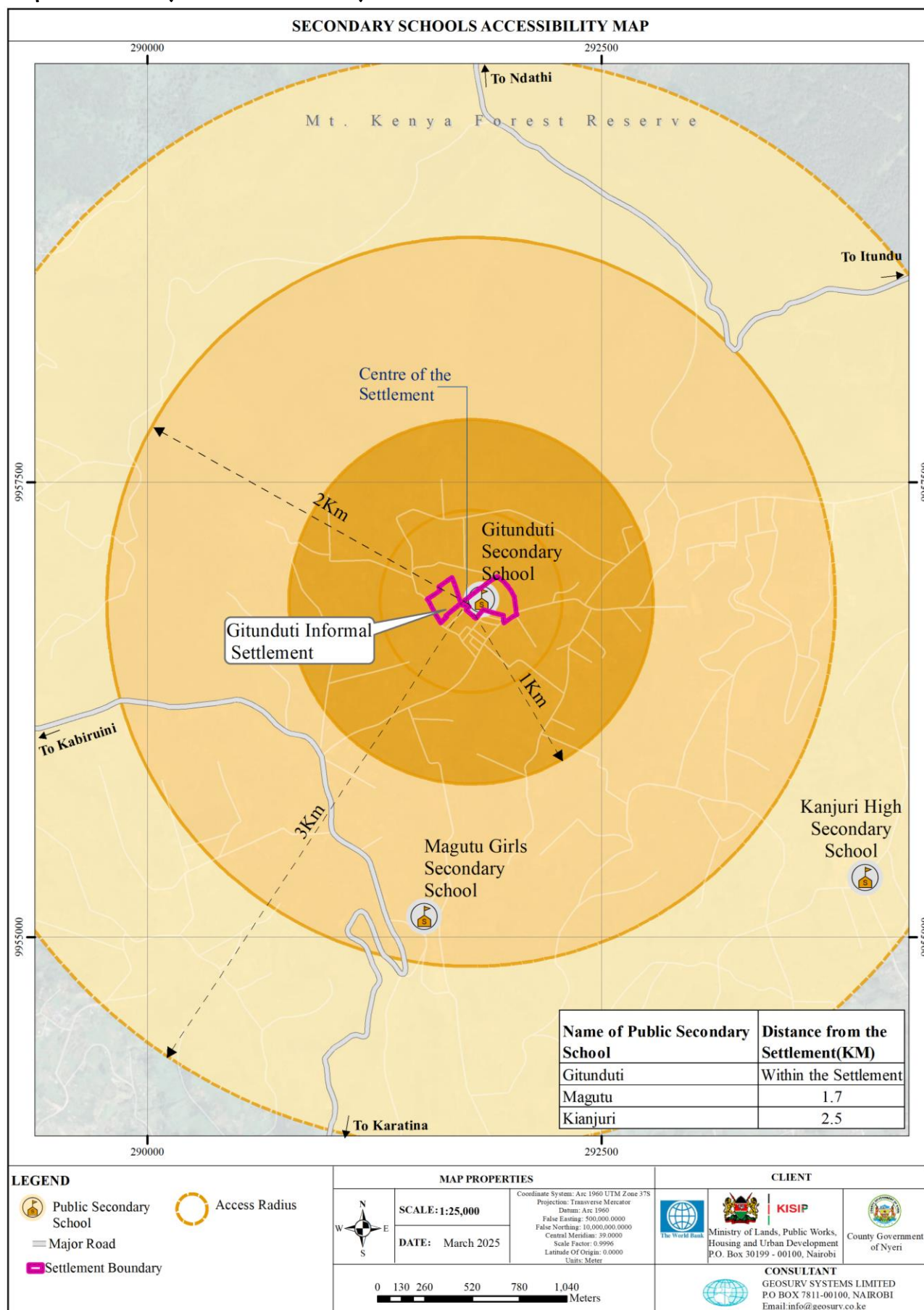
Source: Geosurv Systems Limited, 2025

Map 10: Primary Schools Accessibility Index



Source: Geosurv Systems Limited, 2025

Map 11: Secondary Schools Accessibility Index

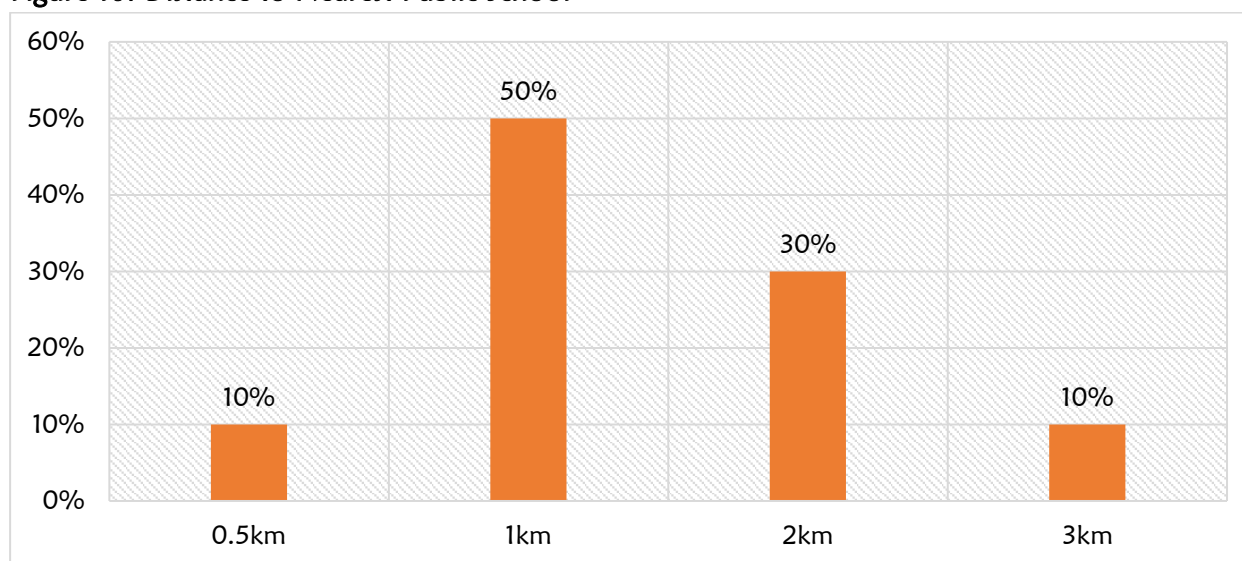


Source: Geosurv Systems Limited, 2025

3.4.1.4 State of Education Facilities and Services

The socio-economic survey identified that 44% of households have school going children. This share of households is less than half of the total household in the settlement. There were 56% of households without school going children. All households with school going children indicated that the children have access/use public schools. On average, the children cover an estimated 1.5km to the nearest public school. None of the households with school going children have access to private school. Most of the school going children cover at least a kilometre to nearby public school. This accounts for majority 50% of school going children in the planning area. A group of school going children from 10% of households in the planning area travel under 500m to a nearby public school while 30% others cover at least 2km. There were only children from 10% of households that covered 3km and above to access and use the nearest public school. The distance travelled by school going children is shown in the following diagram.

Figure 10: Distance to Nearest Public School



Source: Field Survey, 2025

3.4.1.5 Projection of Required Educational Facilities within the Project Area

According to the Physical Planning Handbook (2007), one nursery school is required for every 2,500 people, one primary school for every 4,000 people and one secondary school for every 8,000 people. From the computations, it was deduced that the project area population had adequate accessible schools in the next 10 years. The projected population within the settlement is too small to meet the threshold population required to sustain these facilities as the provision of educational facilities is always dictated by the prevailing demand conditions. Thus, the existing secondary school and neighbouring educational facilities will continue serving the settlement population.

Emerging Issues

Although there are no public primary schools within the project area, the population analysis based on the Physical Planning Handbook, 2007 show that the residents have access to adequate primary and secondary schools as recommended. Despite the fact that a few of the accessible primary and secondary schools are not within the recommended distance accessibility index of 2km and 2.5km respectively, the introduction of school transport negates the issue of accessibility of schools by distance covered. In addition, the secondary facilities are boarding schools hence the students don't

have to walk daily to access them. Moreover, considering the population of the settlement, it would not be economically viable to provide another educational facility.

3.4.2 Health Facilities

The Constitution of Kenya, 2010, article 43 calls for the provision of standard health care services. Health services constitute some of the devolved functions as provided for in the fourth schedule of the Constitution. Access to efficient health services is a contributor to a healthy population. Moreover, ease of access to these facilities influences their level of utilization as difficulties in access hinders their optimal utilization. Access to health facility is critical to promoting the health and well-being of residents, and especially for them to remain economically active and contribute to nation building and societal development.

Within Gitunduti informal settlement, residents mainly seek medical attention in public hospitals at 82% of all medical facility types preferred by households. Chemists are utilized by 9% of households while a combination of both public and private hospitals of preferred by 4% of the households in the settlement. The preference of medical facilities for treatment by households in Gitunduti informal settlement is demonstrated in the table below.

Table 13: Preferred Medical Facility for medical care

Preferred Medical Facility for Treatment		
Facility type	Frequency	Percent
Public hospital	37	82%
Chemist	4	9%
Public/Private hospital	2	4%
Public hospital/Chemist	1	2%
Private hospital/Chemist	1	2%
Total	45	100%

Source: Field Survey, 2025

The majority, 93% of the preferred medical facility are situated outside the informal settlement. only 7% of households preferred medical facilities are located within/inside the planning area. The preferred medical facilities are shown in the table below. Karatina District Hospital at 44%, Karatina University Medical facilities together with Gaikuyu Health Centre each at 11% are the mostly preferred health facilities by residents. The university location also aids in access to health care services for residents, contributing to health and well-being for residents.

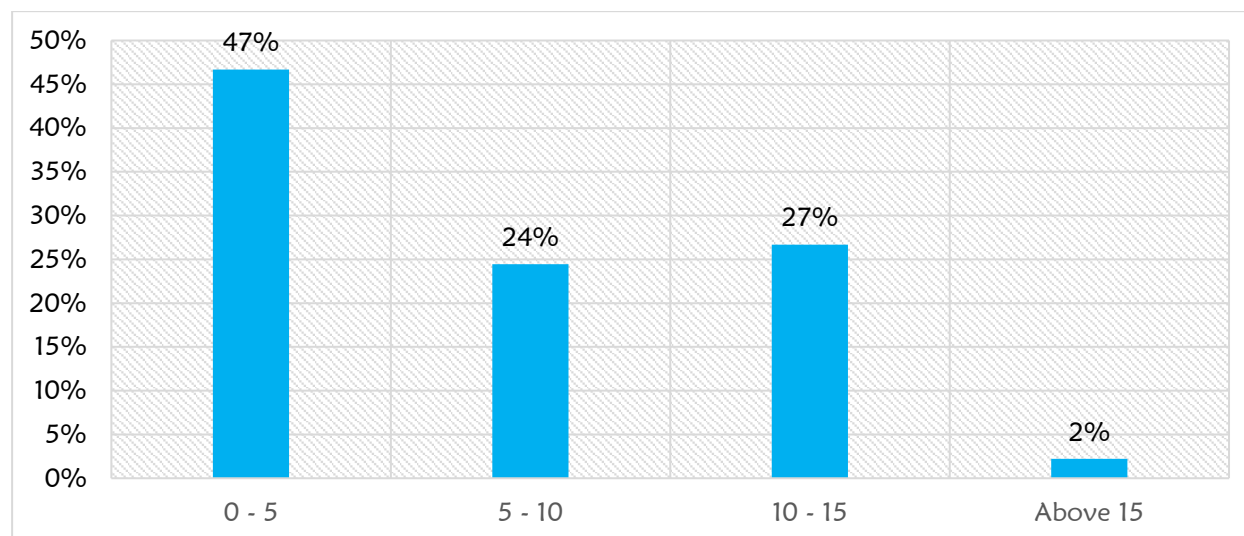
Table 14: Preferred Medical Facilities

Facility	Frequency	Percent
Karatina District Hospital	20	44%
Karatina University Medical Facilities	5	11%
Gaikuyu Health Centre	5	11%
Gatei Health Center	4	9%
Gitunduti Medical Clinic	4	9%
Goshen Medical Clinic	4	9%
Itiati Dispensary	2	4%
Tumu Tumu Hospital	1	2%
Total	45	100%

Source: Field Survey, 2025

Therefore, residents have to primarily travel to access medical facilities outside their locale. On average, residents travel approximately 7.2km to access their preferred health facility. The least distance to a medical facility is 1km while the longest distance covered to a medical centre is 20km. As shown in the following diagram, the majority 47% of households cover a distance of 5km and below while those who travel between 5 and 10km are 24%. The least 2% of households travel the longest distance of over 15km to access a health facility.

Figure 11: Distance to Preferred Medical Facility

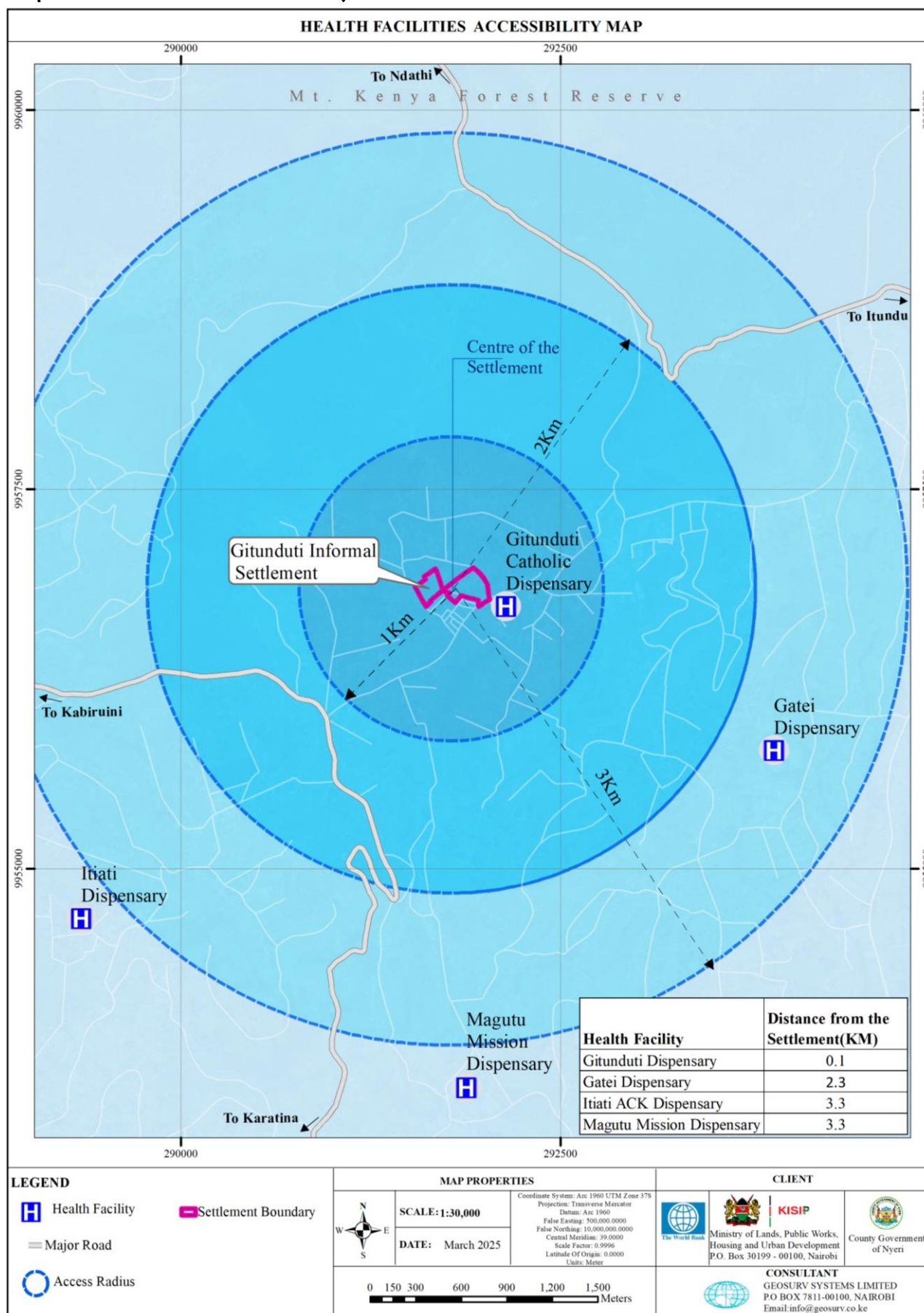


Source: Field Survey, 2025

There were majority 74% of respondents who had not visited a medical facility neither did a member of their household in the last six months before the socio-economic survey. As such, just 36% of respondents or a member of their household had attended a medical facility the last six months preceding the socio-economic survey. This indicates that the residents of Gitunduti informal settlement are generally of good health and wellbeing. Those who had made way to a health facility perceived the health services as either very good or good at 27 and 73 percent correspondingly. This indicates a need to improve on service delivery to excellent rating since the satisfaction levels were just good. Improvements can be on infrastructure, financial and human resources to make health facilities and services offered reliable. It could also be in terms of upgrading facilities to a higher level to expand the services offered/available for residents and reduce the rate of referrals to other facilities further away.

In addition to Gitunduti dispensary, the area residents can comfortably access Gatei dispensary, Itiati ACK dispensary and Magutu Mission Dispensary as shown in the health facilities accessibility map overleaf.

Map 12: Health Facilities Accessibility Index



Source: Geosurv Systems Limited, 2025

3.4.3 Community Facilities

Religious Institutions

There are a few religious facilities within the settlement namely; St. Charles Lwanga Catholic Church and AIPCA Church,

Plate 13: Religious Facilities



Source: Field Survey, 2025

3.4.4 Emerging Issues

- The presence of religious facilities increases the demand for goods and services during the days of worship

The table below summarizes the emerging issues with regard to the settlement's social infrastructure/services.

Table 15: Emerging Issues – Social Services and Amenities

Element	Potential/Opportunities	Constraints
Education	○ Presence of Gitunduti secondary school ○ Accessible educational facilities within the recommended distances	○ Old and dilapidated structures in the public primary schools ○ Poor learning conditions in the public primary school
Health	○ Accessible health facilities	○ Inadequate drugs and facilities hinder access to quality health care
Security and administrative facilities	○ Accessible security and administrative facilities	-
Religious facilities, recreation and other social amenities	○ Presence of several religious facilities increases the demand for goods and services in the area during the days of worship	○ Lack of recreational facilities forcing children to play in the school compounds and in the open grounds ○ Lack of social hall – people hold meetings in churches

3.5 Economic Activities

A vibrant urban economy is made possible by the market's economic functions, infrastructure facilities, skilled human capital, stable property rights, and a safe environment. Analysis of economic systems is prudent for the understanding of human interactions, growth and development of an area. Kenya's Vision 2030 is founded on the economic, social and political pillars. Being one of the pillars identified to guide national agendas, the economy is therefore integral to any region's growth and development. Gitunduti informal settlement has a range of economic activities as outlined below.

3.5.1 Agriculture

Agriculture is the main economic activity within the informal settlement. It is practiced majorly on individual farms at household level. It includes both crop farming and livestock keeping though at a small scale since the land parcels are too small to support any large-scale agricultural production. Farming is key due to the location of the informal settlement, at the periphery of Gitunduti market centre, with available land for agricultural activities. This also allows for supply of agricultural produce to the centre where there is ready market for the produce.

3.5.1.1 Crop Farming

Maize is the main crop grown within the settlement. Other crops include; beans, pumpkins, bananas, onions and arrow roots. These crops are grown mainly for subsistence as shown in the plate below.

Plate 14: Crop Farming



Source: Field Survey, 2025

Crop production is however affected by a myriad of factors among them soil infertility, which renders soil nutrients unavailable for crop use like the case of failed maize crops above. Although the monthly earnings from crop production can't be specifically accounted for, the small land holdings can't guarantee any meaningful crop production. This implies that the farmers cannot rely only on agriculture, rather supplement it with other sources of income. To address the soil infertility challenges, the farmers need to shun from the use of conventional fertilizers that have been excessively used taking a toll on their output and instead use organic fertilizers to boost soil health.

3.5.1.2 Livestock farming

Plate 15: Livestock Farming



The main livestock kept in the area is mainly dairy cattle, sheep and poultry for subsistence purposes. Despite being the main economic activity, agriculture in Gitunduti and its environs is sabotaged by; high cost of farm inputs (fertilizers, pesticides and seeds), pests and diseases, inadequate market for goods, deteriorating soil quality and rising land use conflicts. Agriculture is the backbone of our country; thus, more support can be accorded to the farmers and educating them on best agricultural practices that give maximum yield.

Source: Field Survey, 2025

3.5.2 Trade and Commercial Activities

Residents of Gitunduti informal settlement are mainly engaged in business/self-employment as their main economic activity. They carry out both formal and informal businesses within the settlement in an effort to ensure ease of access to essential goods and services for residents. They undertake formal businesses such as general shop, beauty shop, furniture/carpentry shops, boutiques (fashion/clothes shops) among others. Informal businesses include shoe shining/cobbler kiosks, green grocery kiosks, milk bars, charcoal selling, carwash, roadside vending/hawking of household wares including cutlery, clothes, shoes and others.

The small market section of the settlement fronting Karatina – Gaikuyu – Gitunduti Road (E602) has a few commercial activities offering low order goods and services to the settlement's population. The rest of the commercial activities are found in the larger Gitunduti Market (outside the informal settlement). These activities are largely driven by the informal sector.

These commercial activities can be categorized into two; formal and informal businesses. The formal businesses are set up on permanent or semi-permanent buildings and have the statutory requirements such as trading licenses. They comprise of general shops, chemists and pharmaceuticals, posho mills and salons among others. The informal ones on the other hand are located on temporary stalls encroaching on the road reserves and don't have the required statutory documentation with regard to their establishment. These mainly include green groceries, charcoal, firewood, outdoor food vending, hawking among others. In most cases, the informal businesses front the formal businesses housed on permanent structures. This results to conflicting interests between the formal and informal businesses resulting to space contestation issues.

The photographs in the plate overleaf show some of the commercial activities in the settlement.

Plate 16: Commercial Activities



Source: Field Survey, 2025

3.5.2.1 Financial Services

Safaricom M-pesa service providers' offer financial services through the provision of money deposits, withdrawal and electronic money transfers.

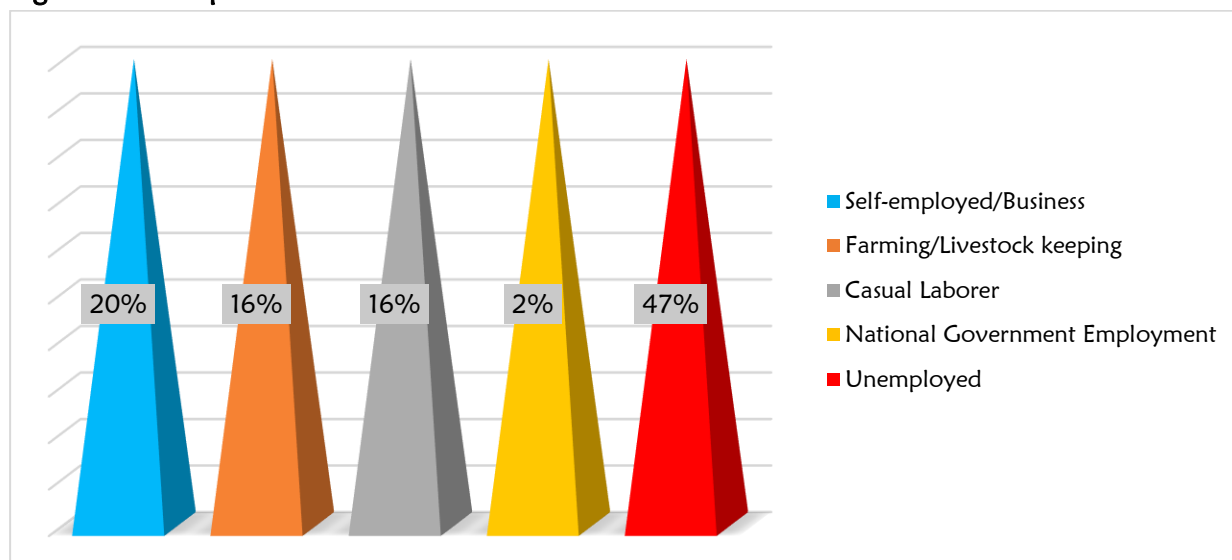
3.5.2.2 Transportation

Transportation as an economic activity has employed a number of youths in the settlement who ferry passengers and goods using motorcycles popularly known as *boda bodas* to various destinations.

3.5.3 Household Economic Assessment

3.5.3.1 Occupation

The dominant occupation for most of households is self-employment/business. According to the socio-economic survey, business/self-employment was leading occupation for 20% of households. Farming was also a significant occupation for 16% of households within the planning area as shown in the figure below. Working as a casual labourer was significant income gaining opportunity for 16% of households with just 2% of respondents formally working as employees of national government. There was a significant majority population of about 47% that is unemployed as shown in the figure overleaf.

Figure 12: Occupation

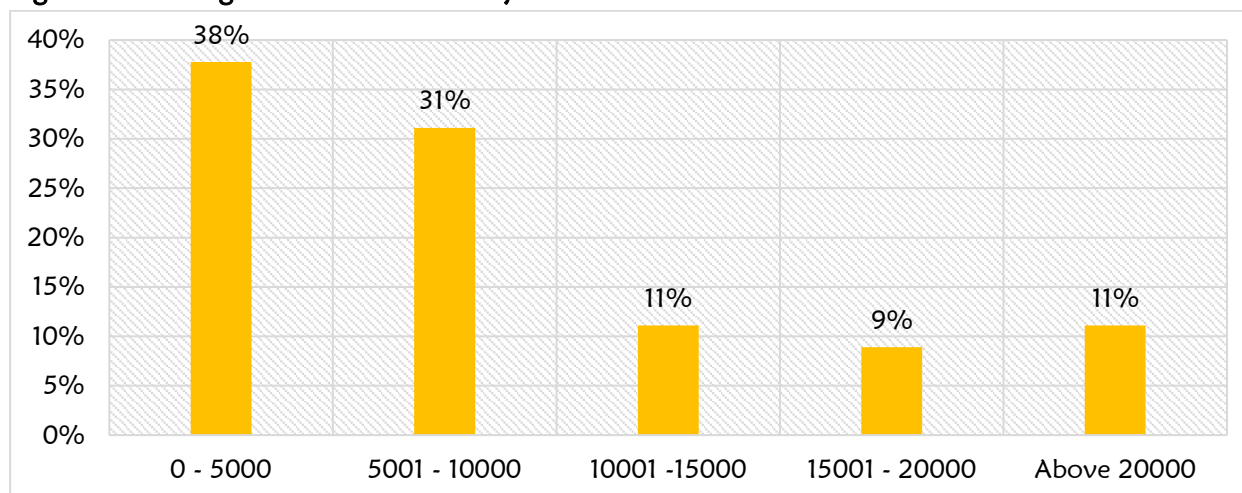
Source: Field Survey, 2025

This segment of population is not engaged in any income generating activity. This is a time bomb since everyone has to meet basic needs for food, clothing, shelter and education. It signifies prevalence of high dependency rates in the settlement and an ingredient for crime, drug abuse, depression, and lawlessness. This unacceptable situation can be remedied by investment in job creation initiatives including government social initiatives like *kazi mtaani*, infrastructure development projects, irrigated agriculture, manufacturing and agro-processing, industry, business and trade. The situation can be enhanced by incentives for investors, including tax cuts, to woo local and international investors that invest in income generating projects to the benefit of the unemployed working population within the settlement. Further, this should be accompanied by availing necessary training and capacity building programs such as TVETs to sharpen the unemployed for the available labour market and self-employment opportunities.

Majority of household members work within the settlement. This accounts for 51% of the respondents. There were 49% of respondents whose work place is outside the informal settlement. The 49% who work outside the settlement constitute of majority 38% working at Gitunduti Shopping Centre, 19% who are mobile and move around wherever there are working opportunities especially masons, 14% do farming at their rural homes, 10% at nearby tea farms, another 10% in Magutu, and in Karatina and Naribi at 5% each. This indicates that for search of income, residents move to even far places to work and eke a living. Most of the mobile individuals are casual labourers not attached to any specific working station.

3.5.3.2 Income

The socio-economic survey established that most households' average monthly income was below KES10,000. As shown in the chart overleaf, 69% of households had income range of between KES 1000 and KES 10,000. There were just 11% of households with average monthly income that exceeds KES 20,000. The average monthly income in Gitunduti informal settlement is KES 10,956 where the least amount earned by a respondent in a month averages KES 1000 while the maximum is KES 42,000. Casual labourers have erratic incomes varying on nature of casual/manual job available for them while those formally employed have regular monthly income. Business/self-employed incomes fluctuate based on business performance. The settlement has a wage gap of KES 41,000, being the difference between the average maximum and minimum income per household/respondent.

Figure 13: Average Household Monthly Income

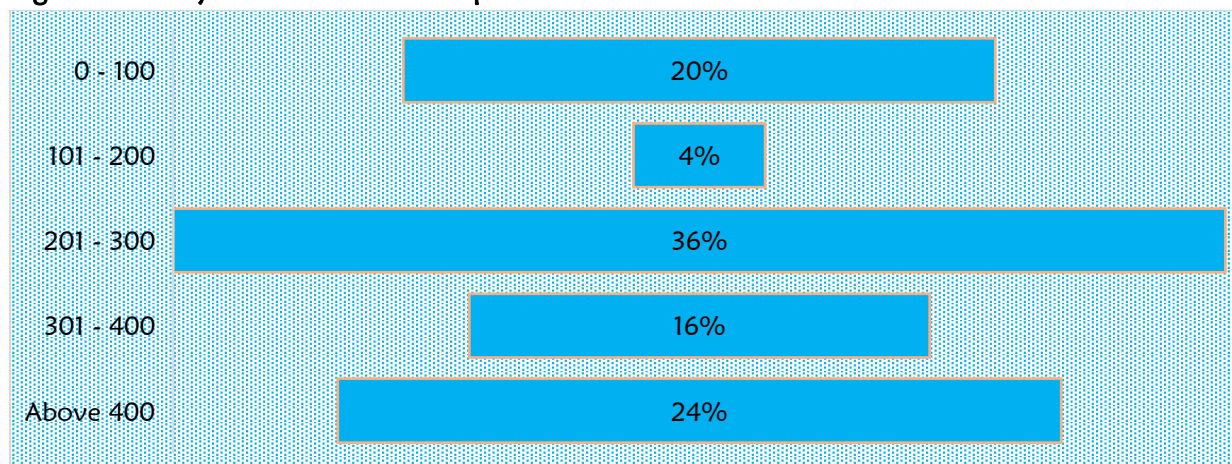
Source: Field Survey, 2025

Majority of about 62% of residents however live below the poverty line as they earn a maximum KES 8000 income a month. That is, they live below \$2.15 dollars a day, an equivalent of KES 279.50 a day. These low earning indicate need for intervening actions to raise the income levels of residents and create opportunities for the unoccupied residents. As earlier noted, investments in agriculture and agro-processing, industry and manufacturing, development projects, better business environment and tax cuts for investors, provision of technical education programs, and awareness and sensitization initiatives on self-employment opportunities can transform the livelihood and income sources for residents. Taking advantage of Karatina University as a business opportunity to learn and invest in business that meet the needs of the student population including student hostels provide low lying opportunities for residents and all tiers of governments alike.

3.5.3.3 Households' Expenditure

Daily Expenditure on Food

On average, households within the planning area spent KES 247 a day on food. The majority of households spend between KES 201 and KES 300 daily on food. This is true in 36% of the households. There are 24% households whose daily food expenses exceed KES 400 while 20% others spend maximum of KES 100 daily on food. The least expenses on food a day is KES 50 while the maximum is KES 1000.

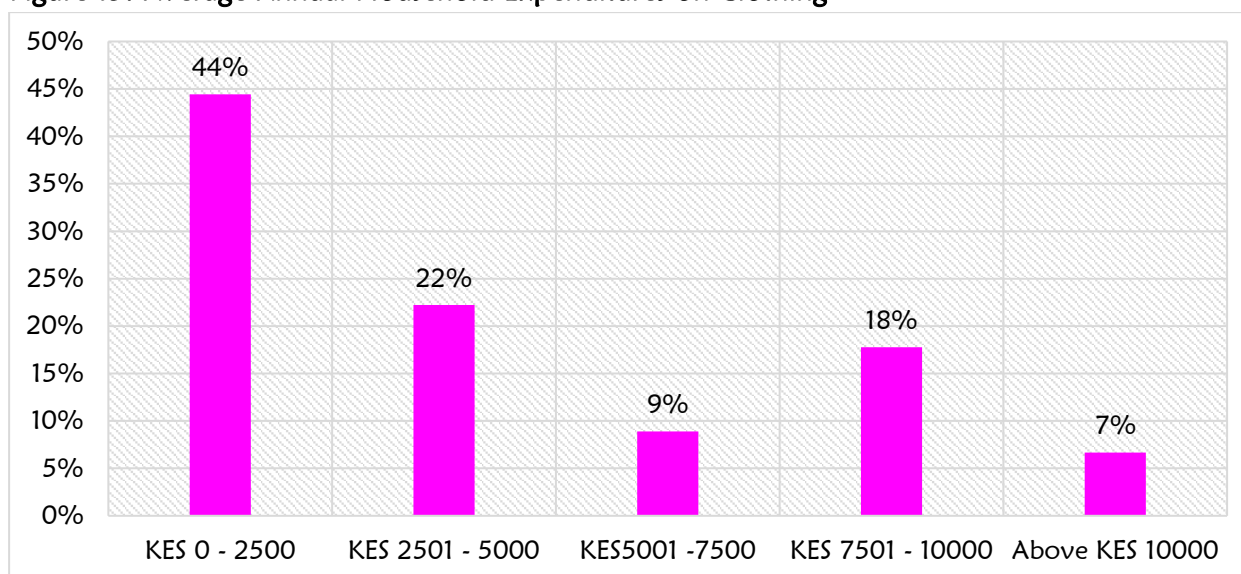
Figure 14: Daily Household Food Expenditure

Source: Field Survey, 2025

Annual Expenditure on Clothing

Gitunduti informal settlement respondents spent on average KES 4,997 on clothing per year. Most of the households, 44%, have annual clothing budget of less than KES 2500, with another 22% households having clothing expenses of between KES 2500 and KES 5000. Thus, the majority 66% have average annual expenditures on clothing of below KES 5000. This tallies with average income for households where the majority 69% of respondents have an annual income not exceeding KES 120,000. Hence annual clothing budgets must be within available incomes. There are some 18% households with an average annual clothing expenditures of between KES 5000 and KES 7500, and only 7% of households whose annual clothing expenditures are above KES 10,000. The average household annual expenses on clothing are shown in the figure below. A thrust on income levels for residents is required to boost their purchasing power particularly for essential basic needs that include clothing.

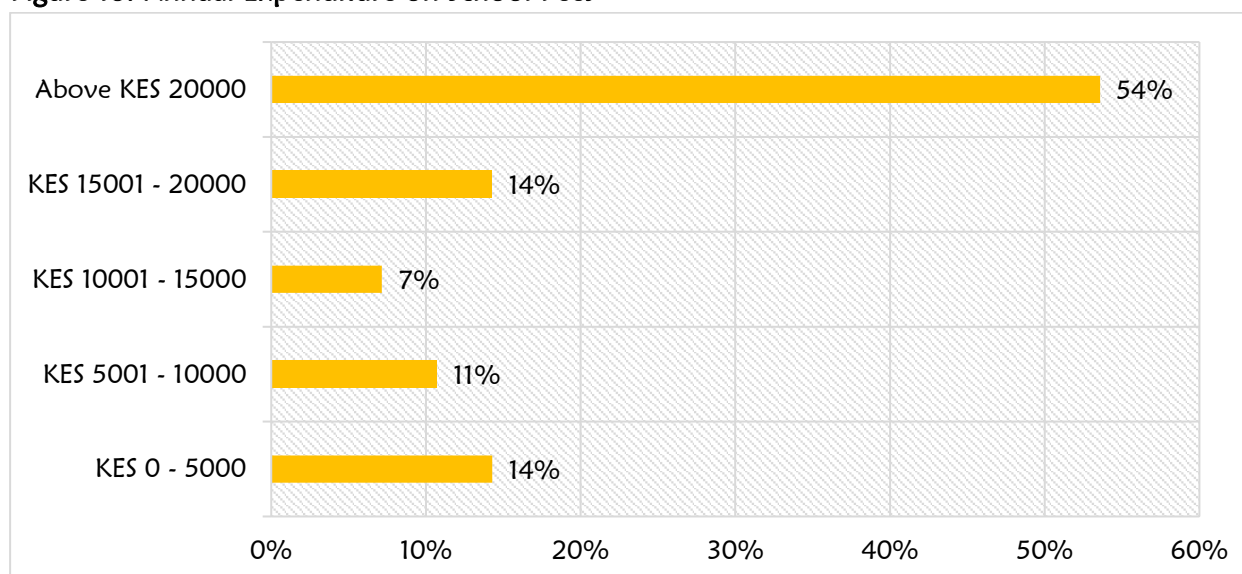
Figure 15: Average Annual Household Expenditures on Clothing



Source: Field Survey, 2025

Annual Expenditure on School Fees

Majority, 54% of households with school going children have an annual average school fees expenditure of over KES 20,000. These paid the highest on school fees. The average minimum amount paid annually by households as school fees is KES 2,000 while the maximum is KES 52,000. About 14% of households spend below KES 5,000 on school fees a year while another 14% have annual school fees expenses of between KES 15,000 and KES 20,000. There were some 7% households with average annual school fees expenditures ranging between KES 10,001 and KES 15,000 as shown in the figure overleaf:

Figure 16: Annual Expenditure on School Fees

Source: Field Survey, 2025

3.5.4 Opportunities and Challenges in Economic Activities

3.5.4.1 Opportunities

- Market is well connected to other higher order towns by a good road network from which various goods and services flow to and from the market
- Employment and income can be enhanced via proper value chain planning of the economy to utilize all the available potential accruing to the market and its environs
- High potential for agricultural production hence the need for modernization farming so as to increase farm yields.

3.5.4.2 Challenges

- Low agricultural production as a result of climate change, soil infertility, emerging pests/diseases and diminishing plot sizes which can't support any meaningful agricultural production
- Inadequate infrastructure facilities and services in the settlement

The table below summarizes the emerging issues with regard to the settlement's economic activities.

Table 16: Emerging Issues – Economic Activities

Element	Potential/Opportunities	Constraints
Connectivity	○ Well connected to higher order towns – easy access for trade activities as it's located along Karatina – Gaikuyu – Gitunduti Road (E602)	○ Unreliable means of transport – the matatus plying the route are not ideal for transportation of bulk agricultural products
Agriculture	○ High potential for agricultural activities due to the favorable climatic conditions	○ Low agricultural production due to acidic soils and uneconomical land sizes
Trade and commerce	○ Available land for expansion of trading activities	○ Dormant commercial activities – small scale businesses offering low order goods and services

Element	Potential/Opportunities	Constraints
	○ High connectivity of the market to other towns enhances trading activities ○ High potential for expansion of business activities ○ Presence of M-banking services (Mpesa) is a catalyst for business growth	○ Lack of the threshold vibrancy for business prosperity ○ Duplication of trading activities – retail shops rather than diversifying to other activities

3.6 Infrastructure and Utilities

3.6.1 Overview

The adequacy of infrastructure helps determine one country's success and another's failure in diversifying production, expanding trade, coping with population growth, reducing poverty or improving environmental conditions. Good infrastructure raises productivity and lowers production costs but it has to expand fast enough to accommodate growth. Most of the poor segment of the population resides in the rural areas and the growth of farm productivity and non-farm rural employment is linked closely to infrastructure provision. The urban poor often benefit most directly from good infrastructure services because they are concentrated in settlements subject to unsanitary conditions, hazardous emissions and accident risks. This sub-section examines transport, energy, and water provision, liquid and solid waste management.

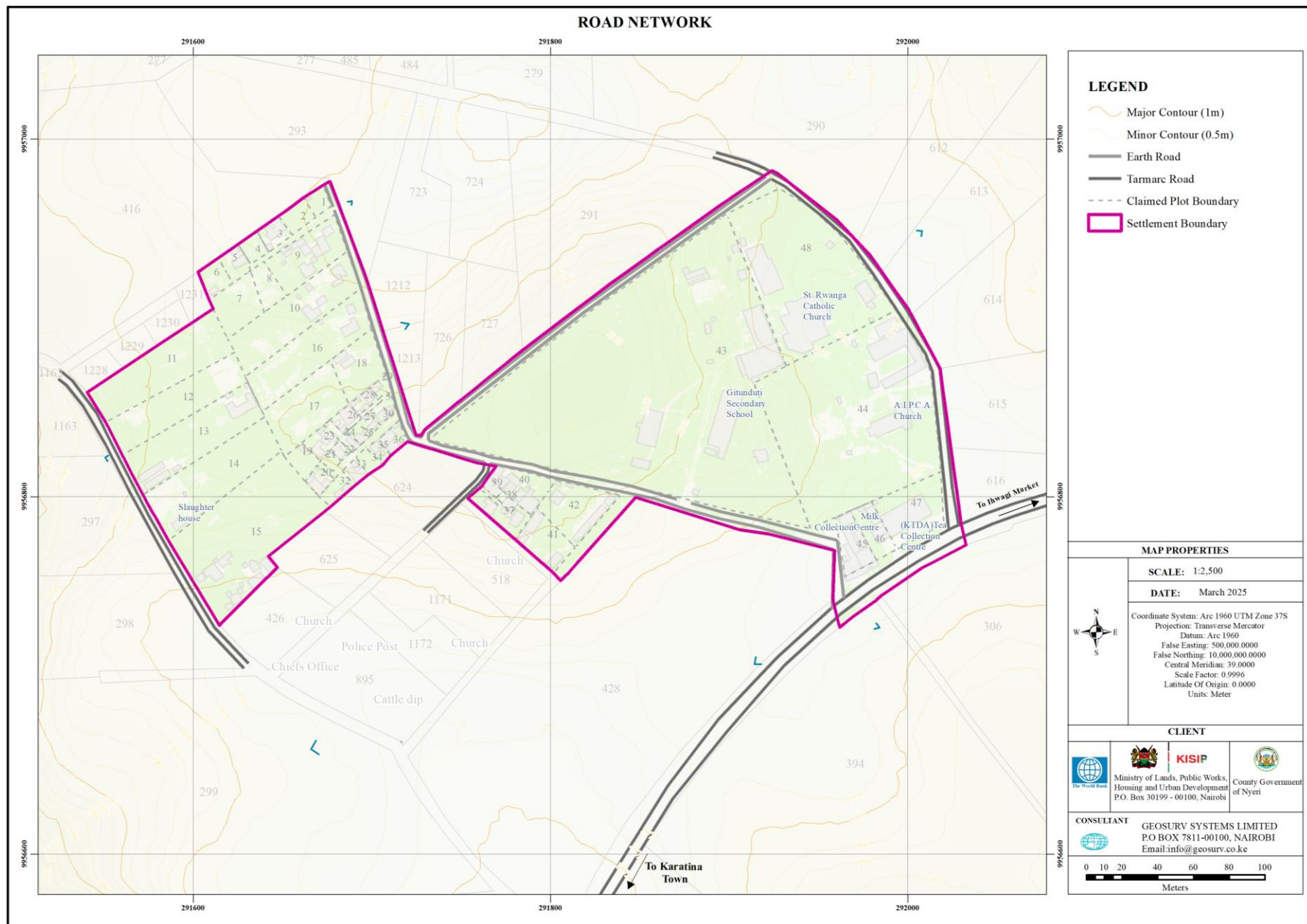
3.6.2 Transportation

An efficient transportation system is a prerequisite for socioeconomic growth and development as it opens up resource potential areas, links activity spaces (employment and service areas) and enables the circulation of goods and services. Proficient transport connectivity is crucial as it opens up the market locally, regionally and internationally thus providing access to the market for the agricultural produce, employment opportunities in other areas and offering investment opportunities in and outside the county.

3.6.2.1 Existing Road Network

Karatina – Gaikuyu – Gitunduti Road (E602) is the main road traversing Gitunduti settlement. The road connects the settlement to Karatina town, the Sub-County headquarters. The Trans-African Road, Nairobi - Nanyuki Road (A2) which connects the region to the Republic of Ethiopia through the Moyale border is located in close proximity to Gitunduti settlement. Road A2 also links the settlement to the Kenya's Capital, Nairobi. At the local level, the interconnectivity is well laid out providing access to land parcels and activity spaces. Karatina – Gaikuyu – Gitunduti Road (E602) connects to Nairobi – Nanyuki highway (A2) at Karatina. The map overleaf shows the local road network.

Map 13: Existing Road Network



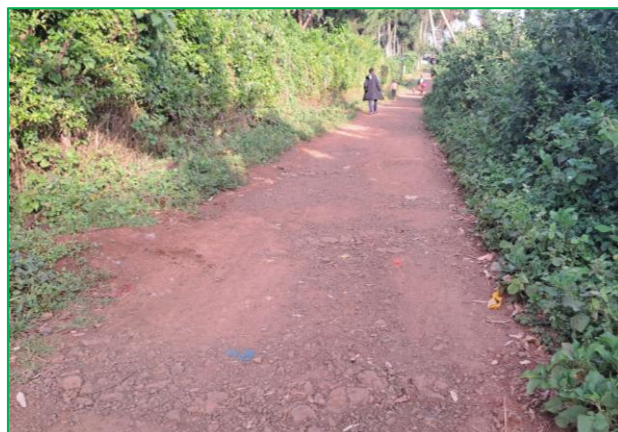
3.6.2.2 Road condition

Karatina – Gaikuyu – Gitunduti Road (E602) is tarmacked and in good condition. The roads branching from Karatina – Gaikuyu – Gitunduti Road (E602) form the main external roads. These roads are tarmacked and in good condition. They include the road accessing the secondary school and the other one accessing the religious facilities. The rest of the access roads are earth and very narrow. They are covered with vegetation cover, hence reducing the carriage way space. Grading of the roads will improve interconnectivity of the different settlement functions. In addition, there is need for the widening of the internal roads which are too narrow for vehicular transport. The photographs in the plate below show the condition of the existing roads.

Plate 17: Road Condition



Karatina – Gaikuyu – Gitunduti Road (E602) (Tarmacked)



Murram Road



Road accessing the churches – tarmacked

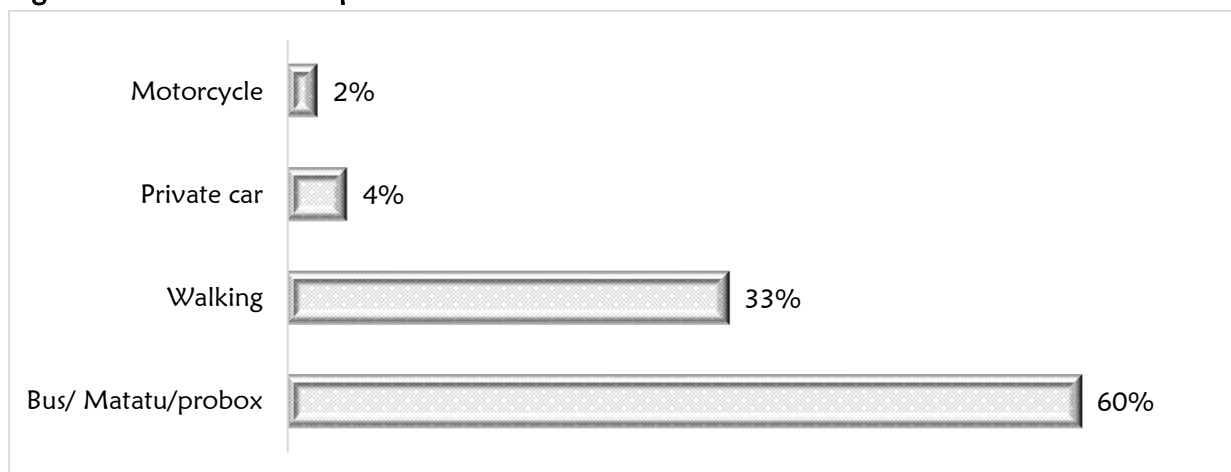
Source: Field Survey, 2025



Road accessing Sec. Sch. - tarmacked

3.6.2.3 Means of transport

The use of bus/matatu/probox is the dominant means of transport adopted by 60% of households within the planning area. This is a public means of transport and facilitates the movement of goods and people within the settlement. Walking is the other main means of transport used by 33% of respondents. This is the only non-motorised transport (NMT) means available for residents as shown in the figure below. It calls for development of paved pedestrian paths with better lighting for safety and better walking experience for residents. To encourage use of NMTs, bicycle lanes should be provided and cost of bicycles incentivised to promote their usage. Street furniture would also aid in improving adoption and use of NMTs within the planning area.

Figure 17: Means of Transport

Source: Field Survey, 2025

The use of motorised vehicles aids in air pollution and negatively impacts on climate change as it emits additional carbon dioxide to the environment. It is therefore an unsustainable means of transport despite dominating the planning area. Efforts must be geared towards shifting to NMT means for a better human ecosystem.

3.6.3 Storm Water Drainage

Surface drains which play a key role in managing runoff and flood management are insufficient in Gitunduti. They are only found along Karatina – Gaikuyu – Gitunduti Road. The rest of the access roads don't have storm water drainage channels. Stormwater traverses the roads following the natural gradient as there isn't a defined drainage system in the settlement thus surface run-off makes pools around the lowest point (plate 18a). This interferes with the settlement's aesthetics. Additionally, several stormwater drains were obstructed by debris resulting from runoff and improper waste disposal (plate 18b).

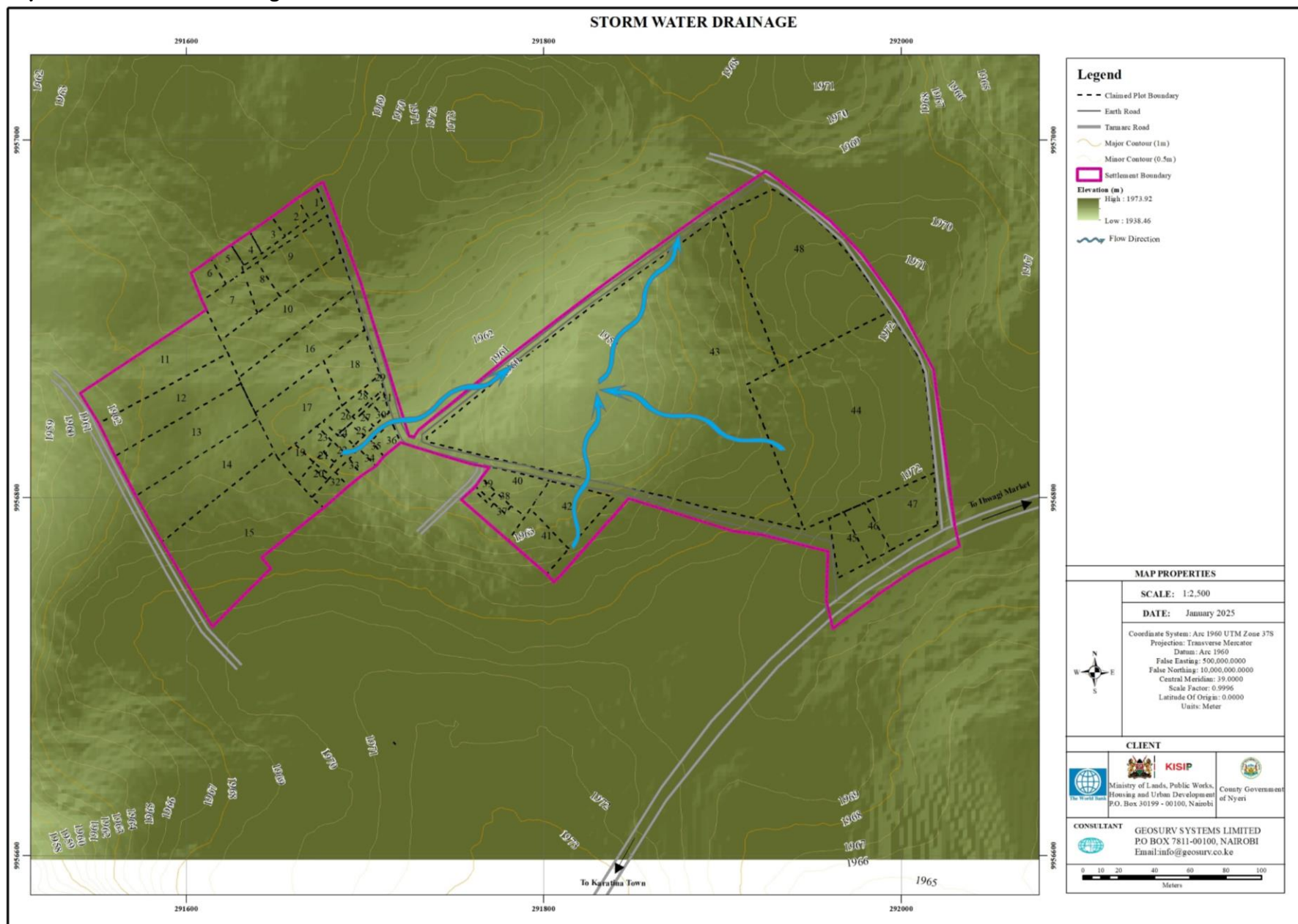
Plate 18: Storm Water Drainage

Source: Field Survey, 2025

Plate 18 a**Plate 18 b**

The map overleaf shows the flow of storm water drainage in the settlement.

Map 14: Storm Water Drainage



The storm water drainage situation necessitates the need for the development of proper drainage channels to drain surface run-off, harvesting of rain water to reduce the surface run-off and harvesting of the surface runoff for agricultural activities. In addition, enhancing urban forestry would help reduce the impervious layers thus increasing water infiltration into the ground.

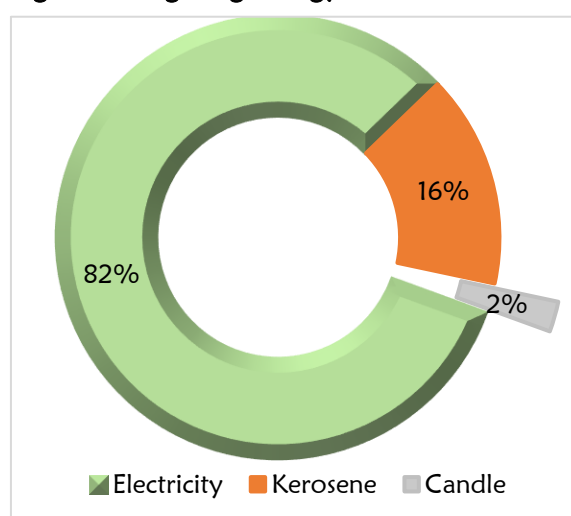
3.6.4 Energy

Energy and especially electricity is a key factor of production in economic development. Energy provision results in both household and industrial production. Access to electricity has an impact on attracting investors to a region. Thus, electricity provision especially in the rural areas boosts industrial development through investment in agro-processing industries and cottage industries.

3.6.4.1 Lighting

The dominant source of energy for lighting in Gitunduti informal settlement is electricity. It is the primary source of lighting for 82% of the settlement households.

Figure 18: Lighting Energy Sources



There was a fraction of 16% of households within the settlement that use kerosene / paraffin for lighting purposes while a tiny 2% of other households rely on candle as their main source of lighting energy. This is explained by the fact that majority 78% of the households are connected to main electricity grid whereas only 22% of households are not supplied with electricity as shown in the figure alongside. There is zero use of clean and renewable energy such as LPG and Solar for lighting purposes. The adopted lighting energy sources are unsustainable and unfriendly to human living environment.

Source: Field Survey, 2025

3.6.4.2 Electricity Connection

The largest share of households is connected to main electricity grid, being 82% of all resident households. There were only 18% of household within the settlement that were not connected to electricity grid. Those not connected to electricity in the settlement cite inability to pay connection deposit as the main reason they are not connected. This accounted for 70% of all reasons for the 18% of the households not connected to electricity. Other reasons include unclear procedure at 10%, and lack of electricity within their locality at 10% as shown in the table below.

Table 17: Reason for Lack of Electricity Connection

Reason	Percentage
Can't afford to pay deposit	70%
Procedure is not clear	10%
No electricity in the area	10%
Other	10%
Total	100%

Source: Field Survey, 2025

3.6.4.3 Uses of Electricity

Households within the settlement have multiple uses of electricity. There were just 11% who do not use electricity at all, perhaps among the 22% not connected to electricity within the settlement. The prominent use of electricity is through a combination of lighting, charging electronic devices, powering radio/tv in 24% of the households within the settlement. Another dominant combination is that of charging electronics and lighting at 20% of the households in the settlement. The use of electricity in households within Gitunduti settlement is demonstrated in the table below.

Table 18: Uses of Electricity

Use of electricity	Percentage
Lighting/Charging electronics/Radio/TV	24%
Lighting/Charging electronics	20%
Lighting	16%
Charging electronics	16%
Lighting/Radio/TV	11%
Radio/TV	2%
Do not use electricity	11%
Total	100%

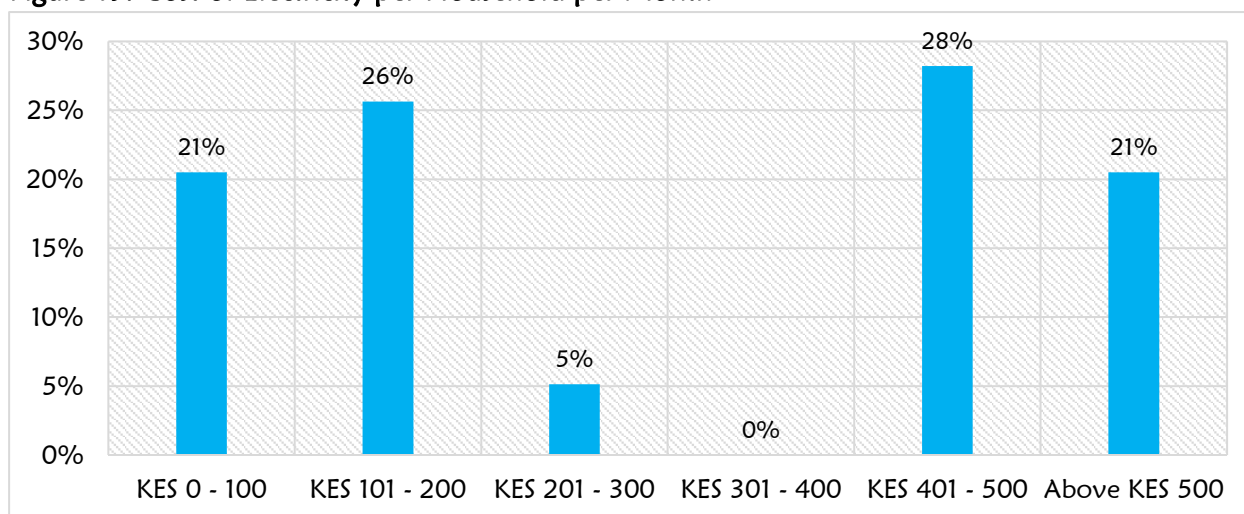
Source: Field Survey, 2025

It can be deduced that the main use of electricity is lighting since it is common in all combinations of electricity use by households, and the leading use without other combination at 16% of households.

3.6.4.4 Average Cost of Electricity per Monthly

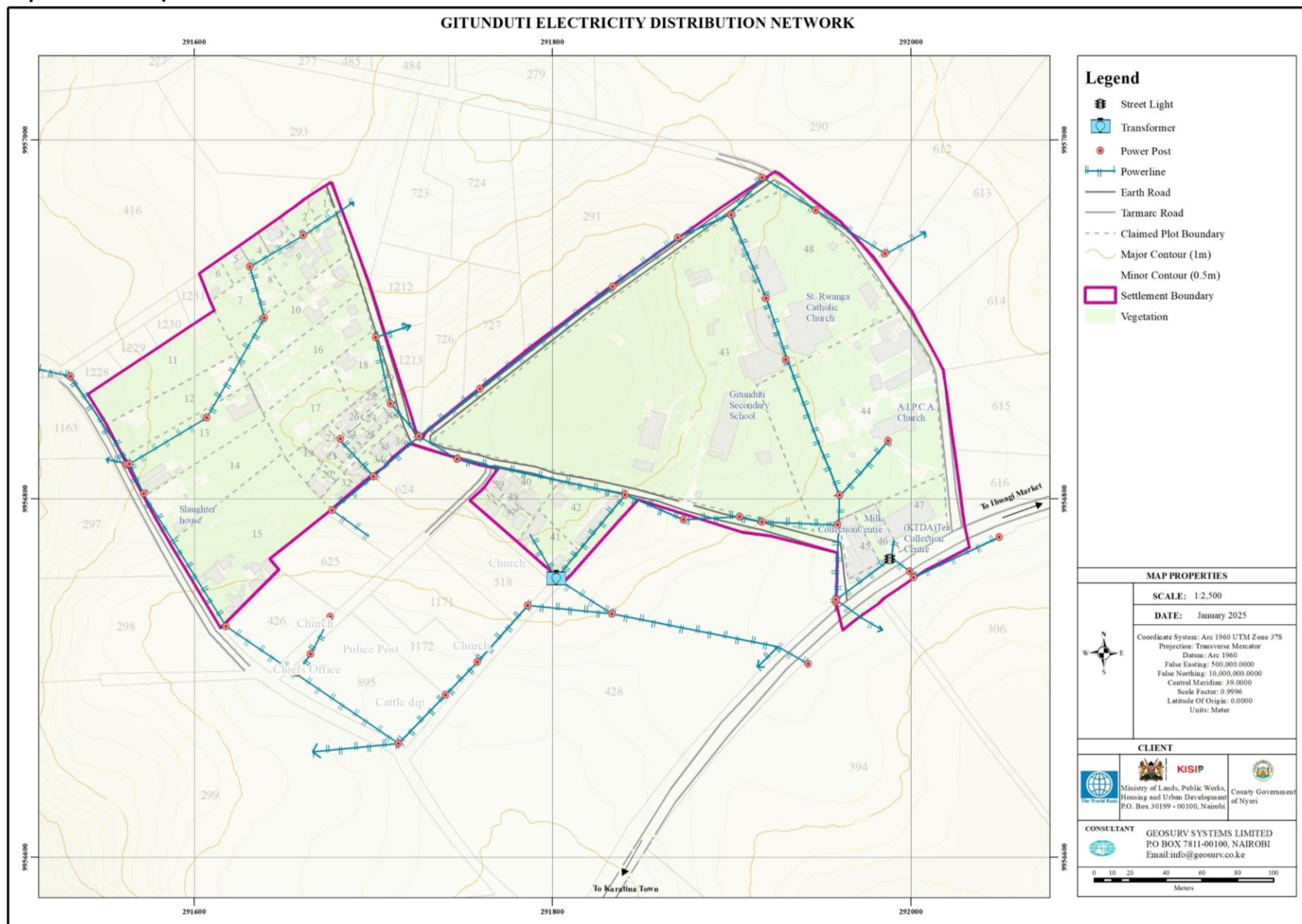
The average monthly cost of electricity in Gitunduti informal settlement is KES 480 a household according to the socio-economic survey. A significant share of 47% of connected households have a maximum monthly electricity bill of KES 200 while an equivalent number of 48% have their monthly electricity bill of above KES 400. Most households paid between KES 401 and KES 500 for electricity, being 28% of the settlement households. The monthly cost of electricity in the settlement is shown in the figure below. As shown, 21% of households pay below KES 100 and above KES 500 while the least of 5% of the households pay between KES 201 and KES 300 per month for electricity.

Figure 19: Cost of Electricity per Household per Month



Source: Field Survey, 2025

Map 15: Electricity Distribution Network



The map above shows electricity distribution network in the settlement:

3.6.4.5 Cooking Energy

Firewood is the main source of cooking energy for 51% of households in Gitunduti informal settlement. Liquified Petroleum Gas (LPG) is the second dominant source of cooking energy used in 13% of the households in the settlement. LPG is a renewable clean energy that promotes environmental protection and sustainability, unlike firewood and charcoal that contribute to deforestation and loss of vegetation cover resulting to adverse climate effects. This degrades human living ecosystem and it also contributes to air pollution as charcoal/firewood smoke increases the concentration of carbon dioxide to the environment. A combination of firewood and charcoal, and firewood and LPG at 9% apiece form the other main sources of cooking energy for residents as shown in the table below.

Table 19: Cooking Energy Sources

Cooking energy	Percentage
Firewood	51%
LPG	13%
Firewood LPG	9%
Firewood Charcoal	9%
LPG Firewood Charcoal	7%
Electricity	4%
Charcoal	4%
Other	2%
Total	100%

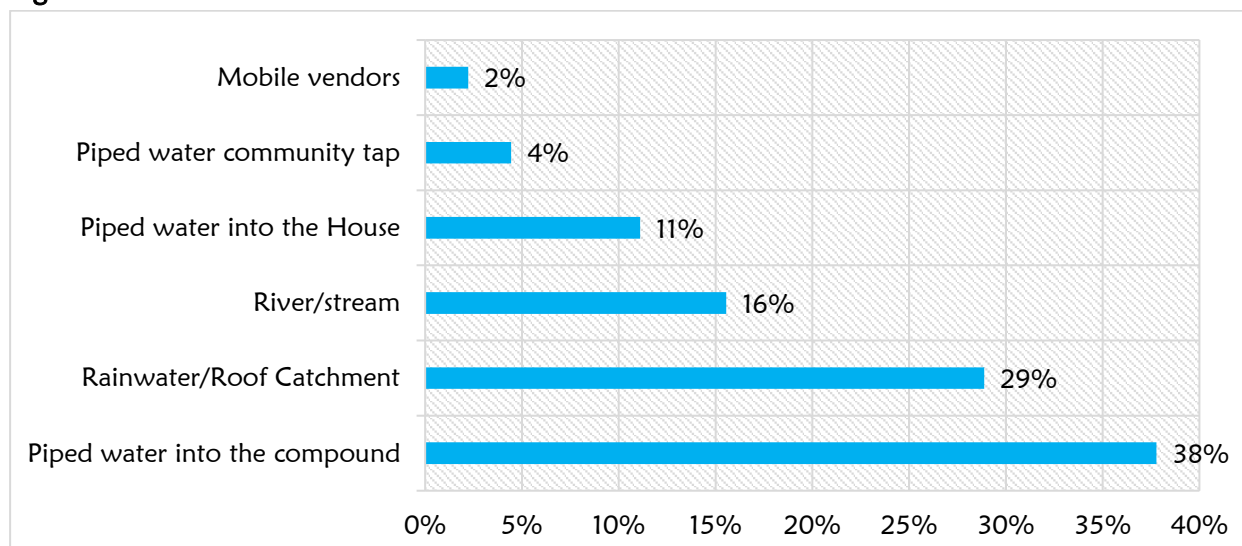
Source: Field Survey, 2025

Significant efforts are required to increase the uptake of clean and renewable energy sources such as LPG and biogas which are highly reliable and sustainable while remaining environmentally sensitive. This can be achieved through tax cuts and incentives and subsidies on clean energy sources, including solar energy to support their consumption. Sensitization and awareness creation is also critical to support conservation efforts by completely eliminating the dependence on charcoal, firewood and fossil fuels as energy sources for cooking and lighting. On average, a household within Gitunduti spent KES 104 on cooking energy.

3.6.5 Water Supply and Consumption

3.6.5.1 Water Supply

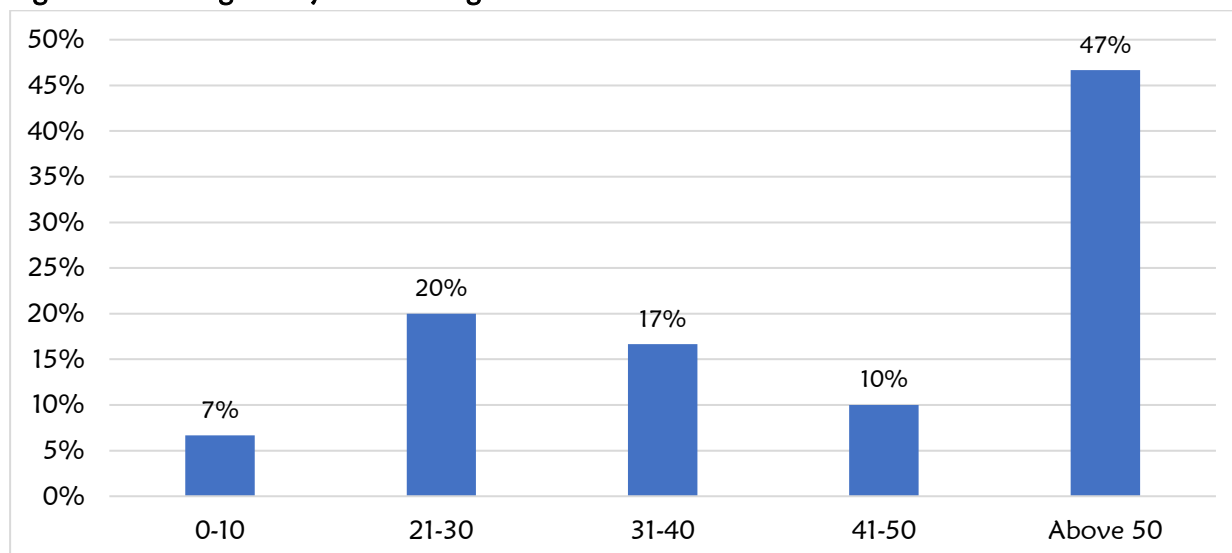
In Gitunduti settlement, the primary source of water is the West Magut Water Project. Most of the households within the planning area access water that is piped into their compounds. These are about 38% of all households while there are 29% other households who harvest rainwater/roof catchment as their main source of water. Rivers/streams are reliable water sources for 16% of the settlement households. Other water sources include piped water into the house, piped water community tap, and mobile vendors respectively for 11, 4 and 2 percent households respectively. River/stream water is used raw and untreated making it unsuitable for domestic consumption. There's need to invest in water treatment and reticulation system to connect households with reliable, clean and safe water for their consumption.

Figure 20: Main Water Sources

Source: Field Survey, 2025

3.6.5.2 Water Consumption

The highest share of 47% of households have an average water consumption rate of over 50 litres. These meet the World Health Organization (WHO) recommended daily water consumption threshold of between 50 and 100 litres of water per day per individual. The least 7% of households use less than 10 litres of water daily. The figure below demonstrates the average daily water consumption rate in the settlement. Within the project area, 20% of households consume between 21 – 30 litres of water daily, while 17% have average daily water consumption rate of between 31 and 40 litres. The remaining 10% consume between 41 and 50 litres of water daily. On average, households spent KES 96 a day on water.

Figure 21: Average Daily Water Usage

Source: Field Survey, 2025

3.6.6 Sanitation and Hygiene

Sanitation and hygiene are primary contributors to human health and well-being. Within Gitunduti settlement, waste management is the primary strategy for providing clean and safe living

environment for residents. This section evaluates the sanitation condition of the settlement on these two viewpoints in line with the socio-economic survey findings.

3.6.6.1 Liquid Waste Disposal

There is no conventional sewer management system in Gitunduti informal settlement. Residents have turned to alternative liquid waste management systems to manage, mainly the traditional methods of liquid waste disposal.

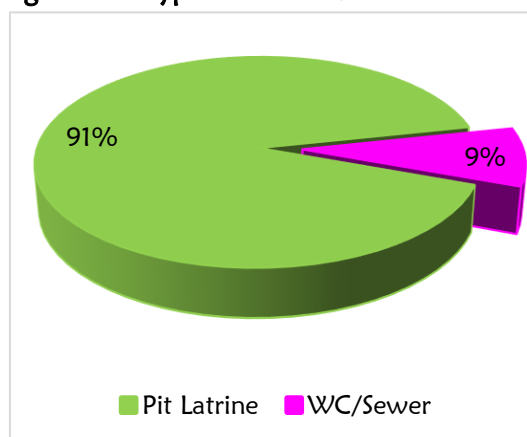
a) Access to bathrooms

Bathroom access is a major part of personal hygiene. Bathrooms provide privacy and space for personal hygiene care, particularly bathing. In Gitunduti informal settlement, the majority 82% of households have access to a bathroom. Among those with access to a bathroom are majority 59% who use a shared bathroom in their plot, 24% with a bathroom inside their living house, and 16% who use shared bathroom situated outside their plot. Further, there were 18% of households without access to a bath facility. Majority 75% of those without access to a bathroom bath outside the plot at night in darkness, while the other 25% bathe inside the plot at night in darkness.

b) Access to toilet

All households within the planning area have access to a toilet facility. Majority 91% of the households use pit latrine whereas the other 9% use Water Closet Sewer. None of the households within the planning area pay for toilet. The toilet facilities are within the households' dwelling units, and privately used by respective household members.

Figure 22: Type of Toilet Used



Pit latrines infiltrate underground water, contaminating it and making it unsafe for human consumption. They are therefore unsustainable toilet types. Worth noting is 16% of households depend on river/stream as their main source of domestic water. Continued use of pit latrines therefore puts at least 16% of the settlement households at risk of contracting water borne diseases. The authorities should avail sustainable liquid waste disposal methods through installation of conventional sewer system that includes treatment plant for grey and sewer discharge.

Source: Field Survey, 2025

c) Access to handwashing stations

Handwashing equipment have become a part of today society in effort to contain communicable diseases such as Covid-19. Handwashing stations target to promote personal hygiene and reduce rate of consumption of contaminants through dirty hands. In the planning area, majority 60% of the households have access to handwashing stations with soap and water while 40% have access to handwashing equipment with water only, without soap. A complete handwashing equipment should have key essentials of water and soap available for better hand washing. Therefore, there is need to ensure consistent supply of water and soap, as well as replacement of old functional equipment with new one to ensure residents have unlimited access to reliable handwashing equipment, and contain contracting and spread of disease.

3.6.6.2 Solid Waste Disposal

a) Waste streams

There are two main waste types generated by residents within the planning area. Organic and inorganic waste types. In Gitunduti informal settlement organic waste is generated in 58% of the households while inorganic waste is generated at 42%. Organic waste generated in these households include household refuse, organic paper, and others while plastics and glass are the most common inorganic waste types generated in the households. The rate of generating inorganic waste in the settlement is relatively high which poses an environmental hazard. Inorganic waste is not biodegradable and does not decompose, hence remaining active within the human living environment, posing pollution and climate change impacts which degrades the human ecosystem.

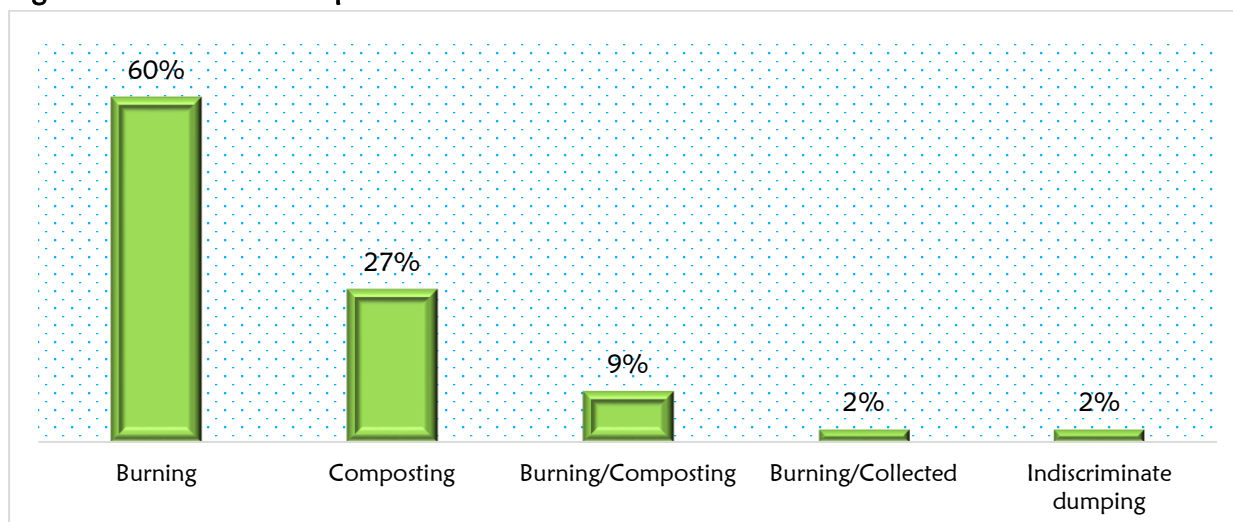
b) Solid Waste Management

There is no conventional solid waste management system in Gitunduti informal settlement. Solid waste disposal follows rudimentary approaches as each household takes charge of its waste. There is no designated waste disposal site in the settlement. Waste sorting occurs in 49% of the households, hence majority 51% of the planning area households do not sort the waste they churn out. This could be attributed to lack of conventional solid waste disposal approaches, and absence of waste sorting/disposal bins in strategic locations within the settlement. Waste sorting should however occur at the source and therefore proper sensitization on waste sorting is needed. The main types of waste sorted include plastics, paper, and organic waste at 44, 28 and 25 percent respectively. At only 3%, metal is the least sorted form of solid waste.

Some households dispose of waste through selling it. These make up just 11% of all the households, hence majority do not sell any portion of the waste they generate. All sold solid waste is sold to individual buyers only. Waste reuse is common in the settlement where 60% of the households' reuse part of the waste they generate. There are however 40% of households who do not reuse any of the solid waste they generate. Plastics is the most reused solid waste at 62%. Organic waste, paper waste and metal are reused at 24, 10 and 3 percent correspondingly.

Solid waste composting is an organic way of disposing primarily organic waste. Waste composting contributes to soil health, better soil nutrients and high fertility rates hence better yields. In Gitunduti informal settlement, solid waste composting is done by only 31% of the households. Therefore, the majority 69% of the households do not compost their waste.

The dominant form of solid waste disposal is burning. Solid waste is burnt in 60% of the households in the planning area. Waste composting is the other common form of solid waste disposal adopted by 27% of the households. Combination of burning/composting and burning/collection and indiscriminate dumping of waste are other forms of solid waste disposal used by households in the planning area. The approaches to waste disposal in Gitunduti informal settlement is shown in the figure overleaf.

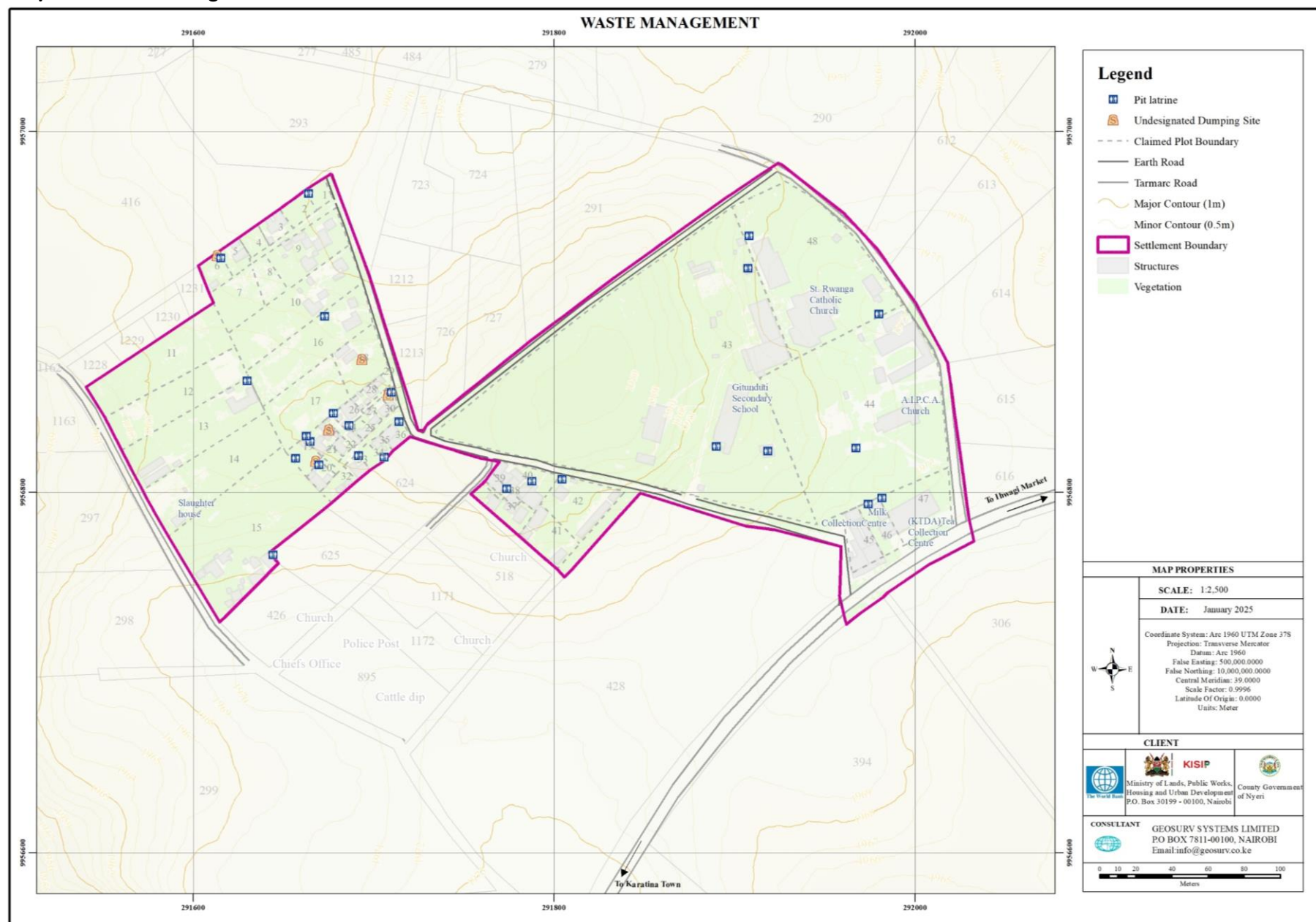
Figure 23: Solid waste disposal

Source: Field Survey, 2025

Burning of waste is an unsustainable method of waste disposal due to its negative effects to the environment. It contributes to air pollution, increases the concentration of GHGs to the environment, and causes death of (micro)organisms. Indiscriminate dumping promotes unhygienic living environment that is unsafe for residents. Despite these negative aspects of the adopted modes of waste disposal, all respondents, 100% of them all, were satisfied with the approaches they employ to dispose of their solid waste. This calls for interventions to promote sustainable waste disposal methods. Better waste disposal schemes are encouraged through sensitization programs that include adoption of conventional waste disposal methods in the planning area. This should include designation of waste dumping site, installation of waste bins, regular collection of waste, waste reduction, reuse, recycling, and recovery, among others.

The map overleaf presents the undesigned solid waste disposal sites and distribution of pit latrines within the settlement.

Map 16: Waste Management

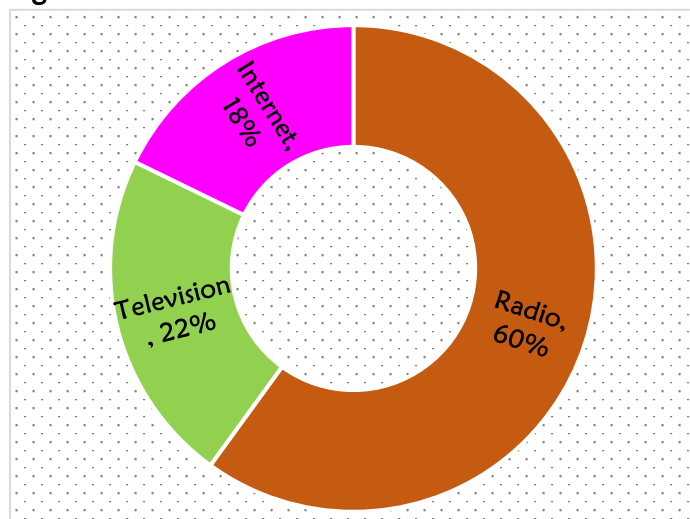


3.6.7 Communication

3.6.7.1 Access to information

Radio is the primary source of information to 60% of the households within the planning area. Television and internet are the other sources of information to 22 and 18 percent of households in Gatunduti settlement respectively. Majority of residents therefore use traditional means of information access, being 82% of the households.

Figure 24: Means of Access to Information



Modern means of information access via internet is gradually making way to the settlement. This indicates a need to support internet access by installation of fibre optic cable within the settlement. Additional measures include reducing the cost of internet access and availing affordable devices that enable 100% adoption and use of internet by all residents in the settlement. Modern means of information access are faster as compared to the traditional ones.

Source: Field Survey, 2025

3.6.7.2 Mobile phone ownership

Majority of residents within the settlement own mobile phones. As represented by 96% of respondents who own a functional mobile phone. Therefore, just 7% of survey participants do not own a mobile phone. This indicates a high rate of consumption of mobile phone services and presence of mobile phone support infrastructure within the planning area. All respondents use mobile money services. This means that even those without functional mobile phones have access to mobile money services. This could be through using neighbours mobile phone devices, or have registered sim card that enables them access mobile money services.

3.6.7.3 Ownership of a computer/laptop

Majority of residents do not own a computer/laptop. This accounts to 96% of all residents, indicating that a computer/laptop is outlandish to the settlement. There are only 4% households that have a computer/laptop. Despite the presence of a university in proximity with the settlement, residents still lag behind in owning modern ICT equipment like computers and laptops. Perhaps, there is no better understanding on how and where to use a computer or laptop by residents. This calls for sensitization since computers and laptops are important working tools in modern information society that is swiftly transitioning to artificial intelligence.

3.6.7.4 Radio and TV ownership

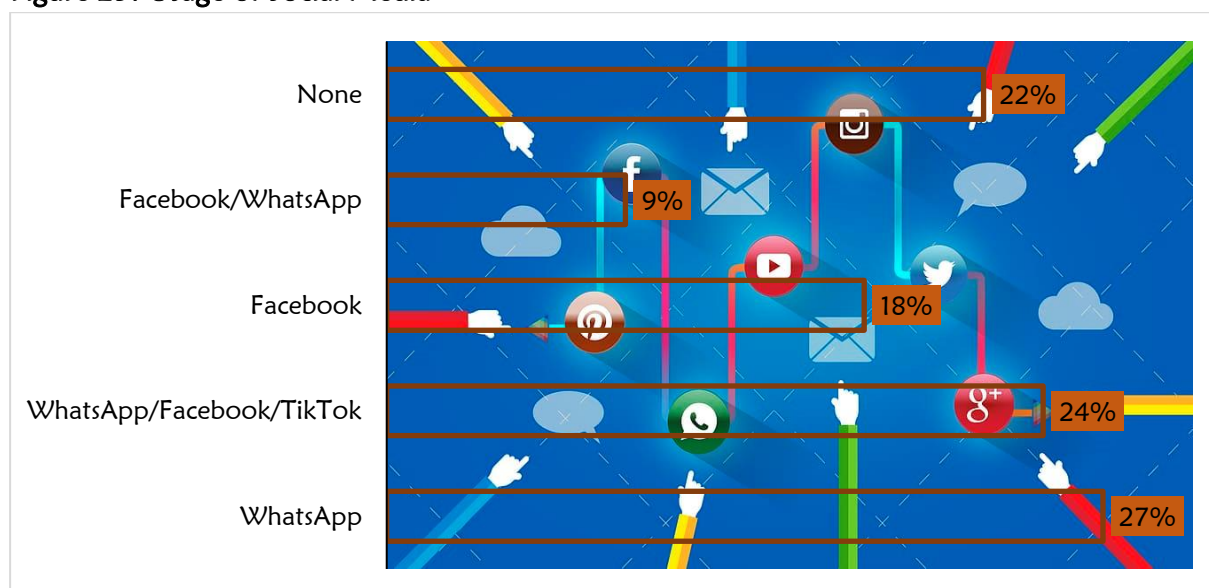
Majority 76% of households own a functional stand-alone radio which correlates with radio being a major source of information for residents. This rate of radio ownership in the settlement is much higher compared to national average rate of radio ownership of 56.9% (KNBS, 2019). Nonetheless, 24% of households do not own a functional stand-alone radio, indicating a need for intervention since radio remains a reliable means of accurate information dissemination to the society. The ownership of television is significantly high in the settlement. A majority 60% of residents own a functional television. The TV ownership rate is much higher than the national TV

ownership rate of 40.7 (KNBS, 2019). There are 40% of households not fortunate enough to own a TV. These high ownership rates of radio and tv validates the earlier finding that radio and tv are the dominant sources of information for residents. This indicates need for reduction on cost of electronics for all to be able to own and use these traditional means of mass communication and information access. The intervening measures should include a reduction on cost of pay tv for all to afford and use such services.

3.6.7.5 Use of social media

There are only 22% of respondents who do not use any social media platform. The majority 78% of respondents make use of social media. WhatsApp is the most commonly used social media platform at 27% while Facebook is used at 18%. As demonstrated in the figure below, some individuals use multiple social media platforms with the combination of WhatsApp, Facebook and TikTok being common to 24% of all survey participants.

Figure 25: Usage of Social Media



Source: Field Survey, 2025.

3.6.8 Infrastructure and Utilities Emerging Issues

- High connectivity of the settlement to the hinterland and regional markets – located along Karatina – Gaikuyu – Gitunduti Road (E602)
- High potential for rain water harvesting
- Lack of key infrastructure utilities
- Inadequate water supply.
- Unsustainable water supplies due to overreliance on the piped water – need for introduction of rain water harvesting programs.
- Poor waste management practices as there are no designated sites for waste management
- Inadequate storm water drainage channels resulting to poor drainage in the settlement
- There is threat of pollution of underground water sources by pit latrines

The table overleaf summarizes the emerging issues with regard to the settlement's physical infrastructure:

Table 20: Emerging Issues – Physical Infrastructure

Element	Potential/Opportunities	Constraints
Transport	- High connectivity of the market - Land availability for road expansion	- Narrow and poor road condition of the internal roads - Lack of terminus facilities for motorized transport - Undesignated NMT facilities
Storm water drainage	- Existence of storm water drainage channels on Karatina – Gaikuyu – Gitunduti Road (E602) - Gently sloping terrain for easier flow of surface run-off	- Lack of proper storm water drainage channels in the internal road - High rainfall amounts increase surface runoff - Gradual increase of impervious layer reduces infiltration
Energy supply	Existence of renewable energy sources like solar which can be tapped though in small scale to supplement the existing sources	Overreliance on fuelwood is a threat to the existing tree cover and could result to environmental degradation
Water supply	- High potential for rain water harvesting - Availability of natural water sources – wetland - Availability of water reticulation system	- Inadequate water supply during the dry seasons - Threat of underground water pollution by pit latrines - Old and dilapidated water reticulation system
Waste management	- Existence of appropriate waste management technology which can be tapped into - Land availability of the location of waste management site 4Rs waste mechanisms – Reduce, Reuse, Recycle and Recover	- Lack of designated waste management site - Poor waste disposal methods - Unavailability of sewer reticulation system - Threat of underground water pollution by pit latrines - Poor aesthetics from the existing waste disposal mechanisms
ICT and Communication	Relatively good ownership and use of mobile phone communication modes	- Poor rate of use of social media platforms - Lack of fibre optic cable

3.7 Land and Housing Structures' Characteristics

3.7.1 Overview

Land and land-based resources enables social and economic developments as land is a requisite for all human undertakings. It's a resource that encapsulates all other resources in both geographical and constitutional contexts as it is required for the sustainability of nearly all biological and environmental resources. In addition, all production activities require land space to be actualized. Planning involves sitting of various land uses on land, thus understanding the various aspects on land issues is essential in planning and development processes. This sub-section analyses land in terms of use, tenure and housing in terms of the structures' characteristics within the project area.

3.7.2 Land Use

Land is a scarce resource increasingly affected by the competition of mutually exclusive uses. Land use involves the management and modification of natural environment or wilderness into built environment such as settlements and semi-natural habitats such as arable fields, pastures, and managed woods. The settlement covers an approximate area of 6.88 Ha. The existing land uses include; residential, industrial, educational, public purpose, commercial/business cum residential, transportation and agricultural. Educational land use is the dominant one at 25.44% followed closely by agriculture and public purpose at 24.71% and 20.78% respectively. The existing land use budget is tabulated below:

Table 21: Existing Land Use Budget

Code	Land Use	Area (Ha)	Percentage (%)
0	Residential	0.76	11.05
1	Industrial	0.04	0.58
2	Educational	1.75	25.44
4	Public Purpose	1.43	20.78
5	Commercial	0.01	0.15
	Business Cum Residential	0.4	5.81
7	Transport	1.7	24.71
8	Agricultural	0.79	11.48
Total		6.88	100.0

3.7.2.1 Residential Land Use

This land use covers an approximate area of 0.76Ha which constitutes 11.05% of the total land area. It is contained within some of the boundaries of the informal settlement. Row houses are the dominant housing typology for the tenants' occupied structures while bungalow/typical rural homesteads characterize the owner-occupied residential structures. There are also a few dukawallas (business cum residential developments) where the structures house commercial activities at the front part of the plot and residential function at the rear part of the plot.

3.7.2.2 Industrial Land Use

This land use accommodates KCC Milk Cooler. It covers about 0.04 Ha of land which constitutes about 0.58% of the total land area.

3.7.2.3 Educational Land Use

This is the most dominant land use in the informal settlement accommodating Gitunduti secondary school. It accounts for about 25.44% of the settlement land which is equivalent to 1.75 Ha.

3.7.2.4 Public Purpose Land Use

This land use covers about 1.43 Ha and accounts for 20.78% of the total settlement land. It accommodates two religious institutions namely; AIPCA Church and St. Charles Lwanga Catholic Church and the tea collection centre.

3.7.2.5 Commercial Business Cum Residential Land Use

The commercial land use constitutes the smallest proportion of the total land area since Gitunduti shopping centre isn't within the informal settlement boundaries. It accommodates a commercial plot which covers about 0.01 Ha which is equivalent to 0.15% of the land. The business cum residential land use accounts for 5.81% of the settlement land. It's located near the commercial plot adjacent to the milk cooler. The structures house commercial activities at the front part of the plot and residential function at the rear part within a row housing typology. There are various

commercial activities including retail shops, bar and hotels, chemists, beauty shops, fruits and groceries stalls. These activities offer mainly low order goods and services.

3.7.2.6 Transportation Land Use

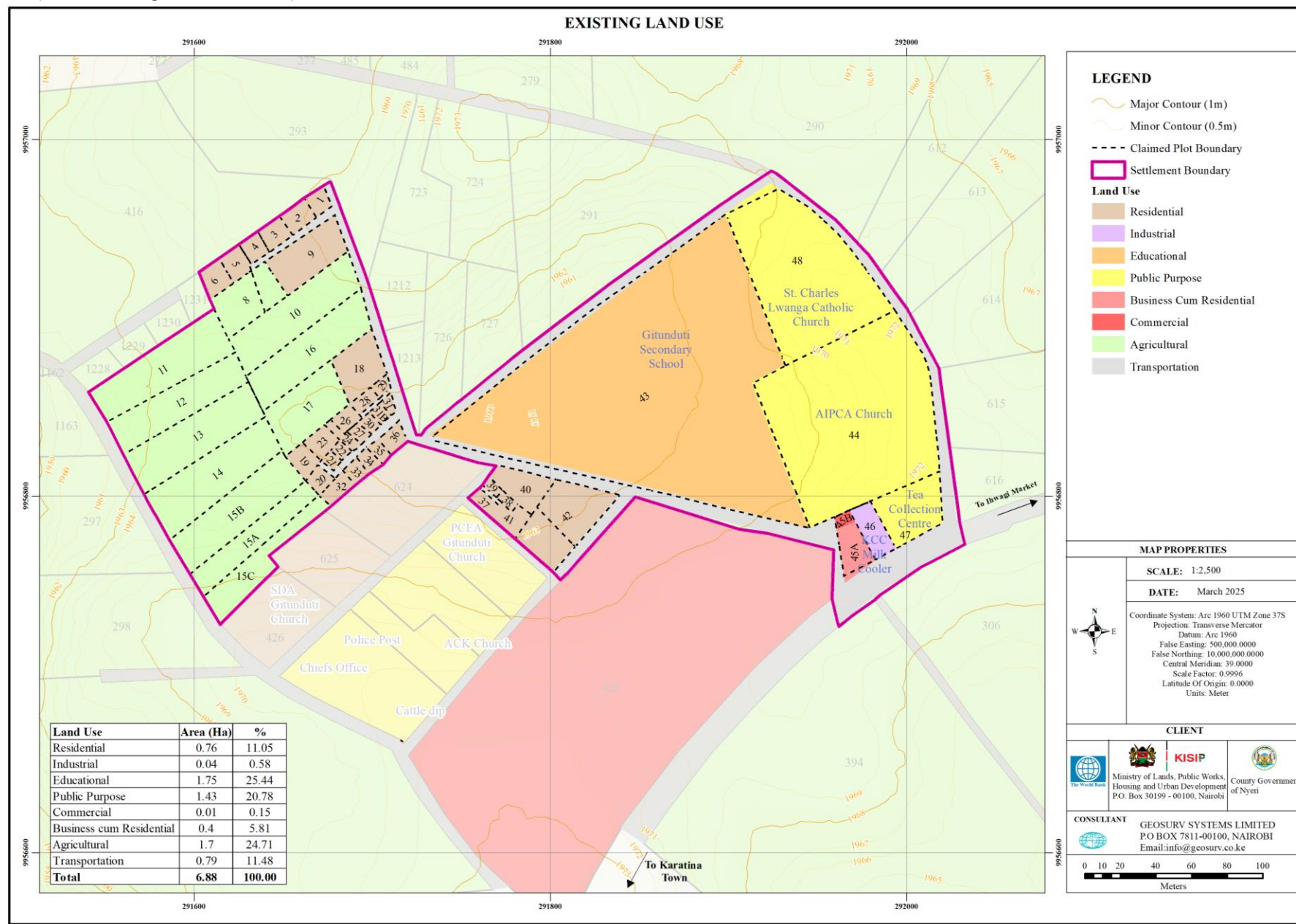
Gitunduti informal settlement is externally linked by Karatina – Gaikuyu – Gitunduti Road (E602) which connects the settlement to Nairobi– Nanyuki Highway (A2) at Karatina Town. Locally, the informal settlement has laid out dirt roads to access various activity spaces:

3.7.2.7 Agricultural Land Use

Agriculture is the main economic activity within the informal settlement. It is practiced majorly on individual farms at household level within the village section of the informal settlement. It includes both crop farming and livestock keeping. Maize is the main crop grown within the settlement. Other crops include; beans, pumpkins, bananas, onions and arrow roots mainly for subsistence. Livestock kept include; sheep and poultry.

The spatial distribution of the land uses above is shown in the map overleaf:

Map 17: Existing Land Use Map



3.7.3 Land Tenure

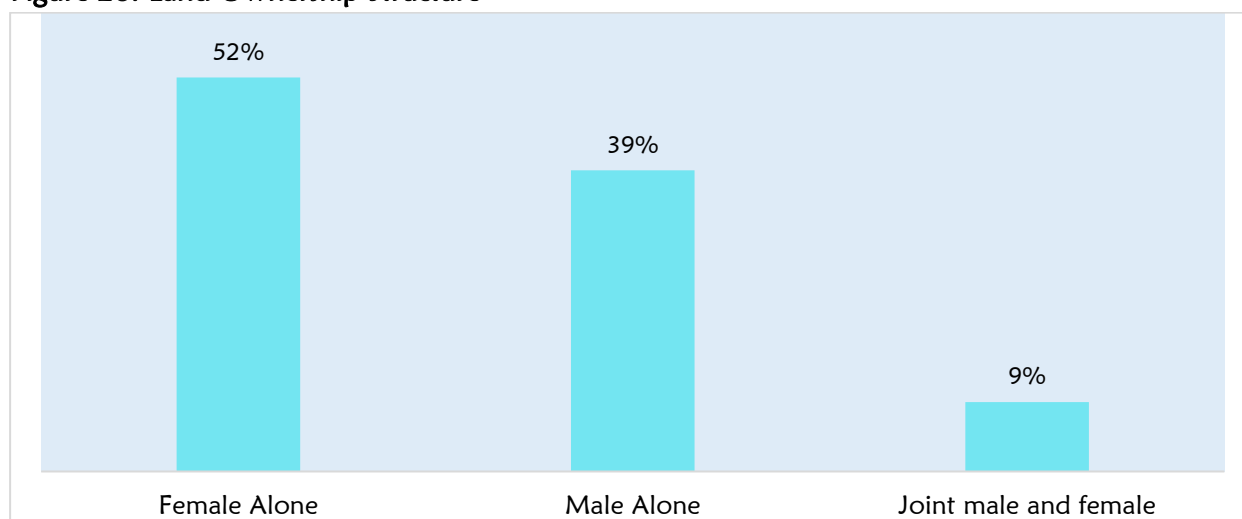
The Constitution of Kenya, 2010 provides for three types of land ownership namely public, private and community ownership. Private land ownership is further categorized into freehold and leasehold. Public land is owned by the Government or State organizations; private land is owned by individuals while communal land is owned and utilized by the community collectively. Freehold land ownership allows the owners to hold the land for an indefinite period while leasehold is a limited term which can be extended upon expiry.

3.7.3.1 Mode of Land Acquisition and Ownership Documents

The settlement is on a public land managed by the County Government of Nyeri from the defunct County Council. Conversion of the public land to private land occurred through direct allocation by the county council as evidenced by the minutes of allocation. The allotted plots were transferred to other owners either through purchase, self-acquisition or inheritance. Currently, the land parcels in the settlement are occupied by individuals who lack legal ownership documents which is the major challenge towards access to services and credit by the area residents.

Female alone at 52% are the dominant land owners of the parcels within the planning area. Only 39% of households have land owned by male alone. Joint ownership of land by both male and female is in just 9% of the households. The statistics almost correlate with the population dynamics where females are the majority of the population by 8%. All jointly owned land is equally owned by both the males and females that co-own the land. All tenants residing in rented dwelling units have verbal agreements with the landlords. On average, tenants pay KES 3,000 a month for the dwelling structures they occupy within the settlement. The maximum rent payable is KES 3,500 while the minimum is KES 2,500 per month. There is need to regularize tenancy agreements to protect the interest of all parties involved.

Figure 26: Land Ownership Structure



Source: Field Survey, 2025.

3.7.3.2 Plot Sizes

Gitunduti informal settlement has a total of 115 plots. Due to the informal nature of the settlement, the plot sizes are relatively too small, with 14 plots being below 0.010 Ha. This creates a challenge with regard to provision of access roads thus affecting the settlement's accessibility. The table overleaf outlines an analysis of the plot sizes within the project area.

Table 22: Average Plot Size

No.	Average Plot Sizes (Ha)	Number of Plots
1.	Below 0.010	14
2.	0.01 - 0.0125	2
3.	0.0126-0.0250	26
4.	0.0251-0.0450	43
5.	0.0451-0.100	11
6.	Above 0.1	19
Total		115

3.7.3.3 Preliminary List of Beneficiaries

The preliminary list of beneficiaries annexed in this report was prepared based on data collected during the socio-economic survey. The list contains the following beneficiaries' details; name, national identification number, gender, year of birth, KRA PIN and telephone number. In addition, the beneficiaries' identification cards were prepared based on the above information. The plate overleaf shows the sample identification cards.

Plate 19: Sample Identification Cards

IDENTIFICATION CARD	
Name: KARIITHI NGUYO ID No: 3690602 KRA PIN: A012899368W Tell: 0714977216 Parcel No: 006 Settlement: GITUNDUTI Beneficiary Sign: Consultant:	
IDENTIFICATION CARD	
Name: CAROLINE WAMUU NGARI ID No: 3704745 KRA PIN: A013085898 Tell: 0798190320 Parcel No: 012 Settlement: GITUNDUTI Beneficiary Sign: Consultant:	
IDENTIFICATION CARD	
Name: WINROSE WACERA KARARU ID No: 1413647 KRA PIN: A001529245Z Tell: 0723002380 Parcel No: 013 Settlement: GITUNDUTI Beneficiary Sign: Consultant:	
IDENTIFICATION CARD	
Name: WILLIAM MWANGI WARUTERE ID No: 7441798 KRA PIN: A005103761H Tell: 072381164 Parcel No: 015A Settlement: GITUNDUTI Beneficiary Sign: Consultant:	

3.7.4 Housing and Structures' Characteristics

3.7.4.1 Structures Characteristics

The settlement is characterized by haphazard development with three main types of housing structures; permanent, semi-permanent and temporary. The permanent structures are built of iron sheets roofs, stone, bricks or concrete block walls and cement or ceramic tile floors. The semi-permanent ones are built of iron sheet roofs, mud or wooden walls and earth or cement floors while the temporary structures are characterized by dilapidated iron sheet roofs or grass thatched, mud-walled and earth floors. Based on the socio-economic survey, the settlement has a total of 81 structures with 22.2% being permanent, 9.8% semi-permanent and 68.0% temporary as outlined in the table below.

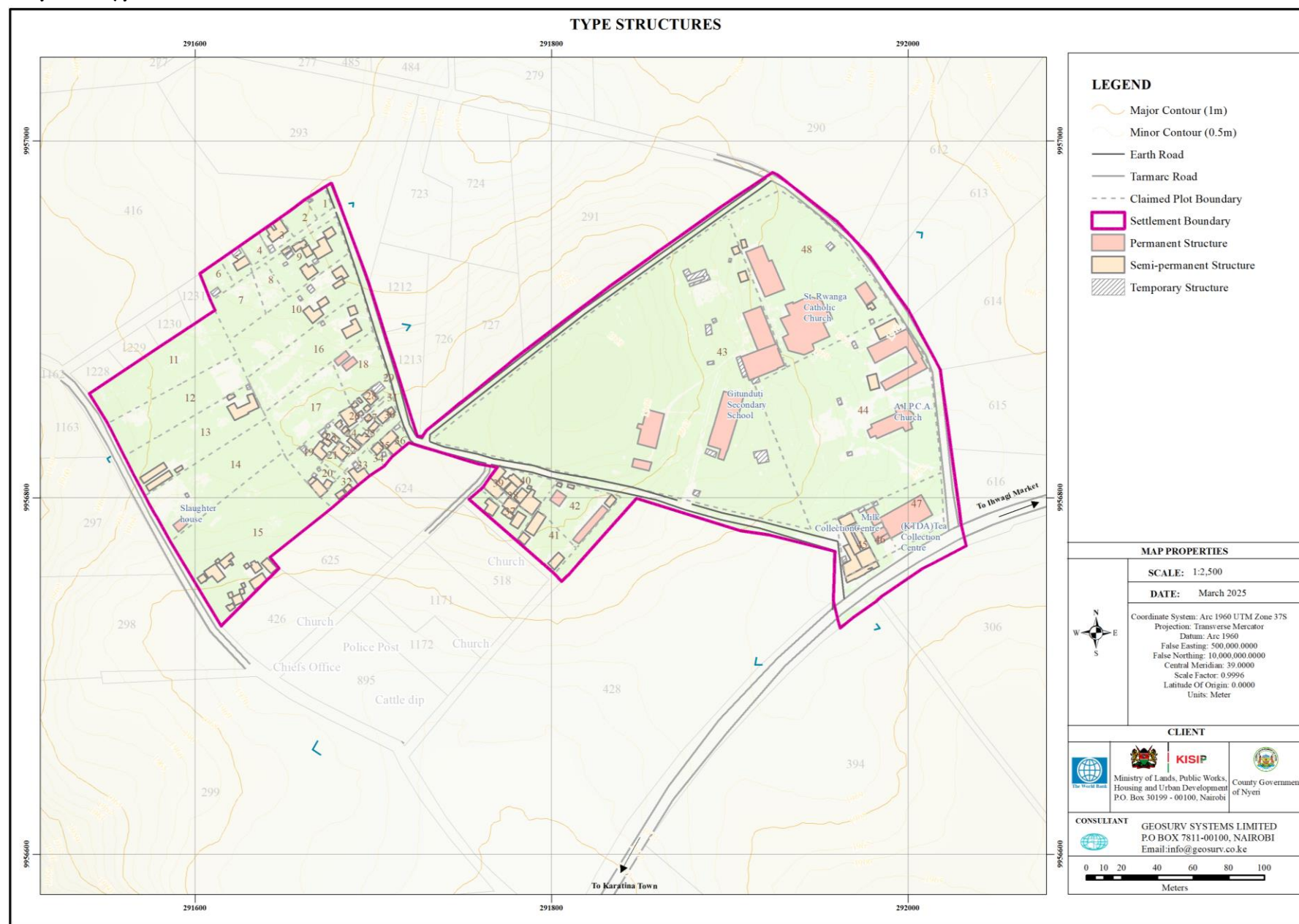
Table 23: Structures Categorization

Structure Type	Number of Structures	Percentage
Permanent	18	22.2
Semi-permanent	8	9.8
Temporary	55	68.0
Total	81	100

Source; Field survey, 2025

The high percentage, 77.8%, of semi-permanent and temporary structures is attributed to the lack of tenure security which discourages the residents from investing in quality housing or their low-income levels rendering them unable to construct proper houses. The structures and structures' beneficiaries within the informal settlement were enumerated as part of the socio-economic survey. From this exercise, a list of all the structures was generated. The list has attributes such as the parcel number, the beneficiary, the nature of the structures and their use. This list is annexed to the report as appendix 5. Map 18 overleaf shows the types of structures within the settlement.

Map 18: Types of Structures



3.7.4.2 Housing Profile

The most common wall material in the settlement is wooden, accounting for 77.78% of the structures followed by stone at 12.35%. Iron sheets are the main roofing materials, making up 98.77% while 1.23% of the structures aren't roofed. Earth is the dominant floor material accounting for 56.79% of the structures followed by cement at 29.63% as shown in the table below.

Table 24: Building Materials for Housing

Wall Material	Total	Percentage %
Iron Sheets	7	8.64%
Iron Sheets and Stone	1	1.23%
Stone	10	12.35%
Wooden	63	77.78%
Total	81	100%
Roof Material	Total	Percentage
Iron Sheets	80	98.77%
Other/Blank	1	1.23%
Total	81	100%
Floor Material	Total	Percentage
Cement	24	29.63%
Earth	46	56.79%
Wooden	11	13.58%
Total	81	100%

Source: Field Survey, 2025

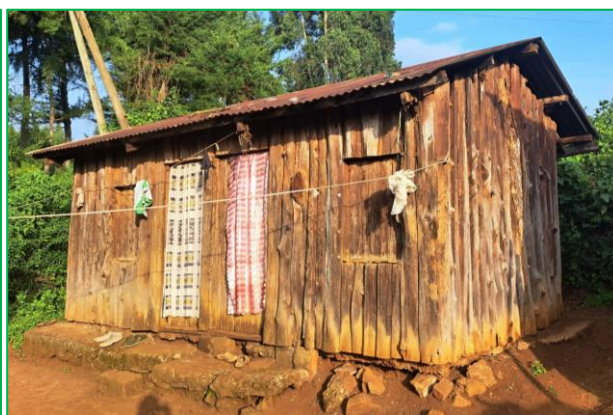
3.7.4.3 Types of Housing Structures

The classification of the housing structures was based on the types of building materials used. Based on the construction materials, the housing structures were categorized as permanent at 22.2%, semi-permanent at 9.8% and temporary at 68.0% as described above. Plate 17 overleaf shows some of the existing types of housing structures in the project area.

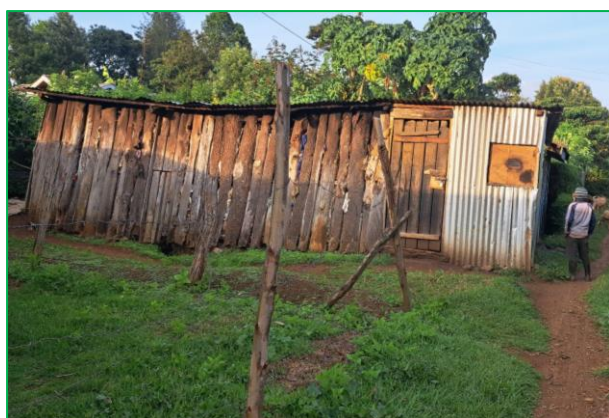
Plate 20: Housing Structures



Permanent



Semi -permanent



Semi - permanent



Permanent

Source: Field Survey, 2025

3.7.5 Emerging issues

- Insecurity of land tenure as the occupants of the plots are squatters.
- Lack of land use framework to guide land development resulting to haphazard developments
- Availability of land for urban development
- Urban decay and poor aesthetics
- Poor housing conditions

The table below summarizes the emerging issues with regard to the settlement's land and housing:

Table 25: Emerging Issues – Land and Housing

Element	Potential/Opportunities	Constraints
Land	○ Available land for future developments	○ Insecurity of land tenure hindering the construction of major developments ○ Unstandardized plot sizes ○ Irregular plot shapes and sizes
Land use	○ Availability of land for urban development	○ Haphazard developments due to lack of a land use framework to guide developments
Housing	○ Stable geology and soils for urban development ○ Government good will on social housing	○ Dilapidated structures ○ Urban decay and poor aesthetics ○ Degrading living conditions

3.8 Occurrence of Disasters

According to the socio-economic survey, only 2% of households are prone to disasters within Gitunduti informal settlement. The majority, 98% are least exposed to any kinds of disaster. Common disasters according to the 2% include conflicts, fire outbreaks, water shortage. Conflicts and fires are the only ranked disasters in rank 1 and 2 respectively.

3.9 Community Priority

According to the socio-economic survey, specific areas need urgent intervention to address their socio-economic challenges. Security is a major socio-economic challenge in the planning area as per the findings. Actions to address insecurity need to be prioritized as it accounts for 29% of all priority areas, and supported by need for street lighting to increase security at night, occurring at 11% of all priority area. Water treatment, reticulation, dwelling unit connectivity, and supply/provision is a priority area, prioritized at 18% of all priority areas of urgent intervention for a sustainable and liveable settlement. Provision of quality health services, including the installation of a health facility within the planning area is an area of high priority for the community at 10%. Other areas of urgent intervention and considered priority for support by the community are shown in the table below. They include employment, electricity, roads, sanitation, housing, and education sectors.

Table 26: Priority Sectors

Priority Area	Percentage
Security	29%
Water	18%
Street lighting	11%
Health	10%
Employment	9%
Electricity	7%
Roads	6%
Sanitation	4%
Housing	3%
Education	2%
Total	100%

Source: Field Survey, 2025

3.10 Synthesis

Gitunduti Informal Settlement has various planning and development challenges and at the same time opportunities which if well utilized could transform the settlement into a decent sustainable human settlement. The challenges facing the settlement include; insecurity of land tenure, poor accessibility/road condition, inadequate water supply, informality, inadequate basic social infrastructure, lack of storm water drainage channels, improper waste management system, urban decay and poor housing quality. Majority of these challenges are as a result of insecurity of tenure and lack of planning resulting to uncoordinated developments. The opportunities include; strategic location, favourable climatic conditions and favourable topography for the laying of sewer reticulation network.

3.9.1 Challenges

i. Insecurity of land tenure

The residents of Gitunduti informal settlement are squatters on a public land owned by the County Government of Nyeri. They also lack legal ownership documents to the parcels they occupy. This situation makes them lose significant opportunities like access to credit facilities from financial institutions which require collateral. However, since the planning and survey of the settlement is expected to provide a guideline for the provision of land tenure security, the subsequent title registration exercise will help to actualize tenure security.

ii. Poor accessibility/road condition

Karatina – Gaikuyu – Gitunduti Road (E602) is tarmacked and in good condition. The roads branching from Karatina – Gaikuyu – Gitunduti Road (E602) form the main external roads. These roads are tarmacked and in good condition. They include the road accessing the secondary school and the other one accessing the religious facilities. The rest of the access roads are earth and very narrow. They are covered with vegetation cover, hence reducing the carriage way space. Grading of the access roads will improve interconnectivity of the different settlement functions.

iii. Inadequate water supply

In Gitunduti informal settlement, the primary source of water is the West Magut Water Project. However, only about 38%, 11% and 4% of the residents have access to piped water into their compounds, houses and a community tap respectively. The rest segment of the population relies on rivers/streams and rain water for their domestic water needs. River/stream water is used raw and untreated making it unsuitable for domestic consumption. There's need to invest in water treatment and reticulation system to connect households with reliable, clean and safe water for their consumption.

iv. Inadequate basic social infrastructure

Gitunduti informal settlement has a few basic social infrastructures; two religious facilities and the tea collection centre. The settlement however lacks recreational facilities such as playground and recreational spaces which offer avenue for residents' interaction and relaxation. It also lacks a social hall where residents can hold meetings and deliberate on matters affecting their day-to-day activities hence end up holding meetings on the churches.

v. Lack of storm water drainage channels

Storm water drainage channels are only found along Karatina – Gaikuyu – Gitunduti Road. The rest of the access roads don't have any drainage channels despite the high rainfall amounts experienced in the area. Surface runoff just follows the existing natural drains. With a relatively low levels of impervious layers, much of the runoff infiltrates in the ground. However, with increased developments, there will be increase in impervious layer, less runoff infiltration hence more water pools. This necessitates the needs for the development of proper drainage channels and harvesting of the runoff water for agricultural activities.

vi. Improper waste management system

Solid waste management

The settlement lacks a designated solid waste management site. Some residents resort to burning their solid waste after collection within their homesteads, while others discard their waste indiscriminately in their gardens and along the roadside, particularly on the obstructed route from the police post to Gitunduti Secondary School.

Improper management of solid waste in Gitunduti poses a significant risk to public health. The presence of uncontrolled waste disposal sites draws flies, exacerbating environmental deterioration. In addition, these unauthorized dumping areas invite various pests, including rodents

and insects, which facilitate the spread of diseases. Additionally, the leachate from these sites contaminates soil, air, and groundwater, thereby undermining the overall quality of the environment.

Liquid waste management

The settlement lacks an operational sewerage system. This has led to adoption of unsustainable refuse water disposal methods since the residents dispose liquid waste on the ground outside their structures or pit latrines. The use of pit latrines and discharging of grey water to the land can lead to infiltration of pollutants to underground water sources, causing possible contamination. Consuming contaminated water may lead to waterborne diseases like cholera.

vii. Urban decay

Some of the structures within the settlement are dilapidated and in bad state especially those build of semi-permanent building materials. This calls for the need of urban renewal for some sections of the settlement.

viii. Poor housing quality

The settlement is characterized by poor quality housing as a big proportion of the houses within the village section are built of timber walls and dilapidated iron sheets. This may be attributed to the lack of tenure security which discourages the residents from investing in quality housing or their low-income levels rendering them unable to construct proper houses. Poor housing conditions are associated with a wide range of health conditions including respiratory infections.

3.10.2 Opportunities

- o Strategic location: The settlement is located along the Karatina – Gaikuyu – Gitunduti Road (E602) which connects the settlement to Nairobi– Nanyuki Highway (A2) at Karatina Town.
- o The presence of Karatina University is a key growth factor to the settlement as the 15,000-student population increases the demand for goods and services.
- o Favorable climatic conditions for agricultural activities
- o Favorable topography for development
- o Presence of the secondary school is an impetus for the area's growth and development
- o Government good will on social housing

CHAPTER FOUR

PLAN PROPOSALS

4.1 Overview

This chapter presents the settlement's proposed spatial structure, which outlines how the available space will be utilized for optimal and sustainable land utilization. The plan will help in the attainment of social, economic, physical and environmental goals.

4.2 Structuring Elements

These constitute both the natural and man-made features that influence the spatial form and development patterns. They include; claimed plot boundaries, the existing service lanes and footpaths, existing developments and stakeholders' concerns.

- **Claimed plot boundaries**

The claimed plot boundaries were picked during the topographical survey and base map preparation with the assistance of members of the SEC, GRC and project beneficiaries. The claimed plot boundaries greatly informed the settlement's spatial structure.

- **Existing service lanes and footpaths**

The informal settlement is characterized by 6m service lanes and footpaths. There are a few parcels within the residential section with no roads of access, forcing the residents to access their homesteads through neighbouring parcels. To address the issue of inadequacy with regard to access roads, the footpaths were used as a guide to identify suitable locations of new roads of access. In addition, for the parcels without any form of access roads, the consultant's team enquired from the residents how they currently access their parcels and traced the routes so as to provide a formal access road. This approach ensured that the proposed access roads and paths are compatible with the settlement's existing development so as to avoid any possible conflicts within the neighbours.

- **Existing developments**

Gitunduti informal settlement has been developed without any spatial framework to guide its developments. This has resulted to a few missing links especially within the residential section of the settlement. There are a few parcels without roads of access while majority are accessed by very narrow footpaths. The conferment of land tenure security requires the provision of access roads/paths to every land parcel in question. To avoid and/or minimize displacement of project beneficiaries and loss of property, an adoptive planning approach has been employed whereby the proposals for roads, service lanes and footpaths have been done in the sections free of structures.

- **Stakeholder's concerns**

During the various stakeholders' consultative forums, all the concerns raised by the stakeholders were well documented. These concerns include; secure land tenure, minimal disruption, better business environment, improvement of physical infrastructure like road connectivity and condition, enhance clean water supply, improve electricity connection, provision of conventional waste management system and installation of storm water drainage channels as well as provision of basic social services and amenities like public toilets, market, hospital and administration offices (Assistant County Commissioner's office). This planning exercise and subsequent cadastral survey and titling process is meant to regularize tenure within the informal settlement. Adoptive planning approach has been employed to address the rest of the challenges as it minimizes or prevents any displacement. This approach proposes primary roads ranging from 9m – 12m, 6m – 8m service lanes and footpaths ranging from 1m – 5m depending on the intensity of development. The plan has also proposed for incremental implementation of some of the roads and service lanes.

4.3 Alternative Planning Options

Gitunduti informal settlement is characterized by insecurity of land tenure, poor accessibility/road condition, inadequate water supply, informality, inadequate basic social infrastructure, lack of storm water drainage channels, improper waste management system, urban decay and poor housing quality. In order to achieve a well-planned settlement with access roads and minimize and/or prevent any form of displacement or impact of the plan proposals to the structures, several design options have been explored so as to derive suitable interventions for the settlement's improvement. The options are specifically focused on enhancing the accessibility of the land parcels and ensuring minimal disruptions. Three options namely; standard planning approach, adoptive planning approach and hybrid planning approach have been considered.

4.3.1 Standard Planning Approach

This approach proposes for provision of standard hierarchical road network. It provides 12m primary roads that branches from the 18m Karatina – Gaikuyu – Gitunduti Road serving the commercial section. The approach also proposes 9m secondary roads and 6m service lanes to provide access to individual plots. The approach envisions the desired state of the settlement after the conventional planning standards with respect to the provision of hierarchical roads have been adhered to. However, this option affects 12 permanent structures, 42 semi-permanent structures and 13 temporary structures as shown in the table below and the map overleaf.

Table 27: Affected Structures by Standard Planning Approach

Structure type	No. of structures affected by the standard roads
Permanent	12
Semi-Permanent	42
Temporary	13
Total	67

The option has a number of advantages and disadvantages as outlined below:

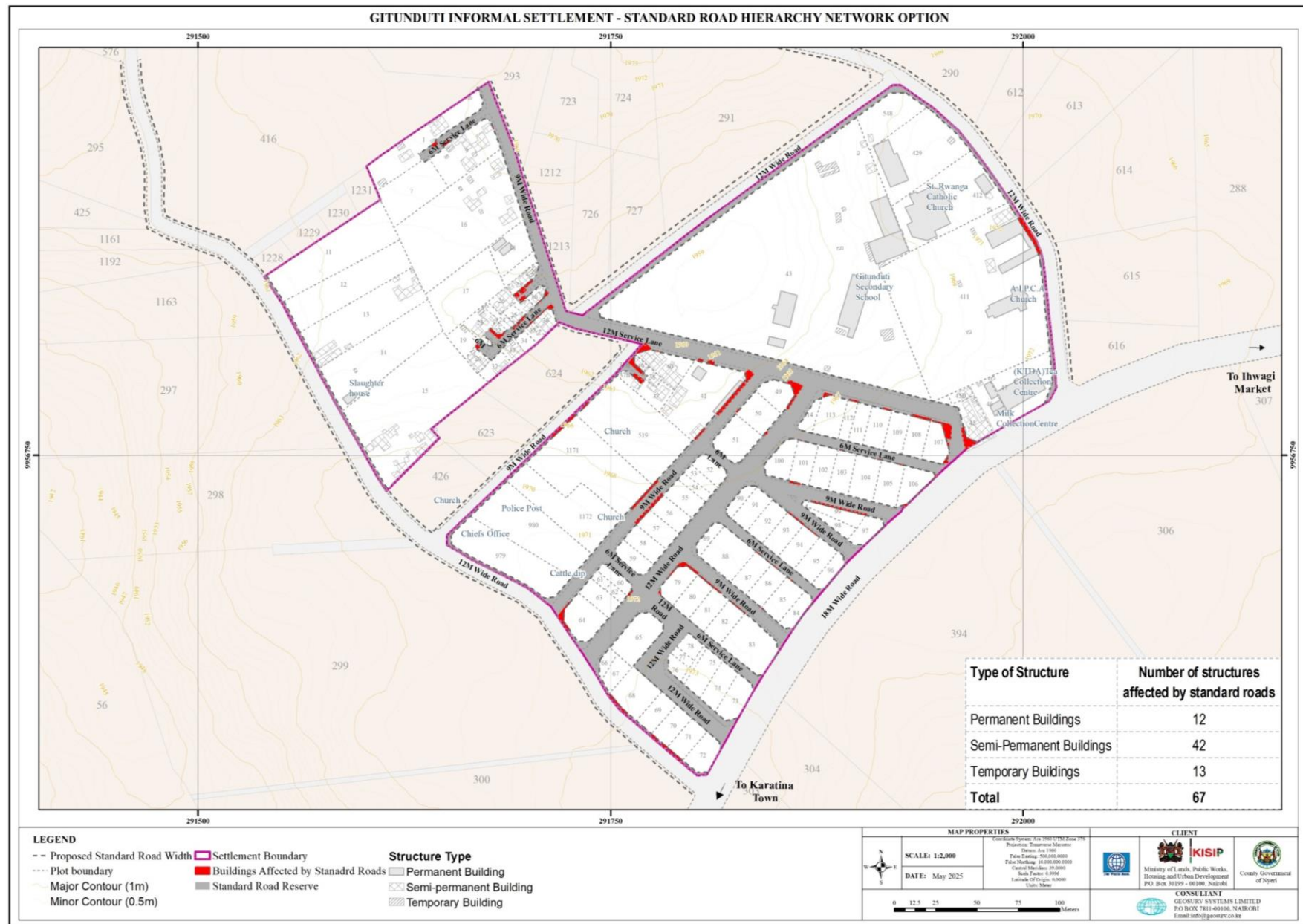
Advantages

- Improved road connectivity
- Enhanced settlement accessibility

Disadvantages

- High disruptions, a situation that's against the stakeholders' concern of ensuring minimal disruption
- The high number of Project Affected Persons (PAPs) would result to high cost of compensation
- High implementation cost

Map 19: Standard Planning Approach



4.3.2 Adoptive Planning Approach

The first option of provision of standard roads resulted to a high number of PAPs as the proposed road expansions affected many adjacent structures. To implement component 1.2 of KISIP 2 on infrastructure development, it would be extremely difficult to compensate all the PAPs due to the high compensation cost, a cost that has been delegated to the County Government. This clearly makes the implementation of the infrastructure component extremely expensive and almost unattainable bearing in mind that the World Bank Social Safeguard policies requires that all the PAPs should be fully compensated.

To minimize the level of impacts, the stakeholders had to reconsider and explore possible ways of reducing the PAPs, probably go against the conventional planning standards and just provide the basic minimums. The adoptive approach entails provision of minimum access roads comprising of 9m – 12m primary roads, 6m – 8m service lanes and 2m – 5m footpaths depending on the intensity of developments on the ground. The option affects one semi-permanent and two temporary structures as shown in map 20 overleaf. This alternative however has its own share of advantages and disadvantages as outlined below:

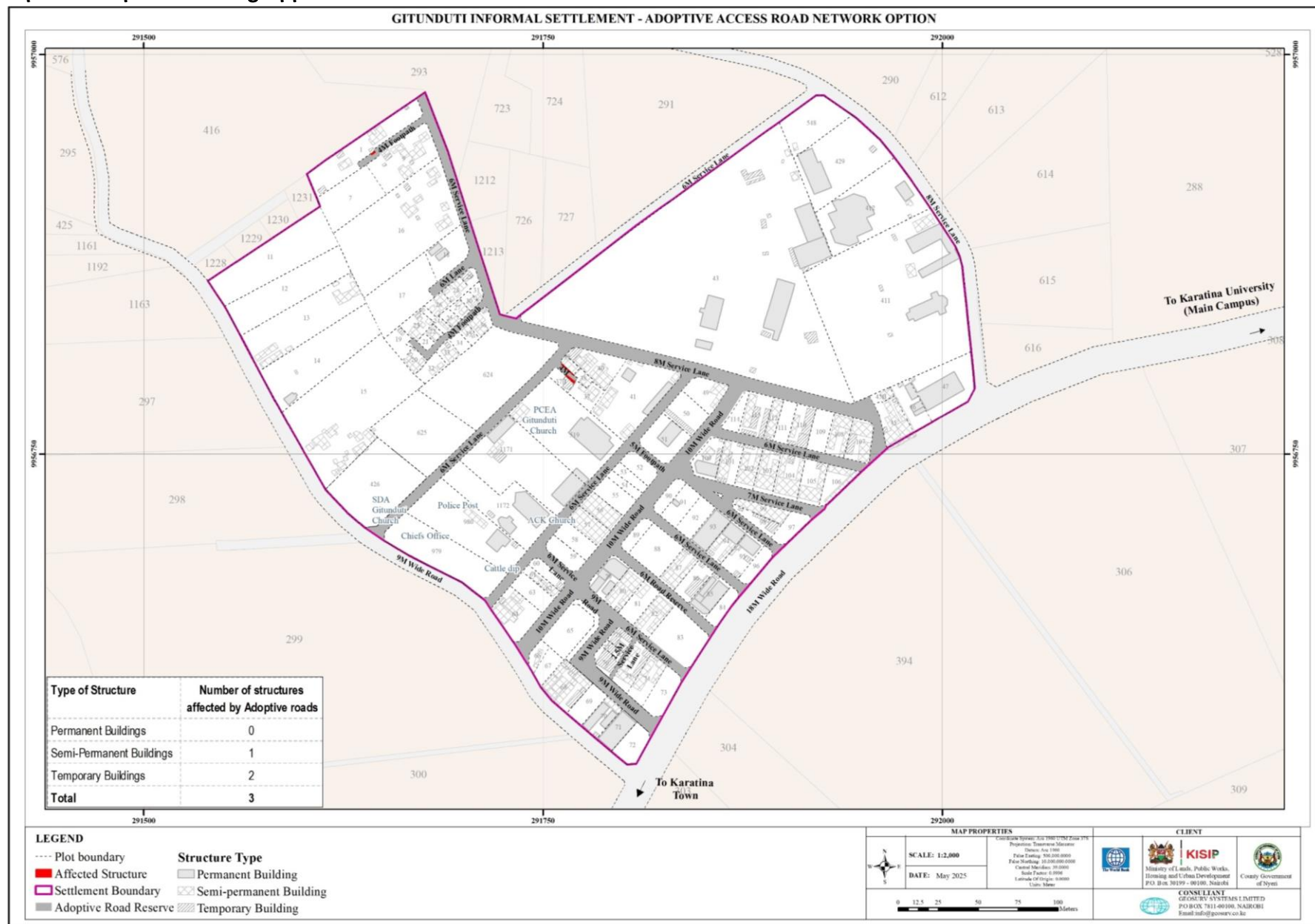
Advantages

- Minimal disruption
- Low implementation cost in the short run
- Zero PAPs

Disadvantages

- Limited road connectivity
- Limited access to individual land parcels
- High cost of road expansion in the future

Map 20: Adoptive Planning Approach



4.3.3 Hybrid Planning Approach

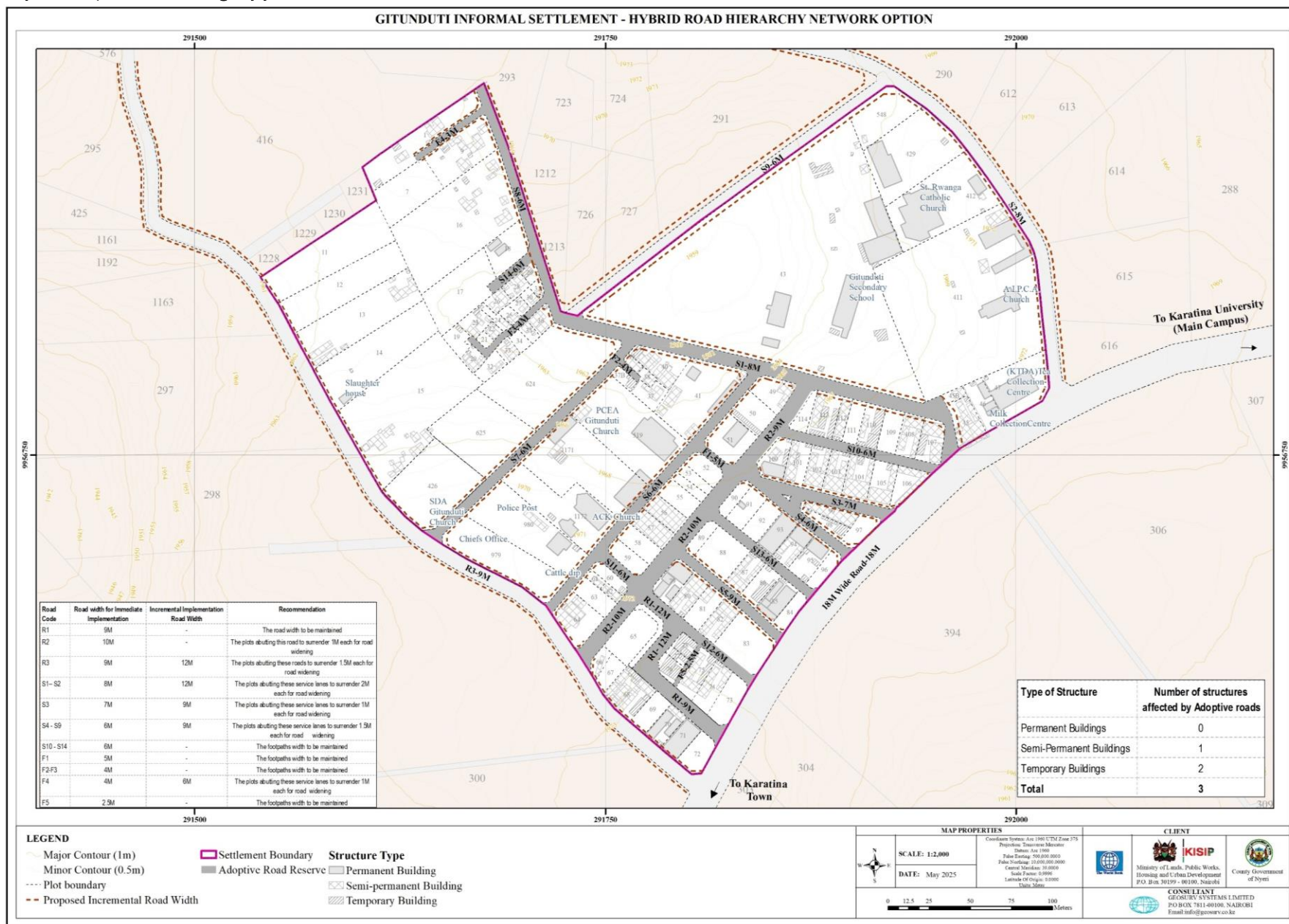
This approach combines the standard and adoptive planning approach to maximize on the advantages of each alternative and water down on the disadvantages. It balances between improving accessibility and ensuring minimal disruption. The approach proposes provision of 9m – 12m primary roads, 6m – 8m service lanes and footpaths from 2m to 5m for immediate implementation.

To achieve standard roads capable of accommodating all the prerequisite facilities; carriage way, storm water drainage channels, pedestrian walkways, power lines and sewer reticulation lines; roads R2 and R3 – R5 will be incrementally expanded from 10m and 9m respectively to 12m roads; the service lanes (S1 – S2) will be expanded incrementally from their current 8m widths to 12m road reserves S3 will be expanded from 7m to 9m roads, S4 – S9 will be expanded from 6m to 9m roads, S9 will be expanded from 6m to 12m road while S10 – S14 will be maintained. In addition, footpath F4 will be expanded from 4m to 6m service lanes. The widths of all the footpaths will be maintained. The beneficiaries of the plots abutting these roads and service lanes to be expanded will surrender the recommended widths for road expansion as per the approved plan when they submit their development applications for approval during the development regularization process.

This approach has several advantages among them; improved road connectivity, results to few PAPs hence low implementation costs and incremental widening of the access roads to the desired widths. The stakeholders agreed that this hybrid of the conventional planning standards and adoptive planning was the preferred option.

Map 21 overleaf illustrates the hybrid approach:

Map 21: Hybrid Planning Approach



4.4 Land Use Zones

The planning discipline has established guidelines that ensure universal presentation, understanding and clear representation of land use zones. In this regard, various land use zones have been classified into eleven categories, each represented by a class, code number and colour as outlined in the table below:

Table 28: Land Use Zone Codes and Colours

Land Use Code	Land Use Name	Colour
0	Residential	Brown
1	Industrial	Purple
2	Educational	Orange
3	Recreational	Green
4	Public purpose	Yellow
5	Commercial	Red
6	Public utility	Blue
7	Transportation	Grey
8	Conservation	Pale greenish
9	Agricultural	Greenish
10	Water Bodies	Bluish

Source: Urban Land Use Planning and Oversight Guidelines (National Land Commission) – 2016).

The preparation of this plan was guided by the land use coding reference outlined above in the definition of the land use zones.

4.4.1 Proposed Land Use Zones

Originally, the planning area covered only Gitunduti informal settlement boundaries with an approximate area of 6.88 Ha leaving out the commercial section and adjoining public purpose facilities. During the base map and environmental status map presentation, the County Government officials and the local leadership requested the inclusion of the commercial section as well as the adjoining public facilities to benefit from the tenure regularization process. This led to increment in the project area acreage to 10.68Ha. The plan thus covers an approximate area of **10.68 Ha**. It comprises of the Business Cum Residential (BCR) area, public purpose facilities, educational zone and the residential zone. Residential land use takes up the highest percentage at 26.2% followed closely by public purpose and commercial land uses at 23.5% and 20.2%. Public utility and industrial takes up the least percentage at 0.4% each. The table below shows the proposed land use budget while the map overleaf shows the spatial distribution of the land uses.

Table 29: Proposed Land Use Budget

Code	Land Use	Area In (Ha)	Percentage
0	Residential	2.80	26.2
1	Industrial	0.04	0.4
2	Educational	1.77	16.6
3	Recreational	0.08	0.7
4	Public Purpose	2.51	23.5
5	Commercial	2.16	20.2
6	Public Utility	0.04	0.4
7	Transportation	1.28	12.0
Total		10.68	100.0

GITUNDUTI INFORMAL SETTLEMENT LOCAL PHYSICAL AND LAND USE DEVELOPMENT PLAN (2025-2035), NYERI COUNTY



As outlined in the proposed land use budget, the LPLUDP has various land uses; residential, educational, recreational, public purpose, commercial, public utility and transportation. These land uses have been adopted from the existing land uses. The residential land use zone has not been further classified in the plan as there are no distinct areas with land sizes to be categorized as either low, medium or high density residential. This is because both the small and large plot sizes are located within the same area with no particular order. Thus, the residential land use has been categorized into one zone.

Table 30: Existing and Proposed Land Use Zones

Land Use Code	Land Use Name	Area (Ha)
0-Residential		
0 ₁₋₇	Existing Residential Plots	2.80
Subtotal		2.80
1-Industrial		
1 ₁	Existing Milk Cooling Centre	0.04
Subtotal		0.04
2-Educational		
2 ₁	Existing Gitunduti Secondary School	1.77
Subtotal		1.77
3-Recreational		
3 ₁	Proposed Green Parks	0.08
Subtotal		0.08
4-Public Purpose		
4 ₁	Existing St. Charles Lwanga Catholic Church	0.50
4 ₂	Existing A.I.P.C.A Church	0.81
4 ₃	Existing Tea Collection Centre	0.10
4 ₄	Existing Horticulture Self Help Group - Gitunduti	0.01
4 ₅	Existing PCEA Church	0.41
4 ₆	Existing ACK Church	0.16
4 ₇	Existing Police Post	0.18
4 ₈	Existing Cattle Dip & Chief's Office	0.16
4 ₉	Existing SDA Church	0.88
Subtotal		2.51
5-Commercial		
5 ₁₋₁₄	Proposed Business Cum Residential plots	2.16
Subtotal		2.16
6-Public Utility		
6 ₁	Existing Water Project Site	0.04
Subtotal		0.04
7-Transportation		
7 ₁	Proposed Road Reserve	1.28
Subtotal		1.28
Total		10.68

4.5 Development Guidelines and Regulations

Development guidelines and regulations have been formulated for the various existing and proposed land use zones so as to coordinate the implementation of the plan. They aim at ensuring that the implementation of the plan will bring order, harmony and compatibility of the land uses. All new developments carried out within the informal settlement should conform to the set-out guidelines.

4.5.1 Residential Land Use Development Guidelines

The plot sizes within the informal settlement are non-homogenous. In this regard, the proposed guidelines are based on the plot sizes. The table below shows the development guidelines for residential land use

Table 31: Residential Land Use Development Guidelines

Size (Ha)	Plot Coverage (%)	Plot Ratio	No. of Floors	Typology
0.020 and below	75	0.75	Ground level only	Bungalow
0.020-0.045	70	1.4	2	Flats
0.045-0.1	60	1.8	3	Flats
0.1 -0.2	50	2	4	Flats

4.5.2 Public Purpose and Commercial Land Use

Table 32: Public Purpose and Commercial Land Use Development Guidelines

Zone No.	Description		Development Control Measures								Permitted Development
	Land Use Name	Actual Plot Size (Ha)	Rec. plot size (Ha)	Plot coverage	Plot ratio	No. of floors	Building line (m)	Set Back (m)			
								S	R		
Public Purpose											
4 ₁	Existing St. Charles Lwanga Catholic Church	0.50	0.1	25%	0.6	1	2	1.5	1.5	The permitted buildings within these zones will be in line with the respective public purpose activities.	
4 ₂	Existing A.I.P.C.A Church	0.81	0.1	25%	0.6	1	2	1.5	1.5		
4 ₃	Existing Tea Collection Centre	0.10	-	25%	0.6	1	2	1.5	1.5		
4 ₄	Existing Horticulture Self Help Group - Gitunduti	0.01	-	25%	0.6	1	2	1.5	1.5		
4 ₅	Existing PCEA Church	0.41	0.1	25%	0.6	1	2	1.5	1.5	These zones are recommended for the construction of high-rise structures to utilize the vertical space, cater for the inadequacies in land size and leave part of the horizontal space for greening activities.	
4 ₆	Existing ACK Church	0.16	0.1	25%	0.6	1	2	1.5	1.5		
4 ₇	Existing Police Post	0.18	-	25%	0.6	1	2	1.5	1.5		
4 ₈	Existing Cattle Dip & Chief's Office	0.16	-	25%	0.6	1	2	1.5	1.5		
4 ₉	Existing SDA Church	0.88	0.1	25%	0.6	1	2	1.5	1.5		
Commercial Land Use											
5 ₁₋₁₄	Proposed Business Cum Residential Plots	2.16	0.045	75%	4	4	2	1.5	1.5	Commercial cum residential multi story buildings housing commercial functions on the ground floors and residential functions on the upper floors	

4.5.3 Transportation Land Use

The proposed road reserves for immediate implementation are the primary roads, 6m – 8m services lanes and the footpaths ranging from 2.5m – 5m. To achieve wider roads, some roads, services lanes and one footpath are proposed to be widened as tabulated below:

Table 33: Proposed Road Expansion Guidelines

Road code	Road width for immediate implementation	Incremental implementation road width	Recommendation
R1	9M	-	The road width to be maintained
R2	10M	-	The road width to be maintained
R3	9M	12M	The plots abutting this road to surrender 1.5m each for road widening
S1 – S2	8M	12M	The plots abutting these service lanes to surrender 2m each for road widening
S3	7M	9M	The plots abutting these service lanes to surrender 1m each for road widening
S4 – S9	6M	9M	The plots abutting these service lanes to surrender 1.5m each for road widening
S10 – S14	6M	-	The service lane width to be maintained
F1	5M	-	The footpath width to be maintained
F2 - F3	4M	-	The footpath width to be maintained
F4	4M	6M	The plots abutting this footpath to surrender 1m each for road widening
F5	2.5M	-	The footpaths width to be maintained

Additionally, in order to achieve harmony in the result developments, all future developments within the informal settlement will need to observe the set building lines and set back as shown in the table below:

Table 34: Transportation Land Use Development Guidelines

Road Size (m)	Building Line (m)	Setback (m)	
		Side	Rear
12	3	1.5	1.5
9	2	1.5	1.5
6	1.5	1.5	1.5

CHAPTER FIVE

DEVELOPMENT STRATEGIES AND IMPLEMENTATION FRAMEWORK

5.1 Overview

To promote equitable growth in the project area, these strategies have been developed through public participation and in line with the stakeholders concerns and the settlement's derived vision. They are meant to improve the quality of life for the settlement residents. The strategies are sector-specific. They highlight the existing problems per sector, the area affected, strategic objective, improvement strategies, time frame as well as the actors to be involved in their implementation. Several sector specific strategies have been formulated namely:

- Transportation and storm water drainage improvement strategies
- Environmental conservation and improvement strategies
- Water supply improvement strategies
- Housing improvement strategies
- Economic development improvement strategies

These sector improvement strategies form the basis for the plan implementation which aims at transforming the informal settlement into a more habitable place through sustainable and environmentally friendly developments.

5.2 Transportation and Storm Water Drainage Improvement Strategies

These strategies have been developed with the aim of promoting accessibility and connectivity within the informal settlement. The project area has inadequate access roads and lacks storm water drainage channels, NMT facilities and other prerequisite support infrastructure like streetlights and floodlights. The strategies focus on two key areas; road provision and expansion and storm water drainage strategies.

Due to the intensity of developments within the project area and its informal nature, a hybrid of standard planning approach and adoptive approach has been employed. This approach applies minimal planning standards so as to minimize and/or avoid any loss of structures leading to displacement of the some of the residents. This option proposes provision of 9m – 12m primary roads, 6m – 8m service lanes as the main roads of access and footpaths ranging from 2.5m – 5m for immediate implementation. In order to achieve wider roads, a two phased implementation has been proposed. The first phase will entail implementation of the adoptive roads while the second phase will involve the widening of the roads and some of the service lanes through incremental implementation. The beneficiaries abutting these service lanes and footpaths to be widened will be required to surrender the recommended width as per the approved plan at no cost.

The table overleaf presents the overall transportation strategies aimed at improving accessibility and ensuring the provision of prerequisite road infrastructure.

Table 35: Transportation and Storm Water Drainage Improvement Strategies

Challenge	Affected Area	Objective	Mitigation/Strategies	Time frame	Actors
Inaccessibility within the informal settlement.	Entire project area.	To promote accessibility and connectivity within the project area.	○ Opening up new roads as guided by the plan in order to provide access to every plot.	Short term	○ CGN– Transport, Public Works, Infrastructure, & Energy ○ Development partners
			○ Upgrade all access roads to motorable condition.	Short term	○ CGN– Transport, Public Works, Infrastructure, & Energy ○ Development partners
			○ Installation of streetlights and street furniture along the access roads.	Short term	○ CGN– Transport, Public Works, Infrastructure, & Energy ○ Development partners
Inadequate space for provision of wider roads.	Project area	To achieve wider roads for enhanced accessibility.	○ Incremental implementation of the 9m and 10m roads to 12m roads ○ Incremental implementation of some service lanes to 12m access roads. ○ Incremental implementation of some service lanes to 9m access roads. ○ Incremental implementation of a footpath to a 6m service lane ○ Beneficiaries abutting these service lanes and footpaths to surrender the recommended width as per the approved plan at no cost.	Short term	○ CGN– Transport, Public Works, Infrastructure, & Energy ○ Project beneficiaries
Existence of narrow roads/paths.	Entire Project area.	To provide adequate road reserves.	○ Surrender the recommended road widths for road widening as per the approved plan. ○ Roads widening and construction.	Short term	○ Project beneficiaries ○ CGN

			○ Observe the set building lines and setbacks.		○ Transport, Public Works, Infrastructure, & Energy ○ Lands, Physical Planning, Housing & Urban Development ○ Development partners
Poor road conditions.	Entire project area.	Improve the road conditions.	○ Upgrade all access roads to motorable condition.	Short term	○ CGN– Transport, Public Works, Infrastructure, & Energy
			○ Constant road maintenance and repairs.	Short term – medium term	○ CGN– Transport, Public Works, Infrastructure, & Energy
Lack of NMT facilities	Entire project area	Create an inclusive integrated transportation system for the settlement	○ Provision of pedestrian walkways/lanes	Short term	○ CGN– Transport, Public Works, Infrastructure, & Energy ○ Development partners
			○ Provision of street furniture i.e. street light & waste bins along the walkways	Short term	
Lack of storm water drainage channels.	Entire project area.	To improve storm water drainage.	○ Provision of storm water drainage channels on all the access roads.	Short term – medium term – long term	○ CGN– Transport, Public Works, Infrastructure, & Energy ○ Development partners

KEY: Short Term – up to 3 years
Medium Term – up to 5 years
Long Term – up to 10 years

5.3 Environmental Conservation and Improvement Strategies

These strategies focused on various sectors; solid and liquid waste management, pollution, energy sources and climate change.

Solid Waste Management

Gitunduti informal settlement is characterized by improper solid waste management system a phenomenon that is fuelled by lack of designated waste disposal sites. The residents dump their waste indiscriminately along the roadside, within individual homesteads or burn it along the road reserves. To promote proper solid waste collection and disposal, the following strategies have been proposed:

- Establishment of waste collection points
- Public sensitization on non-littering in the project area
- Sensitizing the residents on the need to embrace the use of 4Rs (Reduce, Reuse, Recycle & Recover) for non-biodegradable waste such as plastics and glasses.
- Provision of trash bags to the households in order to encourage waste segregation and sorting at the household level
- Establishing a monitoring and evaluation system to monitor waste management activities. The regular monitoring will help identify areas for improvement and ensure the long-term success of waste management initiatives
- Increasing the waste collection frequency by developing a system for regular waste collection and transportation from the settlement to appropriate disposal sites. This will ensure consistent and timely collection.
- Privatization of waste collection will enhance effectiveness which will in turn promote proper waste management and also create employment among the youth.

Liquid Waste Disposal

The settlement lacks the conventional sewerage system. Majority of the residents use pit latrines for human excreta disposal. The use of pit latrines as a liquid and human waste disposal method is a health threat as it could lead to infiltration and contamination of underground water due to the settlement's high-water table. The waste can also be washed into the stream downstream. The plan proposes for the provision of sewer reticulation in the long run and use of standard septic tanks in the short run. For effective liquid waste disposal in the settlement, a few strategies have been formulated;

- Establishment of a sewer reticulation system for efficient liquid waste management.
- Use of septic tanks - proper construction and regular emptying of septic tanks is essential to prevent contamination of groundwater sources and the spread of diseases.
- Establishment of proper drainage channels and proper maintenance to avoid blockages and overflow in order to manage storm water and wastewater. This will also prevent possible waterlogging and flooding within the project area

Pollution Reduction

Within Gitunduti informal settlement, pollution is mostly as a result of poor waste management practices and use of inefficient cooking fuels as a result of lack of access to clean energy sources. To mitigate against pollution, a few strategies have been formulated;

- Adoption of proper waste management system – designate solid waste collection site and use of septic tanks for liquid waste disposal.
- Creating awareness on the available alternative sources of clean energy sources
- Promotion of conservation measures for the existing vegetation within the settlement as its a natural purifier, absorbing pollutants and improving air quality.

Cooking Energy Sources

Firewood is the dominant source of cooking energy in Gitunduti informal settlement. It accounts for 51 percent of all sources of energy used for cooking in addition to the households who use it in combination with other energy sources. This source of energy is non-renewable and thus not sustainable due to increase in greenhouse gases emission, particularly CO₂, which largely contributes to global warming and climate change. This necessitates the need for development and adoption of sustainable urban energy sources thus the formulation of these strategies:

- Community sensitization on the available various types of renewable energy sources.
- Educating the settlement residents on the importance of constructing energy-efficient housing designs so as to reduce the need for artificial lighting, cooling and heating hence reducing the energy demand.
- Carrying out awareness and training programmes to educate the residents on energy efficient practices like use of energy saving appliances, turning off lights when not in use so as to minimize energy wastage.

Climate Change

There are several activities that contribute to climate change in Gitunduti informal settlement like the cutting down of trees for fuelwood and house construction materials – timber, clearing of vegetation for settlement and farm expansion, encroachment on the riparian reserve by farming activities where the owners of the land parcels fronting the stream plant arrow roots and bananas and use of non-renewable energy sources. To enhance climate change resilience within the informal settlement, a few strategies have been developed;

- Adoption of renewable energy sources
- Construction of compact developments to leave space for the thriving of vegetation cover.
- Conservation of the seasonal stream by observing the recommended riparian reserve and planting of appropriate vegetation for the thriving of the riparian ecosystem.
- Sensitize the community on the available water conservation practices like rain water harvesting to reduce surface run-off and its associated problems like soil erosion.
- Construction of appropriate drainage channels along all the roads of access for proper surface run-off drainage.

The table overleaf outlines the proposed environmental protection strategies, time frame and the actors responsible for their implementation.

Table 36: Environmental Conservation and Improvement Strategies

Challenge	Affected Area	Objective	Mitigation / Strategies	Timeframe	Actors
Poor solid waste management.	Entire project area	To enhance efficiency in solid waste management.	o Provision of waste collection bins and trash bags	Continuous	o CGN – County Public Service & Solid Waste Management o NEMA o Community members o Development partners
			o Public sensitization on non-littering within the project area.	Short term – medium term -long term	
			o Promote waste sorting through provision of waste collection bins colored green, blue and brown for composting, recyclable and non-biodegradable waste respectively.	Short term – medium term -long term	
			o Promote waste reuse, recycling and reduction.	Continuous	
			o Increase the frequency of waste collection.	Continuous	
			o Privatize waste collection and management.	Continuous	
			o Establish a system to monitor waste management activities.	Medium term	
Liquid waste management.	Entire project area.	To ensure proper liquid waste management.	o Establishment of the sewer reticulation system for efficient liquid waste management.	Long term	o CGN – Transport, Public Works, Infrastructure & Energy o Development partners.
			o Construction of sewer treatment plant outside the settlement.	Long term	
			o Buffering the sewer treatment plant site with trees belt of 15m.	Long term	
			o Establishment of proper drainage channels in order to manage storm water and wastewater.	Short term	
			o Encourage use of septic tanks - proper construction and regular emptying of septic tanks is essential to prevent contamination of groundwater sources and the spread of diseases.	Short term	o CGN – County Public Service & Solid Waste Management o Community members

Challenge	Affected Area	Objective	Mitigation / Strategies	Timeframe	Actors
Use of unsustainable sources of energy		To enhance sustainable use of energy. To reduce environmental impacts.	○ Sensitizing and creating awareness to the community members on the various types of renewable energy such as solar energy. ○ Conducting awareness and training programmes to educate the residents about energy efficient practices like use of energy-saving appliances, turning off lights when not in use to minimize wastage. ○ Educating the residents on the importance of constructing energy-efficient housing designs so as to reduce the need for artificial lighting, cooling and heating, hence decreasing energy demand.	Short term – medium term -long term	○ CGN – Water, Environment, & Climate Change ○ Community members
Pollution of underground water.	Entire project area.	Protect underground water.	○ Construction of water tight concrete septic tanks to hold water for a minimum of 19 hour to 3 days to allow anaerobic decomposition	Continuous	○ CGN – Transport, Public Works, Infrastructure & Energy ○ Development partners ○ Community members
			○ Discourage use of pit latrines and build aqua privy or pour flush latrines drained by septic tanks for people with no water closet	Short term and continuous	
			○ Provision of sewer reticulation network.	Long Term	
Air pollution.	Entire project area,	To reduce level of air pollution.	○ Educating and creating awareness on the available alternative sources of energy that do not emit CO₂. ○ Adopting proper methods of solid waste management such as provision of skips and bins within the project area. ○ Conserving the existing vegetation within the project area as it acts as natural filter which absorbs pollutants and improves air quality. ○ Planting of appropriate trees within homesteads.	Short term – medium term -long term	○ CGN – Water, Environment, & Climate Change ○ Development partners ○ Community members

Challenge	Affected Area	Objective	Mitigation / Strategies	Timeframe	Actors
Climate change.	Entire project area	To mitigate the impacts of changing climate patterns.	○ Sensitizing the residents on the available water conservation practices such as rain water harvesting in order to address challenges exacerbated by climate change.	Short term – medium term -long term	○ CGN – Water, Environment, & Climate Change ○ Development partners ○ Community members
			○ Construction of proper drainage channels to prevent any possible flooding in the project area during rainy seasons.	Short term	○ CGN – Transport, Public Works, Infrastructure & Energy ○ Community members
			○ Conservation of the indigenous trees and existing vegetation as they help regulate temperature and absorb surface run-off.	Short term – medium term -long term	○ CGN – Water, Environment, & Climate Change ○ Development partners ○ Community members
			○ Promote use of green energy such as solar energy to reduce usage of wood fuel through creation of awareness and sensitization.	Short term – medium term -long term	
Loss of vegetation cover	Entire project area	Enhance vegetation cover in the informal settlement	○ Establishment of nurseries and planting of appropriate vegetation ○ Encourage green fencing/green infrastructure ○ Encourage use of alternative fuel especially for cooking	Continuous	○ CGN – Water, Environment, & Climate Change ○ Community members

KEY: Short Term – up to 3 years
Medium Term – up to 5 years
Long Term – up to 10 years
Continuous - short term, medium term and long term

5.4 Water Supply Improvement Strategies

These water supply strategies will help minimize water wastage and optimize its usage. These strategies focus on leak detection and repair for the existing water reticulation system, expansion of the reticulation system and rainwater harvesting as outlined in the table below.

Table 37: Water Supply Improvement Strategies

Challenge	Affected Area	Objective	Mitigation/Strategies	Time frame	Actors
Inadequate water supply.	Project area	To enhance adequate water supply.	- Expansion of the existing water reticulation systems - Devise mechanisms for early leak detection and repair of the water pipes	Short term	- West Magut Water Project - Development Partners - Community Members
			- Provision of water tanks to the residents. - Sensitize the community members on various methods of water collection - rooftop rainwater harvesting systems to offer additional water source for various purposes. - Conduct awareness campaigns to educate residents about water conservation practices such as turning off taps when not in use, using water sparingly and reporting water leaks immediately.	Short term – medium – long term	- CGN – Water, Environment, & Climate Change - West Magut Water Project - Community members - Development Partners
			Establish committees comprising of community members responsible for managing water resources and promoting efficient water practices to coordinate water-related initiatives, monitor usage and implement conservation measures.	Short term	- CGN – Water, Environment, & Climate Change - West Magut Water Project - Community members

5.5 Housing Improvement Strategies

The residential function of an urban area is one of its most critical roles since all its inhabitants require safe and conducive environments to live in. Though the plan has outlined the various development guidelines and regulations to guide the development of the residential structures, the efficiency and sustainability of these developments should also be considered. In respect to this, strategies have been formulated to address the challenges observed in housing provision so as to enhance its efficiency. These problems include; insecurity of land tenure, disregarding building lines, informality in housing provision, poor urban design and inadequate social (residential support) facilities. The strategies formulated are outlined in the table below:

Table 38: Housing Improvement Strategies

Challenge	Affected Area	Objective	Mitigation/ Strategies	Time Frame	Actors
Insecurity of land tenure	Project area	Provide security of tenure.	- Land survey and issuance of lease certificates. - Developing a Land Information System (LIS).	Short term	- National Government - CGN – Lands, Physical Planning, Housing & Urban Development
Urban informality	Project area	Minimize informality	Provide a spatial framework to guide housing development in the informal settlement	Short term	CGN – Lands, Physical Planning, Housing & Urban Development
		To provide access roads.	Opening up of access roads per the approved plan.	Short term	CGN – Transport, Public Works, Infrastructure & Energy
		To promote secure neighbourhoods.	Installation of streetlights and floodlights within the project area.	Short term	Development partners
Poor housing conditions	Project area	To provide infrastructural facilities. To improve housing conditions.	Provision of basic infrastructural services within the project area such as sewerage system, electricity,	Short and medium term	- CGN – Transport, Public Works, Infrastructure & Energy - Development Partners

			roads, water etc.		
Degraded living condition	Project area	To promote liveable environment	○ Ensure land tenure security through surveying and titling process	Immediate	○ National Government ○ CGN – Lands, Physical Planning, Housing & Urban Development
			○ Train the community on appropriate building technologies	Short term	○ CGN – Transport, Public Works, Infrastructure & Energy

5.6 Economic Development Improvement Strategies

These strategies focus on enhancing livelihood opportunities, promoting entrepreneurship and improving access to economic opportunities within the informal settlement. Various issues have been considered namely; adequate provision of commercial land use zones, provision of support infrastructure in the open-air market and enhancing the commercial section's economic vibrancy. The table below outlines the proposed economic development strategies aimed at improving the residents' livelihoods.

Table 39: Economic Development Improvement Strategies

Challenge	Affected Area	Objective	Mitigation/Strategies	Time frame	Actors
Inadequate technical skills and capacity building.	Project area	To promote job creation. To improve the residents' technical skills	○ Provide vocational training and skill development programmes to residents, focusing on areas with local demand and market potential such as jua kali sector, construction and service industries.	Short – medium – long term	○ CGN – Trade, Tourism, Culture & Cooperative Development ○ Development Partners ○ Community members
Lack of community empowerment	Project area	To enhance residents' livelihood.	○ Encourage residents to actively participate in	Short – medium – long term	

and participation.			local development projects in order to contribute towards their economic improvement.		
Lack of infrastructure development.	Project area	To provide basic infrastructure.	○ Improve basic infrastructure, like access roads and support infrastructure - streetlights and floodlights to support economic activities.	Short – medium term	○ CGN – Transport, Public Works, Infrastructure & Energy Development Partners
Stagnant economic activities	Market section	To enhance the economic vibrancy of the market	○ Promote diversification of economic activities	Continuous	○ CGN – Trade, Tourism, Culture & Cooperative Development

CHAPTER SIX

IMPLEMENTATION, MONITORING AND EVALUATION FRAMEWORK

6.1 Overview

This chapter presents the implementation, monitoring and evaluation framework to ensure an effective plan implementation. The County Government of Nyeri is mandated to oversee the implementation and enforcement of the development guidelines. The plan provides land use allocations, plot sizes, development guidelines for the various land use zones and improvement strategies for the identified sectors. This implementation framework is meant to guide the County Government in ensuring the plan is sustainably implemented to bring forth the desired future development scenario.

6.2 Implementation

The implementation framework outlines the project activities, objectives, indicators, actors and time frame required to achieve the objective. It has been categorized into two phases;

Phase one: plan approval, cadastral survey and issuance of lease certificates. The plan approval and cadastral survey will be completed under this consultancy. The issuance of lease certificates which entails the process of registration and issuance of lease certificates as guided by the approved plan and amended RIM will be undertaken by the National Government; Ministry of Lands, Public Works, Housing and Urban Development.

Phase two: plan implementation, outlining the implementation framework for the proposed plan interventions. The tables overleaf outline the proposed implementation framework:

Table 40: Implementation Framework – Phase one: Plan Approval and Cadastral Survey

Task	Activity description	Purpose	Indicators	Actors	Timeframe
Phase One: Plan Approval and Cadastral Survey					
Approval of the plan	- Approval by the Nyeri County Assembly - Endorsement by H.E the Governor, Nyeri County.	- To be the policy document for guiding development - To form the basis for cadastral survey.	- Approved plan. - County Assembly approval minutes.	County Government of Nyeri	Short term
Cadastral Survey.	Beaconing of the individual plots as per the approved plan.	To establish plots boundaries.	Beacon certificates.	Consultant	Short term
	Submission of the survey plan and signed beacon certificates to the Director of Survey.	To serve as proof that the plots were beaconed accurately.	Signed beacon certificates.	Consultant	Short term
	Authentication of the survey plan by the Director of Survey.	To ascertain survey plan accuracy and compliance with the Survey Act CAP 299 (Revised Edition 2012 [2010]) and other governing laws and regulations.	Approved survey plan.	Consultant	Short term
	Amendment of Registry Index Maps (RIMs) by the Director of Survey.	To incorporate the surveyed sections into the larger Registry Index Maps (RIMs).	Amended Registry Index Maps (RIMs).	Director of Survey	Short term
Preparation of the lease certificates.	- Processing lease documents. - Registration of lease documents and issuance of lease certificates.	To enhance tenure security.	Issued lease certificates.	Ministry of Lands, Public Works, Housing & Urban Development.	Short term

Table 41: Implementation Framework – Phase two: Implementation of Plan Proposals

Thematic Area	Strategy	Project	Indicator	Time frame				Actors
				Short term	Medium term	Long term	Continuous	
Physiography and natural environment	Adopt climate change mitigation strategies	Implement the recommended 10% tree cover	Increased tree cover				✓	County department of Water, Environment, & Climate Change Development partners Community
		Sensitize the general public on the climate change and its mitigation measures	- Number of workshops held - Knowledgeable community on climate change				✓	
		Sensitize the community on the need for conservation of the existing vegetation to help in the absorption of surface run-off.	Well conserved vegetation cover				✓	
		Promote the use of cabros for paving to enhance water infiltration	Internal roads of cabro paving			✓		County department Transport, Public Works, Infrastructure & Energy
		Educating and creating awareness on the available alternative sources of energy that do not emit greenhouse gases.	- Number of workshops held - Reduced usage of non-renewable energy sources				✓	County department of Water, Environment, & Climate Change Community
		Sensitize the public on the available data relating to early warning signs on floods or longer dry seasons	Number of workshops held				✓	County department of Water, Environment, & Climate Change Community
	Increase vegetation cover	- Sensitize the farmers on tree planting - Provision of free tree seedlings	- Number of workshops held - Increased tree cover				✓	County department of Water, Environment, & Climate Change Community

Thematic Area	Strategy	Project	Indicator	Time frame				Actors
				Short term	Medium term	Long term	Continuous	
		Planting of appropriate tree species within the homesteads and along the riparian reserve	Conserved riparian ecosystem					
Economic activities	Promote economic growth in the project area	- Improve basic infrastructure to support economic activities - Promote diversification of economic activities	- Improved basic infrastructure - Diversified economic activities	✓				County department of Trade, Tourism, Culture & Cooperative Development Community
Infrastructure	Enhance accessibility of all activity spaces	Opening of the roads	Opened roads	✓				County department of Transport, Public Works, Infrastructure & Energy Development partners
		Upgrade the earth roads into motorable all-weather roads	Upgraded access roads	✓				
		Conduct regular road maintenance	Well maintained roads				✓	
		Integrate NMT facilities within the proposed road network	Integrated NMT facilities			✓		
	Promote efficient mobility	Incremental widening of R3 from 9m to 12m roads	Widened roads as per the approved plan			✓		County department of Lands, Physical Planning, Housing & Urban Development Community
		Incremental widening of service lanes S1 – S2 from 8m to 12m access roads				✓		
		Incremental widening of service lane S3 from 7m to 9m access road				✓		
		Incremental widening of service lane S4 – S9 from 6m to 9m road				✓		
		Incremental widening of foot path F4 from 4m to 6m service lane				✓		

Thematic Area	Strategy	Project	Indicator	Time frame				Actors
				Short term	Medium term	Long term	Continuous	
		Beneficiaries abutting these roads to surrender the recommended width as per the plan free of any cost.				✓		
	Ensure efficient storm water drainage	Incorporate natural storm water drainage in road design and construction	Constructed storm water drainage channels			✓		County department of Transport, Public Works, Infrastructure & Energy Development partners Community
		Improve natural storm water drainage on the existing roads	Proper removal of surface run-off	✓				
		Construction of civic drains for new roads	Reduced water pools			✓		
		Construction of culverts for proper drainage of surface run off			✓			
		Ensure a balance between built and natural environment to ensure maximum surface water infiltration					✓	
	Increase access to piped water	Rehabilitation of the water reticulation system	Rehabilitated reticulation system		✓			West Magut Water Project Development partners
		Expansion of the water reticulation system	More households connected to piped water		✓			
		Construction of water kiosks to retail water to the properties not connected to piped water	Installed water kiosk		✓			
	Promote rain water harvesting	Sensitize the public on rainwater harvesting and water recycling technologies	Number of households practicing rain water harvesting				✓	County department of Water, Environment, &

Thematic Area	Strategy	Project	Indicator	Time frame				Actors
				Short term	Medium term	Long term	Continuous	
	Increase water supply	Provide the residents with water harvesting equipment				✓		Climate Change Development partners Community
		Initiate water harvesting programs	Number of water harvesting projects	✓				
		Promote water recycling	Amount of water conserved				✓	
	Ensure proper solid waste management	Introduce water storage tanks	Number of water storage tanks	✓				County department of County Public Service & Solid Waste Management
		Designate a solid waste collection site	Availability of a waste collection site	✓				
		Sensitize the public on proper waste disposal mechanisms	Availability of waste bins and skips within the settlement				✓	
		Create awareness on the 4R waste management mechanisms					✓	
	Ensure proper liquid waste disposal	Identification of appropriate sites along major access roads for the placement of waste bins		✓				County Department of Transport, Public Works, Infrastructure & Energy Community
		Acquisition of the waste bins and skips						
		Discourage use of pit latrines and build aqua privy or pour flush latrines drained by septic tanks for people with no water closet.	Reduced number of pit latrines	✓				
		Construction of water tight concrete septic tanks to hold water for a minimum of 19 hours to 3 days to allow anaerobic decomposition	Availability of septic tanks		✓			

Thematic Area	Strategy	Project	Indicator	Time frame				Actors
				Short term	Medium term	Long term	Continuous	
		Preparation of sewer reticulation plan and construction of sewer reticulation network	Availability of sewer reticulation network			✓		
	Enhance security and boost the area economy	Installation of street lights and flood lights	- Enhanced security - Installed streetlights and floodlights				✓	County Department of Transport, Public Works, Infrastructure & Energy
	Promote use of green energy	Sensitize the public on alternative sources of clean energy i.e., biogas from agricultural organic waste for cooking energy	- Number of workshops held - Reduced usage of non-renewable sources of energy				✓	County department of Water, Environment, & Climate Change Development partners Community
		Empower the community in the acquisition of energy saving equipment		✓				
		Promote solar installation as an alternative to electricity			✓			
Land and Housing	Ensure a livable environment	Promote alternative building technologies	- Number of trainings held - Adoption of better building technologies	✓				County Department of Transport, Public Works, Infrastructure & Energy Development partners Community
		Train the local on appropriate building technologies					✓	
		Carry on demonstrations on better building technologies					✓	

6.3 Monitoring and Evaluation Framework

Monitoring entails the systematic and continuous collection and analysis of information aimed at tracking the progress of the project implementation against pre-set targets and objectives. Evaluation framework on the other hand studies the outcome of a project with the aim of informing the design of future projects. In urban planning practices, monitoring and evaluation framework (MEF) is a powerful project management tool with regard to achieving related goals and objectives, enhancing sustainability, improving the quality of life and is a key decision-making tool. Monitoring and evaluation are importance as they;

- Measure and report progress on all proposed implementation status
- Provide a basis for questioning and testing assumptions
- Provide a way to assess the crucial link between implementers, project beneficiaries on the ground and decision makers
- Improve management, performance and decision making
- Enhance knowledge generation and sharing including collecting, tracking and analysis of data so as to determine what's happening where and for whom among different stakeholders.

As part of the MEF, the plan proposes a project's implementation and coordination committee (PICC) which will be mandated to ensure all the plan proposals are fully implemented within the scheduled timeframe. The proposed membership of the PICC is tabulated below:

Table 42: Proposed Membership of the PICC

Institutions	Actors
All Relevant National Government Ministries and Departments.	Ministry of Lands, Public Works, Housing & Urban Development: State Department for Housing and Urban Development.
	National Environment Management Authority (NEMA).
County Government.	All the County Executive Committee Members. All the County Departmental Chief Officers.
Service Providers.	West Magut Water Project
Others	Development Partners.
	Non-Governmental Organizations.
	Community Members Representatives.

The proposed PICC will also be responsible for monitoring projects' implementation, carrying out supervision of the overall plan's implementation and reviewing of projects implementation reports. The committee will continuously monitor and report on the progress of implementation, results achieved, challenges and opportunities arising from the process. Monitoring has four main components; system, data, analysis and reporting and action.

- **System:** Monitoring and Evaluation System (MES) provides the guidelines to monitor the implementation of the identified key priority projects and programmes. The monitoring system component clarifies the purpose, context, system parameters, agreed outcomes and indicators to be monitored.
- **Data:** This entails the data collection, processing, and quality assurance component.
- **Analysis and reporting:** This entails reporting against targets and making comparisons at the local levels.
- **Action:** This constitutes the decisions made on strategies, service delivery, operations, resources and evaluation.

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Appendix 1: Notice of Intention to Plan – Daily Nation

Guilford Money Market Fund	Kenya Shilling	15.06%	15.29%
Guilford Fixed Income Fund	Kenya Shilling	14.46%	15.05%
Abas Shilling MMF	Kenya Shilling	11.97%	12.65%
Abasa Dollar Fund MMF	USD	4.79%	4.85%
Madison Money Market Fund	Kenya Shilling	13.11%	14.00%
Madison Fixed Income Fund	Kenya Shilling	13.44%	14.38%
Orient Kasha Money Market Fund	Kenya Shilling	14.40%	15.49%
Jubilee Money Market Fund	Kenya Shilling	13.00%	13.80%
Jubilee Money Market Fund	USD	5.66%	5.81%
Lofty-Corban Money Market Fund	Kenya Shilling	15.35%	16.48%
Lofty-Corban Money Market Fund	Kenya Shilling	10.00%	10.00%
Lofty-Corban Money Market Fund	USD	5.94%	6.11%
Cyotoni Money Market	Kenya Shilling	15.77%	17.08%
NCBA Fixed Income Fund	Kenya Shilling	11.15%	11.23%
NCBA Dollar Fixed Income Fund	USD	3.34%	3.39%
ICEA LION Money Market Fund	Kenya Shilling	12.11%	12.88%
ICEA LION Dollar Fixed Income Fund	USD	100.52	100.52
Britam Special Fixed Income Fund (3 months)	Kenya Shilling	12.58%	13.01%
Britam Special Fixed Income Fund (6 months)	Kenya Shilling	12.39%	12.81%
Britam Special Fixed Income Fund (12 months)	Kenya Shilling	12.57%	13.32%
Sanlam Money Market Fund	Kenya Shilling	13.18%	14.05%
Sanlam US Dollar Fund	USD	5.26%	5.40%
Apollo Money Market Fund	Kenya Shilling	12.33%	13.13%
KCB Money Market Fund	Kenya Shilling	12.58%	13.33%
KCB Money Market Fund	USD	4.75%	4.86%
Nabo Africa Fixed Income Fund	USD	5.58%	5.74%
Nabo Africa Money Market Fund	USD	4.90%	5.05%
Nabo Africa Money Market Fund	Kenya Shilling	13.49%	13.20%
Nabo Africa Fixed Income Fund	Kenya Shilling	12.02%	12.65%
Dry Associates Money Market Fund	USD	5.66%	5.81%
Dry Associates Money Market Fund	Kenya Shilling	13.10%	13.92%
Genghis Money Market Fund	Kenya Shilling	12.99%	13.86%
GenAfrica Money Market Fund	Kenya Shilling	12.63%	13.46%
Faultu Money Market Fund	Kenya Shilling	13.78%	14.53%
Britam Bond Plus Fund	Kenya Shilling	13.13%	14.03%
Zimele Fixed Income Fund	Kenya Shilling	14.20%	15.18%
Kuza Fixed Income Fund	Kenya Shilling	14.40%	15.49%
Orient HiFi Fixed Income Fund	Kenya Shilling	14.40%	15.49%
ICEA LION Equity Fund	Kenya Shilling	120.13	120.13
Britam Equity Fund	Kenya Shilling	100.32	103.82
NCBA Equity Fund	Kenya Shilling	174.42	174.42
Nabo Africa Equity Fund	USD	62.59	63.65
ICEA LION Balanced Fund	Kenya Shilling	129.01	129.01
Equity Balanced Fund	Kenya Shilling	152.91	164.2
Zimele Balanced Fund	Kenya Shilling	13.27	12.88
Dry -Associates Balanced Fund	Kenya Shilling	1,790.40	1,790.40
Apollo Balanced Fund	Kenya Shilling	144.17	144.17
Cyotoni Bond Fund	Kenya Shilling	13.67%	14.57%
ICEA LION Bond Fund	Kenya Shilling	108.99	108.99

Subsidiaries Money Market Fund	Kenya Shilling	13.00%	13.00%
USDC Money Market Fund	USD	5.66%	5.61%
Lofly-Corban Money Market Fund	Kenya Shilling	10.35%	16.45%
Lofly-Corban Money Market Fund	Kenya Shilling	10.00%	10.00%
Lofly-Corban Money Market Fund	USD	5.94%	6.1%
Cytonn Money Market	Kenya Shilling	15.77%	17.08%
NCSA Fixed Income Fund	Kenya Shilling	11.15%	11.23%
NCSA Dollar Fixed Income Fund	USD	3.94%	3.39%
NCSA Money Market Fund	Kenya Shilling	12.15%	12.05%
ICFIA ION Dollar Fixed Income Fund	USD	100.5%	100.52
Britam Special Fixed Income Fund (3 months)	Kenya Shilling	12.38%	13.10%
Britam Special Fixed Income Fund (6 months)	Kenya Shilling	12.39%	13.12%
Britam Special Fixed Income Fund (12 months)	Kenya Shilling	12.57%	13.32%
Sanlam Money Market Fund	Kenya Shilling	13.18%	14.08%
Sanlam US Dollar Fund	USD	5.26%	5.40%
Apollo Money Market Fund	Kenya Shilling	12.33%	13.13%
KCB Money Market Fund	Kenya Shilling	12.58%	13.33%
KCB Money Market Fund	USD	4.76%	4.89%
Nabso Africa Fixed Income Fund	USD	5.58%	5.74%
Nabso Africa Money Market Fund	USD	4.90%	5.03%
Nabso Africa Money Market Fund	Kenya Shilling	12.49%	13.30%
Nabso Africa Fixed Income Fund	Kenya Shilling	11.92%	12.65%
Dry Associates Money Market Fund	USD	5.66%	5.81%
Dry Associates Money Market Fund	Kenya Shilling	13.10%	13.92%
Genghis Money Market Fund	Kenya Shilling	12.99%	13.89%
GenAfrica Money Market Fund	Kenya Shilling	12.63%	13.46%
Faith Money Market Fund	Kenya Shilling	13.78%	14.53%
Faith Bond Plus Fund	Kenya Shilling	13.13%	14.03%
Zimele Fixed Income Fund	Kenya Shilling	14.20%	15.16%
Kuza Fixed Income Fund	Kenya Shilling	14.40%	15.49%
Orion Hifadhi Fixed Income Fund	Kenya Shilling	9.88%	10.38%
ICEA Lion Equity Fund	Kenya Shilling	120.13	120.13
Britam Equity Fund	Kenya Shilling	103.32	103.82
NCSA Equity Fund	Kenya Shilling	174.42	174.42
Nabso Africa Equity Fund	USD	52.59	53.65
ICEA LION Balanced Fund	Kenya Shilling	129.01	129.01
Equity Balanced Fund	Kenya Shilling	152.91	154.2
Zimele Balanced Fund	Kenya Shilling	13.27	12.88
Dry -Associates Balanced Fund	Kenya Shilling	1,790.40	1,790.40
Orion Bond Fund	Kenya Shilling	145.08	144.17
ICEA ION Bond Fund	Kenya Shilling	13.67%	14.57%
	Kenya Shilling	108.99	108.99

Lofty-Corban Money Market Fund	Kenya Shilling	10.00%	10.00%
Lofty-Corban Money Market Fund	USD	5.94%	6.11%
Cytonn Money Market	Kenya Shilling	15.77%	17.08%
NCBA Fixed Income Fund	Kenya Shilling	11.15%	11.23%
NCBA Dollar Fixed Income Fund	USD	3.34%	3.39%
ICEA LION Dollar Fixed Income Fund	Kenya Shilling	12.15%	12.05%
Britam Special Fixed Income Fund (3 months)	USD	100.52	100.52
Britam Special Fixed Income Fund (6 months)	Kenya Shilling	12.33%	13.10%
Britam Special Fixed Income Fund (12 months)	Kenya Shilling	12.39%	13.12%
Sanlam Money Market Fund	Kenya Shilling	12.57%	13.32%
Sanlam US Dollar Fund	Kenya Shilling	13.18%	14.05%
Apollo Money Market Fund	USD	5.26%	5.40%
KCB Money Market Fund	Kenya Shilling	12.33%	13.13%
KCB Money Market Fund	Kenya Shilling	12.58%	13.33%
Nabso Africa Fixed Income Fund	USD	4.75%	4.86%
Nabso Africa Money Market Fund	USD	5.58%	5.74%
Nabso Africa Money Market Fund	USD	4.90%	5.03%
Nabso Africa Fixed Income Fund	Kenya Shilling	12.45%	13.30%
Dry Associates Money Market Fund	Kenya Shilling	11.92%	12.65%
Dry Associates Money Market Fund	USD	5.66%	5.81%
Genghis Money Market Fund	Kenya Shilling	13.10%	13.92%
GenAfrica Money Market Fund	Kenya Shilling	12.99%	13.86%
Faulu Money Market Fund	Kenya Shilling	12.63%	13.46%
Britam Bond Plus Fund	Kenya Shilling	13.76%	14.53%
Zimele Fixed Income Fund	Kenya Shilling	13.13%	14.03%
Kuza Fixed Income Fund	Kenya Shilling	14.20%	15.16%
Orient Ifahidi Fixed Income Fund	Kenya Shilling	14.40%	15.49%
ICEA LION Equity Fund	Kenya Shilling	9.88%	10.38%
Britam Equity Fund	Kenya Shilling	120.13	120.13
NCBA Equity Fund	Kenya Shilling	100.32	103.82
Nabso Africa Equity Fund	Kenya Shilling	174.42	174.42
ICEA LION Balanced Fund	USD	92.59	93.65
Equity Balanced Fund	Kenya Shilling	129.01	129.01
Zimele Balanced Fund	Kenya Shilling	102.91	104.42
Dry -Associates Balanced Fund	Kenya Shilling	13.27	13.88
Apollo Balanced Fund	Kenya Shilling	1,790.40	1,790.40
Co-op Bond Fund	Kenya Shilling	160.18	144.17
ICEA LION Bond Fund	Kenya Shilling	13.61%	14.57%
	Kenya Shilling	108.99	108.99

Zameba Fixed Income Fund	Kenya Shilling	14.20%	15.16%
Kuza Fixed Income Fund	Kenya Shilling	14.40%	15.49%
Orient Hifadhi Fixed Income Fund	Kenya Shilling	9.88%	10.35%
ICEA LION Equity Fund	Kenya Shilling	12.03%	12.013
Britania Equity Fund	Kenya Shilling	100.32	103.82
NCBA Equity Fund	Kenya Shilling	17.42	17.42
Nabo Africa Equity Fund	USD	52.59	53.65
ICEA LION Balanced Fund	Kenya Shilling	129.01	129.01
Equity Balanced Fund	Kenya Shilling	152.91	154.2
Zameba Balanced Fund	Kenya Shilling	13.27	12.88
Dry-Associates Balanced Fund	Kenya Shilling	1,790.40	1,790.40
Apollo Balanced Fund	Kenya Shilling	160.18	144.17
Group Bond Fund	Kenya Shilling	14.57%	14.57%
ICEA LION Bond Fund	Kenya Shilling	108.99	108.99

Zimbe Finance Fund	Kenya Shilling	14.40%	15.49%
Keppel Fixed Income Fund	Kenya Shilling	9.88%	10.38%
Orion: Africa's Fixed Income Fund	Kenya Shilling	120.13	120.13
ICEA LION Equity Fund	Kenya Shilling	100.32	103.82
Britann Equity Fund	Kenya Shilling	174.42	174.42
NCBA Equity Fund	Kenya Shilling	174.42	174.42
Nabo Africa Equity Fund	USD	52.59	53.65
ICEA LION Balanced Fund	Kenya Shilling	129.01	129.01
Equity Balanced Fund	Kenya Shilling	152.91	154.2
Zimbe Balanced Fund	Kenya Shilling	13.27	12.88
Dry -Associate Balanced Fund	Kenya Shilling	1,790.40	1,790.40
Apollo Balanced Fund	Kenya Shilling	16.36	14.17
Cape Bond Fund	Kenya Shilling	13.0%	14.57%
ICEA LION Bond Fund	Kenya Shilling	108.99	108.99

The image shows a formal letterhead for the County Government of Marsabit. At the top left is the coat of arms of the Republic of Kenya. To its right is the text 'COUNTY GOVERNMENT OF MARSABIT' in large, bold, black capital letters. Below this, in smaller bold capital letters, is 'DEPARTMENT OF LANDS, PHYSICAL PLANNING & URBAN DEVELOPMENT'. On the far right is the official seal of the County Government of Marsabit, which features a landscape with a river and hills, surrounded by the words 'COUNTY GOVERNMENT OF MARSABIT' and 'ESTABLISHED 2013'. Below the seal, the text 'Marsabit County Government' and 'The Department of Lands, Energy and Urban Development' is written. The main body of the letterhead contains the following text: 'PHYSICAL AND LAND USE PLANNING ACT, 2019', 'NOTICE OF INTENTION TO PLAN', and 'Project area, Otte settlement in Saku Sub-County, Marsabit county'. Below this, a paragraph states: 'Notice is hereby given to all residents and stakeholders in Marsabit County that pursuant to article 6, 10(2), 60-66, 67, 184, 186 and the first and fourth schedules of the constitution of Kenya 2010; the National Land Commission Act 2012; County Government Act 2012, Land Act 2012, the Physical and Land Use Planning Act 2019, Physical Planners Registration Act 1996 and other enabling legislations.' This is followed by another paragraph: 'The County Government of Marsabit in conjunction with the Ministry of Land, Energy and Urban Development, intends to prepare Local Physical and Land Use Development Plan for the above-mentioned project area.' The next paragraph reads: 'This exercise will be carried out under Second Kenya Informal Settlement Improvement Project (KISIP 2) a Government of Kenya project whose aim is to improve basic services and land tenure security of the residents in the participating urban informal settlements and strengthen institutional capacity for slum upgrading in Kenya.' The final paragraph states: 'Preparation of this plan will be participatory and therefore all stakeholders are invited to the planning process. Any comments, enquiries or suggestions on the same may be done in writing to: The County Executive Committee Member, Department of Lands, Energy and Urban Development, Marsabit County, P.O Box 29-60500 Marsabit.' At the bottom left, the date 'Dated 23rd December 2024' is written. Below the date is the signature 'HON. AMINA CHALLA' and the title 'COUNTY EXECUTIVE COMMITTEE MEMBER'. At the very bottom, the text 'THE DEPARTMENT OF LANDS, ENERGY AND URBAN DEVELOPMENT' is written in bold capital letters.

Appendix 2: Notice of Intention to Plan – Taifa Leo

ma Piny Luo Festival itaanza Desemba 30 na kukamilika Januari 2, 2025.

Itahusisha jamii ya Waluo kutoka Kenya, Tanzania, Uganda, Sudan Kusini, Jamuhuri ya Kidemokrasia ya Congo (DRC) miongoni mwa maeneo mengine ya Afrika.

Rais Museveni ataungana na mwenyeji wake Rais William Ruto kwenye kilele cha sherehe hizo kitakachohusisha kufunguliwa kwa uwanja mpya wa Jaramogi Oginga Odinga (Uwanja wa Kaunti ya Siaya) ambao una uwezo wa kuwasitiri mashabiki 20,000 wa soka.

ga akizungumza katika eneo bunge la Bondo, Siaya kwenye hafla iliyoandaliwa na mwana-siasa wa ODM Andiwo Mwai, alitoa wito kwa Waluo waji-tokeze kwa wingi na kumkaribisha Rais Museveni.

“Kila mara tumekuwa na tabia nzuri ya kuwakaribisha wageni wanaotutembelea. Ninawaomba watu wetu waji-tokeze kwa wingi na kumkaribisha Rais Museveni na wageni wote watakaokuja hapa,” akasema Bw Odinga.

“Wanakuja hapa kufahamu mila, tamaduni na desturi yetu na tunastahili kuonyesha ulimwengu wote kuwa sisi ni wa-

tu na ndiyo silaha yetu, hata nikishiriki siasa za Afrika chama lazima kiwe imara na kilindwe kwa hali yoyote ile,” akasema.

Katika harakati ya kuimari-sha maandalizi ya Rais Museveni na Rais Ruto Siaya, Katibu katika Wizara ya Usalama wa Ndani Raymond Omollo alitembelea Kaunti ya Siaya Jumatatu, akazuru uwanja ambao utafunguliwa na kuan-daa mazungumzo na Gavana James Orengo.

“Rais Museveni, Rais Ruto na Mheshimiwa Raila Odinga pamoja na wageni wengi wakuu watakuja. Raila ni mwenyeji wa hapa, Afrika Mashariki na Afrika nzima ina fursa ya kusherehekea utamaduni wa Waluo,” akasema Bw Omollo.

“Tunapania kuwakaribisha wageni wote. Ni wakati wa kuonyesha umoja wetu na tujiandae kuwakaribisha watu wote tuwaonyeshe tamaduni zetu,” akaongeza Bw Omollo.

Gavana Orengo naye alisema kuwa maandalizi yote yamekamilika na akatoa wito kwa watu kujitokeza kuwakaribisha Marais Museveni, Ruto na waziri mkuu wa zamani, Raila pamoja na wageni wengine.

“Nawakaribisha Wakenya wote na Waluo wote kwa sababu ni wakati wa kusherehekea na kujivunia utamaduni wetu, historia na lugha yetu,” akasema gavana huyo.

Ujio wa Rais Museveni Siaya unajiri wakati ambapo kiongozi huyo amekuwa mstari wa

nataalu sha sifa ongeza I

Kiong sha Rail

Februar da ya ku kwake K

Wawil hata Bw

Rais kw chama v

lini wak daman

mnamo huu. Ma

kuangus to.

Katika ili hao v

ti kubw ana kwa

zi wa m mfano, E

mu waf Kibera l

kusamb bidhaa h

Wakat ya uchag daman

ambayo Uganda

na utawa ta polisi

wakabili Mzozo

wani Mig la amba

idisha ul na Rais M

Wav u wameku

hangaisl Uganda

na kuzui baada ya



**SERIKALI YA KAUNTI
YA NYERI**



Jamhuri ya Kenya
Wizara ya Ardhi, Kazi za Umma,
Makazi na Maendeleo ya Miji
Idara ya Serikali ya Makazi na
Maendeleo ya Miji
Mradi wa Pili wa Kuboresha
Makazi Yasiyo Rasmi ya Kenya

**IDARA YA ARDHI, MPANGO WA
MIJI NA USTAWI WA MIJI**

Serikali ya Kaunti
ya Nyeri
Idara ya Ardhi, Upangaji
wa Ardhi, Makazi na
Maendeleo ya Miji

SHERIA YA UPANGAJI WA ARDHI NA MATUMIZI YA ARDHI, 2019

TAARIFA YA NIA YA KUPANGA

Eneo la Mradi. Makazi yasiyo rasmi ya Gitunduti na Ndumanu katika Kaunti
ndogo ya Mathira Mashariki, Kaunti ya Nyeri

Taarifa hii inatolewa kwa wakazi wote na wadau wa Kaunti ya Nyeri kwamba kulingana na kifungu cha 6, 10(2), 60, 66, 67, 184, 186 na ratiba ya kwanza na ya nne ya Katiba ya Kenya 2010; Sheria ya Tume ya Ardhi ya Taifa 2012, Sheria ya Serikali za Kaunti 2012, Sheria ya Ardhi 2012, Sheria ya Upangaji wa Ardhi na Matumizi ya Ardhi 2019, Sheria ya Usajili wa Wapanga 1996 na sheria nyingine za kuunga mkono.

Serikali ya Kaunti ya Nyeri kwa ushirikiano na Wizara ya Ardhi, Kazi za Umma, Makazi na Maendeleo ya Miji, inakusudia kuandaa Mipango ya Maendeleo ya Upangaji na Matumizi ya Ardhi ya maeneo ya mradi yaliyotajwa hapo juu.

Zoezi hili litafanyika chini ya Mradi wa Pili wa Kuboresha Makazi Yasiyo Rasmi ya Kenya (KISIP 2), mradi wa Serikali ya Kenya ambao madhumuni yake ni kuboresha huduma za msingi na usalama wa umiliki wa ardhi kwa wakazi wa makazi yasiyo rasmi ya mijini yanayoshiriki na kuimarisha uwezo wa kimuundo wa kuboresha miji nchini Kenya.

Maandalizi ya mipango hii itafanyika kwa kushirikisha wananchi na hivyo wadau wote wanakaribishwa kushiriki katika mchakato wa kupanga. Maoni, maswali au mapendekezo kuhusu hili yanaweza kutumwa kwa maandishi kwa: **Mjumbe wa Kamati ya Utendaji ya Kaunti, Idara ya Ardhi, Upangaji wa Ardhi, Makazi na Maendeleo ya Miji. S. L. P. 1112-10100 Nyeri.**

Imetolewa tarehe: 28 Novemba 2024.

MJUMBE WA KAMATI YA UTEKELEZAJI YA KAUNTI
IDARA YA ARDHI, UPANGAJI WA KIMWILI, MAKAZI NA MAENDELEO YA MIJI

Appendix 4: List of Beneficiaries

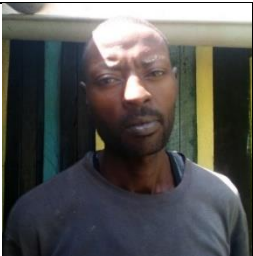
No	Plot No.	Type Of Ownership	Name	Gender	ID No.	KRA Pin	Phone No	Passport	Signature
1.	KSP/GIT/P001	Joint	Maina Waweru	Male	5510380	A012884759M	714855891		
			Peter Muraguri Nguyo	Male	6834480	A013384192W	714855891		
			Charles Ngatia Nguyo	Male	13882318	A004675878S	712440014		
			Kariithi Nguyo	Male	3690602	A012899368W	–		
2.	KSP/GIT/P007	Single	John Muriithi Mathenge	Male	7323273	A001168489E	721614144		

3.	KSP/GIT/P009	Joint	Jackline Mirigo Mathenge	Female	5506703	A014630952S	724466140		
			Timothy Githuku Mathenge	Male	28405626	A010424380N	724466140		
4.	KSP/GIT/P010	Single	Rebecca Wangu Nduuru	Female	3713604	–	718355320		
5.	KSP/GIT/P011	Single	Lilian Wanjira Gachari	Female	4835858	A001385589I	722474746		
6.	KSP/GIT/P012	Single	Gladys Mirigo Njaguri	Female	3704745	A013085898H	798190320		

7.	KSP/GIT/P013	Single	Winrose Wacera Kararu	Female	1413647	A001529245Z	723002380		
8.	KSP/GIT/P014	Single	John Wandeto Gathaka	Male	14087039	A001944671F	728952031		
9.	KSP/GIT/P015A	Single	William Mwangi Warutere	Male	7441798	A005103761H	723811164		
10.	KSP/GIT/P015B	Joint	Gerald Ndereba Njogu	Male	7669547	A004729262J	723364545		
			Joseph Waweru Njogu	Male	7039728	A006288425Y	723364545		

11.	KSP/GIT/P015C	Single	Charles Kinyua Warutere	Male	7029752	A005322424E	710341413		
12.	KSP/GIT/P016	Single	Sabina Wangui Ngatia	Female	5555912	A001416987H	722428405		
13.	KSP/GIT/P017	Single	Patrick Munyoro Karigi	Male	23925794	A00626786O	725951398		
14.	KSP/GIT/P018	Single	Ernest Gachago Karigi	Male	29355196	A006764454F	726023031		
15.	KSP/GIT/P019	Single	Ernest Gachago Karigi	Male	29355196	A006764454F	726023031		

16.	KSP/GIT/P020	Single	Mary wanjiku Muraguri	Female	3713201	A009362207J	720426203		
17.	KSP/GIT/P021	Single	Stephen Mureithi Gathoni	Male	13728157	A022156850T	743590415		
18.	KSP/GIT/P022	Single	Duncan Muthui Wamuyu	Male	22903466	A011535370V	720499455		
19.	KSP/GIT/P023	Single	Joseph Wangai Githaiga	Male	9454294	A004668189T	721633922		
20.	KSP/GIT/P024	Single	Nancy Muthoni Rumba	Female	7038036	A011593415K	759543512		

21.	KSP/GIT/P025	Single	Samuel Kinyua Muraguri	Male	23249338	A0108220261	768446925		
22.	KSP/GIT/P026	Single	David Mwangi Kamuyu	Male	27479286	A010816993N	721935257		
23.	KSP/GIT/P027	Single	Francis Macharia Gathoni	Male	24617164	A021773613R	727291688		
24.	KSP/GIT/P028	Single	Richard Kinyua wahome	Male	29612355	A0217162831	741582475		
25.	KSP/GIT/P029	Single	Simon Maina wamuyu	Male	30286167	A013104732Z	750844964		

26.	KSP/GIT/P030	Single	Pauline Wanjiru Machira	Female	24134363	A007276252X	794612034		
27.	KSP/GIT/P031	Single	Dennis Machira Wanjiru	Male	40398932	A018782905Y	796558964		
28.	KSP/GIT/P031B	Single	Pauline Wanjiru Machira	Female	24134363	A007276252X	711123432		
29.	KSP/GIT/P033	Single	Wamuyu Muthui	Female	3713484	A006762860D	705204962		
30.	KSP/GIT/P034	Single	Naftaly Kariuki Wamuyu	Male	25952958	A011738839J	114976633		

31.	KSP/GIT/P035	Single	Betty Njambi Nazili	Female	27924234	A014117973W	708619205		
32.	KSP/GIT/P036	Single	Michielina - Wambura Munene	Female	25395471	A005714039U	726920281		
33.	KSP/GIT/P037	Single	Winfred Wanjira Munyua	Female	23262186	A005714039U	707808474		
34.	KSP/GIT/P038	Single	Josleen Muthanje	Female	7679900	A005498704A	720601885		
35.	KSP/GIT/P039	Single	Beatrice Muthoni Kaguiri	Female	6090827	A0158699045K	728319605		

36.	KSP/GIT/P040	Joint	Paul Wairegi Mirigo	Male	11286517	A0072050261	723302213		
			Emma Njeri Mirigo	Female	26656509	A021889039P	723302213		
37.	KSP/GIT/P041	Single	Purity Wanjiku Miano	Female	5556367	A001531710W	729936187		
38.	KSP/GIT/P042	Single	Gitunduti Better Homes Women Group	–	NYI/REG/CD/A/500	P052427610W	725596349 / 711774756		
39.	KSP/GIT/P043	Single	Gitunduti Mixed Secondary school	–	Nyeri County	P051468870U	722269871		
40.	KSP/GIT/P044	Single	AIPCA Gitunduti Church	–	–	–	727211747		
41.	KSP/GIT/P045A	Single	Elizabeth Wangechi Kamuri	Female	5564871	A001197965C	721399235		

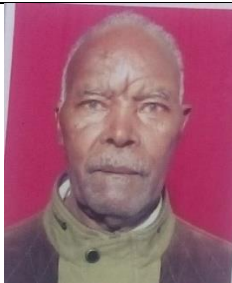
42.	KSP/GIT/P045B	Single	Richard Matu	Male	3374606	A006215913J	726102598		
43.	KSP/GIT/P046	Single	Geoffrey Kanyi Kang'angi	Male	4859378	A001535578G	724460334		
44.	KSP/GIT/P047	Single	Gitunduti Tea Buying Center	–	(SERIAL RG02)	–	712468224		
45.	KSP/GIT/P048	Single	ST. Charles Lwanga Catholic Church Gitunduti	–	–	–	722158811		
46.	KSP/GIT/P049	Single	Luciana Nyawira Mwangi	Female	8107787	A011544052N	727276085		
47.	KSP/GIT/P051	Single	Margaret Gathigia Murigu	Male	3704332	A006859443N	716103707		
48.	KSP/GIT/P052	Single	PCEA Gitunduti Church	–	48/73	P051094141R	722588761		

49.	KSP/GIT/P053	Single	David Matu Kario	Male	0762483	A002022326W	722670881		
50.	KSP/GIT/P055	Joint	Martin Muchugu Machira	Male	23453428	A004215227J	721171763		
			Catherine Wachera Machira	Female	28768460	A006195469C	721171763		
51.	KSP/GIT/P056	Single	Serah Murugi Murigu	Female	10595966	A001407563W	713835530		

52.	KSP/GIT/P057	Single	Irene Karima Ndirangu	Female	1399760	A004890572D	720814415		
53.	KSP/GIT/P058	Single	Augusta Mwihaki Muthigani	Female	0316071	A002543686D	722731426		
54.	KSP/GIT/P059	Joint	Charles Ndoria Kangangi	Male	5540372	A001093558Q	723104131		
			Geoffrey Kanyi Kang'ang'i	Male	4859378	A001535578G	724460334		

55.	KSP/GIT/P060	Single	Peter Muraguri Njogu	Male	1082983	A002194562Z	710611730		
56.	KSP/GIT/P061	Single	Samuel Mukemba Njogu	Male	11678220	A004602967B	728535958		
57.	KSP/GIT/P062	Single	Simon Gitimu Njogu	Male	13537904	A005151500Q	718329655		
58.	KSP/GIT/P063	Single	Isaac Reuben Machira	Male	0973474	A006184345M	722303967		

59.	KSP/GIT/P064	Single	Stanley Njoroge Karuri	Female	12473191	A002704265W	720723664		
60.	KSP/GIT/P068	Single	Joseph Gakuo Njoroge	Male	27416698	A010502076M	768377096		
61.	KSP/GIT/P068B	Joint	Roseline Kabuchi Warutere	Female	11566026	A001809104T	721383387		
			Agnes Gathoni Warutere	Female	20413104	A003111659E	721383387		

62.	KSP/GIT/P069	Single	Isaac Munuhe Itheru	Male	3213582	A002044330Y	726077190		
63.	KSP/GIT/P070	Single	Geofrey Githui Karige	Male	20066524	A002636717V	725681111		
64.	KSP/GIT/P071	Single	Jackson Kabingu Gichuhi	Male	10933582	A001330375J	708653567		
65.	KSP/GIT/P072	Joint	James Njine Matindi	Male	7441930	A009493760C	720667418		
			Michael Mwangi Matindi	Male	12472369	A009306296G	720667418		

66.	KSP/GIT/P073	Single	Paul Muthee Gitimu	Male	9143112	A001568771K	714358677		
67.	KSP/GIT/P074	Single	Mary Nduta Miano	Female	5564757	A001386053T	721717230		
68.	KSP/GIT/P075	Single	Charles Mambo Nyamu	Male	5557579	A003602407H	722986016		
69.	KSP/GIT/P076	Single	Elizabeth Wanjiru Kirii	Female	3705864	A003529556J	729368142		
70.	KSP/GIT/P077	Single	Stephen Muriuki Munyiri	Male	8207260	A006611922K	723559277		

71.	KSP/GIT/P079	Single	Geoffrey Kagombe Gatauwa	Male	4835471	A009615306U	723973679		
72.	KSP/GIT/P080	Single	Lawrence Kanja Maranga	Male	5326897	A000175962S	722281169		
73.	KSP/GIT/P081	Single	Thomas Machira Gitimu	Male	10188854	A003389357I	720901901		
74.	KSP/GIT/P082	Single	Isaac Reuben Machira	Male	0973474	A006184345M	722303967		

75.	KSP/GIT/P083	Single	PAUL MURAGURI MUREITHI	Male	1882951	A001110411G	722525897		
76.	KSP/GIT/P085	Single	Gladys Gathoni Gathaka	Female	3712266	A003332603A	727043255		
77.	KSP/GIT/P087	Single	Paul Wahome Kiritu	Male	1806853	A001192211Q	728528479		
78.	KSP/GIT/P089	Single	Regina Wangechi Murigu	Female	8514946	A011309013D	720929581		
79.	KSP/GIT/P091	Single	Michael Wahome Gitimu	Male	22641899	A004685577P	721459669		
80.	KSP/GIT/P092	Single	Janet Wabera Kangata	Female	3372782	–	721247735		

81.	KSP/GIT/P093	Single	Kiritu Miano Wamai	Male	4828962	A002126146H	722486146		
82.	KSP/GIT/P094	Single	Simon Gatheru Kareithi	Male	5557519	A001185262N	722772800		
83.	KSP/GIT/P095	Single	Joseph Ngure Karugi	Male	1408237	A001579906E	720814127		
84.	KSP/GIT/P098	Joint	Lilian Njoki Mutahi	Female	41299265	A018474460X	719629958		
			Miriam Kagure Gachuki	Female	25589678	–	–		

			Francis Gitimu Mutahi	Male	311728060	A022160489R	719629958		
85.	KSP/GIT/P099	Single	Erastus Mwangi Gathimba	Male	1837657	A001790286B	743509316		
86.	KSP/GIT/P101	Single	Wambura Muriithi	Female	3704755	A006534110E	723554560		
87.	KSP/GIT/P102	Single	Reuben Ngunu Joseph	Male	1868693	A001226374	727386595		
88.	KSP/GIT/P103	Single	Mercy Gathigia Weru	Female	25023674	A013365073U	721743336		

89.	KSP/GIT/P105	Single	George Githae Mithamo	Male	5947549	A003869035H	713928144		
90.	KSP/GIT/P106	Single	Solomon Ndugi Kiritu	Male	11565717	A0022628541Z	719727221		
91.	KSP/GIT/P108	Single	Catherine Wambura Nduhiu	Female	16004369	A001404610X	724617531		
92.	KSP/GIT/P110	Single	Geoffrey Karani Gachara	Male	11075263	A022159072X	791475455		
93.	KSP/GIT/P111	Single	PCEA Gitunduti Church	–	48/73	P051094141R	722588761		
94.	KSP/GIT/P113	Single	Charity Mumbi Muchiri	Female	1412070	A001407672Y	721275001		
95.	KSP/GIT/P1172	Single	ACK Diocese of Mt Kenya West St	–	23/77	P051100570K	725029342		

			Paul's Gitunduti Church						
96.	KSP/GIT/P015A	Single	William Mwangi warutere	Male	7441798	A005103761H	72381164		
97.	KSP/GIT/P015C	Single	Charles Kinyua Warutere	Male	7029752	A005322424E	710341413		
98.	KSP/GIT/P172B	Single	Julius Njuguna Kariuki	Male	22795937	A003291584R	710886728		
99.	KSP/GIT/P045B	Single	Gitunduti Horticulture Self Help Group	–	S.H.G/115 44	–	726102598		
100.	KSP/GIT/P979	Single	Gitunduti Cattle Dip	–	–	–	–		
101.	KSP/GIT/P980	Single	Gitunduti Police Post	–	–	–			

Appendix 5: List of Structures

Parcel No	Structure Type	Structure ID	Structure Typology	Wall Material	Roof Material	Floor Material	Structure Use	X Coordinate	Y Coordinate
KSP/GIT/P001	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291660.68	9956935.20
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291645.23	9956938.55
	Temporary	S003	Shanty	Wooden	Iron Sheets	Earth	Cowshed	291650.26	9956940.52
	Temporary	S004	Shanty	Wooden	Iron Sheets	Earth	latrine	291650.80	9956942.03
	Temporary	S006	Row-housing	Wooden	Iron Sheets	Earth	Residential	291630.68	9956930.68
	Temporary	S007	Shanty	Wooden	Iron Sheets	Earth	latrine	291631.16	9956922.26
	Temporary	S008	Row-housing	Wooden	Iron Sheets	Earth	Residential	291625.12	9956922.72
	Temporary	S009	Row-housing	Wooden	Iron Sheets	Earth	Residential	291638.38	9956921.85
	Temporary	S010	Row-housing	Wooden	Iron Sheets	Earth	Residential	291621.89	9956918.00
	Semi Permanent	S005	Row-housing	Stone Wooden	Iron Sheets	Cement	Residential	291620.72	9956932.93
KSP/GIT/P003	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291641.34	9956955.18
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291643.11	9956955.09
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Residential	291635.75	9956937.95
KSP/GIT/P006	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291594.80	9956929.04
KSP/GIT/P007	–	–	Undeveloped Space	–	–	–	Farming	291648.72	9956920.96
KSP/GIT/P008	–	–	Undeveloped Space	–	–	–	Farming	291632.19	9956909.90
KSP/GIT/P009	Semi Permanent	S001	Row-housing	Wooden	Iron Sheets	Cement	Residential	291668.41	9956939.69
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291672.53	9956948.93
	Temporary	S003	Shanty	Wooden	Iron Sheets	Earth	Poultry Shed	291668.79	9956945.71
	Semi Permanent	S004	Row-housing	Wooden	Iron Sheets	Cement	Residential	291668.62	9956945.43
	Semi Permanent	S005	Row-housing	Wooden	Iron Sheets	Cement	latrine	291672.83	9956931.20
	Semi Permanent	S006	Row-housing	Wooden	Iron Sheets	Cement	Residential	291657.77	9956926.53
	Temporary	S007	Shanty	Wooden	Iron Sheets	Earth	Poultry house	291662.20	9956943.94
	Temporary	S008	Shanty	Wooden	Iron Sheets	Earth	Cowshed	291651.64	9956935.70

Parcel No	Structure Type	Structure ID	Structure Typology	Wall Material	Roof Material	Floor Material	Structure Use	X Coordinate	Y Coordinate
	Semi Permanent	S009	Row-housing	Wooden	Iron Sheets	Cement	latrine	291648.37	9956936.69
KSP/GIT/P010	Semi Permanent	S001	Row-housing	Wooden	Iron Sheets	Cement	Residential	291667.39	9956912.72
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291667.55	9956908.18
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Residential	291687.56	9956919.67
KSP/GIT/P011	–		Undeveloped Space	–	–	–	Farming	291552.15	9956844.12
KSP/GIT/P012	–		Undeveloped Space	–	–	–	Farming	291560.91	9956824.94
KSP/GIT/P013	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	latrine	291586.58	9956816.68
	Semi Permanent	S002	Row-housing	Wooden	Iron Sheets	Cement	Residential	291626.85	9956855.85
KSP/GIT/P014	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291837.92	9956724.57
KSP/GIT/P015A	Semi Permanent	S001	Row-housing	Wooden	Iron Sheets	Cement	Residential	291612.32	9956755.38
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291614.16	9956749.16
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Residential	291623.41	9956768.30
KSP/GIT/P015B	Temporary	S001	Row-housing	Iron Sheets	Iron Sheets	Earth	latrine	291606.74	9956789.26
KSP/GIT/P015C	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	kitchen	291616.35	9956750.10
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291618.18	9956747.35
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Residential	291625.93	9956752.06
	Semi Permanent	S004	Row-housing	Wooden	Iron Sheets	Cement	Residential	291625.91	9956752.56
	Semi Permanent	S005	Row-housing	Wooden	Iron Sheets	Cement	Residential	291626.18	9956752.32
	Semi Permanent	S006	Row-housing	Wooden	Iron Sheets	Cement	Residential	291627.72	9956753.15
KSP/GIT/P016	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291688.69	9956898.13
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291682.53	9956908.01
KSP/GIT/P017	–	–	Undeveloped Space	–	–	–	Farming	291675.62	9956862.21
KSP/GIT/P018	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291687.02	9956882.47

Parcel No	Structure Type	Structure ID	Structure Typology	Wall Material	Roof Material	Floor Material	Structure Use	X Coordinate	Y Coordinate
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Residential	291701.32	9956925.00
KSP/GIT/P019	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291693.30	9956876.45
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Residential	291704.49	9956885.79
	Semi Permanent	S003	Water Tank	Stone		Cement	water preservation	291702.91	9956889.18
KSP/GIT/P020	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291667.64	9956814.94
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291671.49	9956811.54
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Residential	291668.26	9956806.48
	Temporary	S004	Row-housing	Wooden	Iron Sheets	Earth	Residential	291662.71	9956808.66
KSP/GIT/P021	–	S001	Undeveloped Space	–	–	–	Farming	291677.07	9956813.76
KSP/GIT/P022	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291675.08	9956830.36
KSP/GIT/P023	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291663.75	9956835.65
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291670.00	9956821.39
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Residential	291678.64	9956827.33
KSP/GIT/P024	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291687.04	9956831.09
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291666.49	9956844.90
KSP/GIT/P025	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291703.86	9956839.34
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291682.89	9956838.63
KSP/GIT/P026	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291681.20	9956845.73
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	latrine	291676.95	9956842.19
KSP/GIT/P027	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291697.96	9956840.16
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291703.68	9956843.92
KSP/GIT/P028	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291698.83	9956852.84
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291691.12	9956851.37
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Residential	291694.53	9956852.73
	Temporary	S004	Row-housing	Wooden	Iron Sheets	Earth	Residential	291689.33	9956847.37
KSP/GIT/P029	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291708.98	9956854.78
KSP/GIT/P030	Temporary	S001	Row-housing	Wooden	Iron Sheets	Stone	Residential	291716.07	9956841.92
KSP/GIT/P031	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291730.23	9956865.28
KSP/GIT/P031B	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291730.56	9956865.80

Parcel No	Structure Type	Structure ID	Structure Typology	Wall Material	Roof Material	Floor Material	Structure Use	X Coordinate	Y Coordinate
KSP/GIT/P033	Temporary	S001	Row-housing	Iron Sheets	Iron Sheets	Earth	Residential	291684.89	9956819.10
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291693.70	9956819.64
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Residential	291683.01	9956811.30
KSP/GIT/P034	–		Undeveloped Space	–	–	–	Farming	291700.80	9956811.93
KSP/GIT/P035	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291699.45	9956828.15
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291701.25	9956816.96
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Pit latrine	291703.67	9956822.62
KSP/GIT/P036	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Religious	291710.03	9956831.77
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291713.83	9956827.74
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Residential	291708.70	9956839.14
KSP/GIT/P037	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291761.14	9956801.09
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	latrine	291757.25	9956803.42
KSP/GIT/P038	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291765.46	9956793.94
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291772.12	9956807.62
KSP/GIT/P039	Temporary	S001	Row-housing	Iron Sheets	Iron Sheets	Earth	Residential	291799.93	9956759.20
KSP/GIT/P040	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291777.94	9956811.79
KSP/GIT/P041	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Residential	291782.46	9956788.40
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291769.78	9956793.37
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	latrine	291769.14	9956794.50
KSP/GIT/P042	Semi Permanent	S001	Row-housing	Wooden	Iron Sheets	Cement	Residential	291842.76	9956782.84
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Residential	291832.99	9956782.70
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Shanty	291832.49	9956782.69
	Temporary	S004	Row-housing	Wooden Stone	Iron Sheets	Earth	Residential	291832.18	9956782.69
	Temporary	S005	Row-housing	Wooden	Iron Sheets	Earth	Residential	291830.04	9956782.81
	Temporary	S006	Row-housing	Wooden	Iron Sheets	Earth	Residential	291792.56	9956781.42
	permanent	S007	Row-housing	Stone	Iron Sheets	Cement	Residential	291791.12	9956785.84
	Semi Permanent	8	Row-housing	Wooden Stone	Iron Sheets	Cement	Latrine	291790.05	9956789.93

Parcel No	Structure Type	Structure ID	Structure Typology	Wall Material	Roof Material	Floor Material	Structure Use	X Coordinate	Y Coordinate
KSP/GIT/P043	Semi Permanent	S001	Row-housing	Iron Sheets	Iron Sheets	Cement	latrine	291902.48	9956901.90
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Residential	291764.26	9956927.09
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Cow shed	291878.79	9956939.74
	permanent	S004	Row-housing	Stone	Iron Sheets	Cement	Educational	291878.41	9956935.95
	permanent	S005	Row-housing	Stone	Iron Sheets	Cement	Educational	291877.30	9956940.34
	permanent	S006	Storey Building	Stone	Iron Sheets	Cement	Educational	291884.23	9956933.48
	Semi Permanent	S007	Row-housing	Stone	Iron Sheets	Cement	latrine	291932.10	9956890.46
	permanent	S008	Gate	Stone			gate	291893.27	9956839.99
KSP/GIT/P044	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Religious	291985.64	9956832.70
	Semi Permanent	S002	Row-housing	Stone Iron Sheets	Iron Sheets	Cement	Educational	291972.86	9956852.65
KSP/GIT/P045A	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291973.99	9956762.59
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Residential	291974.18	9956769.02
	permanent	S003	Row-housing	Stone	Iron Sheets	Cement	Residential	291974.70	9956774.02
	permanent	S004	Row-housing	Stone	Iron Sheets	Cement	latrine	291959.26	9956782.15
	permanent	S005	Row-housing	Stone	Iron Sheets	Cement	Residential	291965.99	9956774.42
	permanent	S006	Row-housing	Stone	Iron Sheets	Cement	Residential	291967.26	9956764.75
	permanent	S007	Row-housing	Stone	Iron Sheets	Cement	latrine	291971.53	9956787.72
KSP/GIT/P045B	Temporary	S001	Row-housing	Iron Sheets	Iron Sheets	Cement	Business	291968.68	9956786.67
KSP/GIT/P046	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291990.76	9956775.87
	Temporary	S002	Row-housing	Iron Sheets	Iron Sheets	Earth	Storage	291980.42	9956784.42
	Temporary	S003	Row-housing	Iron Sheets	Iron Sheets	Earth	latrine	291981.98	9956785.41
KSP/GIT/P047	permanent	S001	Row-housing	Stone	Iron Sheets	Earth	Business	292004.42	9956781.44
KSP/GIT/P048	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Religious	291967.35	9956930.42
	permanent	S002	Septic_Tank			Religious	291968.16	9956928.63	
KSP/GIT/P049	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential and Business	291850.36	9956799.45
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Residential	291861.77	9956784.43
KSP/GIT/P051	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291831.00	9956754.01

Parcel No	Structure Type	Structure ID	Structure Typology	Wall Material	Roof Material	Floor Material	Structure Use	X Coordinate	Y Coordinate
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Latrine	291821.72	9956763.44
	Temporary	S005	Row-housing	Wooden	Iron Sheets	Earth	Kitchen	291828.58	9956746.54
	Semi Permanent	S002	Row-housing	Wooden	Stone	Cement	Residential	291817.90	9956754.71
	permanent	S004	Water Tank	Stone		Cement	Tank	291815.64	9956753.53
KSP/GIT/P052	–		Undeveloped Space	–	–	–	Farming	291821.67	9956738.63
KSP/GIT/P053	–		Undeveloped Space	–	–	–	Farming	291810.51	9956725.87
KSP/GIT/P055	–		Undeveloped Space	–	–	–	Farming	291797.54	9956718.06
KSP/GIT/P056	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential and Business	291792.96	9956709.03
	permanent	S002	Latrine and bathroom	Stone	Iron Sheets	Cement	latrine	291773.79	9956725.84
KSP/GIT/P057	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential and Business	291786.24	9956698.38
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Residential	291780.70	9956699.94
	permanent	S003	Row-housing	Stone	Iron Sheets	Cement	Business	291789.98	9956693.02
KSP/GIT/P058		S001	Undeveloped Space			Residential	291777.41	9956695.66	
KSP/GIT/P059	—	S001	Undeveloped Space	–	–	–	farming	291764.43	9956677.49
	–		Undeveloped Space	–	–	–	Farming	291767.10	9956678.24
KSP/GIT/P060	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Business	291752.26	9956680.36
KSP/GIT/P061	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291757.51	9956672.77
KSP/GIT/P062	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291759.99	9956669.95
KSP/GIT/P063	–		Undeveloped Space	–	–	–	Farming	291753.88	9956659.40
KSP/GIT/P064	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291733.31	9956648.63
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Residential	291730.82	9956651.34
	permanent	S003	Row-housing	Stone	Cement	Cement	Business	291739.32	9956636.09

Parcel No	Structure Type	Structure ID	Structure Typology	Wall Material	Roof Material	Floor Material	Structure Use	X Coordinate	Y Coordinate
KSP/GIT/P068	Semi Permanent	S001	Row-housing	Metal	Iron Sheets	Store	291766.89	9956615.07	
	permanent	S002	Storey Building	Stone	Iron Sheets	Cement	Residential	291745.47	9956625.90
	Temporary	S003	Row-housing	Wooden Iron Sheets	Iron Sheets	Earth	Residential	291735.24	9956612.59
	permanent	S004	Row-housing	Stone	Iron Sheets	Cement	Business	291771.86	9956618.86
KSP/GIT/P068B	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291784.40	9956609.52
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Residential	291782.82	9956599.49
	permanent	S003	Row-housing	Stone	Iron Sheets	Cement	Residential	291765.10	9956604.86
KSP/GIT/P069	–	–	Undeveloped Space	–	–	–	Farming	291780.32	9956597.52
KSP/GIT/P070	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291785.37	9956600.38
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Residential	291775.71	9956567.00
	permanent	S003	Row-housing	Stone	Iron Sheets	Cement	Latrine	291830.97	9956608.00
	Temporary	S004	Row-housing	Iron Sheets	Iron Sheets	Earth	Business	291800.53	9956600.67
KSP/GIT/P071	permanent	S001	Storey Building	Stone	Stone	Cement	Residential	291795.82	9956579.90
KSP/GIT/P072	–	–	Undeveloped Space	–	–	–	Residential other	291813.11	9956580.58
KSP/GIT/P073	–	–	Undeveloped Space	–	–	–	Residential	291828.70	9956598.74
KSP/GIT/P074	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291815.99	9956606.91
	Semi Permanent	S002	Bungalow	Stone	other	Cement	Residential	291815.35	9956591.36
KSP/GIT/P075	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential and Business	291816.39	9956640.11
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Residential and Business	291791.66	9956612.29
	permanent	S003	Row-housing	Stone	Iron Sheets	Cement	Residential and Business	291793.78	9956606.67
KSP/GIT/P076	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291783.64	9956630.82
KSP/GIT/P077	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential and Business	291786.18	9956632.76

Parcel No	Structure Type	Structure ID	Structure Typology	Wall Material	Roof Material	Floor Material	Structure Use	X Coordinate	Y Coordinate
KSP/GIT/P078	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291804.23	9956643.82
KSP/GIT/P079	permanent	S001	Storey Building	Stone	Iron Sheets	Cement	Residential and Business	291780.58	9956678.56
KSP/GIT/P080	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291817.13	9956684.70
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Residential	291814.28	9956645.98
	permanent	S003	Row-housing	Stone	Iron Sheets	Cement	Residential	291802.04	9956661.02
	permanent	S004	Row-housing	Stone	Iron Sheets	Cement	Latrine	291801.96	9956657.94
KSP/GIT/P081	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential and Business	291821.75	9956669.09
KSP/GIT/P082	permanent	S001	Row-housing	Stone	Iron Sheets	Residential and Business	291764.28	9956664.58	
KSP/GIT/P083	–		Undeveloped Space	–	–	–	Undeveloped	291840.57	9956613.55
KSP/GIT/P085	permanent	S001	Storey Building	Stone	Iron Sheets	Cement	Residential and Business	291841.59	9956647.92
KSP/GIT/P087	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291838.09	9956683.74
	Semi Permanent	S002	Row-housing	Stone	Iron Sheets	Cement	latrine	291843.75	9956679.73
KSP/GIT/P089	–	–	Undeveloped Space	–	–	–	farming	291821.54	9956707.32
KSP/GIT/P091	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291856.03	9956732.51
KSP/GIT/P092	–		Undeveloped Space	–	–	–	Farming	291862.37	9956730.73
KSP/GIT/P093	permanent	S001	Storey Building	Stone	Stone	Cement	Residential and Business	291874.64	9956707.98
	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291882.51	9956712.58
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	latrine	291852.85	9956687.31
KSP/GIT/P095 KSP/GIT/P098	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291882.19	9956696.29
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	latrine	291876.39	9956683.27
	Semi Permanent	S003	Row-housing	Wooden	Iron Sheets	Cement	Business	291874.39	9956681.13
	Temporary	S004	Row-housing	Wooden	Iron Sheets	Earth	Kitchen	291868.71	9956677.17
	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291880.46	9956703.07

Parcel No	Structure Type	Structure ID	Structure Typology	Wall Material	Roof Material	Floor Material	Structure Use	X Coordinate	Y Coordinate
	Semi Permanent	S002	Row-housing	Wooden	Iron Sheets	Cement	Residential	291883.01	9956710.05
	permanent	S003	Row-housing	Stone	Iron Sheets	Cement	latrine	291878.18	9956715.78
KSP/GIT/P099	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291870.94	9956722.91
KSP/GIT/P101	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Business	291855.86	9956731.58
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	latrine	291865.93	9956751.77
KSP/GIT/P102	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential and Business	291870.44	9956722.98
KSP/GIT/P103	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential and Business	291894.99	9956758.69
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Bathroom and pit latrines	291882.76	9956746.71
KSP/GIT/P105	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291924.73	9956752.56
	Semi Permanent	S002	Row-housing	Wooden	Iron Sheets	Cement	Bathrooms and pit latrines	291921.48	9956713.23
	permanent	S003	Row-housing	Stone	Iron Sheets	Cement	Business	291967.77	9956691.66
KSP/GIT/P106	Semi Permanent	S001	Row-housing	Iron Sheets	Iron Sheets	Cement	Residential	291928.90	9956718.06
	Semi Permanent	S002	Row-housing	Stone Iron Sheets	Iron Sheets	Cement	Business	291935.51	9956746.72
	permanent	S003	Row-housing	Stone	Iron Sheets	Cement	Bathroom and toilets	291927.56	9956722.36
KSP/GIT/P108	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential	291936.50	9956745.89
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Bathrooms and toilets	291922.14	9956749.34
KSP/GIT/P110	Semi Permanent	S001	Row-housing	Wooden	Iron Sheets	Cement	Residential	291912.51	9956767.54
	Semi Permanent	S002	Row-housing	Wooden	Iron Sheets	Cement	Business	291911.15	9956767.33
	permanent	S003	Row-housing	Stone	Iron Sheets	Cement	Business	291914.61	9956781.80
KSP/GIT/P111	–	–	Undeveloped Space	–	–	–	farming	291905.63	9956774.95

Parcel No	Structure Type	Structure ID	Structure Typology	Wall Material	Roof Material	Floor Material	Structure Use	X Coordinate	Y Coordinate
KSP/GIT/P113	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Residential and Business	291892.00	9956797.01
KSP/GIT/P1172	permanent	S001	Row-housing	Stone	Iron Sheets	Cement	Religious	291741.77	9956703.96
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Earth	Religious	291719.92	9956702.24
	Temporary	S003	Row-housing	Wooden	Iron Sheets	Earth	Kitchen	291726.65	9956712.09
	Semi Permanent	S004	Row-housing	Stone Wooden	Iron Sheets	Cement	pit latrine	291736.07	9956721.95
	Semi Permanent	S005	Row-housing	Stone Wooden	Iron Sheets	Cement	latrine	291733.31	9956725.00
KSP/GIT/P172B	–		Undeveloped Space	–	–	–	Residential	291731.18	9956872.82
KSP/GIT/P979	Temporary	S001	Row-housing	Wooden	Iron Sheets	Cement	Cattle dip	291718.85	9956675.30
	Temporary	S002	Row-housing	Wooden	Iron Sheets	Cement	Cattle dip	291700.67	9956676.49
KSP/GIT/P980	Temporary	S001	Row-housing	Wooden	Iron Sheets	Earth	Chicken farming	291703.70	9956703.41
	permanent	S002	Row-housing	Stone	Iron Sheets	Cement	Pit latrines and bathroom	291698.11	9956713.38
	permanent	S003	Row-housing	Stone	Iron Sheets	Cement	Residential	291689.89	9956715.32
	Temporary	S004	Row-housing	Wooden	Iron Sheets	Earth	Chicken farming	291736.48	9956688.01
	permanent	S005	Row-housing	Stone	Iron Sheets	Cement	Police post and offices	291687.66	9956703.11

Appendix 6: Minutes of the Technical Meeting on the Presentation of Socio-Economic Survey

MINUTES FOR THE TECHNICAL MEETING ON THE PRESENTATION OF THE SOCIO-ECONOMIC SURVEY FINDINGS AND UNDERTAKING OF VISIONING & PARTICIPATORY PLANNING, HELD AT THE NYERI COUNTY OFFICES GIS LABORATORY BOARDROOM ON APRIL 24, 2025.

List of Attendance - as attached

Agenda

- i. Introduction
- ii. Opening Remarks
- iii. Presentation by the Consultant
- iv. Plenary Session
- v. Way forward
- vi. Adjournment

Min 01: Introduction

The County assistant director of physical planning called the meeting to order at 12.30pm. A prayer was said by one of the host members in attendance. The County assistant director of physical planning welcomed members present and asked them to introduce themselves. After the introductions, he invited the consultant's team to carry out the presentation.

Min 02: Presentation by the Consultant

The Consultant lead planner thanked the county officials for turning up for the meeting. she noted that the objective of the technical team engagement for the day was to present socio-economic survey findings for Gitunduti and Ndumanu informal settlements in Nyeri County. She gave a brief description of the project since its inception and key activities undertaken throughout the process to the current status. Key project milestones undertaken so far included preparation of the basemap and situational analysis report, environmental and social screening, sensitization workshops, the socio-economic survey data collection, picking up of plots, enumeration of structures and structure owners/beneficiaries. She explained the methodology followed in undertaking the socio-economic survey and explained the next immediate action as updating the list of beneficiaries and presentation of the socio-economic survey findings to the communities in the two informal settlements. She noted that the project was under KISIP 2 and outlined the objectives of the project in line with KISIP component 2 which is specifically to ensure residents attain tenure security for their parcels. She highlighted the objectives of engaging the technical team as constituting the:

- Presentation of socio-economic survey findings for each informal settlement.
- Visioning
- Participatory Planning exercise

Summary of the key findings

The lead planner described the main objective of the socio-economic survey was to obtain in-depth understanding of various characteristics of residents in the planning areas. Key themes of the survey comprised of gathering primary data from all households in the two villages on livelihood and economic status, social and physical infrastructure and services, population and demographic features, land, and housing and structure characteristics. The consultant lead planner indicated that the findings were essential in guiding the next phase of plan proposals formulation. She noted that 100% of households participated in the survey hence 100% responses from both informal settlements. She then proceeded to make presentations of findings from the six planning areas.

➤ *Population and Demography*

Based on the socio-economic survey findings, she noted that the sum total population from all settlements was estimated at 335 people: Gitunduti (95), and Ndumanu (240). The average household size for the two settlements is 2.2 persons per household: Gitunduti 2.1, and Ndumanu 2.3 persons per household. The lead

consultant then provided a brief description of the structure of the population in the planning areas as summarized below.

Planning Area	Total	Young (<18)	Labour Force (18-65)	Elderly (>65)	Dependent (<18+>65)
Gitunduti	95	28%	64%	7%	36%
Ndumanu	240	39%	53%	8%	47%

➤ ***Vulnerable groups***

The consultant lead planner described vulnerable groups as individuals that are at a higher risk of poverty, exclusion, or discrimination due to their social, economic, or geographic circumstances according to world bank publications. She identified the vulnerable groups that were found in the settlements as the chronically ill, orphans, widows, the socially and economically marginalized, and the elderly people aged over 65 years.

➤ ***Number of claimed plots and Beneficiaries***

The lead planner highlighted a summary of preliminary claimed plots across the two informal settlements. These included Gitunduti 48, and Ndumanu 101 claimed plots. As per the preliminary claimed plots, she observed that the project will have a total of 149 beneficiaries.

➤ ***Social Infrastructure***

The lead planner reported the absence of social amenities such as ECDE centres, schools, social halls, health facilities, playgrounds etc as per the socio-economic survey findings. However, she observed that residents in all planning areas had access to nearby social infrastructure facilities that were within the recommended distance according to the Physical Planning Handbook (2007). She also noted that most of the planning areas did not meet the required population threshold for various types of social infrastructure facilities.

➤ ***Physical Infrastructure***

On matters transportation, the lead planner pointed out that all informal settlements had inaccessible plots with occupants of such locked plots having to sneak to their structures via their neighbours' parcels/compounds. The situation was dire in some of the informal settlements. She noted that most of the access roads were very narrow footpaths and in poor surface conditions that could not permit vehicular use. She added that the roads in most of the settlements are earth roads, unpaved and ungraded. She attached the challenges to unplanned and uncoordinated development due to the lack of a Local Physical and Land Use Development Plan.

➤ ***Waste Management***

Concerning sanitation issues, the lead planner reported the findings that all informal settlements faced significant challenges of managing both solid and liquid waste. She pointed that majority of residents burn solid waste, a few compost it and others indiscriminately dispose of their solid waste in the settlement becoming an eyesore, an environmental pollutant, and a source of unpleasant odour. She indicated that the findings showed that majority of households with access to a toilet use pit latrines which infiltrates to contaminate underground water. The situation was aggravated by the finding that underground water was commonly used by a number of households across the informal settlements, accessed from nearby rivers/streams and wells. This exposes the residents to waterborne diseases such as cholera, dysentery among others.

➤ ***Water***

Regarding water supply, the lead planner presented the findings that a notable population of households in the informal settlements accessed water from nearby rivers/streams (48% in Ndumanu and 16% in Gitunduti) with piped water to the community tap at 48% in Ndumanu and 38% in Gitunduti being the other major source of water for households in the two villages. Piped water was supplied by West Magut Water Project in Gitunduti and by Kihore Water Project in Ndumanu informal settlement.

➤ *Housing*

The consultant provided a brief overview of the settlements' structures composition, comprising permanent, semi-permanent and temporary housing types. These diverse typologies were acknowledged and valued for their contribution to the settlement's fabric.

Key Challenges within the settlement

The consultant highlighted the general challenges facing the settlements as land tenure insecurity, poor road accessibility/road conditions (unavailable or very narrow roads), inadequate supply of water, encroachment on road reserves, informality, inadequate basic social infrastructure, absence of storm water drainage channels, improper waste management system, urban decay, insecurity and the absence of floodlights, and poor quality of housing.

Min 04: Plenary Session

The consultant invited the members to give their comments on any issue that needed more clarification. The issues raised and the responses are summarized in the table below:

Issues Raised/ Comments	Response by the consultant
The technical team members appreciated the consultant for the good work. They indicated that the findings presented were a true mirror/reflection of the realities on the ground.	-
Technical team members sought clarification on the issue of population as raised by KISIP	The consultant team clarified that the interpretation of the question in the data collection tool was the only challenges. The consultant considered that the total population was the sum total of the household members the respondent lives with plus the respondent whereas KISIP position was that the total number of people one lives with make up the settlement population.
Members sought clarification on the teacher-pupil ratio in the two informal settlements.	The lead planner observed that the data was unavailable at the moment but would be provided at a later date as it was available and had already been gathered.
Members sought clarification the presence and status of ECDE parcel in Ndumanu informal settlement.	The consultant lead planner responded that the ECDE parcel was picked and it was vacant. She observed that it can be secured for development of an ECDE facility.
Members sought clarification on why the infant population was so low.	The consultant team clarified that factors such as family planning, emigration and low birth rates contributed to the situation in Ndumanu informal settlement. Incentives for increased birth rates would help reverse the growing trend.
The technical team sought clarification as to which rivers/streams residents sourced water from and whether the piped water was by water projects or by MAWASCO.	The consultant team explained that there were nearby streams in each of the two planning areas. These streams were nearby and not necessarily within the informal settlement and were a major source of water for a significant number of households in the respective informal settlements. The piped water was from water projects.
The members sought clarification on drought as a highly ranking disaster from the findings in	The consultant team indicated lack of control on the responses, terming them primary data from

Issues Raised/ Comments	Response by the consultant
Ndumanu informal settlement. They requested the consultant team to follow up and verify since the settlement is in a highland where drought is not known for over a long time.	the residents, which cannot be altered. Only residents can clarify which drought and when it occurred as the tool did not seek for more clarification on disaster occurrences.
The technical team members raised requested the consultant to obtain pupil-teacher ratio for schools and ECDE centres surrounding the informal settlements, to identify the specific names of streams that residents source water for their consumption, verify why residents settled in mountain slopes reported drought as a common disaster occurrence, treat tea collection centres and milk cooling centres as industrial land uses rather than public purpose facilities, identify and allocate land for social hall and other social amenities where possible, and share the beneficiaries list for Ndumanu shopping centre. They further noted that in emigrants were returning to the informal settlement on learning of the planning and tenure attainment process was underway. They observed that the SEC chairman and chief in Ndumanu were allocating vacant parcels to individuals in the informal settlement. They asked the consultant to explain to the SEC chair and the chief the consequences of such actions. They contested on the income levels reported by residents terming them as too low and incorrect owing to the fact that even casuals earn at least 200/- a day which translates to at least 6000/- per month. They further urged the consultant to consider standardizing roads and making allocation for social amenities in Gitunduti which is experiencing urban sprawl they attributed to the presence of Karatina University Main Campus. They proposed a need to standardise plot sizes in Gitunduti to provide adequate accessibility, order, and planning to aid in disaster and emergence response. The proposed road sizes should be at least motorable in terms of width that is at least 6m wide and so need to abandon 2M and 3M wide roads in the planning process.	
Technical team members sought clarification on how the consultant would handle the case of contested plots.	The consultant lead planner indicated that the GRC and the SEC committees were responsible for addressing plot contestations and grievances among the community members. She observed that the consultant is unable to intervene on community affairs and thus only the community project leaders can resolve such grievances and identify the right beneficiaries for each parcel in the planning areas. However, one contested case had received verbal approval from KISIP which was deemed insufficient for further action and would only be addressed when official communication was provided.

Min 05: Way forward

The technical team members unanimously validated the socio-economic survey findings report. It was also agreed that:

- The consultant should proceed to the next phase.
- The members should fully co-operate and assist the consultant whenever the need arises.
- The consultant to use the adoptive approach.
- The members agreed to help the consultant to sell the idea of incremental road proposal to the beneficiaries.

- They committed to join the consultant in the subsequent stakeholder engagement for the presentation of socio-economic survey findings across the six informal settlements.
- The county government to undertake planning of the informal settlements in the near future

Min 06: Adjournment

There being no other business, the meeting ended at 2:54 pm with a word of prayer from one of the participants.

Minutes Confirmed By:**Settlement Representative**

Name: Position:

Signature: Date:

Local Administration Representative

Name: Position:

Signature: Date:

County Representative

Name: Position:

Signature: Date:

Principal Consultant, Geosurv Systems Ltd

Name: Position:

Signature: Date:

Photo Log

Attendance List



CONSULTANCY SERVICES TO UNDERTAKE PHYSICAL PLANNING, CADASTRAL SURVEY AND
DETAILED TOPOGRAPHICAL SURVEY OF 12 SELECTED INFORMAL SETTLEMENTS IN NYERI,
KIRINYAGA AND MARSABIT COUNTIES, LOT VII- CLUSTER 1



GEOSURV SYSTEMS LTD

Presentation of Socio-Economic Survey Findings, Verification of the Preliminary List of
Beneficiaries, Visioning and Participatory Planning to Technical Team

Name of settlement: Ndumani/Gitunduti Venue: Nyeri county GIS room Date: board room

LIST OF ATTENDANCE

S.No	Name	Designation	Gender (M/F)	Phone. No	Signature
1.	JOSEPH B. Njomo	DEP. DIR. PHYSICAL PLANNING (MEMBER - CPCT)	M	0710282748	
2.	NELSON N. MURITHI.	LAND SURVEYOR.	M.	0727955502	
3.	HARRY NJUMIA	KISIP M&E (Housing Officer)	M	0700843621	
4.	HENRY KIMUTHY	CARTO ASST	M	0725442396	
5.	EFFY AWUOR	Physical planner - Makindu East	F	0702417309	
6.	MIRIAM MUNG'EI	Records Officer	F	0726276128	
7.	MARCOUS MUNU	Physical Planner - CGN	M	0705809716	
8.	VICTOR WAMBUA	physical planner - Geosurv system	M	0707837298	
9.	HARRISON KIOKO	Physical Planner - Geosurv system	M	0722740283	
10.	FAITH WANJIKU	ENVIRONMENTAL OFFICER INTERN	F	0748711903	
11.	DAGRA LENGASHA	PHOTO INTERN	F	0758349833	
12.	CATHERINE K. KATUMA	Geosurv systems - Physical Planner	F	0722728395	
13.					

Appendix 7: Minutes of the Stakeholders Workshop on the Presentation of Socio-Economic Survey, Visioning and Participatory Planning

STAKEHOLDERS WORKSHOP MINUTES FOR PRESENTATION OF THE SOCIO-ECONOMIC SURVEY FINDINGS, VISIONING AND PARTICIPATORY PLANNING HELD ON 25TH APRIL, 2025 AT PCEA GITUNDUTI MULTI-PURPOSE HALL IN GITUNDUTI SETTLEMENT.

Attendance List Attached

Agenda

1. Introduction and opening remarks
2. Presentation by the consultant
3. Visioning and Participatory Planning
4. Declaration of the Cut-Off Date
5. Verification of the preliminary beneficiaries list
6. Plenary session
7. Way forward
8. Adjournment

Item 1: Introduction and Opening Remarks

The meeting was called to order at 1100 hours by Gitunduti Chief. He welcomed participants to the workshop and expressed his gratitude for their attendance. A participant said the opening prayers. After the prayers, the chief welcomed all participants once again and acknowledged the presence of county government leadership. He welcomed the Assistant County Commissioner who made her remarks, applauding the good work and calling for calmness through the planning and tenure regularization process. She acknowledged the presence of the county government leadership, inviting Mathira East sub-county administrator to make his remarks.

The sub-county administrator gave an in-depth description of the ongoing planning and tenure regularization process for Gitunduti, citing similar projects as happening in other parts of the county. He explained in detail the importance of the process to result to tenure security and to achieve sustainable development for the planning area. He emphasized the county government's commitment to the process and passed regards from the governor noting his commitment to all residents attaining title deeds for their parcels and improved access to services.

He introduced other county leadership officials present at the workshop including Mathira East sub-county planner, county planner, and other county officials in attendance. The county planner elaborated on the purpose of the workshop, detailing its purpose as to present socio-economic survey findings, undertake visioning process, and respond to any planning issues that may arise. He sought calmness and keen attention to detail while the consultant makes the presentation. After, he recognized the presence of KISIP representatives before inviting the consultant representatives to carry out the day's agenda.

The consultant lead planner acknowledged the KISIP representatives, giving them a chance to make their remarks. The KISIP representative engaged the participants on a recap of KISIP and its objectives. He identified the SEC and the GRC committee members, gave them a chance to introduce themselves, and outlined their roles in the current planning and tenure regularization process. The consultant representatives proceeded to carry out the days mandate.

Item 2: Presentation by the Consultant

a. Overview

The consultant lead planner began by acknowledging the participants involvement and contribution to the project since its onset. She specifically thanked them for their active participation and support for the socio-economic survey, especially by providing the required data that is the source of the day's presentation. She then elaborated on the purpose of the workshop, setting the agenda of the day which comprised of: -

- ✚ Presentation and validation of socio-economic survey findings
- ✚ Undertake visioning for Gitunduti informal settlement
- ✚ Carry out participatory planning
- ✚ Verification of the list of beneficiaries following the picking process, and
- ✚ Set the cut-off date.

i. Socio-Economic Survey Findings

The consultant lead planner described the key objectives of the socio-economic survey was to gather a detailed understanding of the informal settlement's demographic features, socio-economic status, land ownership features and housing conditions in line with KISIP objectives. The consultant explained that the findings were crucial in informing and guiding the formulation of plan proposals for the sustainable development of the informal settlement.

ii. Population

The consultant presented that Gitunduti informal settlement covers approximately 6.88 Ha of land. The population size of the informal settlement was approximated to be 95 people, 44 of them being males while females are 51 according to the socio-economic survey carried out in January 2025. The population was projected to be 141 people by 2035. The consultant briefly described the demographic composition of the settlement. The labour force population (18 – 65 years) accounts for 64% of the settlement population. The young population (below 18 years) are at 28% while the elderly population (above 65 years) are the least at 7% of the settlement population. An estimated 36% of Gitunduti informal settlement residents are dependent population. This refers to the sum total of young and elderly population within the informal settlement.

iii. Vulnerable groups

The consultant described vulnerable groups as individuals exposed to a high risk of poverty, exclusion, or discrimination due to their socio-economic or geographical conditions as defined by world bank. Vulnerable groups within the informal settlement constituted of the orphaned, socially and economically marginalized people, the chronically ill and people living with disabilities. The survey findings showed that 13% of households within the informal settlement had members living with disability. There were 13% of households with vulnerable household members in Gitunduti informal settlement.

Number of claimed plots and Beneficiaries

The consultant lead planner pointed out that according to the base map, Gitunduti Informal settlement planning area has a total of 48 claimed plots.

iv. Social Infrastructure

The consultant's lead planner reported the presence of social amenities that consist of Gitunduti Secondary School and Gitunduti Little Angels Academy, two religious facilities. She reported the absence of an ECDE facility and a primary school. Residents have access to nearby ECDE center and primary school situated outside the informal settlement but within the recommended distance as outlined in the Physical Planning Handbook. She indicated that the population within the planning area does not meet a threshold for some facilities and residents will continue to access services from the nearby facilities outside the planning area.

v. Physical Infrastructure

In regards to physical infrastructure, the consultant's lead planner reported lack of access roads to some of the plots who use footpaths or access their plots by sneaking through their neighbor's plots. Most of available internal roads were very narrow for vehicular access. Further, the findings showed that the interconnectivity is well laid out providing access to land parcels and activity spaces within Gitunduti informal settlement. She explained on the uncoordinated and unplanned developments prevailing within the planning area.

vi. Waste Management

In reference to hygiene and sanitation, the consultant's lead planner highlighted the lack of proper solid and liquid waste management common within the planning area. Solid waste is improperly managed through burning at 60%, composting at 27%, and burning/composting at 9% of the households. Indiscriminate

dumping is practiced by 2% other households and just 2% of all waste generated within the informal settlement is burned/collected. In terms of liquid waste disposal, only 9% of households use flush toilets with majority 91% using pit latrine to dispose off their liquid waste. This however was reported to have significant health effects due to its contamination of underground water which is drawn by 16% of the informal settlement households for domestic use from nearby stream.

vii. Water

In respect to water supply, the findings showed that 38% of households access piped water into their compound, 29% harvest rain water, and 16% from nearby stream. The piped water is supplied to the settlement by West Magut Water Project. Households pay an average KES 96 for water per day. Majority of households have an average water consumption rate of over 50 liters, being 47% of all settlement households.

viii. Land and Housing

The consultant's lead planner provided a detailed discussion of the land uses present at the informal settlement, highlighting the dominant land uses as educational, transportation, and public purpose land uses at 25.44, 24.71 and 20.78 percent respectively. Other significant land uses present in Gitunduti informal settlement include agricultural, residential and business cum residential land uses. The lead planner also gave a brief overview of the settlement's structures in terms of permanent, semi-permanent, and temporary types according to the socio-economic survey. She observed the presence of 81 structures out of which 22.2% are permanent, 9.8% semi-permanent, and 68% are temporary structures.

Key Challenges within the project area

The consultant explained the general challenges facing Gitunduti informal settlement comprised of land tenure insecurity, poor accessibility/road condition, inadequate water supply, inadequate basic social infrastructure, lack of storm water drainage channels, improper waste management system, urban decay and poor housing quality.

Item 3: Visioning and Participatory Planning

The consultant's lead planner explained that participatory planning involves engaging stakeholders in the formulation of plan proposals. She described planning as basically coordinated organization of land use and participatory planning involves analysis and alignment of existing land uses and proposing future land uses for sustainable development of the informal settlement. The lead planner guided the participants in understanding the existing land uses within Gitunduti informal settlement. The discussions centred on the provision of standard hierarchical roads with minimum road sizes required to be 9m. However, following a detailed analysis of the Base Map, there was consensus that it was not possible to achieve the minimum standard road sizes on all the roads within the informal settlement. This was due to absence of sufficient space for required width of roads which if they were to be implemented would have significant impacts on existing developments, especially residential structures.

Alternative planning approach was proposed, that is adoptive planning method. The consultant engaged and guided the participants through adoptive planning approach that contributes to the provision of hierarchical standard road sizes within the informal settlement. However, these could not achieve the desired road sizes in some instances where there was no sufficient land for standard road widths, especially the minimum requirement of 9m. nonetheless, the flexibility afforded by adoptive planning method resulted to road proposals of varying sizes in relation to the available space. Participants were in consensus that this approach was desirable as it minimized impacts on existing developments.

Further, participants were in agreement that wider roads were needed and this would be achieved incrementally during approval of any proposed developments on the parcels progressively. Beneficiaries abutting roads which do not meet the standard road sizes will be required to surrender equal portions of land sufficient to meet the required road widths. Additionally, stakeholders agreed that the planning process should ensure each plot has access road.

Visioning

The consultant's lead planner explained the visioning process, in a simple and explicit manner. She elaborated visioning as the process of envisaging a dream Gitunduti informal settlement. She explained that visioning refers to an aspiration of the residents for the kind of Gitunduti Informal Settlement they desire to have for the present and future generations. It involves the desire for better living standards, conditions and environment. She described it as a strategic process involving the identification of both challenges and opportunities, and devising ways to address these challenges in order to achieve the desired future outcome.

Visioning During the Participatory Planning Exercise

The detailed discussion on visioning witnessed stakeholders frame Gitunduti Informal Settlement Vision Statement to guide them towards realizing their desired future state, being cognizant of prevailing challenges and opportunities within the settlement.

The stakeholders envisioned a Gitunduti informal settlement characterised by:

- Secure land tenure
- Clean water supply and reticulation
- Good accessibility – good paved and graded roads
- Electricity supply and connectivity
- Proper waste management system with central waste treatment plant
- Proper basic social infrastructure – public toilet, market, hospital, etc
- Conventional solid and liquid waste management system (sewer and solid waste dumping sites)
- Storm water drainage channels
- Administration offices especially Assistant County Commissioner's (ACC) office.

The stakeholders harmonized all their visions and came up with one common vision for the settlement: **"To be a modern urban informal settlement with security of tenure and modern infrastructure facilities."**

Item 4: Declaration of the cut-off date

The consultant's lead planner elaborated the concept of the cut-off date within the scope of the assignment. This was described as the agreed upon deadline where all developments, ongoing or proposed construction, are halted until the completion of the planning process, that is until the last beacon is installed within the informal settlement. The justification for the cut-off date was to facilitate the consultant's ability to propose and implement interventions, such as the provision of access roads and other amenities, based on the current conditions without interference from new constructions. The stakeholders unanimously agreed to cease any development/construction on their parcels immediate and set the Cut Off Date to be the date for the Visioning and Participatory Planning Stakeholders Workshop date, (25th April 2025).

Item 5: Verification of the preliminary beneficiaries list

The consultant urged the project beneficiaries to confirm their information in the preliminary beneficiaries list. This included their full names, ID numbers, KRA PINs, mobile phone numbers, and their photos. Additionally, she reminded them to cross-check if the plot numbers listed in the beneficiaries list matched those indicated on the base map. The beneficiaries were also asked to confirm if the listed ownership structure was accurate and true.

Item 6: Key Issues Raised by the Stakeholders during Plenary Session for Clarification

Summary of the Issues Raised and the Responses

Issues Raised	Responses Given
Two participants raised concerns over subdivision of parcels 1 through 7, describing it as one parcel, and does not	The lead planner clarified that the current process was aimed at verifying ownership of parcels and biodata details of the owners and therefore the issue would be addressed during the updating of enumerated owners where the claimants were advised to avail

Issues Raised	Responses Given
require the road introduced for access to parcels 8.	themselves and clarify the owners of the said parcels. She directed them to handle any grievances with the GRC members. The KISIP representative clarified that the GRC was responsible for addressing any grievances including the ownership and illegal subdivision, and misallocation issues; and that was not the work of the consultant. He directed the aggrieved party to engage the GRC and SEC committee members to resolve the issue amicably since they are well placed as members of the community who have better knowledge and understanding of the settlement and its land history. He noted that the verification of ownership and final planning output is a long and transparent process that will eventually ensure each owner is accurately and correctly identified and granted title deed for their actual parcels. The criteria involves both county and national government and associated departments.
A participant raised concern over introduction of a 6 m road on parcels 16 and 17. He claimed the land was acquired as a result of compensation by the county government.	The lead planner clarified that the proposed road was meant to create access to interior parcels which did not have access. She requested the participant to avail documents for verification of his claim that the parcel was acquired via compensation. The project monitoring and evaluation officer advised all participants who obtained their parcels via compensation to avail the documents at the county offices for verification and validation.

Item 7: Way forward

Workshop Resolutions

The stakeholders unanimously validated the socio-economic survey findings. Additionally, they agreed on the following issues on participatory planning:

- ✓ Use of adoptive (flexible) planning approach to minimize the level of impacts on existing developments.
- ✓ Declaration of 25th April, 2025 as the Cut-off date.
- ✓ Adoption of tenancy in common registration in cases of very small plots or inaccessibility to individual plots.

Further, the consultant reminded the participants who have not yet submitted the required documents to do so as soon as possible. They were reminded to avail themselves for the updating of the list of beneficiaries as scheduled.

Item 8: Adjournment

There being no other business the workshop ended at 1.16pm.

Minutes Confirmed By:**Settlement Representative**

Name: Position:

Signature: Date:

Local Administration Representative

Name: Position:

Signature: Date:

County Representative

Name: Position:

Signature: Date:

Principal Consultant, Geosurv Systems Ltd

Name: Position:

Signature: Date:

Photo Log



Attendance List



CONSULTANCY SERVICES TO UNDERTAKE PHYSICAL PLANNING, CADASTRAL SURVEY AND
DETAILED TOPOGRAPHICAL SURVEY OF 12 SELECTED INFORMAL SETTLEMENTS IN NYERI,
KIRINYAGA AND MARSABIT COUNTIES, LOT VII- CLUSTER 1

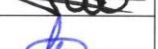
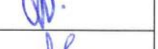
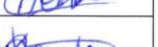
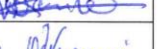


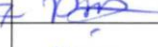
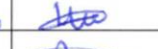
Presentation of Socio-Economic Survey Findings, Verification of the Preliminary List of
Beneficiaries, Visioning and Participatory Planning to Stakeholders

Name of settlement: Gitunduti Venue: PC&A Social Hall Date: 25/04/2025

LIST OF ATTENDANCE

S.No	Name	Designation	Gender (M/F)	Phone. No	Signature
1.	CATHERINE KANDAMBE KATUNDA	Physical Planner - Geosurv Systems	F	0722738398	
2.	VICTOR WAMBUI MUTHA	physical planner - Geosurv Systems	M	0707837248	
3.	PAUL MUREITHI	PLOT OWNER	M	0722525897	
4.	SIMON S. KAREITHI	PLOT OWNER	M	0722772800	
5.	CHARLES MAMBO MIANO	PLOT OWNER	M	0723801676	
6.	CHARLES MAMBO NYAMU	Plot Owner -	M	0722986016	
7.	PETER KAMURI GITUMU	PLOT OWNER	M	0724773739	
8.	Elizabeth W. Kirii	Plot owner	F	0729368142	
9.	STEPHEN MURIKI MUNYIRI	PLOT OWNER	M	0723559277	
10.	ERASTUS MWANGI GAITIMBA	PLOT OWNER	M	0723509316	
11.	MATU THOITHI	PLOT OWNER	M	0728962495	
12.	Joseph Ngure Karugi	Plot owner	M	0720814127	
13.	ISAAC MANUHE ITHIRU	PLOT OWNER	M	0726077190	

S.No	Name	Designation	Gender (M/F)	Phone. No	Signature
35.	PAUL WAHOMBE KIRITHY	PLOT OWNER	M	0728528479	
36.	PETER MURAGURI NJOGU	CHAIRMAN (DGR Committee)	m	0710611730	
37.	LILIAN K. OMARI	ACC MAGOTU	F	0710303597	
38.	HARRY NJUMIA	Project M&E	M	0700843621	
39.	JOSEPH G. NJORU	Project Physical Planner	M	0710282748	
40.	EFFY XWOR	Subcounty Planner Mathira East	F	0702417309	
41.	MURUTHI NELSON.	Land Surveyor	M.	0727955502	
42.	MARCUS MURUGU	Physical Planner	M	0705809746	
43.	Job Charles Wafula	KISIP NPCT	M	0112017041	
44.	Henny Kimani	Dept Land & Survey M&V	M	0725442356	
45.	Joseph Kibuchi	Dept Land & Survey	M	0791205357	
46.	MURICOM MURUGU	"	F	0726270128	
47.	John Migunda Mwai	Physical Planner	M	0717521778	
48.	PAUL MAMBO WHITHAKA	Land surveyor	m	0714666297	
49.	STANLEY NJORGE KARURI	PLOT OWNER	M	0720723664	
50.	Julius G. GATONGA	Plot owner	M	0727263258	
51.	TORECI GATHIGIA	plot owner	F	0721743236	
52.	THOMAS THINWA KAROKI (son of James Karoki)	PLOT OWNER	M	0721707079	
53.	CHARLES KINYUA WAMIERE	LAND OWNER	M	0710341413	
54.	LUCIANA NYAWIRA MWANGI	PLOT OWNER	F	0727276085	
55.	Alice wanjari muingi		F	0793993533	

S.No	Name	Designation	Gender (M/F)	Phone. No	Signature
56.	JOSEPH GAKUO NJORGE	PLOT OWNER	MALE	0768377096	
57.	WANJIKU KAGWI FAITH	ENVIRONMENTAL OFFICER	FEMALE	0748711903	
58.	SIMON GITIMU NJORGE	PLOT OWNER	MALE	8718329635	
59.	CHARLES NYATI, A			0712440644	
60.	GEOFFREY MUEHRI KABIRU	PLOT	MALE	0729662768	
61.	Moureen Wairimu Njiru		female	0149375790	
62.	PATRICK MUNYORO KARIGI	PLOT OWNER	MALE	0725951398	
63.	Simon Maina Wamuyu		MALE	075084964	
64.	Mardi Mate Gathumbi	RA	male	0725406236	
65.	Joseph Matheru	DETA Registrar	Male	072589761	
66.	Solomon Muthuri Kariuki	PLOT owner	male	0719727221	
67.	Michael Wabwani Gathumbi	plot owner	Male	0721459669	
68.	STEPHEN MURUTHI GATHUMB			0743590415	
69.	BENJAMIN GITHIKU MUYU	Land	male	0113168613	
70.	James Muniuki Maina	Plot	Male	0799869184	
71.	Francis Ngumi Kamigwi		male	0716313768	
72.	Geoffrey Karani Gachara	PLOT	Male	0991475455	
73.	DAVID MWANGI KAMUYU	PLOT	male 2	0721935757	
74.	Lilian Wanjira Gachari		female	0722474746	
75.	JOHN WAKWITO GATHUMB	PLOT	m	072898203	
76.	PATRICK GATHUMB		Male	0724391855	

S.No	Name	Designation	Gender (M/F)	Phone. No	Signature
77.	John Mwangi Gitimu		Male	0711102997	
78.	Gerard Ndunda Ngugi	Plot owner	male	0723364545	
79.	John Kabugu	NCA SEC	M	0797878041	
80.	STEPHEN KOKI	NCA'S PA	M	0703234757	
81.	Samuel Cuthuku Njuki	Secretary Sec	M	0727211747	
82.	Mary Wanjiku Muraguri	Crucify	F	0720426203	
83.	ESTHER KIANJA GITIMU	sec	F	0791201729	
84.	Eunice Wainuku Muraguri	sec	f	0710760459	
85.	Magdaline Wanjiru Kahaga		F	0724120134	
86.	Peter Muraguri		M	072461	
87.	Irene Ngari Rungu	Plot owner	F	0711366163	
88.	Janet Wabera Kangata	Plot owner	F	0721247735	
89.	Anthony Njiru Kangue	Plot owner	M	0713989151	
90.	Charles Karithi Njuki	Plot owner	M	0710194336	
91.	Gladys MUKHURU MATHONGO		F	0724882070	
92.	SABINA WANGUI NGATIA		F	0722428405	
93.	Margaret Enelisia Murugu	plot	F	0716103707	
94.	Gladys Gathara	Plot-	F	0727043255	
95.	Joseph Waweru Ngugi		M	0106240373	J.W
96.	Wamuyu Muthuri		F	0705204962	W.M
97.	Agnes Wanjiru		F	0746408863	

S.No	Name	Designation	Gender (M/F)	Phone. No	Signature
98.	Lydia Nyawira Karuki		F	074028992	
99.	Josleen Muthanji		F	0720601885	
100.	Emma Rjeri Mirigo		F	0794967298	
101.	Jane wanjiku mirigo		F		
102.	Purity Wangiku		F	0729936187	
103.	IRENE GACHARA		F	0724868305	
104.	NELIUS W. MAINA		F	0711774756	
105.	Jackline M. Mathenge		F	0724466140	Jm
106.	Josephine W Muthigani		F	0722589455	Muthigani
107.	Michielina Wambura Munuho		F	0726920281	
108.	Geoffrey Kagombe Gatauro	plot owner	M	0723973679	
109.	CATHERINE WAMBURA MUTHU	PLOT-OWNER	F	0724617531	
110.	Winrose Wacera Karary		M	0723002380	
111.	Nancy Muthiri Rumba		F	07595435	
112.	Wingred Wangira Mungu		F	0708808474	
113.	Morris MUREITHI MURUKU	Rep	M	0722158811	
114.					
115.					
116.					
117.					
118.					