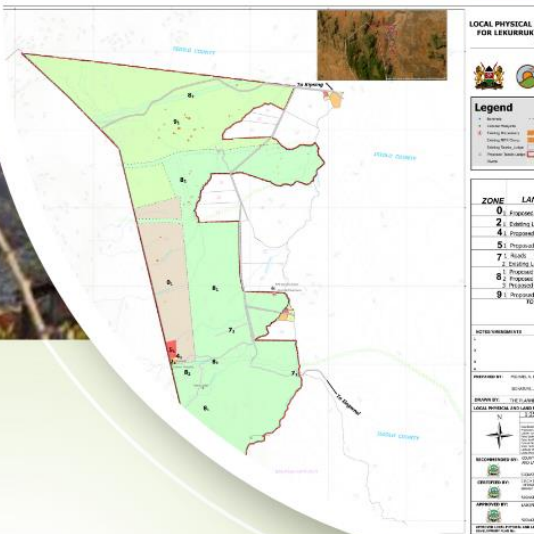




COUNTY GOVERNMENT OF LAIKIPIA

LOCAL PHYSICAL AND LAND USE DEVELOPMENT PLAN FOR LEKKURUKI COMMUNITY LAND (2026 - 2036)





CERTIFICATION & APPROVAL

I certify that this Plan has been prepared and published as per the requirements of the Physical and Land Use Planning Act, No. 13 of 2019 and County Government Act, 2012 Amended 2020, and other Planning Standards and Guidelines.

PREPARED BY:

Sign Date

Plan. Michael Mudenyio
Registered Physical Planner (RPP No).0368
COUNTY DIRECTOR OF PHYSICAL PLANNING

CERTIFIED BY:

Signature..... Date

Ekvam Nabos
County Executive Committee Member In charge of Infrastructure, Lands, Housing, Energy,
and Urban Development
County Government of Laikipia

APPROVED BY:

Hansard Number Date

County Assembly of Laikipia

DEPARTMENTAL REFERENCE No.....

APPROVED DEVELOPMENT PLAN No.....



FOREWORD



Lekurruki Community Land is endowed with extensive rangelands, rich natural resources, a strong cultural heritage, and a resilient population that contributes significantly to Laikipia County's identity and development. However, challenges including land degradation, inadequate water access, human–wildlife conflict, and limited infrastructure and social services continue to constrain the community's potential.

The County Government of Laikipia, through the Department of Lands, Housing and Urban Development, has prioritized the preparation of the Lekurruki Community Land Local Physical and Land Use Development Plan as a strategic framework for sustainable land management, secure community land rights, environmental conservation, and improved livelihoods. The Plan aligns with the Community Land Act (2016) and promotes a participatory approach that places the community at the center of its development priorities.

The planning process has incorporated community mobilization, reconnaissance surveys, GIS mapping, and socio-economic, environmental, and cultural assessments. These efforts have informed proposals to address overgrazing, land degradation, invasive species, water shortages, inadequate social services, infrastructure gaps, and human–wildlife conflict. I wish to commend the Lekurruki community and the Community Land Management Committee (CLMC) for their active participation, cooperation, and invaluable contribution throughout the planning process. Their willingness to share local knowledge, articulate community priorities, and engage in consultations has been fundamental in shaping a Plan that reflects their aspirations and interests.

I also commend the County Planning Team, led by Plan. Michael Mudeny, for its technical leadership and coordination. Special appreciation goes to the Laikipia Conservancies Association (LCA) and the Wyss Academy for Nature for their financial support and partnership, as well as the Ministry of Lands and Physical Planning, through the State Department for Physical Planning, for its technical guidance. These collective efforts demonstrate the value of community ownership and strategic partnerships in advancing sustainable community land management.



The County Government of Laikipia is committed to supporting the implementation of the Plan through coordinated planning, integration of priority interventions into County development programmes and budgets, resource mobilization, and collaboration with relevant stakeholders. I call upon the Lekurruki community, government agencies, development partners, and the private sector to embrace shared responsibility in translating the Plan's proposals into tangible development outcomes.

Together, we can promote secure community land rights, sustainable pastoral livelihoods, resilient ecosystems, and improved access to essential services, ensuring that Lekurruki Community Land remains a valuable resource for present and future generations.

Signature.....

**H.E. JOSHUA WAKAHORA IRUNGU, EGH
GOVERNOR
COUNTY GOVERNMENT OF LAIKIPIA.**



PREFACE



The preparation of the Lekurruki Community Land Local Physical and Land Use Development Plan (2026–2036) marks a significant milestone in addressing the community’s development priorities and securing a sustainable future. The Plan is the outcome of a consultative and participatory process that brought together community members, local leaders, technical experts, and government institutions. It reflects the aspirations of the Lekurruki people and provides a framework for sustainable land management, environmental conservation, infrastructure development, improved service delivery, and strengthened livelihoods, while respecting the community’s pastoral heritage and ecological values.

I commend the Lekurruki community and the Community Land Management Committee (CLMC) for their active participation, cooperation, and invaluable contribution throughout the planning process. I also recognize the County Planning Team for its technical leadership and coordination; the Laikipia Conservancies Association (LCA) and the Wyss Academy for Nature for their financial support and partnership; and the Ministry of Lands and Physical Planning, through the State Department for Physical Planning, for its technical guidance. These contributions demonstrate the importance of community ownership and strategic partnerships in achieving sustainable development.

The County Government of Laikipia is committed to moving this Plan from proposals to implementation. We will pursue the integration of its priority interventions into County development plans and budgets, strengthen interdepartmental coordination, mobilize resources, and work with national government agencies and development partners to advance its objectives. We will also support stakeholder engagement and progress monitoring to promote accountability and ensure that implementation delivers tangible benefits to the community. The success of this Plan will, however, depend on sustained collaboration and shared responsibility among all stakeholders.

I call upon the Lekurruki community, government agencies, development partners, and the private sector to actively support this shared vision. Together, we can secure community land



rights, protect natural resources, strengthen pastoral livelihoods, and create a more resilient and inclusive future for present and future generations.

Signature.....

EKWAM NABOS

County Executive Committee Member

Infrastructure, Land & Physical Planning, Housing, Energy and Urban Development

COUNTY GOVERNMENT OF LAIKIPIA



ACKNOWLEDGEMENT

The sustainable management of Lekurruki Community Land presents an important opportunity to safeguard ancestral land, strengthen community institutions, and promote a development pathway that balances pastoral livelihoods, environmental conservation, and socio-economic progress. Guided by the Community Land Act (2016), the preparation of the Lekurruki Community Land Local Physical and Land Use Development Plan seeks to establish a long-term spatial framework that protects community land rights while providing clear direction for the responsible use and management of land and natural resources.

The County Government of Laikipia, through the Department of Lands, Housing and Urban Development, is spearheading this initiative in collaboration with the Laikipia Conservancies Association (LCA), the Wyss Academy for Nature, and other relevant stakeholders. This partnership brings together planning expertise, conservation knowledge, and financial support to advance a community-driven process that responds to Lekurruki's unique ecological, cultural, and socio-economic context.

The planning exercise integrates community consultations, land adjudication, boundary verification, resource and asset mapping, and socio-economic and environmental assessments. These activities provide the foundation for a Local Physical and Land Use Development Plan that reflects community priorities, aligns with the County Spatial Plan and relevant national policies, and guides the location of settlements, grazing areas, infrastructure, water facilities, and other essential land uses.

Given Lekurruki's rich pastoral heritage, extensive rangelands, wildlife habitats, water resources, and cultural assets, the Plan places particular emphasis on balancing human needs, livestock production, and wildlife conservation. It provides an opportunity to address land degradation, resource-use conflicts, and uncoordinated development while protecting ecological connectivity, strengthening community governance, and promoting sustainable livelihoods.

The County Government recognizes that effective community land planning requires strong institutional coordination and meaningful local participation. Working with the Ministry of Lands and Physical Planning, through the State Department for Physical Planning, the National



Land Commission, LCA, the Wyss Academy for Nature, and other partners, the Government will continue to support a planning process that is technically sound, legally compliant, and responsive to the aspirations of the Lekurruki people. The community and its Community Land Management Committee remain essential partners in safeguarding local interests and promoting ownership of the Plan.

Ultimately, the value of this initiative will be measured by its contribution to secure land tenure, improved livelihoods, responsible natural resource management, and peaceful coexistence between communities, livestock, and wildlife. Lekurruki has the potential to demonstrate how community-led spatial planning and strategic partnerships can transform communal land governance and provide a replicable model for sustainable pastoral development in Laikipia County and across Kenya.

Signature.....

JOHN MWANGI GICHUKI

**Chief Officer, Land & Physical Planning, Housing, Energy and Urban Development.
COUNTY GOVERNMENT OF LAIKIPIA**



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CHAPTER ONE: INTRODUCTION

1.1. Background

Lekurruki Community Land is predominantly pastoral and semi-arid community landscape whose spatial evolution is very much tied to the pastoral production, natural resource availability, wildlife conservation, settlement pattern and access to social and economic infrastructure. Livestock is an important part of the community's livelihood, and a significant proportion of households' livelihoods rely on goats and sheep. This dependency renders the community very dependent on pasture, water, rangeland resources, and the active livestock market. Meanwhile, the community is facing more of the challenges that come with population growth, shifting population patterns, climate variability, environmental degradation, infrastructure, land and natural resource competition.

The existing settlement structure is characterized by dispersed homesteads, temporary and semi-permanent structures, and a concentration of more permanent commercial developments around Tassia Lodge. The road system also impacts settlement patterns and access to markets, health facilities, education, and other critical services. Access is, however, limited by the all-weather road connectivity and poor supporting infrastructure, especially during adverse weather conditions.

Natural resource base also is under growing stress in the community. Land cover analysis shows the variations in vegetation conditions through time, which include an increase in unhealthy vegetation and bare land. The long-term effects of drought, grazing, and climate variability have been linked to these changes. These environmental challenges will compromise the productivity of rangelands and thus the livelihoods of livestock production systems. There are also several practices the community is already implementing to help preserve the land such as erosion control, planting trees, reseeding grass and rotational grazing, and they have a good base from which additional coordination of land management activities can be established.

The landscape is also one of interaction between humans and their settlements and wildlife, in which Lekurruki exists. In some instances, wildlife corridors, wildlife access routes to water, grazing areas, and settlement areas coincide, leading to potential for conflict with humans and stress to ecological systems. A spatial framework is therefore required in the plan to ensure a viable and sustainable life for the communities whilst minimizing conflicts, protecting the environmentally sensitive areas and ensuring that movement routes for wildlife are maintained.



The purpose of preparing the Local Physical and Land Use Development Plan is therefore to offer a coordinated spatial plan to direct the present and future development. The plan will incorporate settlement development, infrastructure provision, livestock production, conservation, environmental management, economic activities and community facilities within a framework of space agreed among partners. It will also serve as a foundation for managing land use and development and for coordinating investments, while allowing development to meet the needs, aspirations and environmental challenges of the Lekurruki community.

The community of Lekurruki has a number of complex spatial, socioeconomic, environmental and infrastructure issues that need to be addressed by coordinated intervention in the planning process. The pastoral economy is very resource-intensive, especially with regard to pasture and water. Rangeland resource base is under increasing stress due to intensifying grazing pressure, extended drought, degradation of the resource, invasive species and climate variability. Lack of vegetation cover decreases the carrying capacity of a grazed area and may result in a degradation cycle that sees livestock become more concentrated where there is still vegetation, causing more damage to those areas.

The land has fragment settlement due to harsh living conditions and insecurity making it impossible to develop meaningful supportive infrastructure to upgrade the living standards of its residents. It is within the same reason that Lekurruki Community Land has no formal commercial center. They depend on temporary commercial areas that are set up on different days of the week.

The current road network is important for connectivity but may need upgrade to ensure that all roads can be used in both wet and dry conditions. Poor road connectivity, facilities may limit access to markets, education, health services and other facilities, especially in inclement weather.

Inadequate planning and management of land uses also pose issues for the community. If no spatial planning is in place, future settlement growth, infrastructure, commerce, grazing and conservation and other land uses can develop in ways that lead to conflicts or to a degradation of the long-term productivity of community lands. Specific threats are settlement encroaching on environmentally sensitive areas and wildlife corridors, land use that is not compatible with the landscape, limited supply of public facilities, and inefficient distribution of land use for future development.



Environmental degradation is another major challenge for planning. The vegetation conditions have changed, bare land is increasing, soil erosion is occurring hence affecting the ecological functioning and productive potential of the landscape. While households are taking steps to conserve, interventions are largely at the household level and need to be better coordinated across space.

A comprehensive Local Physical and Land Use Development Plan is therefore required that is able to coordinate land uses, infrastructure, environmental conservation, settlement development, economic activities and community services. Without such an integrated spatial framework, sustainable development can be affected, land-use conflicts can grow, and the community will have less capacity to effectively address climate and socioeconomic change.

1.2. Justification

The justification for the Lekurruki Local Physical and Land Use Development Plan is the need to create an integrated, legally recognized spatial framework to guide sustainable development and management of community land. There is a finite amount of land, and competing uses for settlements, livestock production, conservation, infrastructure, other economic activities and social services necessitate a deliberate spatial coordination.

A key opportunity presented by the plan is to shift from primarily reactive responses to land and environmental issues to proactive and coordinated planning. This is especially important in light of signs of degradation of vegetation, the growing pressure on rangelands, drought susceptibility, and human-wildlife interactions. Spatial planning can help to define settlement areas, grazing areas, conservation areas, infrastructure areas, economic development and other land-use areas and minimize incompatible uses.

The plan seeks to harmonize the nature of temporality that comes with pastoral communities with permanency of critical infrastructure such as hospitals, dispensaries, schools and other utilities so as to raise living standards of the community living on site.

Another reason for the plan is the desire to enhance infrastructure and access. Old roads are significant for the access of residents to markets and social services, and some need upgrading to all-weather roads and enhanced drainage. A spatial framework would help to prioritize and align infrastructure investments with existing and proposed settlement areas.

The plan will also enhance environmental conservation by delineating and safeguarding environmentally sensitive areas, such as wetlands, river systems, wildlife corridors, woodland



areas, degraded landscapes and more. There is a legal and policy structure in place for protecting the environment, community land management, coordinated infrastructure development and control of land development.

The planning process affords the greatest opportunity for the community to say what they want the future of their land to look like. Participatory planning provides a way to integrate local knowledge, community priorities, livelihoods systems, cultural factors and development aspirations into the final spatial proposals. This enhances the ownership of the plan and the chances of plan implementation.

1.3. Purpose of the Plan

The Lekurruki Local Physical and Land Use Development Plan aims to offer a detailed spatial plan to support sustainable, coordinated and equitable management and development of Lekurruki Community Land for the plan period.

In particular, the plan aims to;

- Ensure the development of settlements and established economic centers are orderly and sustainable.
- Guide the allocation and compatibility of different land uses.
- Organize the provision and upgrade of social, economic, physical and transport infrastructure.
- Conserve and manage rangelands, water, wildlife corridors, woodlands and wetlands and other environmentally sensitive areas in a sustainable manner.
- Enhance pastoral livelihoods' resilience through better grazing, livestock, water and resource management.
- Detect the places where environmental restoration and conservation actions are needed.
- Develop a plan on how to deal with human-wildlife interactions and minimize land-use conflicts.
- Direct public and private investment are a clearly defined spatial development priority. Outline guidelines to control land subdivision, construction, provision of infrastructure and incompatible uses.
- Increase community involvement and control in land use and development planning.
- The objectives are in line with the functions of a Local Physical and Land Use Development Plan in the planning context in Kenya, which encompasses zoning,



coordination of infrastructure, controlling land development, coordinating sectoral agencies and providing guidelines for development.

1.4. Planning Context

Lekurruki Community Land is located in Laikipia County within Laikipia North Sub-County and falls administratively under Mukogodo East Ward. The community land covers an area of approximately **7069.5** hectares, functions primarily for communal pastoral grazing, conservation, and tourism, and comprises four villages **See, Sekotei, Naimarlal and Tenge**. It serves **734** registered members as at the **2025** community register.

1.4.1. Scope of Work

The scope of the planning area covers the entire spatial extent of the delineated Lekurruki Community Land, encompassing an approximate total planning area of **7069.5** hectares. This core area serves as the primary zone of preference for community-led resource management, rotational grazing, infrastructure placement, and conservation zoning over the next 10-year planning horizon.

1.4.2. Location Context

Lekurruki community land is located within Laikipia county. The County lies along the Equator and is bounded to the east by the lower slopes of Mt. Kenya; to the south-west by the Aberdare's Ranges; and to west by the Rift Valley escarpment. Laikipia County borders Samburu County to the north, Isiolo County to the Northeast, Meru County to the southeast, Nyeri County to the south, Nyandarua County and Nakuru County to the southwest and Baringo County to the West. It lies between longitudes **36° 00' and 37° 45'** east and between latitude **00° 30' South and 1° 00' north**.

Lekurruki community land lies along the northern and eastern borders of the county, situated within Mukogodo East Ward, Laikipia North Sub-County, bordering by Nanapicho Community Conservancy in Isiolo County to the North, to the East by Private ranches, to the South by Ilngwesi community conservancy, and to the West by Mukogodo Forest.

Originally, Lekurruki Community owned only one parcel numbered; Laikipia/Mumonyot II/1 measuring 6847.5 Ha. As the years passed, the community has acquired the following parcels;

#	PARCEL NO	MAP SHEET NO	SIZE
1	Laikipia Mumonyot/11/3	93/4 & 107/2	40.0 Ha
2	Laikipia Mumonyot II/24	93/4 & 107/2	94.0 Ha



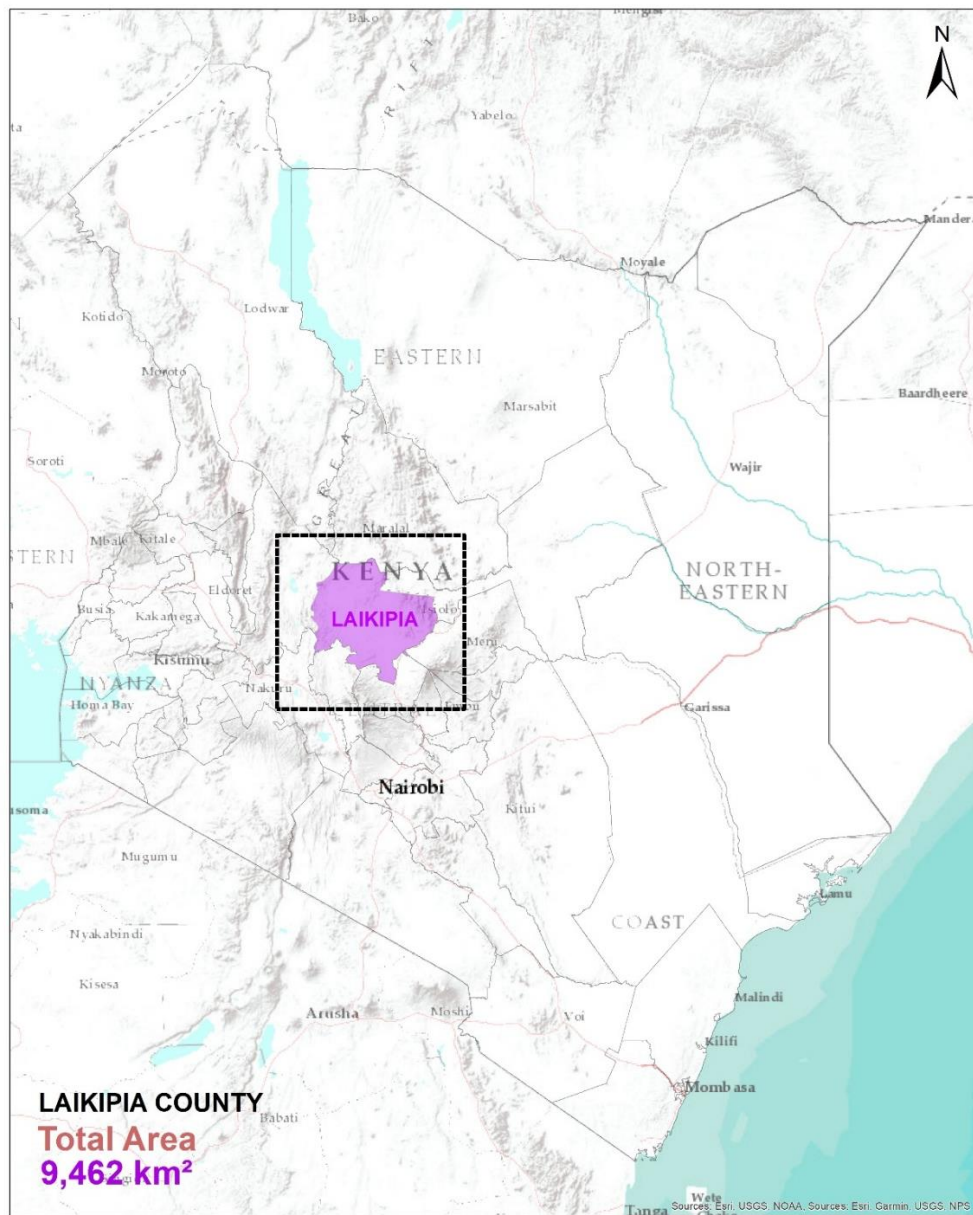
#	PARCEL NO	MAP SHEET NO	SIZE
3	Laikipia Mumonyot 11/25	93/4 & 107/2	88.0 Ha
ORIGINAL PARCEL			
	Laikipia Mumonyot 11/1	93/4 & 107/2	6847.5 Ha
Cumulative Total			7069.5

The area is accessible via neighboring conservancies. There are two major roads to access the community land. One through Borana Conservancy and the other through Lewa Conservancy.



Map 1: Lekurruki in National Context

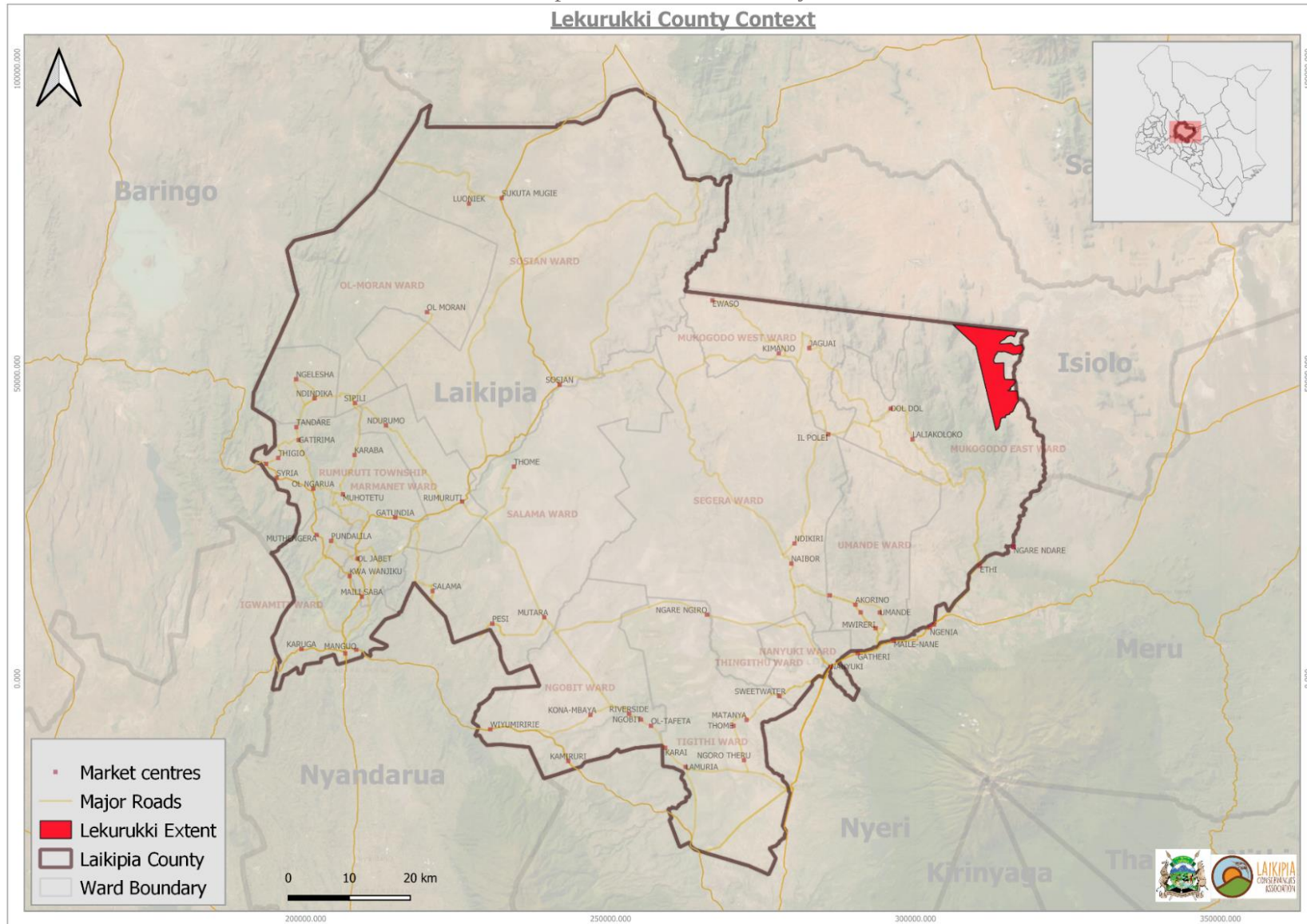
LAIKIPIA COUNTY - NATIONAL CONTEXT



Source: Compiled from Survey of Kenya Data, 2026



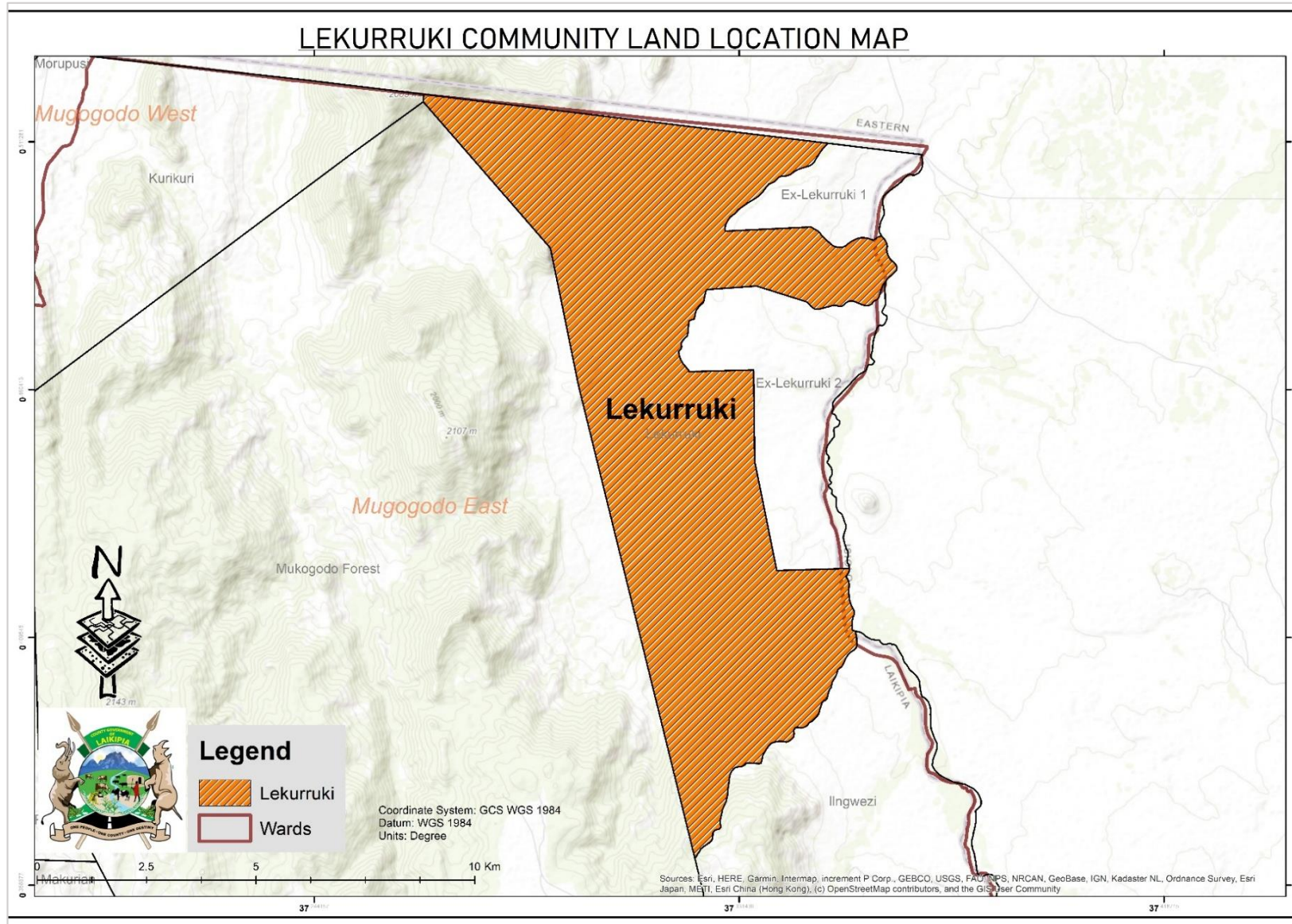
Map 2: Lekurruki in County Context



Source: Compiled from Survey of Kenya Data, 2026



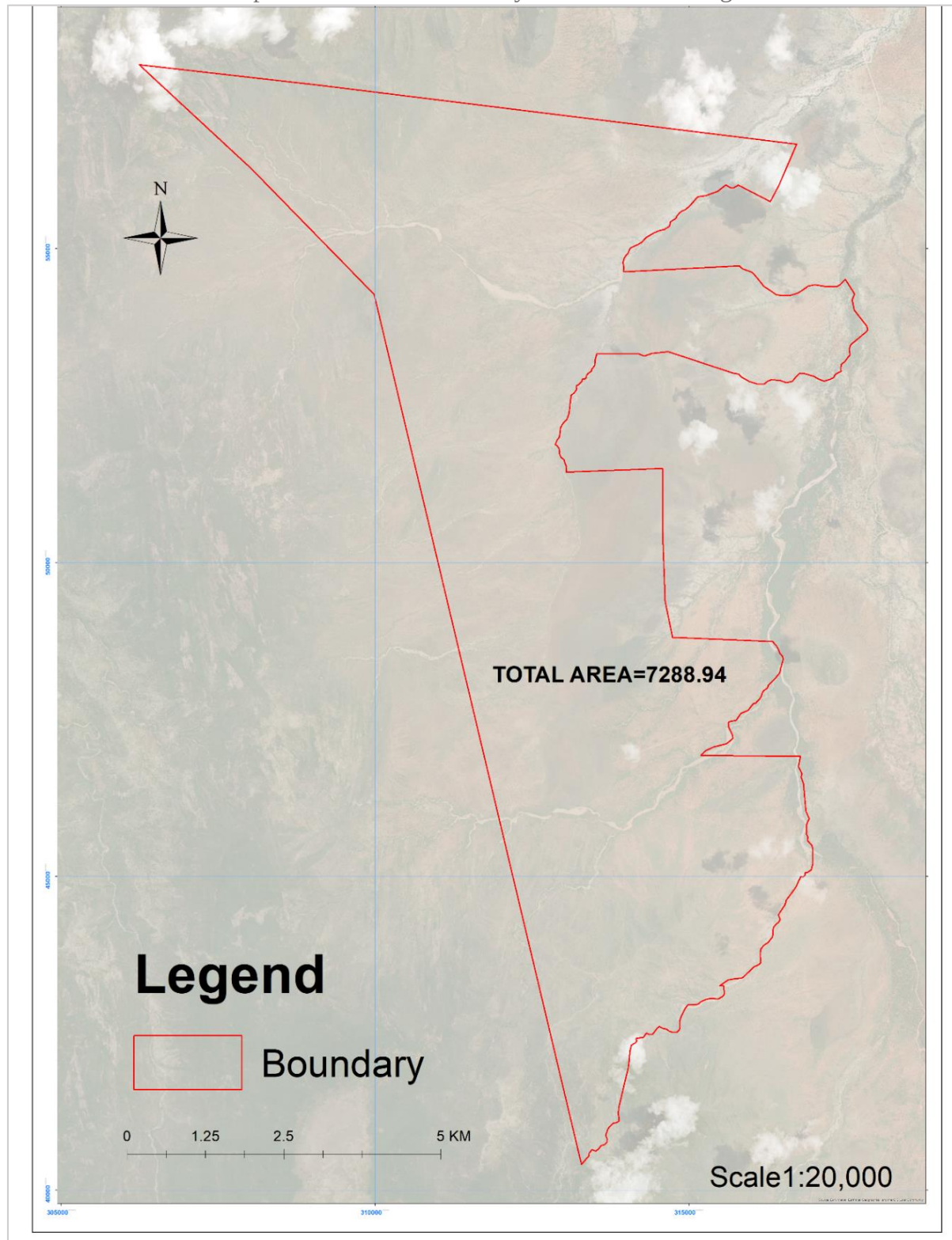
Map 3: Lekurruki Location Map



Source: Compiled from Survey of Kenya Data, 2026



Map 4: Lekurruki Community Land Area Coverage



Source: Compiled from Survey of Kenya Data, 2026



1.5. History of Lekurruki Community Land

1.5.1. Pre-Colonial & Colonial Eras: Displacement and Group Ranches

Lekurruki has historically been inhabited predominantly by pastoralist communities mainly of Yaaku-Maasai lineages who settled the area. They would migrate to neighboring landscape in search of pasture and food.

The founding population faced many challenges including; severe land degradation, poverty, rampant poaching and security issues brought about by cattle rustling and migrating nomads in competition of resources such as water and pasture for their livestock.

Anglo-Maasai Treaties forced indigenous pastoralists into designated reserves, converting surrounding fertile plateaus into private white settler ranches.

During the post-colonial land registration push of the 1970s, the land was formally registered under the Land (Group Representatives) Act (Cap 287) as Lekurruki Group Ranch to secure collective land tenure for local pastoralist families.

1.5.2. Conservation Partnerships in the 2000s

Due to increased population pressures, human-wildlife conflict, severe cyclical droughts, and rangeland degradation over the subsequent decades, the community was prompted to seek collaborative landscape-level management solutions.

In 1999, inspired by the success of neighboring conservancies such as Il Ngwesi, Lewa and Borana the community decided to form Lekurruki Conservancy. The community then sort investors to establish Tassia Lodge, an ecolodge situated on rocky escarpments just behind Losos Hills. The investment was made to bring employment to the local community and generate income for funding Local conservation projects and efforts.

The land was also registered as a communal group ranch in 1999 under the then Kenya's Land Group Representative Act.

1.5.3. The 2010 Constitution & Community Land Act Transition

In 2016, the Community Land Act was enacted and the Lekurruki community land in Laikipia North Sub-County transitioned from a group ranch into a registered **7069.5 Ha** community land.



Under this modern framework, the registered Community Land Management Committee (CLMC) oversees structured spatial zoning—balancing settlement nodes, educational and public utility facilities, rotational grazing blocks, and protected riparian buffers.

1.6. Vision

A resilient and well-managed Lekurruki Community Land where people, livestock, wildlife and nature coexist in harmony, with sustainable pastoral livelihoods, appropriately planned settlements, essential infrastructure and conserved natural resources providing a secure and prosperous future for present and future generations.

1.7. Objective of the Plan

1.7.1. Overall Objective

To create an integrated and participatory spatial plan for sustainable land use management and coordinated physical development of Lekurruki Community Land and to enhance livelihoods, infrastructure, environmental resilience and wellbeing in Lekurruki Community Land.

1.7.2. Main Objectives

- Regulate use of land and ensure development activities conform to the Laikipia County Spatial Plan guidelines.
- Guide and coordinate development of infrastructure and provision of housing and public facilities.
- Guide development in an integrated and coordinated manner to promote sustainable urban development.
- Provide a basis for tenure regularization in the targeted market centers.
- Provide a framework for coordinating various sectoral agencies and interests.

1.7.3. Specific Objectives

- To encourage settlement development to be orderly based on appropriate spatial allocation, zoning, development control and provision of supporting infrastructure.
- To guide the establishment of a planned commercial and service centre for Lekurruki, which currently has no formal commercial centre, by guiding its commercial, residential, institutional, transport and public service development.
- To identify and develop the priority areas for upgrading infrastructure such as roads, drainage, pedestrian/road connectivity, water supply, energy, communication and other infrastructure.



- To encourage sustainable management of rangelands by identifying areas for grazing on a spatial basis, by implementing controlled grazing and rotational grazing, by rehabilitating degraded pastures and by ensuring access for livestock to water.
- To conserve and rehabilitate environmentally important sites, such as wetlands, watercourses, woodlands, corridors for wildlife, degraded rangelands and other ecological resources.
- Enhance climate resilience capacities by incorporating drought preparedness, environmental restoration, sustainable use of resources and climate-smart land-use planning in development proposals.
- To minimize land-use conflicts and human-wildlife conflict by demarcating settlement, livestock, conservation and wildlife movement areas and implementing suitable spatial management solutions.
- To encourage livelihood diversification and local economic development via reasonable use of the land for markets, tourism, small businesses, value addition and other income generation activities.
- To enhance the provision of social facilities by determining suitable areas and land needs for community facilities such as health, education, recreation, administration, sanitation and others.
- To improve participatory governance by engaging in community knowledge, priorities and aspirations in spatial planning, implementation, monitoring and review.

1.8. Guiding Principles

The following principles are to be used for the preparation and implementation of Lekurruki Local Physical and Land Use Development Plan:

1.8.1. Sustainable Land Use

Land shall be used and planned to ensure that both future and current communities can meet their needs. The ecological capacity and long-term productivity of the land shall be taken into consideration in the development proposals.

1.8.2. Community participation and ownership

The community has been a key player in the planning and implementation process. Spatial proposals shall be based on local knowledge, community priorities, livelihood practices and development aspiration. Participatory planning is critical for community land as it fosters ownership and enhances implementation.



1.8.3. Environmental Sustainability

Appropriate use of land shall consider environmental conservation. The water resources, wetlands, woodlands, wildlife habitat, wildlife corridors, and degraded areas shall be identified, protected, restored, and managed appropriately.

1.8.4. Climate Resilience

The plan will take into consideration the vulnerability of the pastoral economy of Lekurruki to drought and climatic variability. All land-use proposals will therefore support resilient livelihoods, sustainable grazing systems, water security, rangeland restoration, and climate responsive infrastructure.

1.8.5. Use of space in a way that is efficient and compatible

Land shall be allocated based on its suitability, capacity, access and strategic importance. Competing uses of land shall be segregated or accommodated on a compatible basis; compatible uses of land shall be integrated.

1.8.6. Equity and Inclusivity

Planning foster equitable distribution of land, infrastructure, services, economic opportunity and community facilities. The needs of women, youth, persons with disabilities, vulnerable households and others shall be taken into consideration.

1.8.7. Accessibility and Connectivity

Development should facilitate effective movement of people, animals, products and services. Settlements will be linked to markets, health facilities, education facilities, economic centers and other critical facilities.

1.8.8. Safeguarding Community Living.

Livestock will be an integral part of the local economy and spatial planning shall preserve sufficient grazing land, animal trafficking routes, water sources and other resources that are required for pastoral production. The existing evidence indicates high reliance on livestock and thus the importance of increasing pastoral resilience and promoting livelihood diversification.

1.8.9. Wildlife Conservation

The plan will be based on the principle that wildlife conservation is an important land use but that community livelihood and human safety are paramount. Areas for wildlife corridors and dispersal shall be recognized and preserved from unacceptable development.



1.8.10. Integrated Development

Physical development shall not be assessed by itself. Spatial planning of settlement, infrastructure, environment, livelihoods, economic development, social services and governance shall be integrated.

1.8.11. Evidence-Based Planning

All planning decisions were based on field surveys, community consultations, spatial analysis, GIS, remote sensing, demographic information, infrastructure assessment, environmental analysis and other reliable evidence. Future planning decisions shall be supported by periodic monitoring, through the use of GIS and remote sensing.

1.8.12. Conformance to planning and environmental law

All development proposals and interventions shall be implemented within the guidelines of the Constitution of Kenya, the Physical and Land Use Planning Act, the County Governments Act, Environmental Legislation, Wildlife Legislation and other relevant national and county policies and regulations. Local physical and land use planning is guided by the main statutory requirements of the Physical and Land Use Planning Act, 2019.

1.9. Approach and Methodology

In the preparation of the Lekurruki Local Physical and Land Use Development Plan, integration, participatory, evidence-based, spatial and multi-sectoral planning approach was adopted. The methodology acknowledges that land-use planning is a process that considers the interplay between the physical environment, settlement systems, infrastructure, livelihoods, socioeconomic conditions, ecological resources and community aspirations.

1.9.1. Stakeholder and Community Engagement

Participatory method used for all planning. Consultation, meetings, interviews, focus group discussions, workshops and validation forums involved community members, community institutions, county departments, national government agencies, development partners, local leaders, private-sector actors and other relevant stakeholders.

The goal of participation should be to learn about the needs, challenges, priorities, potential, conflicts and concerns the community faces, the gaps in infrastructure, and what the community wants. The way will also make sure that planned action is socially acceptable and implementable in the locality.



1.9.2. Data Collection and Situational Analysis

Both primary and secondary data were used. Field observations, household surveys, key informant interviews, community consultation, GPS surveys, infrastructure assessments, and photographic documentation will be used to obtain primary data. Secondary data should comprise existing plans, administrative data, census data, environmental data, infrastructure data, satellite imagery, maps and other policy and legal documents.

The situational analysis will look at;

1.9.2.1. Population and Demographic Features.

- Existing settlement patterns.
- Land ownership and land-use.
- Housing & building conditions.
- Road and transport facilities.
- water and sanitation.
- Energy and communication facilities.

1.9.2.2. Social Facilities;

- Economic activities and livelihoods.
- Livestock production and grazing systems.

1.9.2.3. The Environment, Resources and Constraints.

- Wildlife habitats and corridors.
- Global climate change.
- Climate-related risks.
- Existing and emerging development centers.
- Community development priorities.

1.9.3. GIS and Spatial Analysis

Geographic Information Systems (GIS) should serve as a fundamental tool for spatial data management, analysis, mapping and decision making. Current and new spatial data published was added to a common geospatial database.

GIS analysis was used to determine settlement patterns, roads and road accessibility, environmental constraints, land-cover changes, wildlife corridors, areas for grazing, water



resources, infrastructure gaps, development opportunities and areas for conservation and restoration.

Remote sensing and land-cover analysis shall also be used to assist monitoring of vegetation conditions and environmental change. Especially given that the current analysis suggests there are likely to be large changes in vegetation condition from **2014** to **2026**.

1.9.4. Land Suitability and Opportunity Analysis

The suitability of land was analyzed to decide suitable locations for various land uses and development functions. Geophysical features like topography, soils, drainage, water resources, land cover existing at the time of the study, accessibility, environmental sensitivity, and settlement patterns shall be considered.

The analysis will be used to identify appropriate expansion of settlement, economic activities, public facilities, infrastructure, grazing, conservation, tourism and other strategic use of the area.

1.10. Planning Issues and Priorities

1.10.1. Identification of Planning Issues and Priorities

The information resulting from the fieldwork, spatial analysis, stakeholder consultation and secondary information compiled to help in the identification of the main planning issues and opportunities. These will encompass infrastructural shortcomings, settlement issues, environmental problems, vulnerability to livelihood activities, land use disputes, access to services, economic opportunities and protection needs.

Then the issues will be ranked based on their severity, geographical range, community significance, environmental impacts, tractability, and potential for long term development.

1.10.2. The preparation of Spatial Development Proposals.

Alternative scenarios of spatial development shall be developed and analyzed based on the situational analysis and identified priorities. The desired scenario shall be the basis for the proposed land use structure.

The settlement hierarchy, zoning, infrastructure networks and networks for economic activity, public facilities, grazing and conservation areas, environmental protection zones, wildlife corridors and transport networks shall be included in the settlement proposals, as shall be areas for future development.



1.10.3. Quality Assurance Plan

The plan shall provide guidelines for future physical development including construction, land subdivision, change of user, infrastructure development, settlement expansion and other development activities. The guidelines should encourage compatible land uses, protection of the environment, provision of adequate infrastructure and orderly development.

An implementation framework shall define priority projects, responsible institutions, indicative timelines, resource needs and possible sources of financing. This will allow the plan to be a spatial document as well as a practical development management document.

1.10.4. Validation and Approval

Proposals shall be drafted and presented to stakeholders and community for validation. Input received from the validation should be used in the final plan, as appropriate. The statutory approval process will then proceed as per the Physical and Land Use Planning Act and other relevant legislation. The Act requires that local physical and land use development plans be notified to the public, be inspected, submitted for comments and objections, and be approved.

1.10.5. Monitoring and Review

Monitoring implementation of the plan shall be conducted through agreed indicators of land use change, infrastructure provision, environmental condition, settlement growth, economic development and community services. GIS and remote sensing can be used periodically to monitor land-cover and development changes and provide evidence for future planning decisions.

The plan shall be updated on a regular basis to ensure that it is responsive to changes in population, climate, economic, infrastructure, environmental and community needs.

1.11. Methodology

1.11.1. Overview

The preparation of the Lekurruki Local Physical and Land Use Development Plan involved a structured approach of data collection, analysis and stakeholder engagement to ensure informed and sustainable decision-making. The process began with community inception meetings to brief the Community Land Management Committee and the community on the purpose of planning so that they could articulate the needs and priorities of their community. The process was then followed by a reconnaissance survey, boundary survey and data collection, which included field surveys, GIS mapping, remote sensing, and stakeholder consultations. The data was then analyzed using statistical and spatial tools to identify trends, opportunities and



challenges. Community engagement and participation were integrated throughout the process. Finally, findings were then compiled into a comprehensive land use plan with strict adherence to legal frameworks and sustainable development principles.

1.11.2. Purpose of Planning

Effective planning is vital for managing land use, guiding development, and ensuring sustainable growth especially for critical areas like Lekurruki. It prevents unregulated land use, promotes efficient infrastructure, and fosters economic opportunities while safeguarding the environment. Good planning guarantees access to essential services such as roads, water, health facilities, schools and public spaces while addressing social equity and community needs. It also ensures compliance with legal frameworks, minimizes land disputes, and strengthens climate resilience.

1.11.3. Pre-planning

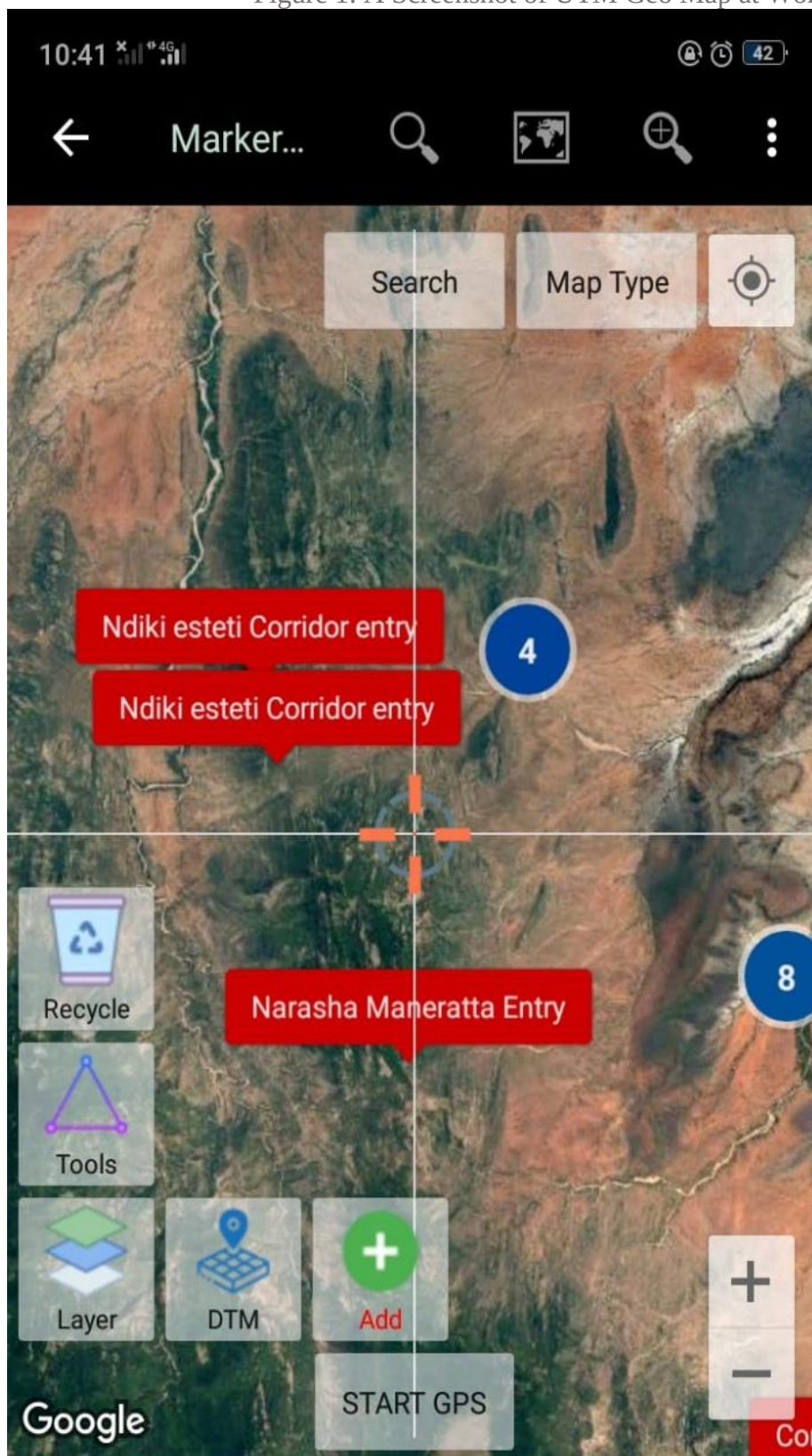
A desk review was carried out prior to and during the reconnaissance survey of Lekurruki Community Land to gather and analyze existing information relevant to the study area. This involved reviewing available maps, reports, satellite imagery and previous studies to understand the physical features, land-use patterns, and resource distribution within the area. The information obtained helped guide fieldwork planning, identify key areas of interest, and support the validation of field data. It also provided a baseline for comparison with current observations, improving the accuracy and completeness of the final results.

1.11.4. Preparation for the Base map

A reconnaissance survey was conducted within Lekurruki Community Land using the UTM Geo Map to identify, locate and map both natural and man-made resources. The survey aimed to obtain a general understanding of the area's physical features, land use, and resource distribution before undertaking detailed field mapping and assessment. The exercise involved traversing the community land and documenting key natural resources such as rivers, seasonal laggas, sand-harvesting sites, grazing areas, wildlife corridors, caves, viewpoints/picnic areas, and water resources, as well as man-made resources including roads, school, health facility, boreholes, dams, water pans, airstrip, NPR Camps, cultural manyattas, and settlement areas. All this is then spatially analyzed for the formulation of a basemap



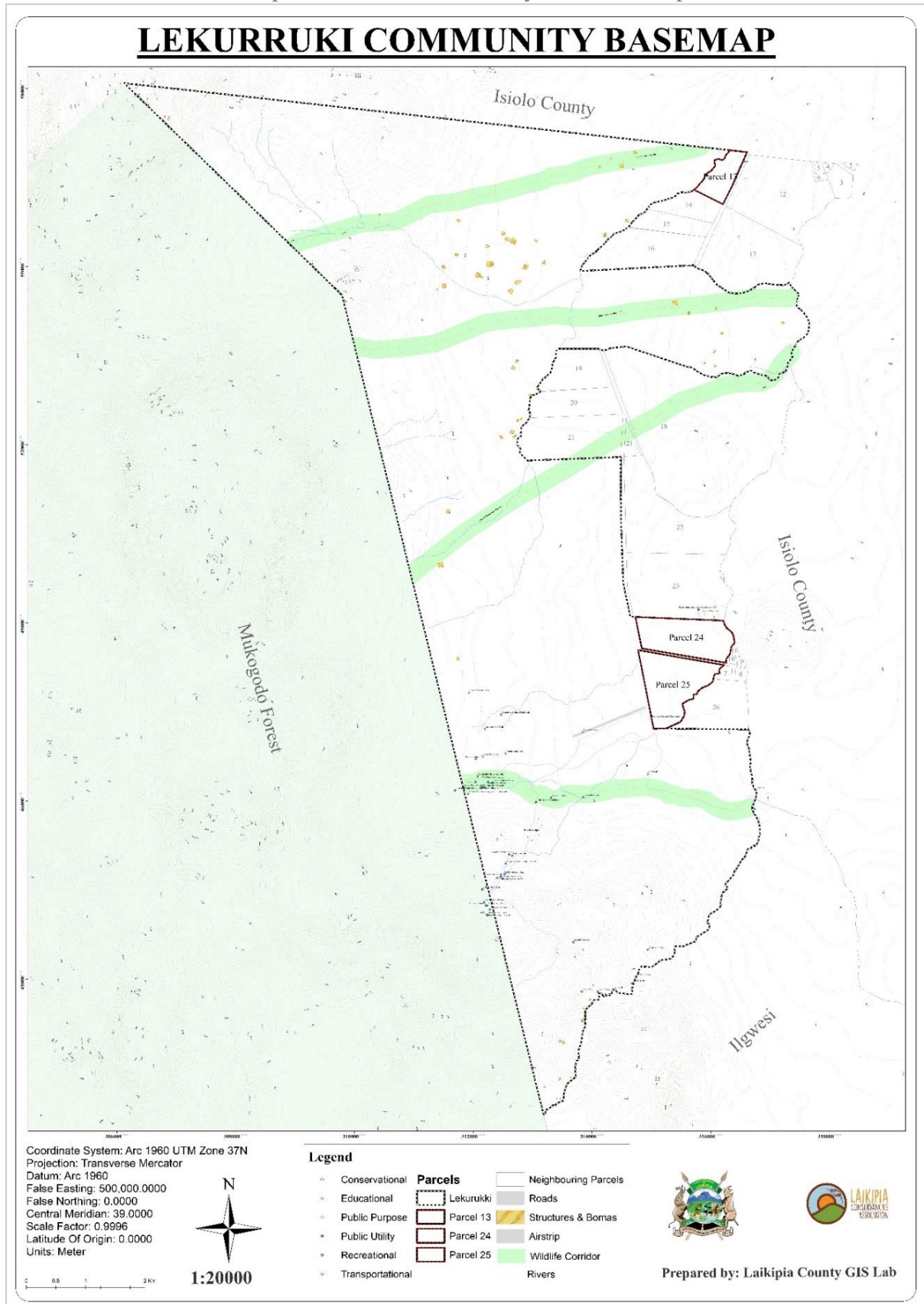
Figure 1: A Screenshot of UTM Geo Map at Work



Source: Laikipia County GIS Lab, 2026



Map 5: Lekurruki Community Land Basemap



Source: Laikipia County GIS Lab, 2026



1.11.5. Primary data collection

These are the primary data collection methods

1.11.5.1. Field Surveys and On-Site;

Assessments Physical surveys are carried out to evaluate the land, record existing conditions, and collect spatial data on:

- **Current Land Use;** Identifying residential areas, educational facilities, public utilities, conservation zones, commercial spaces and community amenities.
- **Topography and Natural Features;** Mapping rivers, caves, hills, forests and other physical features.
- **Infrastructure and Services;** Assessing the availability of roads, electricity, water supply and social amenities.

1.11.5.2. Remote Sensing and GIS

Modern geospatial tools were applied to capture and analyze land-related information through:

Satellite Imagery; Offering high-resolution views of land cover and settlement patterns.

GIS (Geographic Information Systems) Analysis; Mapping and examining spatial relationships, zoning, extents, and development trends.

1.11.5.3. Questionnaire Surveys

Structured and semi-structured kobo collect questionnaires were distributed to households and institutions to gather first-hand insights on:

- Landownership and preferred land use.
- Socio-economic conditions and livelihood activities.
- Housing requirements and infrastructure needs.
- Perceptions of environmental sustainability and land management.

1.11.6. Review of Existing Documents and Policy Frameworks

A review of relevant legal, policy, historical, and planning documents provided the necessary background for the preparation of the plan and ensure compliance with applicable laws and regulations. It includes:

- **Land Ownership and Tenure Records** – Reviewing available title deeds, land registry information, ownership records and customary land tenure arrangements.



- **National and County Planning Policies** – Assessing relevant national and county policies, legislation, plans, and development frameworks to ensure that the community land use plan is properly aligned with existing planning requirements.
- **Previous Land Use Plans and Development Reports** – Examining previous planning initiatives, development reports, and related studies to identify achievements, challenges, and lessons that can inform the current planning process.

1.11.7. Overall Approach

The preparation of the Lekurruki Community Land Use Plan will integrate spatial analysis, stakeholder and community engagement, policy and document review, and environmental assessment. Combining these approaches will provide a comprehensive understanding of the community land, while ensuring that the planning process is participatory, evidence-based, and responsive to local conditions. The resulting land use plan will therefore seek to address the needs and aspirations of the community while promoting sustainable and well-coordinated development.

1.12. Basemap updating and Data Analysis

1.12.1. Statistical Data Analysis Procedures and Tools

The analysis of data collected during the preparation of the Lekurruki Community Land Use Plan involved the application of systematic statistical and spatial analysis methods to ensure that the information generated is accurate, reliable, and useful for decision-making. The analysis covered both qualitative and quantitative data and it provided insights into existing land use patterns, socio-economic conditions, environmental characteristics, and development trends.

1.12.1.1. Statistical Data Analysis Procedures

Data Cleaning and Validation

Prior to analysis, the collected data was reviewed, cleaned and validated to ensure completeness, accuracy, consistency and reliability. The process involves:

- Identifying and correcting errors, including duplicate, incomplete or missing data.
- Standardizing data formats, units of measurement, Projections and classifications to ensure consistency across datasets.
- Identifying and addressing outliers or unusual observations that may affect the accuracy of the analysis.



- Cross-checking information from different sources to verify its reliability and consistency.

Spatial Data Analysis

Considering the geographic nature of community land use planning, spatial analysis was undertaken to identify patterns, relationships, trends and areas of concern within Lekurruki Community Land. Key techniques include:

- **Geostatistical Analysis** – Examining spatial relationships and variations between land use, environmental conditions, population distribution and other relevant factors.
- **Hotspot Analysis** – Identifying areas with concentrations of development activities, environmental risks, infrastructure demand or other significant spatial patterns.
- **Spatial Overlay Analysis** – Integrating different spatial datasets to identify suitable areas for various land uses and development activities.

1.11.12.2. Statistical Data Analysis Tools

Microsoft Excel and Google Sheets

Microsoft Excel and Google Sheets were used for basic data management and statistical analysis. Their applications include:

- Cleaning, organizing and tabulating collected data.
- Generating descriptive statistics such as frequencies, percentages, averages and totals.
- Producing charts, graphs and pivoting tables for data visualization.
- Conducting basic correlation and regression analysis where applicable.

GIS Software (ArcGIS and QGIS)

ArcGIS and QGIS will be used for spatial data processing, analysis, visualization, and map production. These platforms will support:

- Spatial analysis and mapping of land use and socio-economic characteristics.
- Integration of statistical information with geographic datasets.
- Land use and land cover classification.
- Spatial suitability analysis for proposed development activities.
- Remote sensing analysis and interpretation.



- Assessment of environmental conditions and potential development impacts.



Data Visualization Techniques

Data visualization will be used to present the results of the analysis in a clear and easily interpretable manner. The following techniques will be applied:

- **Bar and Pie Charts** – To illustrate the distribution and proportions of different land use categories, socio-economic characteristics and other variables.
- **Histograms** – To examine the distribution of demographic, infrastructure and other quantitative variables.
- **Maps and Heat Maps** – To illustrate spatial patterns, concentrations, development intensity, environmental risks and other geographic characteristics.
- **Thematic Maps** – To communicate spatial variations in land use, natural resources, infrastructure, population, and other planning variables.

Conclusion

The integration of statistical analysis, spatial analysis, GIS and data visualization techniques will provide a comprehensive, evidence-based approach to the planning of Lekurruki Community Land. These methods facilitate the identification of existing land use patterns, socio-economic conditions, environmental characteristics and emerging development trends. The resulting analysis will provide a reliable basis for identifying development opportunities and constraints and for guiding informed, sustainable, and community-responsive land use planning decisions.

1.13. Public Participation

1.13.1. 1st Stakeholders Engagement

1.13.1.2. Free Prior Informed Consent (FPIC Program)

An inception meeting was held on 21st July 2026 at Tassia Lodge, attended by Lekurruki community leaders, the Lekurruki Community Conservancy Manager, the CLMC, area chiefs, Nyumba Kumi elders, Laikipia Conservancies Association (LCA) representatives, a National Land Commission representative and officers from the County Government of Laikipia, Department of Infrastructure, Land, Housing, Energy and Urban Development.

Key outputs of this stage included:

- Identification of planning issues and an inventory of existing resources within the community land.
- Preliminary vision and objectives for the plan.



- Consensus building and broad community support for the process.

The meeting was called to order by the Lekurruki Community Conservancy Manager. LCA and the County Government team, led by Mr. John Mepukori, introduced the project and explained the stages of the land use plan: inception meetings, resource mapping, boundary delimitation, socio-economic survey and situational analysis, drafting of the plan, approval by the County Assembly, and implementation. It was noted that the plan will help resolve long-standing boundary conflicts in the community.

Plate 1: FPIC Meetings on Site



Source: Laikipia County Government, 2026

1.13.1.3. Expertise Inception Engagement Meeting

The inception meeting was held at Jaqanaz Hotel, Nanyuki–Narumoru area, and brought together key government institutions, technical experts, development partners, private-sector



representatives, community stakeholders, and other relevant actors involved in the preparation of the Local Physical and Land Use Development Plan (LPLUDP).

The meeting provided an opportunity to introduce the planning process, establish a common understanding of the objectives and scope of the plan, and bring together institutions and stakeholders whose mandates, interests, resources, and technical expertise are relevant to physical and land-use planning. It also provided a platform for stakeholder engagement, coordination, identification of key planning issues, and clarification of the respective roles and responsibilities of participating institutions.

The broad representation at the meeting underscored the **multi-sectoral and participatory nature of the planning process**. The participation of national and county government institutions, local leadership, communities, private-sector actors, environmental agencies, infrastructure providers, and development partners is expected to strengthen coordination and ensure that the plan reflects the diverse development needs, opportunities, environmental considerations, and land-use interests of the planning area.

The meeting further established a basis for continued consultation and collaboration throughout the preparation, validation, approval, and implementation stages of the Local Physical and Land Use Development Plan.

Plate 2: Expertise Inception Meeting





Source: Laikipia County Government, 2026

1.13.1.4. Community Inception Meetings

The first community participation meeting was held at Tassia Lodge on 21st July 2026 as a flagship meeting to officially kick-start the preparation process for the Local Physical and Land Use Development Plan for Lekurruki.

The meeting brought together members of the local community and neighboring stakeholders to create awareness and build a common understanding of the planning process.

During the meeting, community members were sensitized on the importance of land-use planning, the purpose and objectives of the proposed plan, and the expected benefits to the Lekurruki community. Residents were also briefed on the overall planning process, including



the various stages of plan preparation and the importance of their active participation in shaping the future development and land-use structure of the area.

The community participation schedule was presented and explained to the residents, outlining the opportunities and stages at which they would be engaged throughout the planning process. Emphasis was placed on ensuring that local knowledge, community priorities, concerns, and aspirations are adequately incorporated into the plan.

To ensure broad and inclusive participation, three community participation meetings were held during this phase: at Tassia Lodge on 21st July 2026, at Naimaral Cultural Centre on 22nd July 2026, and a neighbours' meeting at Tassia Lodge on 23rd July 2026 attended by Ilingwesi and Isiolo border community representatives. The meetings provided an opportunity to engage the wider Lekurruki community as well as neighboring stakeholders, thereby ensuring that the planning process captured diverse perspectives and strengthened community ownership of the proposed land-use plan.

Table 1 Inception Meetings on site





1.13.2. 2nd Stakeholders Engagement

This meeting brought together community leaders, CLMC members, community representatives, government officers, and other stakeholders to review the progress of the Community Land Use Plan. The meeting focused on reviewing the basemap, conducting SWOT analysis, undertaking visioning, and identifying community priorities and proposals. The community confirmed that the basemap accurately represented the key features and resources within Lekurruki Community Land.

Through SWOT analysis and visioning exercises, the community identified existing strengths, challenges, opportunities, and potential threats affecting the management and development of their land. Key proposals included updating the community land register, developing a community hall and assistant chief's office, marking elephant corridors, addressing human-wildlife conflict through fencing and provision of elephant watering points, and holding a special meeting to determine procedures for allocating land to schools, churches, and other community projects.

Overall, the meeting provided an important platform for community participation and validation of the planning process. The views and proposals raised will help guide the preparation of a realistic, inclusive, and sustainable Community Land Use Plan for Lekurruki Community Land.



Plate 3: SWOT Analysis Meeting at Tassia Lodge



Source: Laikipia County Government, 2026



CHAPTER TWO: LEGAL AND POLICY FRAMEWORK

2.1. Policy Framework

2.1.1. Kenya Vision 2030

Kenya Vision 2030 is the country's long-term development blueprint covering the period from 2008 to 2030. It seeks to transform Kenya into a newly industrializing, middle-income country providing a high quality of life to all its citizens in a clean and secure environment. The Vision recognizes the importance of sustainable land management, environmental conservation, and the protection of ecologically sensitive areas in supporting long-term socio-economic development. In relation to community land, these principles emphasize the responsible utilization, conservation, and equitable management of land and natural resources for the benefit of present and future generations.

In the context of Lekurruki Community Land, the Vision is particularly relevant given the community's dependence on pastoralism, communal grazing resources, water sources, and the surrounding natural environment. Increasing pressure on land arising from population growth, settlement expansion, livestock concentration, and changing land-use practices can contribute to overgrazing, soil erosion, habitat fragmentation, and competition over natural resources. These pressures may also intensify human–wildlife conflict where settlements, livestock grazing, and wildlife movement routes overlap.

The Lekurruki Community Land Local Physical and Land Use Development Plan (2026–2036) therefore supports the objectives of Kenya Vision 2030 by promoting sustainable pastoral livelihoods, protecting critical habitats and wildlife corridors, improving access to water and essential services, and guiding settlement and infrastructure development in an environmentally responsible manner. It provides a framework for balancing human settlement, livestock production, and wildlife conservation while strengthening community resilience and safeguarding the natural resource base upon which livelihoods depend.

2.1.2. Kenya National Spatial Plan, 2015

The Kenya National Spatial Plan (2015–2045) provides a long-term spatial development framework for the country. It seeks to promote integrated, balanced, and sustainable development by guiding the distribution of human settlements, infrastructure, economic activities, and natural resource conservation areas. It also provides a coordinating framework



for the integration of sectoral development priorities and informs the preparation of lower-level spatial plans, including County Spatial Plans and Local Physical and Land Use Development Plans.

The Lekurruki Community Land Local Physical and Land Use Development Plan is guided by the National Spatial Plan's objectives of:

- Ensuring the optimal and sustainable utilization of land and natural resources.
- Promoting functional, well-organized, and accessible human settlements.
- Protecting the natural environment and environmentally sensitive areas.
- Coordinating infrastructure provision and the spatial distribution of development activities.
- Promoting balanced development while minimizing land-use conflicts.

For Lekurruki, the National Spatial Plan provides an important basis for coordinating settlement patterns, livestock grazing areas, conservation areas, water infrastructure, access roads, and community facilities. The Plan should recognize that pastoral land uses require flexibility and adequate space for livestock movement, seasonal grazing, and access to water and pasture during periods of drought. Spatial proposals should therefore avoid unnecessarily restricting traditional mobility routes or concentrating development in areas critical to ecological connectivity and pastoral production.

The Plan will consequently seek to integrate community land priorities into the wider spatial development framework, protect strategic natural resources, and establish compatible relationships between settlement, livestock production, conservation, and infrastructure development.

2.1.3. National Land Use Policy (Session Paper No 1 of 2017)

The National Land Use Policy provides a framework for the sustainable, equitable, and productive utilization of land and related resources in Kenya. It recognizes land as a finite resource requiring coordinated planning, effective management, and responsible use to support economic development, social well-being, and environmental sustainability.

The Policy addresses several important issues, including:



- Land-use planning and sustainable development.
- Prevention and management of land-use conflicts.
- Appropriate categorization and allocation of land uses.
- Integration of national, county, and local spatial planning.
- Public participation in land-use planning and decision-making.
- Environmental conservation and protection of natural resources.
- Equitable access to land and the protection of community interests in land management.

In Lekurruki, these policy objectives are particularly important because communal land supports multiple interdependent uses, including livestock grazing, settlements, water provision, cultural activities, and wildlife conservation. Without an agreed spatial framework, competing demands may result in encroachment into grazing areas, obstruction of livestock routes, degradation of water catchments, and disputes over access to communal resources.

The Local Physical and Land Use Development Plan will translate these policy principles into spatial proposals that guide land-use compatibility, protect communal assets, and establish clear management priorities. It will also support transparent community decision-making, equitable access to shared resources, protection of vulnerable households and pastoral livelihoods, and the prevention of uncoordinated land subdivision or conversion that could undermine the long-term viability of communal land.

2.1.4. Laikipia County Spatial Plan 2023-2033

The Laikipia County Spatial Plan provides a ten-year strategic framework for coordinating socio-economic development, infrastructure investment, settlement growth, environmental management, and land-use planning across the County. It recognizes the importance of sustainable land utilization and the need to balance development requirements with the protection of natural resources and ecological systems.

The County Spatial Plan promotes coexistence between human settlements, livestock production, and wildlife by guiding development away from critical habitats and wildlife movement corridors. It also emphasizes the protection of grazing areas, the reduction of habitat fragmentation, and the management of human–wildlife interactions through appropriate spatial planning.



The Lekurruki Community Land Local Physical and Land Use Development Plan is informed by these countywide priorities and seeks to translate them into locally appropriate land-use proposals.

Lekurruki's pastoral landscape requires an integrated planning approach that recognizes the interdependence of people, livestock, and wildlife. Community land is not merely a physical space for settlement or development; it is also a production system, a shared ecological resource, and a foundation of cultural identity. Planning decisions must therefore account for grazing capacity, seasonal livestock movement, access to water and pasture, wildlife dispersal areas, and the protection of culturally significant sites.

The Plan will seek to:

- Safeguard strategic grazing areas and livestock movement routes from incompatible development.
- Identify and protect wildlife habitats, dispersal areas, and ecological corridors in collaboration with relevant conservation agencies and the community.
- Promote the sustainable management of water sources, wetlands, drainage systems, and other environmentally sensitive areas.
- Guide settlement expansion and community infrastructure towards suitable locations while minimizing conflicts with grazing and conservation uses.
- Address land degradation through appropriate grazing management, rangeland restoration, and protection of fragile ecosystems.
- Strengthen community participation in land-use decisions and the management of shared resources.

Through this approach, the Plan will contribute to the implementation of the County Spatial Plan while responding to the specific development priorities and ecological conditions of Lekurruki Community Land.

2.2. Legal Framework

2.2.1. The constitution of Kenya

The Constitution of Kenya, 2010, provides the overarching legal foundation for land governance, physical planning, environmental protection, public participation, and the



management of community land. It establishes principles that guide the preparation and implementation of the Lekurruki Community Land Local Physical and Land Use Development Plan. Article 66 recognizes the role of the State in regulating the use of land in the interest of public safety, public health, and orderly development. Article 66(2) further provides for legislation to ensure that investments in property benefit local communities and their economies.

Other relevant constitutional provisions include:

- Article 10: Establishes national values and principles of governance, including public participation, equity, inclusiveness, transparency, and accountability.
- Article 40: Protects the right to property, subject to the limitations and exceptions provided under the Constitution and applicable law.
- Article 42: Guarantees the right to a clean and healthy environment.
- Article 60: Establishes principles of land policy, including equitable access to land, security of land rights, sustainable and productive management of land resources, and transparent and cost-effective administration.
- Article 61: Classifies land in Kenya as public, community, or private land.
- Article 63: Recognizes and protects community land, including land lawfully held, managed, or used by specific communities under applicable customary tenure systems and other constitutionally recognized categories.
- Articles 69 and 70: Provide for environmental protection and the enforcement of environmental rights.
- Article 174: Sets out the objectives of devolution, including promoting social and economic development and bringing services closer to communities.
- Article 186 and the Fourth Schedule: Establish the distribution of functions between the national and county governments, including county responsibilities for county planning and development.

These constitutional provisions are especially relevant to Lekurruki because communal land supports shared livelihoods, customary practices, cultural heritage, and collective access to natural resources. The planning process must respect constitutionally protected community land rights while ensuring that decisions on land use are transparent, inclusive, and consistent with applicable law.



Particular attention should be given to the participation of women, youth, older persons, persons with disabilities, and vulnerable households in community planning and resource-management decisions. The Plan should also recognize customary institutions and local knowledge while ensuring that land-use decisions comply with constitutional principles and statutory requirements.

Environmental protection is equally important. The identification and protection of water sources, wildlife habitats, grazing areas, and other environmentally sensitive locations will help reduce degradation and support sustainable coexistence between the community, livestock, and wildlife.

The Plan therefore applies constitutional principles through participatory planning, recognition of community interests, protection of environmental resources, equitable access to essential facilities, and the coordination of development priorities with the wider County Spatial Plan.

2.2.2. The Physical and Land Use Planning Act No. 13 of 2019

The Physical and Land Use Planning Act, No. 13 of 2019, provides the principal statutory framework for physical and land-use planning in Kenya. It establishes procedures for the preparation, consideration, approval, publication, implementation, amendment, and revision of physical and land-use development plans.

The Act is relevant to the preparation of the Lekurruki Community Land Local Physical and Land Use Development Plan because it provides the framework for coordinating land uses, guiding infrastructure development, regulating development, and integrating sectoral priorities into spatial planning.

The following provisions are particularly relevant.

Section 45: Preparation of Local Physical and Land Use Development Plans

Section 45 provides for the preparation of Local Physical and Land Use Development Plans for the areas specified under the Act. Such plans may address long-term or short-term development, urban renewal, or redevelopment, as applicable.

Section 46: Purpose of a Local Physical and Land Use Development Plan



Section 46 identifies the purposes of local plans, including:

- Zoning, urban renewal, or redevelopment, as applicable.
- Guiding and coordinating infrastructure development.
- Regulating land use and land development.
- Providing a framework for coordination among sectoral agencies.
- Establishing guidelines for development and building works in the areas covered by the Act.

Section 47: Initiation and Preparation of a Local Physical and Land Use Development Plan

Section 47 provides for the initiation and preparation of local plans through the relevant planning authorities.

Sections 48–51: Plan Contents, Public Participation, Approval, Publication, Amendment and Revision

These provisions should be read together to guide the preparation, public consideration, approval, publication, and subsequent amendment or revision of the Plan. The statutory requirements applicable to the particular plan must be followed throughout the process.

In Lekurruki, the planning framework provides a basis for identifying appropriate land-use zones and coordinating the location of settlements, grazing areas, livestock facilities, water infrastructure, access roads, community institutions, conservation areas, and other shared facilities. The Plan should also establish practical development guidelines that minimize incompatible land uses and safeguard communal resources against uncoordinated development.

Given the community's pastoral context, the planning proposals should be informed by local grazing practices, seasonal livestock mobility, water availability, wildlife movement, settlement patterns, and the distribution of community facilities. This will help ensure that zoning decisions support rather than undermine the community's livelihood systems.

The preparation and implementation of the Plan should also involve the relevant county departments, national government agencies, community institutions, and other stakeholders.



The statutory planning process must be coordinated with the community land governance and registration framework, since preparation or approval of a physical and land-use plan does not, by itself, confer ownership or determine individual land rights.

2.2.3. Community Land Act, 2016

The Community Land Act, 2016, operationalizes Article 63 of the Constitution by providing a legal framework for the recognition, registration, administration, and management of community land. It is central to the Lekurruki planning process because it addresses the governance and sustainable management of land held collectively by a community.

The Act recognizes the importance of community land in supporting livelihoods, cultural identity, and the collective management of natural resources. It establishes a framework for community land registration and governance, including the role of registered community institutions and the protection of community interests in land.

In Lekurruki, community land performs several interconnected functions: it provides grazing resources for livestock, supports settlements and household livelihoods, accommodates water sources and other shared resources, and sustains cultural practices and relationships with the landscape. The planning process must therefore recognize communal land as both an economic asset and a social, cultural, and ecological resource.

The Plan is particularly important in addressing the following community land issues:

- Security of communal tenure: Supporting the protection of community land against unauthorized occupation, encroachment, and unlawful conversion.
- Community governance: Strengthening transparent and accountable land-use decisions through the legally recognized community governance structures, including the Community Land Management Committee where applicable.
- Land fragmentation: Managing subdivision and changes in land use in accordance with applicable law and valid community decisions, while protecting the land base required for sustainable pastoral production.
- Grazing management: Identifying grazing areas and supporting appropriate management arrangements that reflect seasonal variations in pasture availability and livestock movement.



- Access to shared resources: Protecting access to water points, grazing areas, livestock routes, and other communal assets, subject to applicable law and agreed community management arrangements.
- Wildlife conservation: Identifying wildlife habitats and movement corridors and promoting compatible land uses that reduce habitat fragmentation and human–wildlife conflict.
- Cultural heritage: Recognizing and safeguarding sacred sites, burial grounds, traditional meeting places, and other locations of cultural significance identified by the community.
- Equitable participation: Promoting inclusive community engagement and fair consideration of the interests of different groups, including women, youth, and vulnerable households.
- Sustainable investment: Providing a spatial framework for locating community facilities, infrastructure, and appropriate economic activities without compromising communal land rights.

The Plan should complement, rather than replace, the statutory processes for community land registration, adjudication, boundary determination, and governance. Land-use proposals must be consistent with the community’s legally recognized rights and the applicable provisions governing community land. The Act therefore provides a critical foundation for linking secure communal tenure with responsible land-use planning, sustainable pastoral livelihoods, conservation, and accountable community governance. Effective implementation will depend on continued community participation, coordination with the relevant land administration institutions, and compliance with the Act and associated regulations.

2.2.3. County Government Act, 2012

The County Governments Act, 2012, establishes the legal framework for county governance, integrated planning, public participation, and the coordination of development activities within counties.

The Act requires county planning to support coordinated development, efficient use of resources, balanced settlement patterns, and the integration of infrastructure and public



services. Section 110 provides for county spatial planning as part of the county planning framework.

The Laikipia County Spatial Plan provides the broader spatial context within which the Lekurruki Community Land Local Physical and Land Use Development Plan is being prepared. For Lekurruki, the Act is relevant in ensuring that community land planning is integrated with county development priorities, sectoral programmes, infrastructure investment, and the provision of public services. The Plan should identify suitable locations for water facilities, access roads, health and education services, livestock-related infrastructure, and other community facilities, taking account of settlement patterns, accessibility, environmental constraints, and the community's development needs.

The County Government should also promote coordination between physical planning, livestock production, water services, environmental management, disaster risk reduction, and community development. Such coordination is essential in addressing recurring drought, water scarcity, pasture shortages, and competing demands for land and natural resources.

Public participation is central to this framework. The County Government should continue engaging the community and its recognized governance structures in the review, adoption, implementation, and monitoring of the Plan, in accordance with applicable law.

2.2.4. The National Land Commission Act, 2012

This Act provides the statutory framework for the National Land Commission and its functions under the Constitution and relevant legislation. The Commission has important responsibilities relating to public land, land administration, historical land injustices, and oversight of specified land-use planning functions, as provided by law.

In the context of Lekurruki, coordination with the National Land Commission and other relevant land administration institutions may be necessary where matters relating to land administration, public land, boundary issues, or historical land injustices arise within their respective mandates.

Community land planning should distinguish clearly between the rights and responsibilities of the community, the County Government, and national institutions. The Plan should not be



interpreted as independently determining ownership, settling a boundary dispute, or resolving a historical land claim. Such matters must be addressed through the legally prescribed procedures and by the institutions with the relevant jurisdiction.

The National Land Commission Act therefore provides an institutional reference for coordinating land-related matters and ensuring that planning proposals are consistent with the applicable constitutional and statutory framework.

2.2.5. Environmental Management Coordination Act, 2012

The Environmental Management and Co-ordination Act (EMCA), 1999, as amended, establishes the framework for environmental management and the protection of the environment in Kenya. It provides for environmental assessment, pollution control, conservation of natural resources, and the responsibilities of relevant environmental institutions.

The Act is relevant to the Lekurruki Community Land Local Physical and Land Use Development Plan because the community's livelihoods and long-term development depend heavily on the condition of its rangelands, water resources, soils, vegetation, and wildlife habitats.

In Lekurruki, environmental pressures may arise from overgrazing, soil erosion, degradation of water sources, inappropriate settlement expansion, waste disposal, and unsustainable exploitation of natural resources. Climate variability and prolonged dry periods may further intensify pressure on grazing areas and water points.

The Plan should therefore promote:

- Protection of rivers, seasonal drainage channels, wetlands, springs, water pans, and other water sources identified through field assessments.
- Restoration of degraded rangelands and erosion-prone areas through appropriate land management and rehabilitation measures.
- Sustainable grazing practices that account for pasture regeneration and variations in seasonal resource availability.



- Appropriate management of solid waste and sanitation facilities in settlement areas and around community institutions.
- Protection of environmentally sensitive habitats and the maintenance of ecological connectivity.
- Environmental screening and, where legally required, environmental impact assessment for proposed development projects.

The Plan should complement the statutory environmental assessment and approval processes rather than substitute for them. Proposed infrastructure and other developments must comply with applicable environmental requirements and the conditions imposed by the relevant authorities.

2.2.6. Forest Conservation and Management Act, 2016

This Act provides for the development and sustainable management, including conservation and rational utilization of all forest resources for the socio-economic development of the country. Wildlife Conservation and Management Act, 2013

The Wildlife Conservation and Management Act, 2013 recognizes wildlife conservation as a legitimate land use and provides for the protection of wildlife habitats, dispersal areas and migratory corridors, including those located outside protected areas on community land.

In the preparation of a land-use plan for community land, the Act provides a basis for identifying and safeguarding critical wildlife areas while guiding human settlement, agriculture, grazing and other community activities away from sensitive habitats and wildlife corridors.

The plan will therefore promote a balanced coexistence between communities and wildlife by maintaining wildlife movement routes, minimizing habitat fragmentation and human-wildlife conflict, and supporting sustainable community livelihoods.

2.2.7. Wildlife Conservation and Management Act, 2013

The Wildlife Conservation and Management Act, 2013, provides the legal framework for wildlife conservation and management in Kenya. It recognizes the importance of wildlife habitats, dispersal areas, and movement corridors and provides for the participation of landowners and communities in wildlife conservation, subject to applicable law.



This framework is particularly relevant to Lekurruki because community land forms part of a wider landscape in which livestock production, human settlements, and wildlife conservation may occur in close proximity.

The Plan should identify and map wildlife habitats, dispersal areas, movement routes, and locations where wildlife frequently interacts with people and livestock. These areas should inform the siting of settlements, livestock facilities, roads, fences, and other infrastructure to minimize disruption of wildlife movement and reduce the risk of human–wildlife conflict.

The Plan should also consider practical measures to address the impacts of wildlife on community livelihoods, including livestock predation, crop damage where applicable, threats to human safety, and competition for water or other resources.

Community participation in conservation planning is essential. The Plan should encourage collaboration among the community, relevant wildlife authorities, conservation organizations, and other stakeholders in identifying appropriate coexistence measures and exploring lawful opportunities for community benefits from conservation.

Wildlife conservation proposals must respect the applicable legal status of community land and the rights of the community. The Plan should therefore seek to balance ecological protection with access to grazing resources, pastoral mobility, cultural values, and sustainable livelihood opportunities.

2.2.8. Climate Change Act, 2016

The Climate Change Act, 2016, establishes the framework for mainstreaming climate change responses into national and county planning, budgeting, and development programmes. It provides a basis for climate change mitigation, adaptation, institutional coordination, and the strengthening of resilience to climate-related risks.

Climate resilience is particularly important for Lekurruki because pastoral livelihoods depend on the availability of pasture, browse, and water, all of which may be affected by changing rainfall patterns, prolonged droughts, and other climatic stresses. Water scarcity and declining pasture availability can increase livestock movements, concentrate herds around remaining resources, accelerate land degradation, and intensify competition among resource users.



The Local Physical and Land Use Development Plan should therefore incorporate climate-responsive measures, including:

- Identification and protection of reliable water sources and strategic water infrastructure sites.
- Provision for appropriate water storage and harvesting facilities, subject to environmental and technical assessments.
- Protection and rehabilitation of degraded rangelands and environmentally sensitive areas.
- Support for grazing management arrangements that respond to seasonal changes in pasture availability.
- Identification of drought-prone areas and locations vulnerable to erosion, flooding, or other relevant hazards.
- Promotion of resilient settlement and infrastructure siting that considers environmental conditions and future resource availability.
- Integration of climate risk considerations into community development priorities and implementation programmes.

The Plan should also recognize the role of community knowledge and customary resource-management practices in responding to climatic variability, while supporting locally appropriate adaptation measures. These interventions will help strengthen the resilience of pastoral livelihoods, reduce pressure on vulnerable ecosystems, and improve the community's capacity to manage future climatic challenges



CHAPTER THREE: SITUATIONAL ANALYSIS

3.0. Overview

The chapter comprises a situational analysis from field data collection, community engagement, and stakeholder concerns in Lekurruki Community Land. The chapter entails population and demographic characteristics, site analysis, physical and social infrastructure, and existing environmental issues and conservation practices. The analysis provides a grounded understanding of the current context, which is essential for identifying planning priorities and guiding sustainable land use interventions.

3.1. Physiographic Dynamics

3.1.1. Hill shade Analysis

The Lekurruki Community Land hill shade map provides a three-dimensional representation of the terrain by simulating the effect of sunlight and shadows across the landscape. The dark and light areas indicate variations in terrain orientation and steepness, with strongly contrasting areas generally representing more rugged or steep terrain. The map shows that Lekurruki has a varied and relatively rugged terrain, with numerous ridges, valleys and undulating surfaces distributed across the community land.

3.1.2. Relief/Aspect Analysis

The Lekurruki Community Land relief map illustrates the direction in which different parts of the terrain slope, expressed through aspect classes such as north, northeast, east, southeast, south, southwest, west and northwest. The map indicates that the landscape has diverse slope orientations, rather than one dominant direction of slope. This variation influences solar exposure, moisture retention, vegetation conditions and the suitability of different areas for settlement and agricultural activities.

3.1.3. Elevation Analysis

The Lekurruki Community Land elevation map shows the variation in altitude across the community land, ranging from approximately 1,547 m to 1,751 m above sea level, giving an overall elevation difference of about 204 m. The western and southwestern portions generally exhibit relatively higher elevations, while lower elevations are more evident towards the eastern and northeastern sections. These elevation differences contribute to variations in drainage, temperature, vegetation, soil conditions and the general character of the landscape.

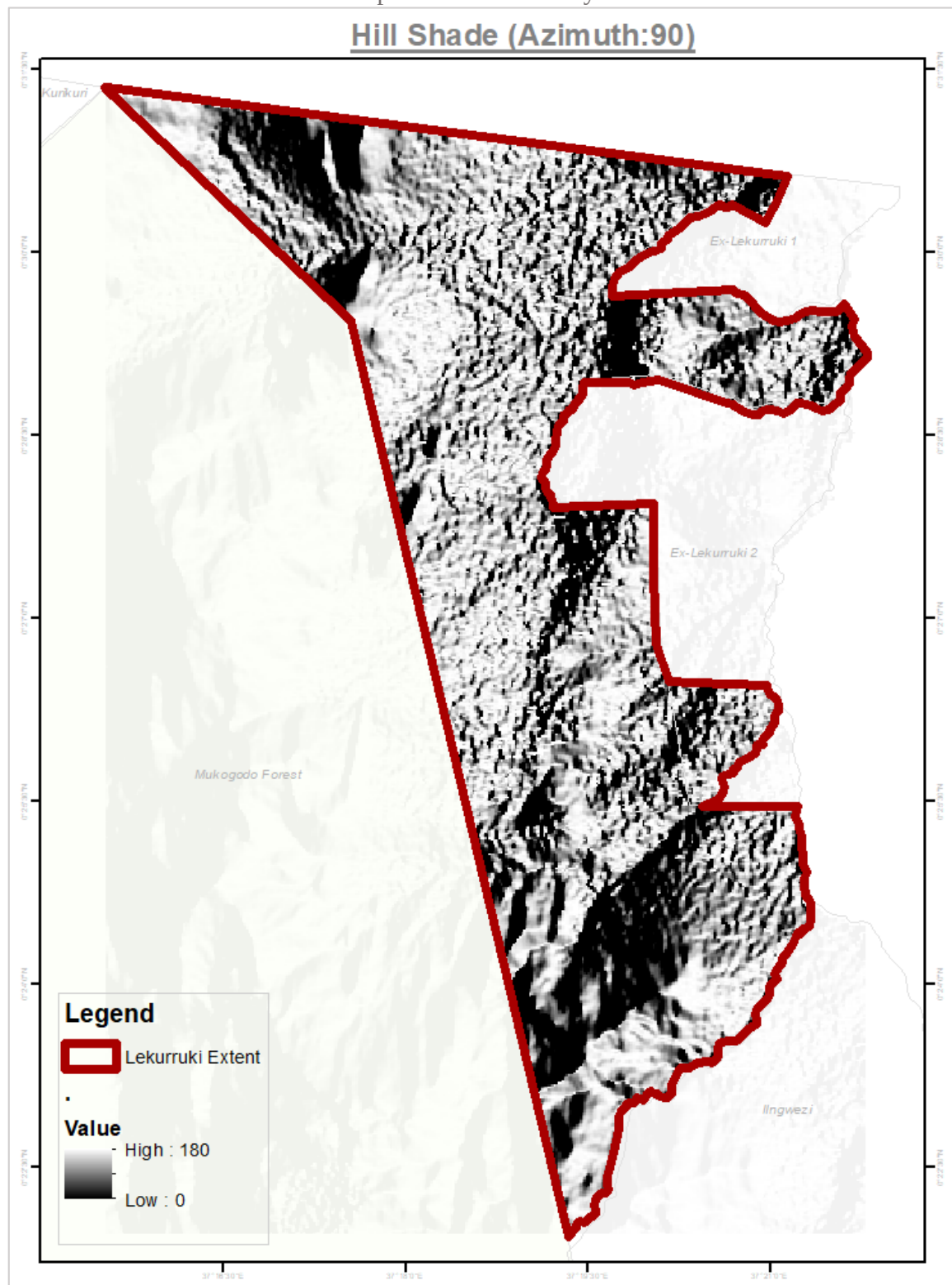


3.1.3.1. Emerging Issues and Planning Implications

- **High Soil Erosion Risk;** High areas as shown below on the maps experience soil erosion either by soil and /or water. Such areas with no vegetation suffer the most.
- **Guide settlement location:** Direct new settlements and urban expansion towards relatively gentle and stable terrain, while limiting development on steep and rugged areas.
- **Control soil erosion:** Steep slopes identified from the hill shade and relief maps should be managed through erosion-control measures such as terracing, contour farming and vegetation restoration.
- **Infrastructure planning:** Roads, water pipelines and other infrastructure should follow suitable terrain to reduce construction costs, excessive gradients and maintenance requirements.
- **Drainage management:** Elevation differences should be considered when planning drainage systems, since runoff will generally move from higher to lower areas.
- **Environmental conservation:** Rugged terrain, steep slopes and areas vulnerable to erosion should be identified for conservation and controlled development.
- **Water resource management:** Low-lying areas and natural drainage pathways should be protected from inappropriate development to maintain natural water movement and reduce flood risks.
- **Development cost reduction:** Concentrating development in areas with favorable terrain can reduce the costs associated with earthworks, road construction, drainage and other infrastructure.
- **Disaster-risk reduction:** Areas with steep slopes and complex terrain should be assessed for erosion, slope instability and other terrain-related hazards before development is permitted.



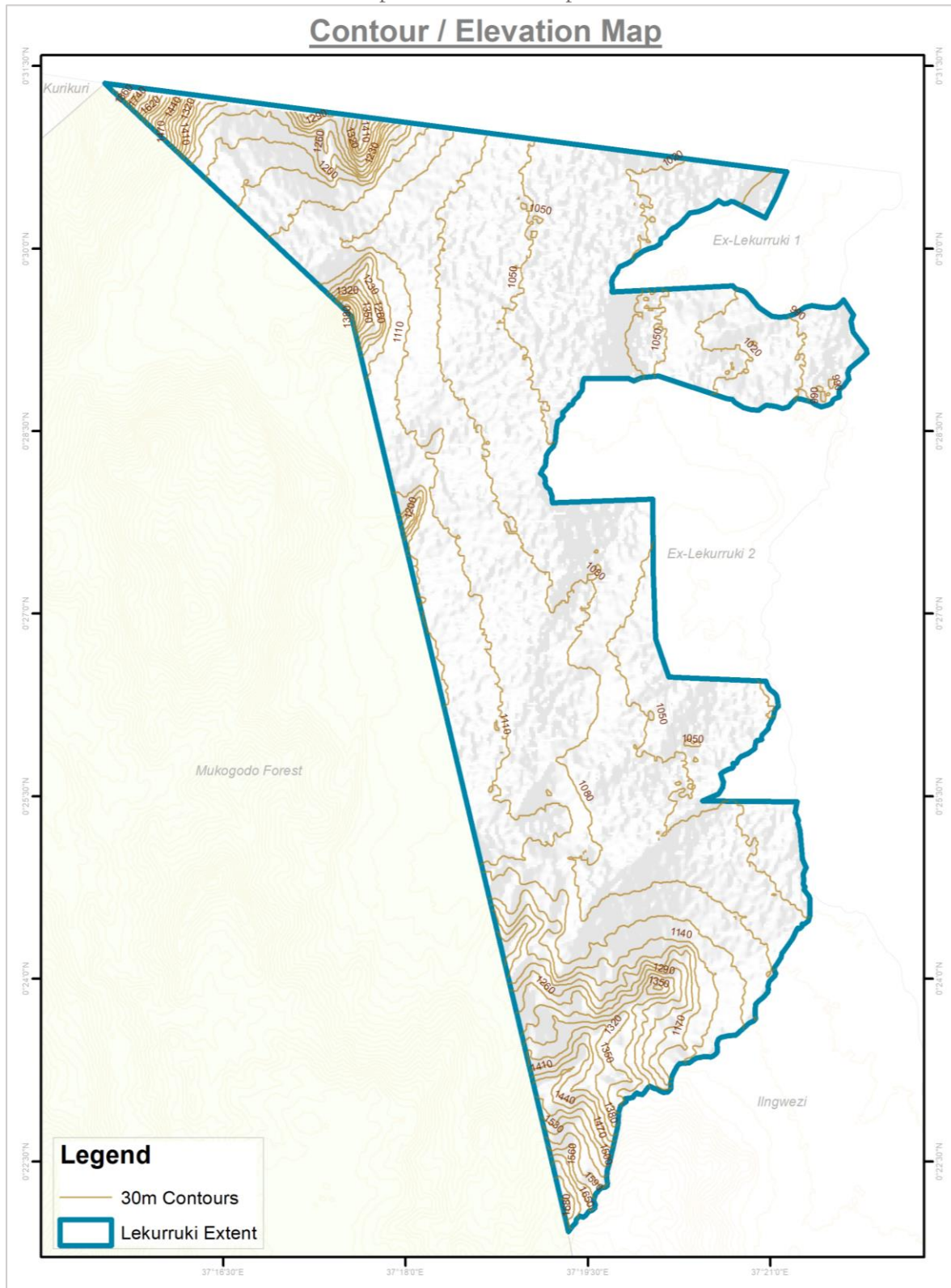
Map 6: Hillshade Analysis



Source: Laikipia County GIS Lab, 2026



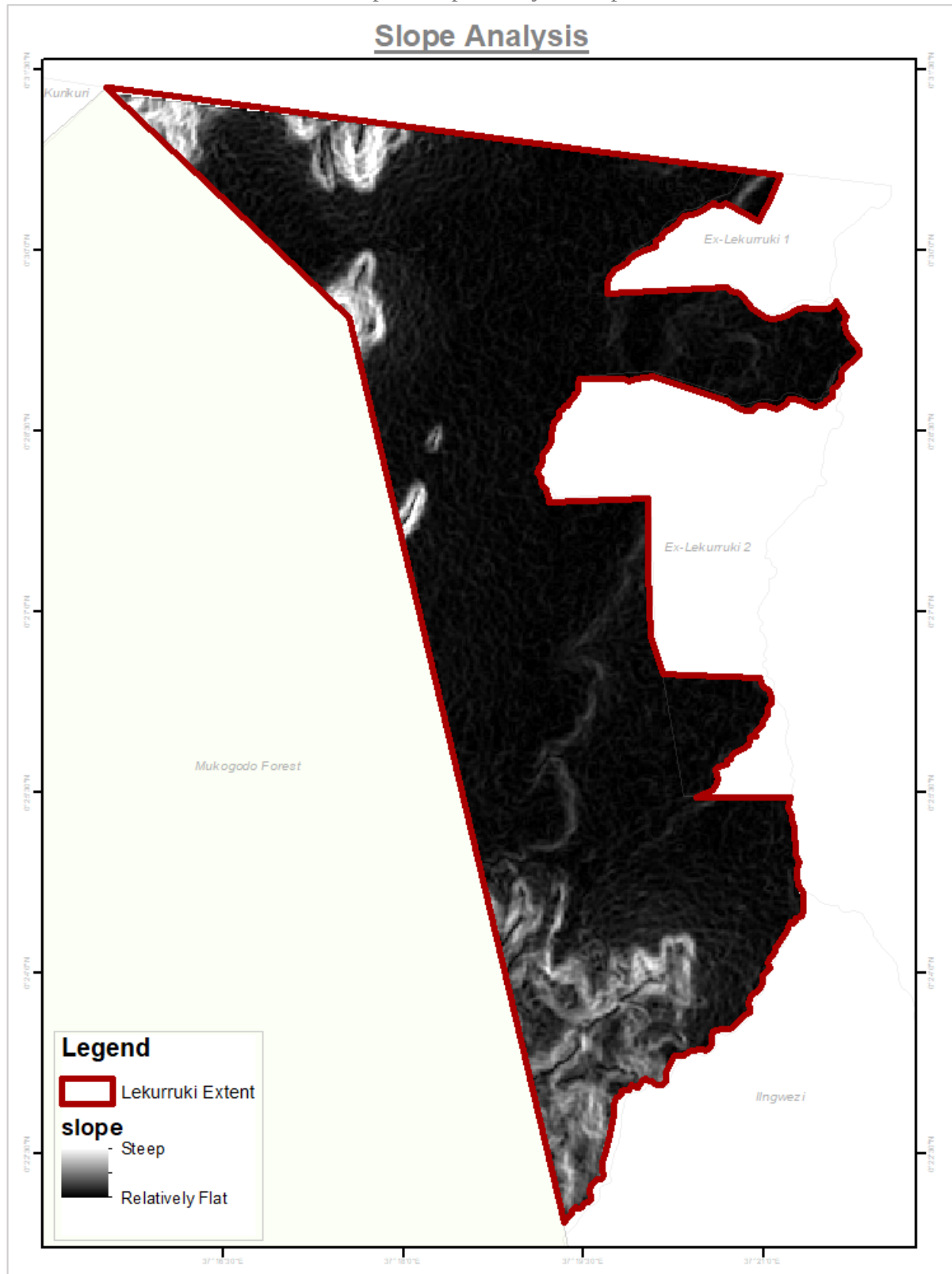
Map 7: Elevation Map



Source: Laikipia County GIS Lab, 2026



Map 8: Slope Analysis Map



Source: Laikipia County GIS Lab, 2026



3.1.4. Climatic Conditions

Lekurruki Community Land is predominantly a semi-arid area, although rainfall varies spatially across the community land. As shown on the map, annual rainfall ranges from approximately 615 mm to 977 mm, indicating notable variations in moisture availability across different parts of the area. The higher rainfall zones are mainly observed towards the northern and southern sections, while relatively lower rainfall is experienced in the central and eastern parts of the community land.

This variation in rainfall has implications for grazing patterns, vegetation distribution, water availability, which affects land-use planning. Areas receiving relatively higher rainfall are likely to support better vegetation growth and may provide more favorable conditions for grazing, while areas with lower rainfall are more vulnerable to water scarcity, vegetation stress, and land degradation.

3.1.4.1. Emerging Issues and Planning Implications

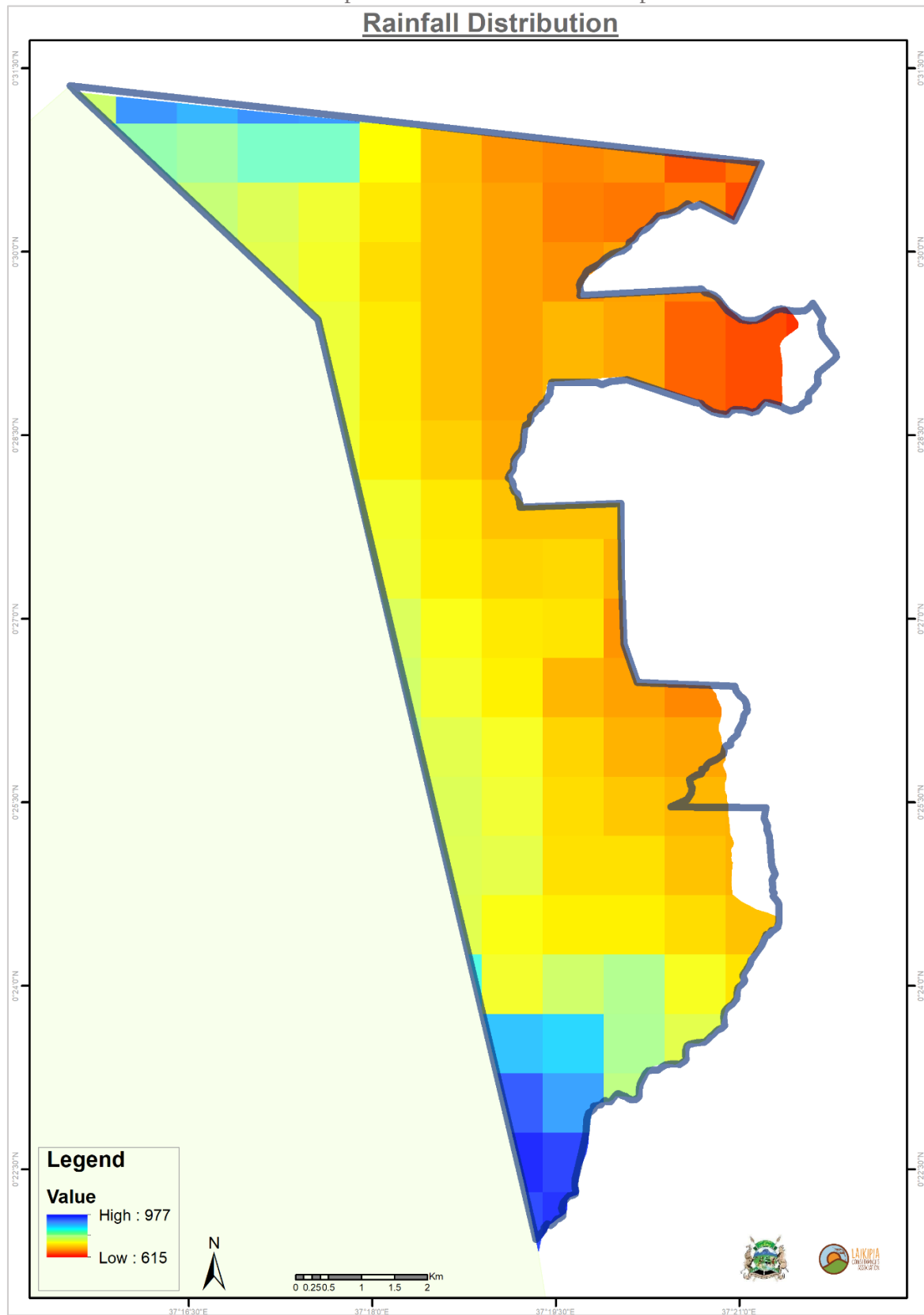
- Low rainfall areas are more vulnerable to water scarcity, vegetation loss, and recurrent drought conditions, increasing the risk of land degradation.
- Grazing pressure should be carefully managed in areas with lower rainfall to prevent overgrazing and degradation of pasture resources.
- Water infrastructure, including dams, water pans, and other livestock watering facilities, should be strategically distributed in areas experiencing lower rainfall to improve resilience during dry periods.
- Rangeland conservation measures, including rotational grazing, reseeding of degraded areas, tree planting, and controlled grazing, should be promoted to maintain vegetation cover and reduce land degradation.
- Land-use planning should consider spatial variation in rainfall when allocating grazing areas, settlements, agricultural activities, conservation areas, and other community land uses.
- Areas with relatively higher rainfall and better vegetation potential should be protected from excessive development and degradation to maintain their ecological and livelihood-support functions.



- Land conservation practices such as tree planting, construction of gabions and reserves grazing are recommended so as to prevent land degradation at the slightest use of the eastern part of the parcel



Map 9: Rainfall Distribution Map



Source: Laikipia County GIS Lab, 2026



3.1.5. Land Surface Temperature

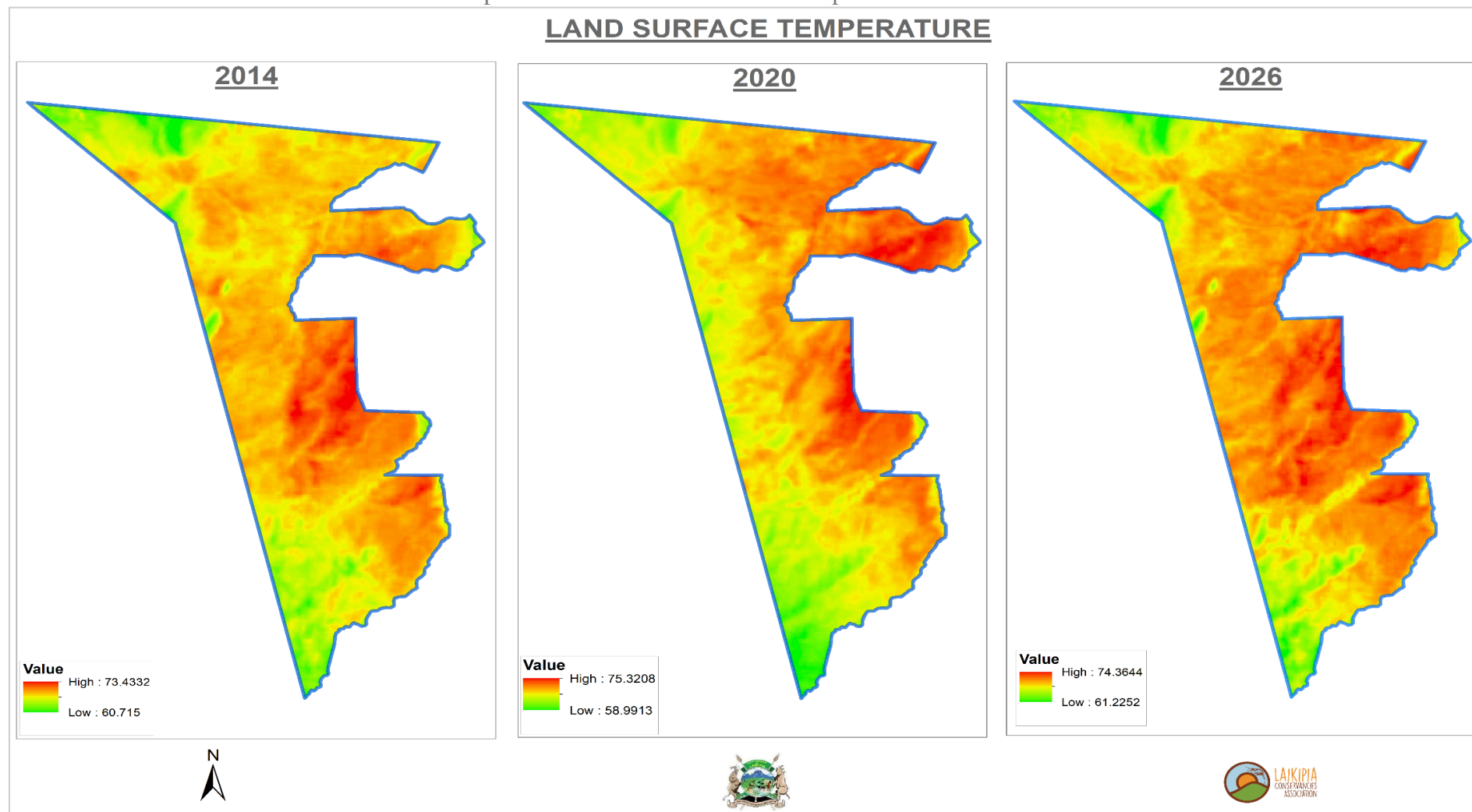
The Land Surface Temperature (LST) maps show the spatial distribution of surface temperature in Lekurruki Community Land between 2014 and 2026. The results indicate considerable variation in surface temperatures across the community land, with relatively higher temperatures generally concentrated in the central and south-eastern portions, while comparatively lower temperatures occur mainly towards the western and north-western areas. The recorded temperature range was approximately 60.72°C–73.43°C in 2014, 58.99°C–75.32°C in 2020, and 61.23°C–74.36°C in 2026. The persistence of relatively high temperatures in the central and south-eastern portions highlights areas that may be more vulnerable to heat stress, vegetation degradation, reduced soil moisture and increased water demand.

3.1.5.1. Emerging Issues and Planning Implications

- Areas experiencing persistently higher surface temperatures should be incorporated into climate-risk planning and prioritized for interventions that reduce heat exposure.
- Maintaining healthy vegetation and woodland cover can help moderate surface temperatures. Degraded areas should therefore be targeted for vegetation restoration and afforestation.
- Future settlement and infrastructure development should consider areas with high thermal conditions and promote climate-responsive development practices.
- Areas experiencing high temperatures may face greater evaporative water demand. Planning should therefore promote water harvesting, efficient water use and protection of existing water resources.
- Increasing surface temperatures may affect pasture availability and livestock livelihoods. Land-use planning should therefore incorporate drought- and heat-tolerant practices to strengthen pastoral resilience.
- The persistent high-temperature zones in the central and south-eastern areas should be considered priority areas for climate adaptation, environmental conservation and sustainable land management interventions.



Map 10: Lekurruki Land Surface Temperature Variation



Source: Laikipia County GIS Lab, 2026



3.1.6. Soil and Lithology

3.1.6.1. Texture

Lekurruki Community land is predominantly covered by clayey and sandy soil textures, with the distribution of soil types varying across the landscape. The Clayey Lithosols are mainly concentrated towards the western and central parts of the community, while Sandy Luvisol occupies a substantial portion of the central and north-western areas. Clayey Luvisol are predominantly distributed across the eastern and south-eastern sections of the community.

The Clayey Lithosols are generally associated with relatively shallow and less-developed soils, which may have limitations for intensive agricultural production due to restricted soil depth and water availability. The Sandy Luvisol generally has better drainage and is more permeable, although their relatively sandy texture can result in lower water and nutrient retention. Clayey Luvisol has a higher proportion of clay and therefore generally possess greater water-holding capacity, although drainage and soil workability may become limiting where clay content is high.

The variation in soil texture across Lekurruki is therefore an important consideration for agricultural suitability, vegetation management, grazing, soil conservation and settlement planning.

3.1.6.2. Mineral Composition/Clay Description

The distribution of the soil types indicates variations in the clay content and associated soil characteristics across Lekurruki. The Clayey Luvisol occurring mainly in the eastern and south-eastern portions have relatively high clay content, which enhances their capacity to retain moisture and nutrients. However, areas with high clay content may experience reduced infiltration and drainage, particularly during periods of heavy rainfall.

The Sandy Luvisol, which are concentrated mainly in the central and north-western parts, have a comparatively coarser texture. These soils generally allow greater infiltration and drainage but have lower capacity to retain water and nutrients. Consequently, agricultural activities in these areas would benefit from soil-moisture conservation, organic matter improvement and erosion-control measures.

The Clayey Lithosols occurring mainly towards the western and central portions are associated with shallow or relatively less-developed soils. Their limitations in terms of soil depth and



moisture retention make them more suitable for controlled grazing and conservation-oriented uses, although localized areas may support agriculture where soil depth and moisture conditions are favorable.

The variation in soil composition highlights the need for soil-specific land management practices, particularly where agricultural expansion or intensive land-use activities are proposed.

3.1.6.3. Lithology

Lekurruki landscape, mainly the hilly Western stretch is dominated by Lithosol soils with a clayey texture as shown in figure below. This type of soil emanates from fragmentation of weathered basic rocks. A combination of windy conditions and heavily undulating or steep surfaces provides a platform for erosion of weakened stone fragments; hence the loose stony soil feels and shallow soil depth. The zone is extensively mountainous with several rocky outcrops and rocky hillsides. This soil type characteristically swells when wet and cracks in dry conditions. The constituent montmorillonite clay mineral composition with a 2:1 phyllosilicate structure, meaning an octahedral sheet formed between two silica tetrahedral sheets, results in a higher retention capacity. Therefore, the moisture and nutrient content i.e. calcium, magnesium and potassium are relatively higher than surrounding types in the study area. However, this type is unsuitable for traditional farming since roots cannot grow deep and unpredictable seasonal soil volumes.

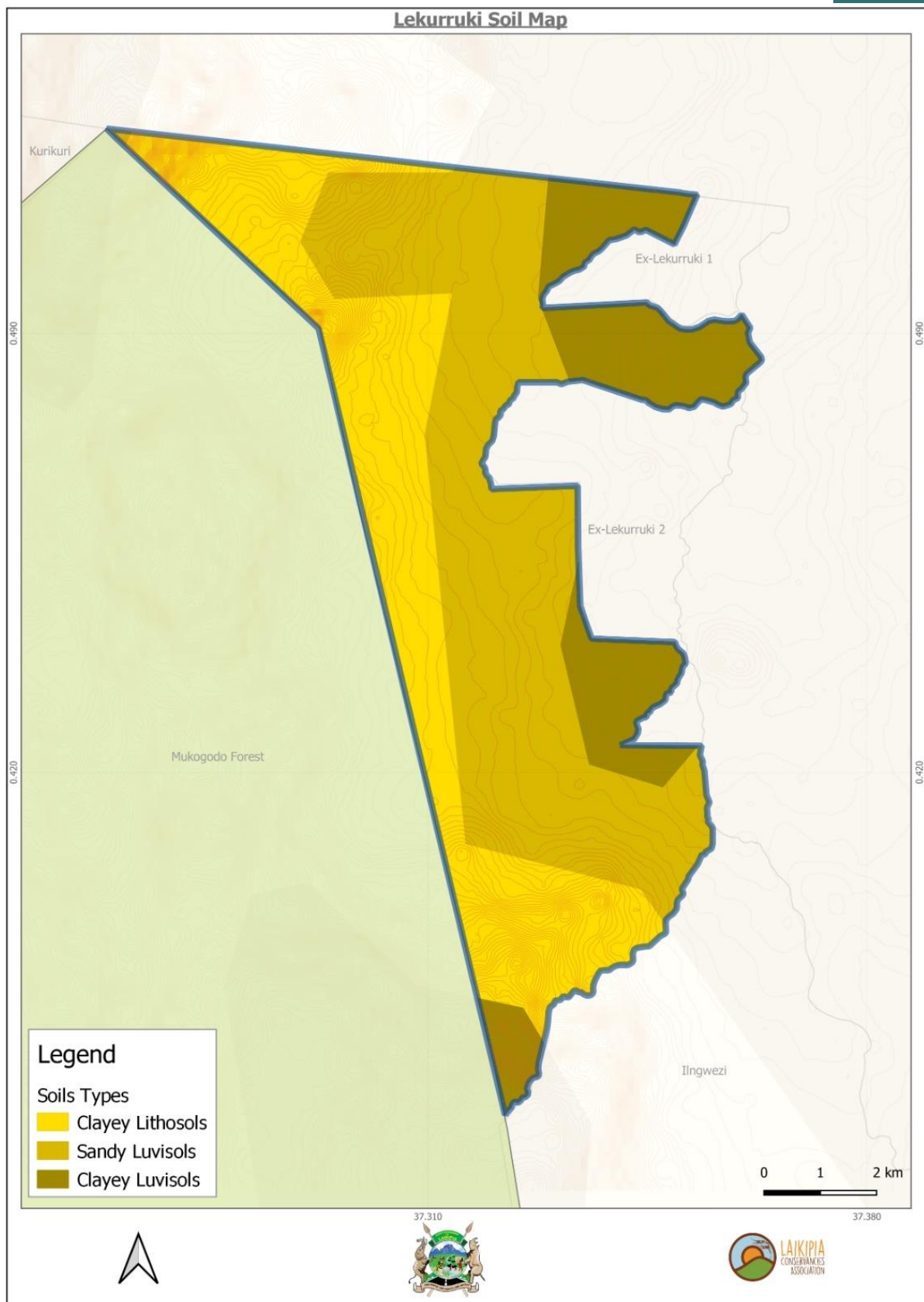
The middle section of the study area where there are little undulations in the landscape is covered in Luvisol soil, mainly of sandy texture. This type is predominant in high soil deposition zones most common in relatively flat areas. The eroded soil from the steeper Western section is washed downstream toward the East and settle along the relatively flat portions, justifying the sandy texture associated with the said Luvisol. The section area is well known for sandy Lagga. These soil types consist of mineral kaolinite clay which is characterized by well drained texture hence poor nutrient and moisture content which is common in topsoil eroded from sloppy higher grounds. However, the subsoil is relatively fertile from leaching minerals from newly deposited layers from hillside erosion, with the nutrient level heavily dependent on the composition of the weathered rock soil uphill. Consequently, kaolinite Luvisol offers stable physical workability and low shrink-swell dynamics which make them predictable soils for agricultural management and construction. Several sand dams along



the laggas for water retention. In addition, it is worth noting that the Eastern most parts are covered in clayey luvisols, encouraged by the relatively higher altitude plains where erosion is minimal hence some topsoil characteristics i.e. water retention is maintained.

A Lithology analysis of the study area reveals Pallidum rich rocks within the Lithosol soil dominated areas while Quaternary (Alluvium/Colluvium) deposits which may be characterized by unconsolidated sand, silt, gravel, clay or loose rock deposited by modern or recent river systems around the Luvisol dominant spaces. ‘Q’ represents Quaternary periods in geological time scale (approx. 2.8 million years ago) which is the most recent. The numbering typically designates the order of formation with ‘1’ referencing the oldest subdivisions while ‘2’ indicates medium age loess deposits or alluvium. The ‘v’ in Q1V represents volcanic composition.

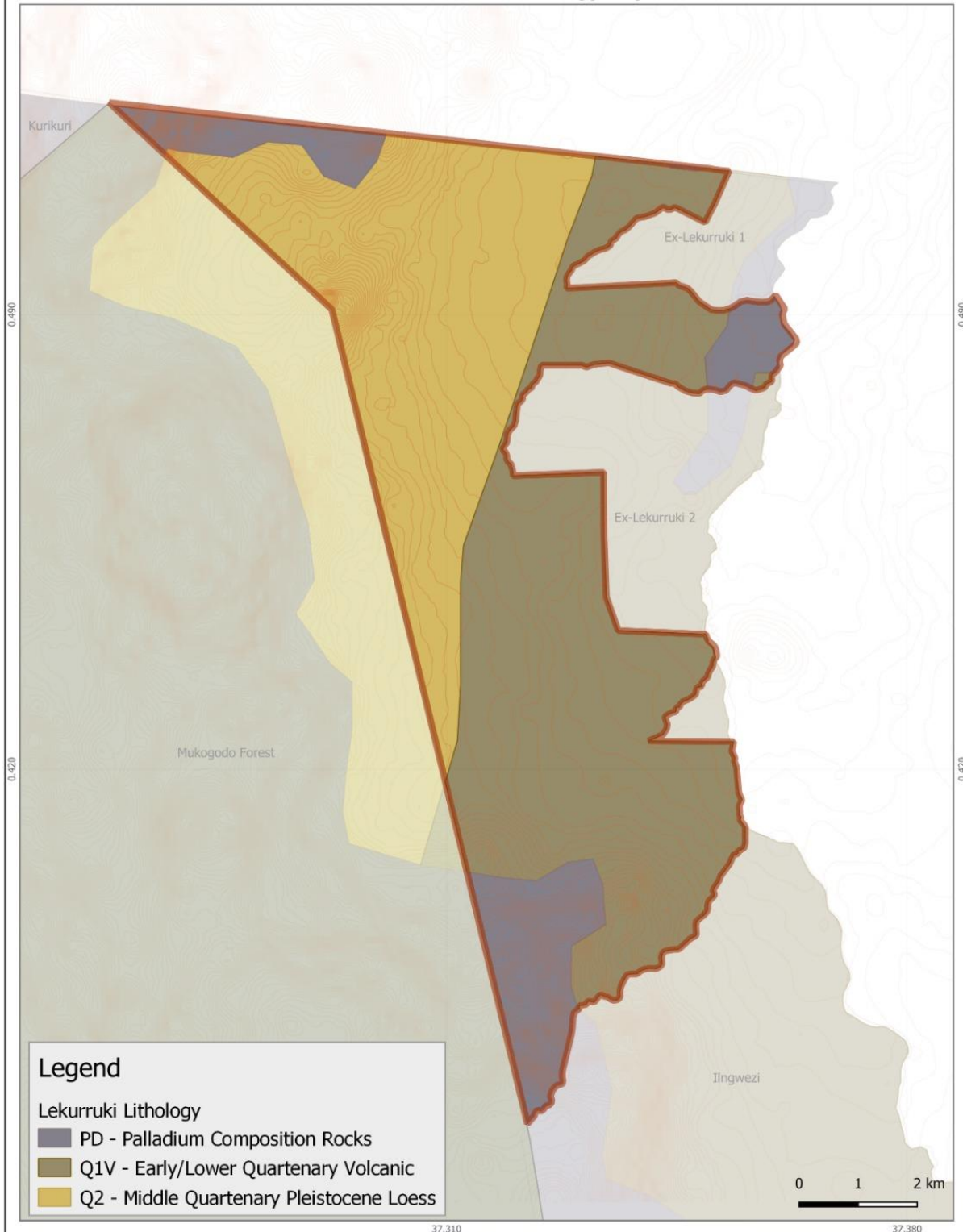
The lithological characteristics of Lekurruki therefore provide an important foundation for understanding the distribution and properties of the soils, as well as informing decisions relating to agriculture, settlement development, infrastructure provision, conservation and sustainable land management.



Map 11 Soil Map



Lekurruki Lithology Map



Map 12 Lithology Map



3.1.7. Land Tenure Distribution and Availability

Lekurruki community land is one of the 13 community lands that transitioned from group ranches to community land. It is surrounded by private ranches, Mukogodo Forest, Isiolo County to the North and Ilngwesi Community Land to the South.

Table 2: Land Availability

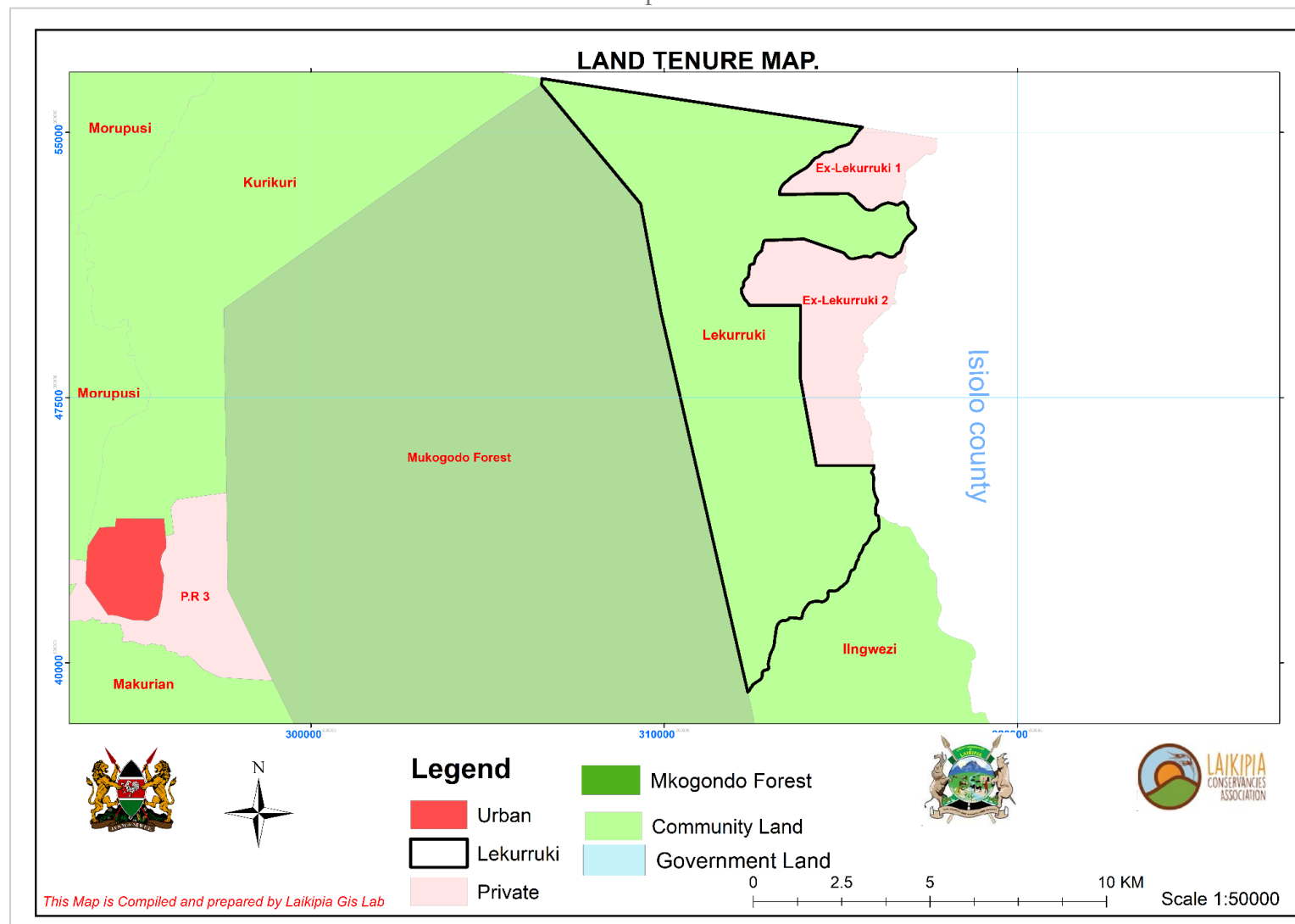
FEATURE	FEATURE	AREA (HA)	% OF USED AREA
Lekurruki Community Land	Animal Corridors	334.79	79.51
	Roads	81.37	19.33
	Airstrips	4.88	1.16
	Total	421.04	100%

AREA	SIZE (HA)	PERCENTAGE
Total Area	7069.5 Ha	100%
Used Area	421.04 Ha	5.96%
Available Land	6,648.46	94.04%

As seen in the map below, Lekurruki Community Land is highly under-utilized. Through land use planning, the community can unlock the potential of their land through forwarding proposals that donors and other stakeholders can deduce projects from.



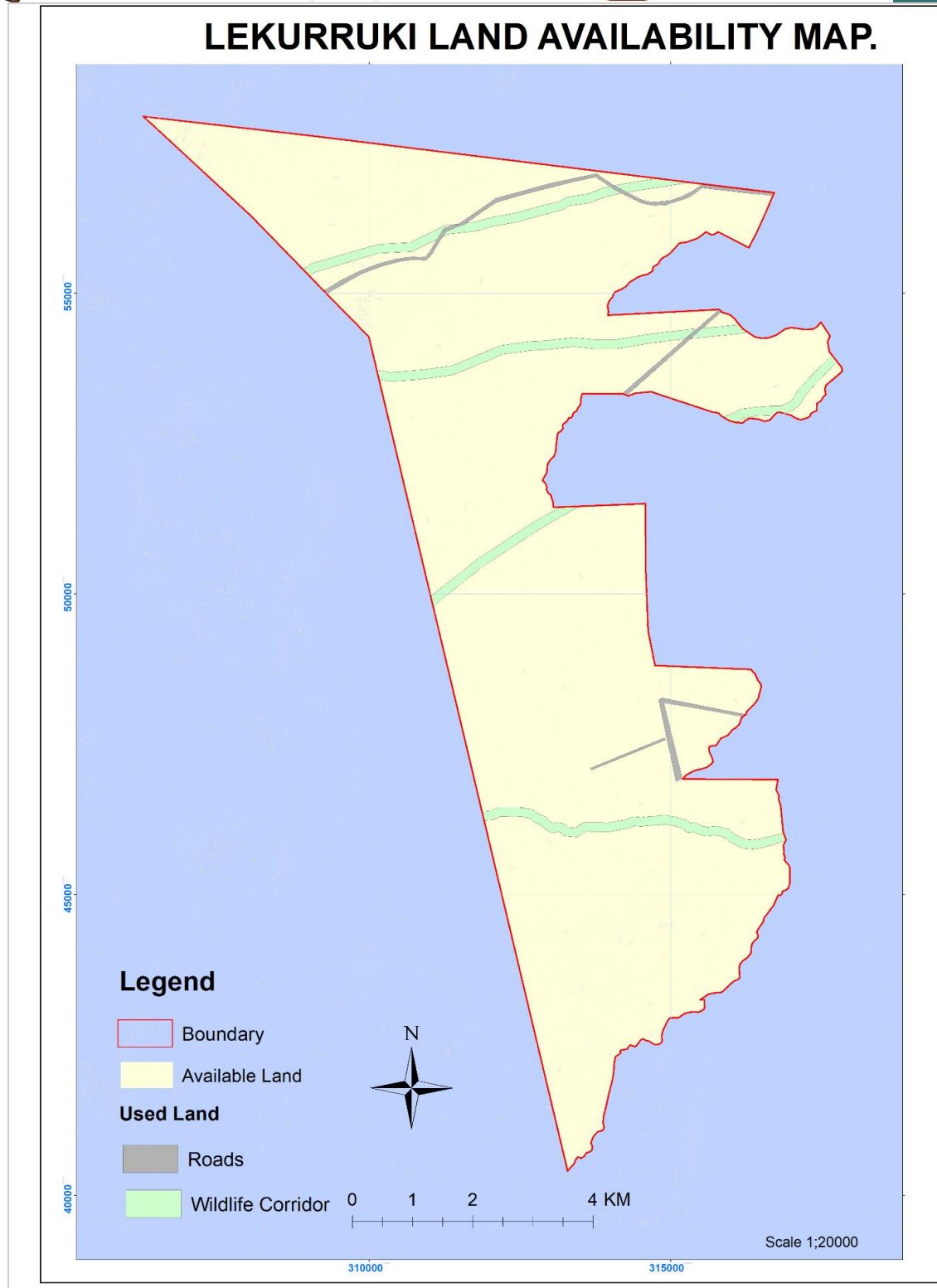
Map 13: Land Tenure Distribution



Source: Laikipia County GIS Lab, 2026



Map 14: Land Availability



Source: Laikipia County GIS Lab, 2026



3.1.8. Land Cover Change Analysis

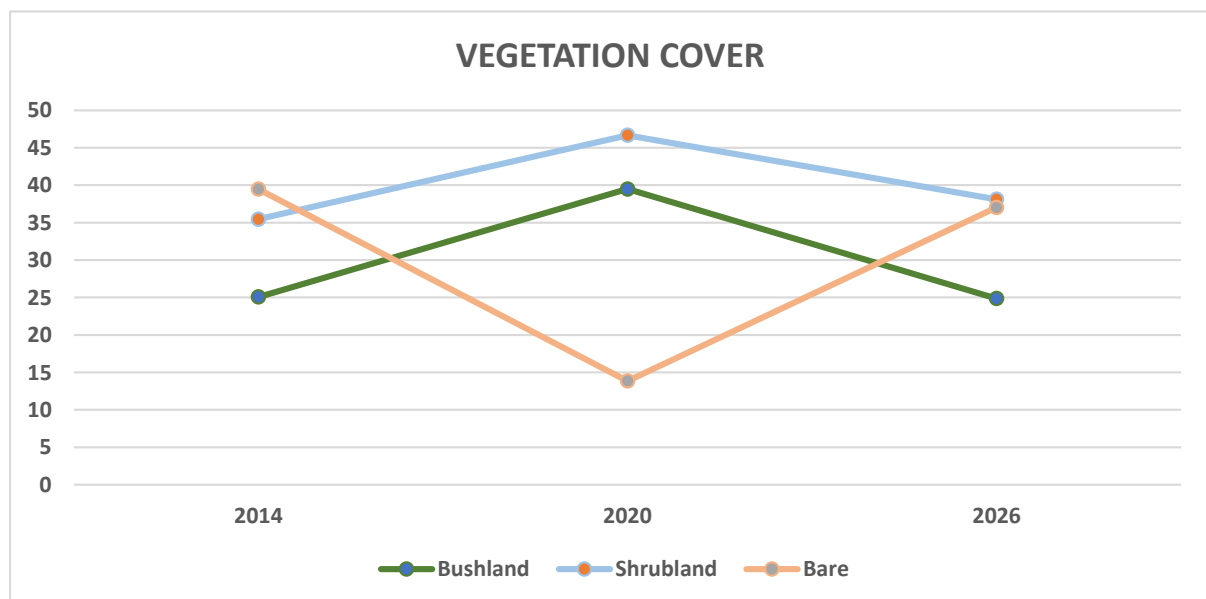
The land cover change for Lekurruki Community Land shows significant changes in vegetation conditions and land cover from 2014 to 2026. The major classes mapped are bushland, shrubland and bare land/ cleared.

Visually, the 2014 map contains a fair amount of bare land all over the landscape. Bushlands were located at the eastern edges which have lower terrain. Shrubs were scattered all over the landscape equally as bare land.

2020 was a good year as bushland increased by a bigger margin, overshadowing both bare land and shrubs. Bare land was annexed to the east edge accounting for approximately about 15% of the total coverage. The year also received a higher amount of rainfall than the previous years.

In 2026, the landscape lost most of the bushland due to climate change and overgrazing. It is worth noting that the landscape usually experiences intruders and other pastoralists from neighboring communities during drought seasons as they head to Mukogodo Forest.

Chart 1: Vegetation Cover Distribution



Source: Laikipia County Government, 2026

3.1.8.1. Emerging Issues and Planning Implications

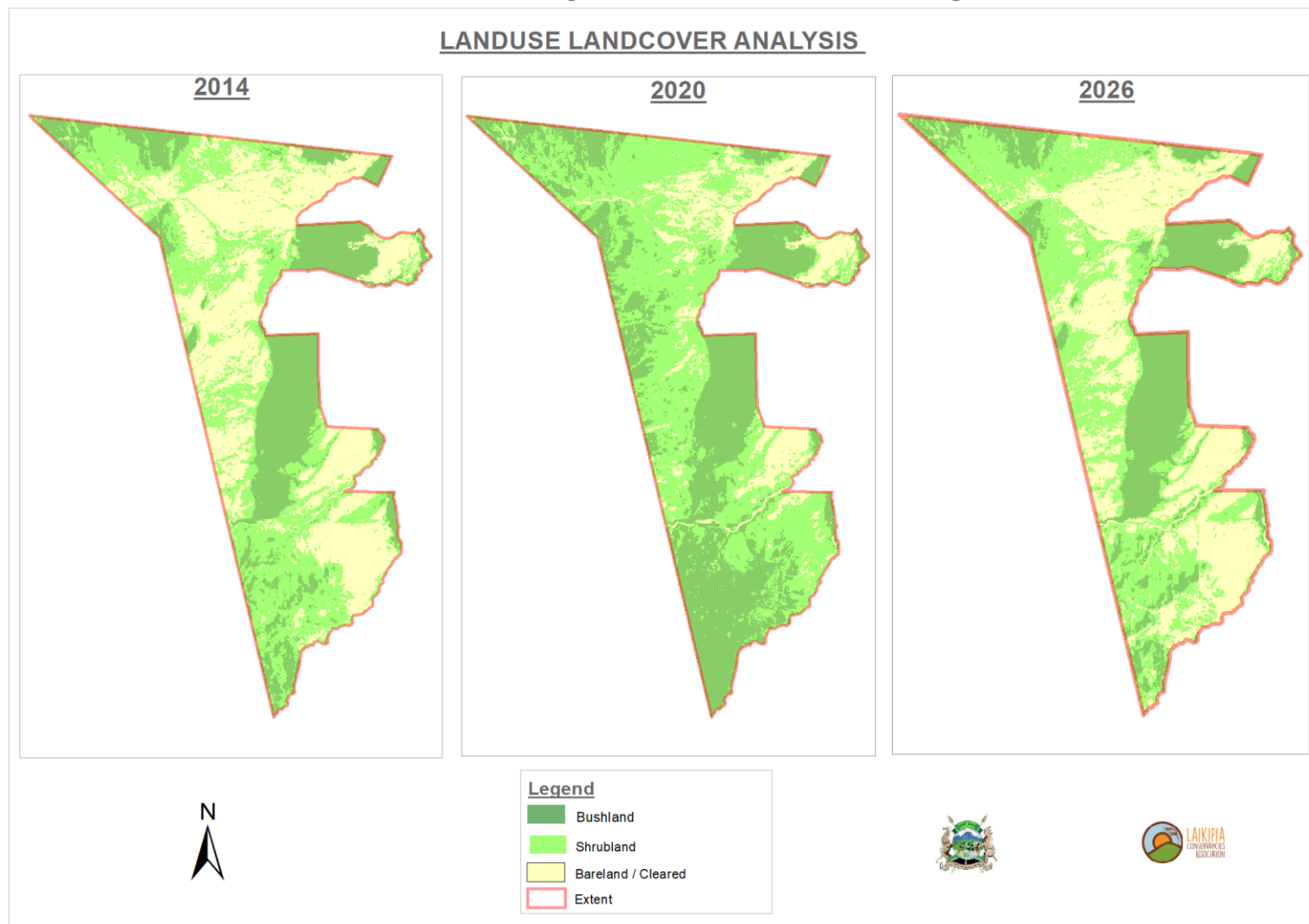
- The apparent expansion of bare land calls for improved management of grazing areas, including controlled grazing, and protection of degraded areas to facilitate natural regeneration.



- Existing bushland areas should be identified as priority conservation zones. Measures such as protection from uncontrolled clearing, community-based forest management and restoration of degraded vegetation.
- There is a need to rehabilitate areas showing persistent unhealthy vegetation and bare land should be targeted for with activities such as reseeded and soil conservation.
- Laggas and other drainage channels should have gabions so as to avoid soil erosion of the Lagga banks
- The community land should be monitored periodically using satellite imagery, remote sensing, and GIS to indicate and predict area and percentage change of each land-cover to provide quantitative evidence for planning decisions.
- The 2014–2026 pattern suggests a need to shift from primarily reactive land management toward proactive conservation, rangeland restoration and climate-resilient land-use planning.



Map 15: Lekurruki Land Cover Change 2014-2026



Source: Laikipia GIS Lab, 2026



3.1.9. Introduction to Agro-Ecological Zones

Agro-Ecological Zones (AEZs) serve as a fundamental spatial framework for land-use planning, resource management, and climate adaptation in arid and semi-arid lands. AEZs are defined by distinct combinations of climate, landforms, altitude, and soil characteristics and are therefore able to delineate the biological capability and agricultural potential of various geographical units.

In pastoral and Agro-pastoral ecosystems such as this, Agro-ecological zonation provides the baseline data required to balance ecological integrity with sustainable livelihoods. By mapping these zones, we can assess critical variables such as potential evapotranspiration, thermal regimes, forage productivity, and seasonal moisture availability.

This section examines the spatial distribution of Agro-ecological zones within the community land, evaluating how elevation gradients and local microclimates shape land utility, ranging from semi-intensive crop integration to extensive rangeland livestock systems and conservancy management. Understanding these ecological boundaries is necessary for designing targeted rotational grazing plans, identifying climate-smart agricultural interventions, and mitigating drought vulnerability across the landscape.

3.1.9.1. Spatial Distribution

Lekurruki Community Land is predominantly an arid Agro-ecological landscape, with limited semi-arid areas occurring along the northwestern and southern margins. This Agro-ecological pattern suggests that land-use planning should primarily prioritize sustainable rangeland management, livestock production and wildlife conservation, while the relatively more favorable semi-arid areas can support complementary Agro-pastoral activities and carefully selected drought-tolerant crops.

Arid: The map shows that the Arid Agro-ecological zone covers the overwhelming majority of Lekurruki Community Land in Laikipia County. This zone is characterized by limited and variable moisture availability, therefore primarily suited to livestock-based livelihoods, sustainable rangeland management, pasture utilization and restoration, and wildlife conservation. Land-use practices within this zone should emphasize sustainable grazing



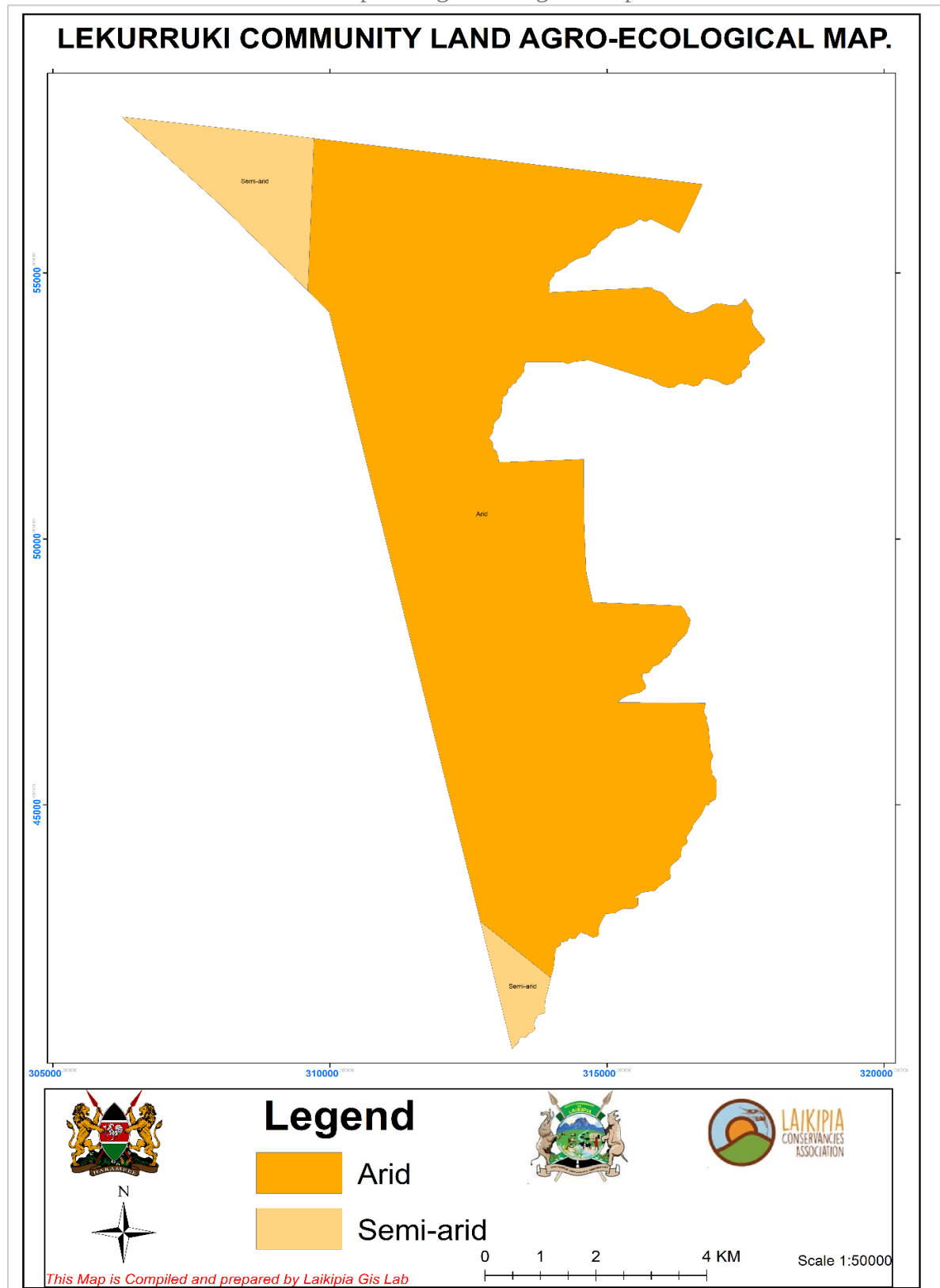
management, appropriate stocking rates, protection of key grazing areas, water-resource management, and integration of livestock production with wildlife conservation.

Semi-Arid: The Semi-arid Agro-ecological zone occurs in relatively small areas along the northwestern margin and at the southern tip of Lekurruki Community Land, as illustrated on the map. Compared with the arid zone, these areas have relatively more favorable moisture conditions, providing greater potential for Agro-pastoral activities. The relatively favorable conditions in this zone also make it suitable for initiating vegetation rehabilitation and land restoration interventions. Measures such as semi-circular bunds, soil and water conservation structures, reseeding of degraded areas with indigenous and drought-tolerant grass species, assisted natural regeneration, controlled grazing, and establishment of fodder reserves can help improve soil moisture retention, reduce erosion, and promote the recovery of degraded rangelands.

Where soil and water conditions are suitable, drought-tolerant crops such as sorghum and millet can be integrated with livestock production. Climate-smart practices, including soil and water conservation, rainwater harvesting, moisture retention, and the use of drought-tolerant crop varieties, are appropriate for enhancing productivity and resilience.



Map 16: Agro Ecological Map



Source: Laikipia County GIS Lab, 2026

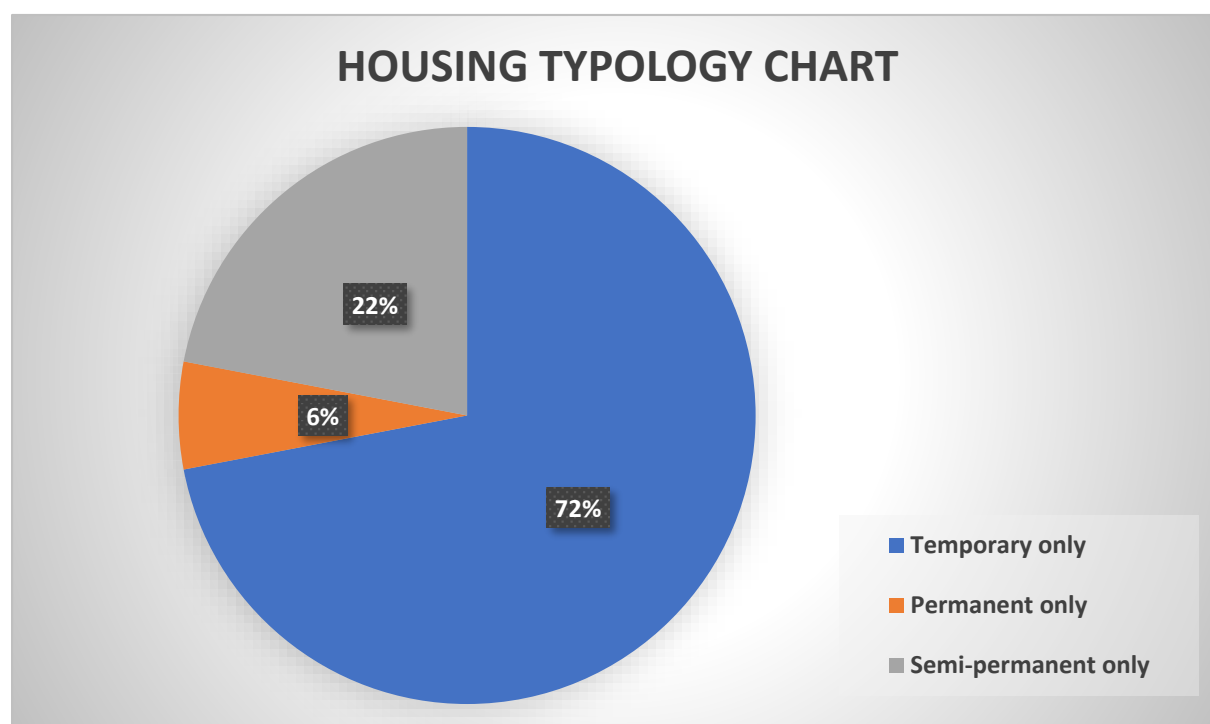


3.1.10. Housing typology

Based on the socio-economic survey findings, housing in Lekurruki Community Land is predominantly temporary, with 56 households occupying temporary structures constructed mainly from locally available materials such as mud, timber and thatch. Permanent houses account for 5 households, while 17 households occupy semi-permanent structures. The predominance of temporary housing reflects the community's pastoral lifestyle and the limited financial capacity of many households to invest in durable housing. This housing pattern highlights the need to promote affordable and climate-resilient housing through strengthening household livelihoods to enhance better housing conditions and be resilience to environmental hazards

The figure below shows the distribution of various housing typology.

Chart 2 Housing Typology



Source: Laikipia County Government, 2026

Table 3 Housing Structure Types

No	Housing Structure	Number	% of Valid Responses
1.	Temporary only	56	72%
2.	Permanent only	5	6 %
3.	Semi-permanent only	17	22%
	Total	78	100



Plate 4: Housing Typology in Lekurruki



Source: Field Survey, 2026

3.10.1.1. Emerging Issues

Temporary Nature; The temporary nature of the community due to nomadism has made it had for relevant authorities and stakeholders to deliver services that require installment of infrastructure. For example, the community has low literacy levels since children have no consistent exposure to education.

Exposure to climate related calamities and disasters; The dominant temporary structures are easily affected by floods during heavy rains.

Insecurity; Temporary structures are easily destroyed during attacks by cattle rustlers or bandits.

3.2. Physical Infrastructure

3.2.1. Roads and Air Network

Lekurruki community land is served by two major forms of transport. Air and Road. Air transport is mainly used as a way of access by tourists and other stakeholders to Tassia Lodge. It is 1.3 Km in length of gravel runway.

The main roads on site are concentrated on the southern side of the site. They head towards various investments such as Tassia Lodge, Lekurruki Primary School, Lekurruki Dispensary and Rangers Headquarters. There are two main roads that are used to exit Lekurruki, one heading towards Ilngwesi Community Land, and the other heading towards Nadungoro.

The northern part of the site is highly inaccessible due to lack of transportation infrastructure and services in the area. Consequently, there is no permanent population in this section. The



few households observed on the map are composed of nonmembers who have established temporary structures and are primarily present for pastoralist activities.

It is therefore necessary to establish a good road network all round site which would help in monitoring activities on site. Existing road networks should be upgraded to all season roads to avoid lack of access during rainy seasons.

Majority of the population's mode of transport is through walking and use of motorbikes to access essential services like health, education, and markets. Non-motorized transport is the common mode of transport whereby residents commute from one point to the next to access essential services and conduct activities of daily living. Consequently, there are a myriad of tracks traversing through the land.

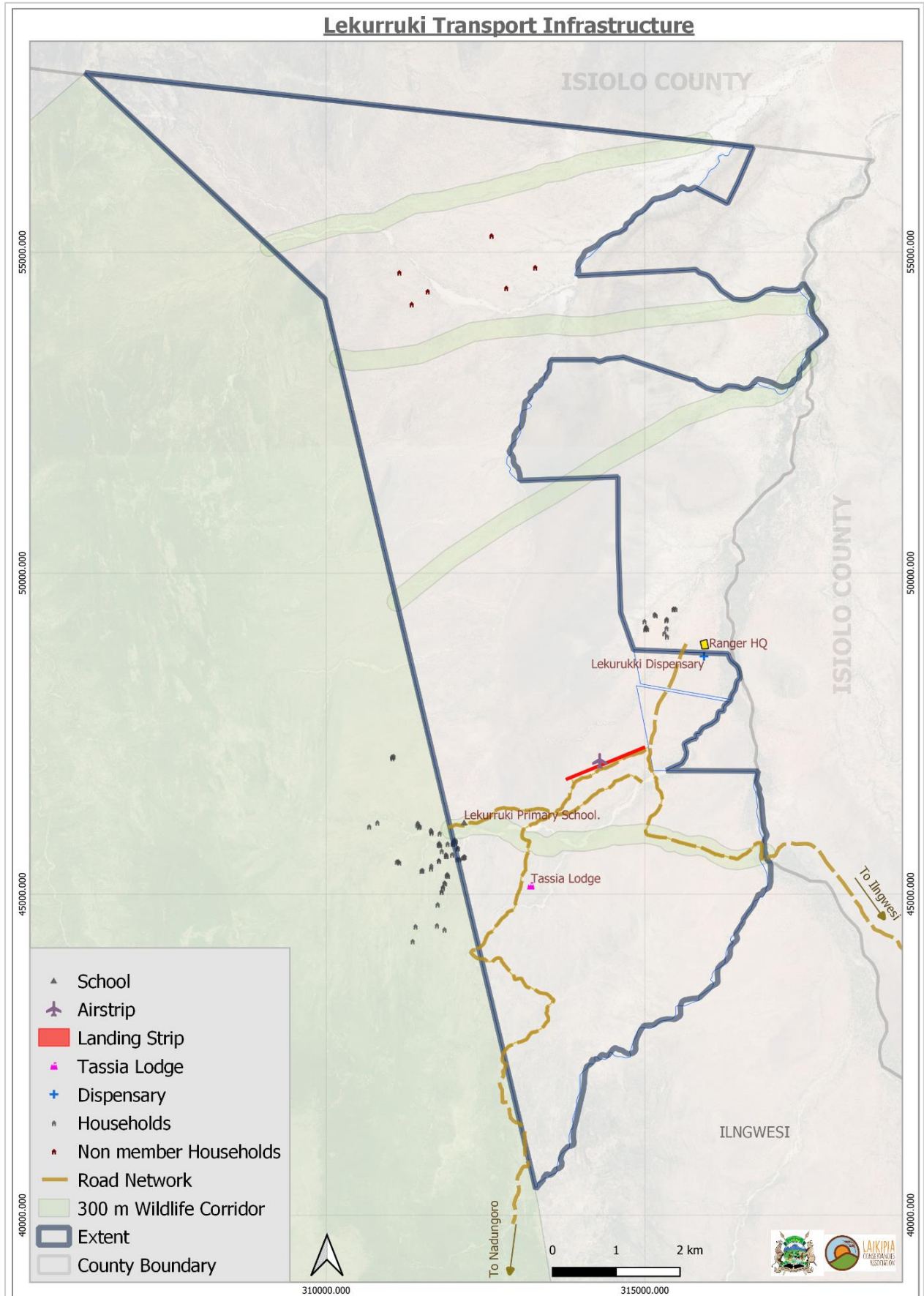
Majority of the population mode of transportation rotates between motorized and non-motorized transportation. Motorized transportation is done through motorbikes and small cargo cars that are mostly used to transport goods in and out of the community land. Non-motorized transportation is practiced by virtue of walking from one place to another.

3.2.1.1. Emerging Issues and Planning Implications

- The road network determines the ability to access essential services like market, health, and education. However, the lack of well-interconnected and all-weather roads is likely to hinder transportation needs during adverse weather conditions. Therefore,
- It is imperative to upgrade roads to all weather and open up remote locations.
- Ensure there is proper drainage along major roads to prevent soil erosion during rainy season and ensure transportation is not hindered.
- Vegetation around roads should be maintained so as to avoid soil erosion along drainage lines.
- Ensure continuous maintenance of existing transportation corridors.
- The community should explore ways to utilize the existing airstrip not only for tourism but also to provide basic public transportation to major commercial centers such as Nanyuki, Isiolo, and even Nairobi.



Map 17: Road Network in Lekurruki



Source: Laikipia County GIS Lab, 2026

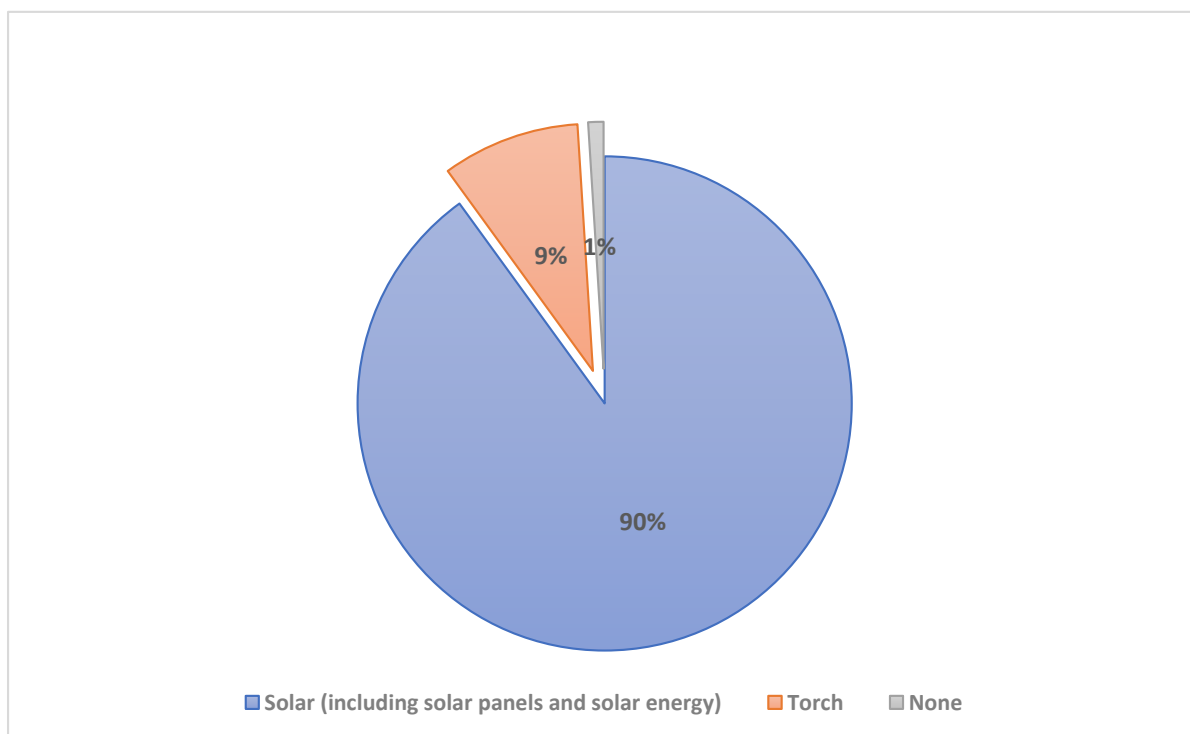


3.2.2. Energy Sources

Lekurruki community is not connected to the national electricity grid. Therefore, the community primarily relies on solar energy for lighting and firewood as the main sources of energy. The residents indicate that 70 households rely on solar power while the rest rely on battery torches for lighting purposes. All members of community use firewood for cooking.

The figure below shows distribution of energy sources in Lekurruki community.

Chart 3 Main Household Energy Source



Source: Laikipia County Government, 2026

Table 4 Energy sources on site

Energy Source	Households	Percentage (%)
Solar (including solar panels and D light torches)	70	90%
Torch	7	9%
None	1	1%
TOTAL	78	100.0



3.2.2.1. Emerging Issues and Planning Implications

- Use of firewood as primary source of energy has resulted in a rise in respiratory diseases which kids are highly susceptible to.
- Support alternative energy sources to reduce reliance on firewood which will consequently result in environmental conservation and reduction in vegetation degradation. For example, LPG gas and solar induced cookers.
- Harnessing solar energy and distribution across the community is likely to improve the community's quality of life.
- The high installation cost of solar can be a point to lobby funds from donors and NGO's who support green and renewable energy.

3.3. Demography Overview

The surveyed community is a high-growth and predominantly youthful population. The surveyed population consists of **613** people and **78** households and an approximate household size of **7.9** persons. The community is characterized by an adult population (**69.8%**) and a relatively small youthful workforce, indicating a high momentum for steady, stable natural increase and an exceptionally low burden on the productive-age cohort.

Table 5 Population Size and Composition

Metric	Value	Percentage
Population	613	100%
Households	78	-
Average Household Size	7.9	-
Males	292	47.6%
Females	321	52.4%
Adults (18+)	428	69.8%
Male Adults	187	43.7% of adults
Female Adults	241	56.3% of adults
Children (Under 18)	185	30.2%
Male Children	84	45.4% of children
Female Children	101	54.6% of children



STRUCTURAL INDICATOR	VALUE	SIGNIFICANCE
Child Dependency Ratio	43.2%	(185 children / 428 adults) × 100. Low means every adult supports 2 children.
Old-Age Dependency Ratio	2.2%	Very low minimal elderly care burden.
Total Dependency Ratio	43.3%	Combined burden; <100% is considered an exceptionally low burden.

3.3.1. Population Projections (10-Year)

The age distribution of the population in Lekurruki Community Land indicates an average fertility rate considering there is an average of **1** child per woman sampled from an approximately **241** adult females. This is not the true reflection of the overall fertility trend in pastoral and Agro-pastoral communities in most of the ASAL regions in Kenya where large family size is common and a practical solution to livestock labor requirements. It reflects the impact of migration because the population here involves only those living in the Community Land.

3.3.2. Ten-Year Growth Projection

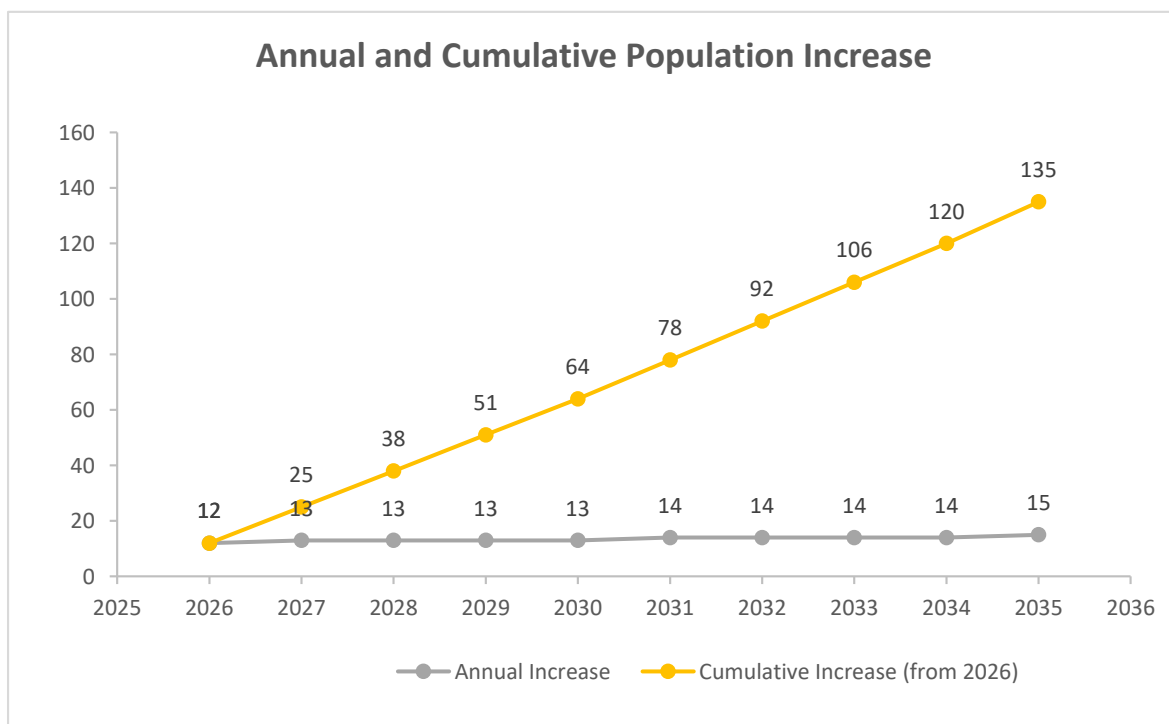
Assuming a conservative growth rate of about **2.0** per cent annually as is typical for rural and pastoral Kenyan populations, and the age distribution of the population surveyed, then the population of people living in the community land will rise from **613** in 2026 to approximately **748** in 2036, an increase of **135**, or about **22%** over the **10**-year period.



Table 6 Population Growth Projection of People Living in the Community Land

Year	Annual Increase	Cumulative Increase (from 2026)	Projected Population
2026	—	—	613
2027	+12	+12	625
2028	+13	+25	638
2029	+13	+38	651
2030	+13	+51	664
2031	+13	+64	677
2032	+14	+78	691
2033	+14	+92	705
2034	+14	+106	719
2035	+14	+120	733
2036	+15	+135	748

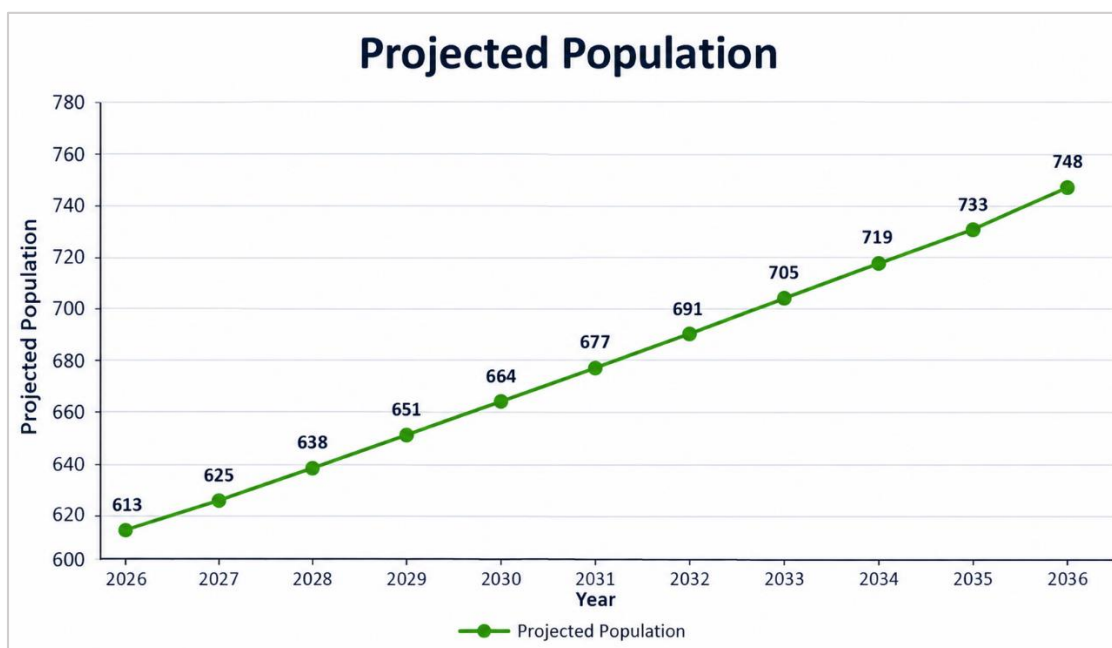
Chart 4 Cumulative Population Increase



Source: Laikipia County Government, 2026



Chart 5: Population Projection in Lekurruki



Source: Laikipia County Government, 2026

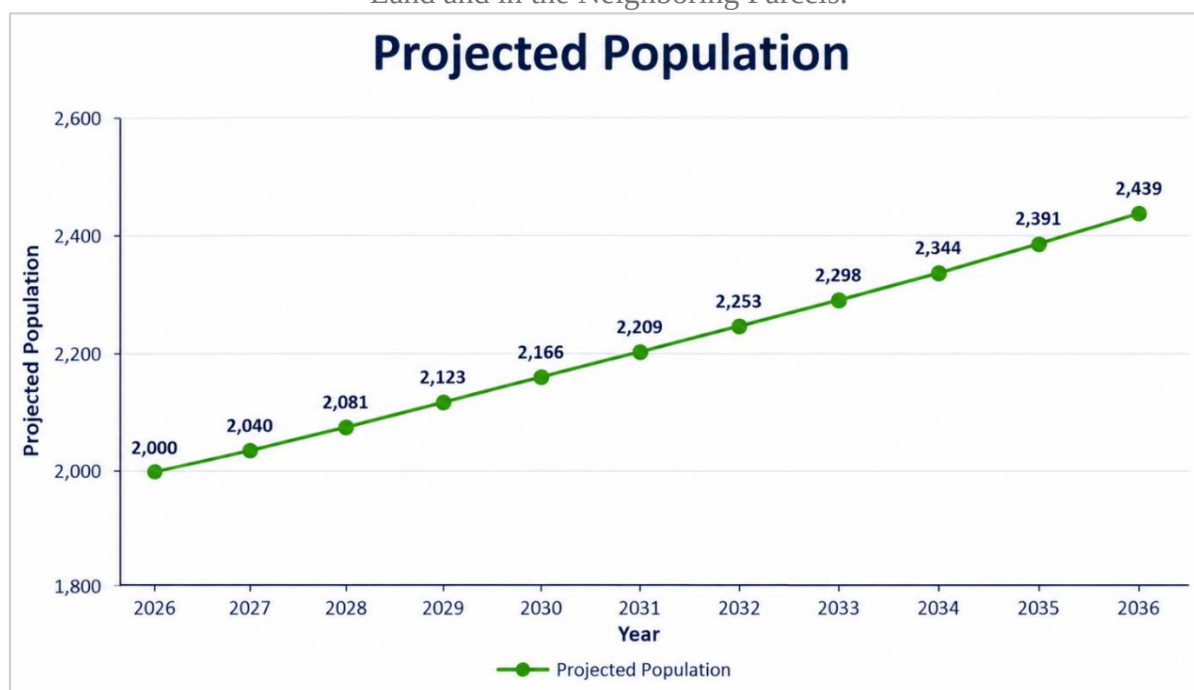
The critical concern is that a larger percentage of population in Lekurruki Community Land (approximately three quarter of the population) live outside the community land. They have migrated due to banditry attacks and live in the neighboring parcels. Assuming a conservative growth rate of about **2.0** percent annually as is typical for rural and pastoral Kenyan populations, and the age distribution of the population living outside the community land, then the population of people who migrated to the neighboring parcels will rise from approximately **2000** people in **2026** to approximately **2439** people in **2036**, an increase of **439**, or about **22%** over the **10**-year period. This means that the total population including the people living inside and outside the community land will rise from approximately **2613** in **2026** to approximately **3180** in **2036**, an increase of **567** people over a period of **10**-years.

Year	Annual Increase	Cumulative Increase (from 2026)	Projected Population
2026	—	—	2000
2027	+40	+40	2040
2028	+41	+81	2081
2029	+42	+123	2123
2030	+43	+166	2166



2031	+43	+209	2209
2032	+44	+253	2253
2033	+45	+298	2298
2034	+46	+344	2344
2035	+47	+391	2391
2036	+48	+135	2439

Chart 6: Combined Projected Population Increase for People Living Both in the Community Land and in the Neighboring Parcels.

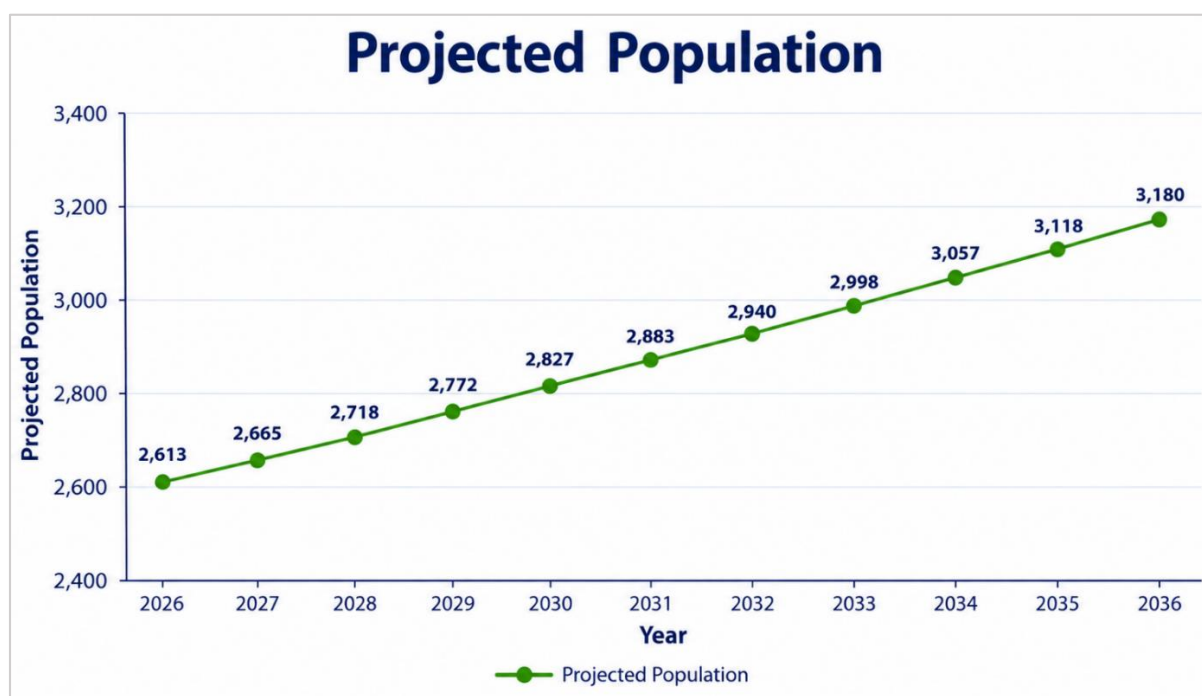


Source: Laikipia County Government, 2026

Year	Annual Increase	Cumulative Increase (from 2026)	Projected Population
2026	—	—	2613
2027	+52	+52	2665
2028	+53	+105	2718
2029	+54	+159	2772
2030	+55	+214	2827



2031	+56	+270	2883
2032	+57	+327	2940
2033	+58	+385	2998
2034	+59	+444	3057
2035	+61	+505	3118
2036	+62	+567	3180



3.3.3. Population Growth and Land-Use Implications

The population projections should be used as a basis for determining the future capacity of public facilities. Planning should not simply provide for the projected population but should also account for the geographical distribution of households, the pastoral lifestyle and the fact that some facilities serve populations outside Lekurruki Community Land.

The following planning priorities are recommended:

Table 7 Population and Land-Use Implications

Sector	Population-related planning response
Education	Expand existing school and reserve land for additional ECDE, primary and secondary facilities.



Health	Upgrade Lekurruki Dispensary with a maternity wing and provide additional dispensaries.
Water	Increase water production, storage and distribution capacity and improve water quality.
Housing	Designate suitable settlement areas and manage settlement expansion.
Roads	Improve access roads linking villages, schools, health facilities and water points.
Livestock	Protect grazing areas, livestock routes, watering points and veterinary facilities.
Conservation	Protect wildlife corridors and establish development-control measures around sensitive areas.
Commerce	Establish a livestock market and suitable commercial centers.
Energy	Expand electricity and solar-energy infrastructure to emerging settlements and public facilities.
Sanitation	Provide adequate sanitation and solid-waste management facilities alongside settlement growth.
Recreation	Reserve land for community recreation, cultural facilities, tourism and public open spaces.
Administration	Secure land tenure for existing and future public facilities.

3.3.3.1. Emerging Issues and Planning Implications

Based on the population data, the following critical emerging issues demand immediate policy attention

Educational Infrastructure

With a projected population increase showing a considerable number of children, including those inside and outside the community land, the community needs extra educational facilities. There is a need for schools' expansion to cater for the increasing children's population. Further,



it is imperative to create community awareness on the need for education to increase literacy levels. The initiative will improve school enrollment and transition from primary to secondary school.

Water and Sanitation Strain.

The expected population growth will have significant strain on current water supply and sanitation infrastructure with an average household size of 7.9 persons per household. There will be an increase in demand for water resources. The risk of waterborne diseases like cholera and diarrhea diseases may be higher when water and sanitation facilities are inadequate. The plan should then focus on the installation of extra water points, better storage facilities, a more reliable water supply, water management, solid-waste management and good quality sanitation facilities.

Primary Healthcare Shift

New healthcare services will be needed to accommodate the changing population structure, as health care needs of children and adults must be provided separately. Children will also need crucial services like immunization, growth monitoring, nutrition screening and treatment of common childhood illnesses. Meanwhile, the adult population will drive up demand for maternal and reproductive health, chronic disease management, mental health services, and other primary healthcare services. Those of the 241 adult females should be given special attention, such as antenatal, postnatal and reproductive health services, and the overall capacity of the local health facility strengthened to meet the needs of the increasing population.

3.4. Social Infrastructure

3.4.1. Solid and Liquid Waste management

The community does not have specified areas for solid waste collection and disposal. Therefore, the residents rely on open fields and open pits for waste disposal.

Therefore, there is a need to explore alternative waste management activities such as recycling, reuse and usage of biodegradable packaging so as to conserve the environment.

3.4.2. Human Waste Management

The lack of well-established latrines and the nomadic nature of the community have resulted in the residents opting for open defecation as a human waste disposal method. Open defecation is known for releasing micro biological pathogens to the environment which affects people, wildlife and livestock in the landscape. Research from various organizations suggest that open defecation has been found at fault for causing various Respiratory and helminthic diseases.



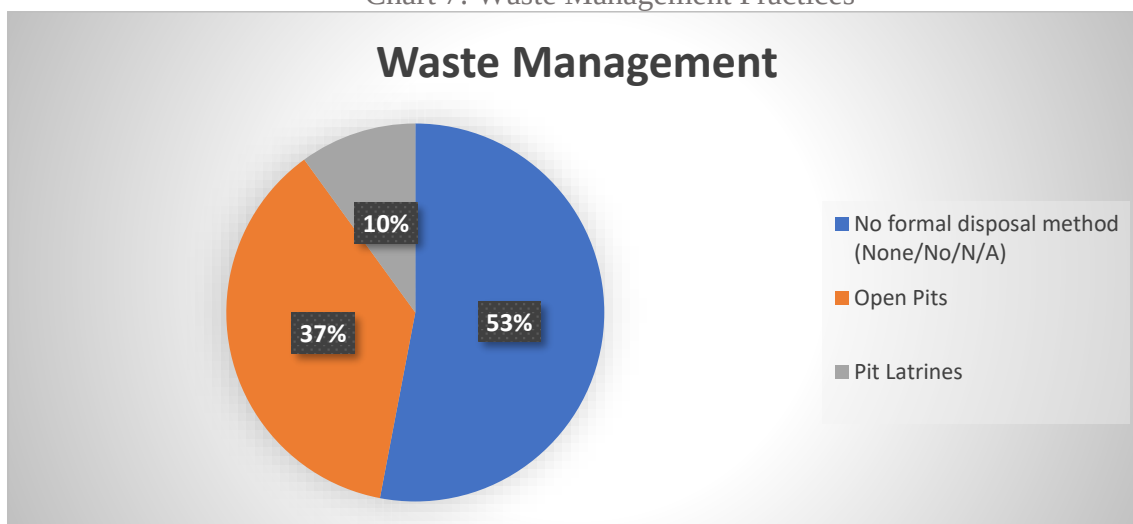
Helminthic diseases are diseases that are caused by interacting of contaminated soils, food or water containing feces.

Through the proposed local physical and land use development plan, the designated residential areas will encourage permanent settlement in the area, hence pit latrines will be established.

Table 8: Waste Management in Households

Waste Disposal Method	Number of Households	Approximate Percentage (%) of Households
No formal disposal method (None/No/N/A)	41	53%
Open Pits	29	37%
Pit Latrines	8	10%
Total	78	100%

Chart 7: Waste Management Practices



3.4.2.1. Emerging Issues and Planning Implications

- With the majority of the population not having waste disposal and sanitation facilities, there are high risks of outbreaks of both human and livestock diseases. Therefore, there is a need to create awareness on proper waste management and disposal activities.
- Proper waste management will significantly reduce risk of pollution and contamination of rainwater during rainy seasons. This water ends up seeping in riverbeds and is dug out during dry seasons as sand dams.
- There is a need to place emphasis on areas of concentrated activity, such as around Tassia Lodge, Lekurruki Primary School, Lekurruki Dispensary and the Rangers Headquarters, and to allocate a waste disposal site during land use planning.



3.4.3. Water Resources

3.4.3.1. Human Consumption

Water sources that provide drinking water are mainly ground water, accounting for 48 % of the overall water sources in the community land. Most of these water sources are contaminated through less sanitary extraction methods and destruction by domestic and wild animals.

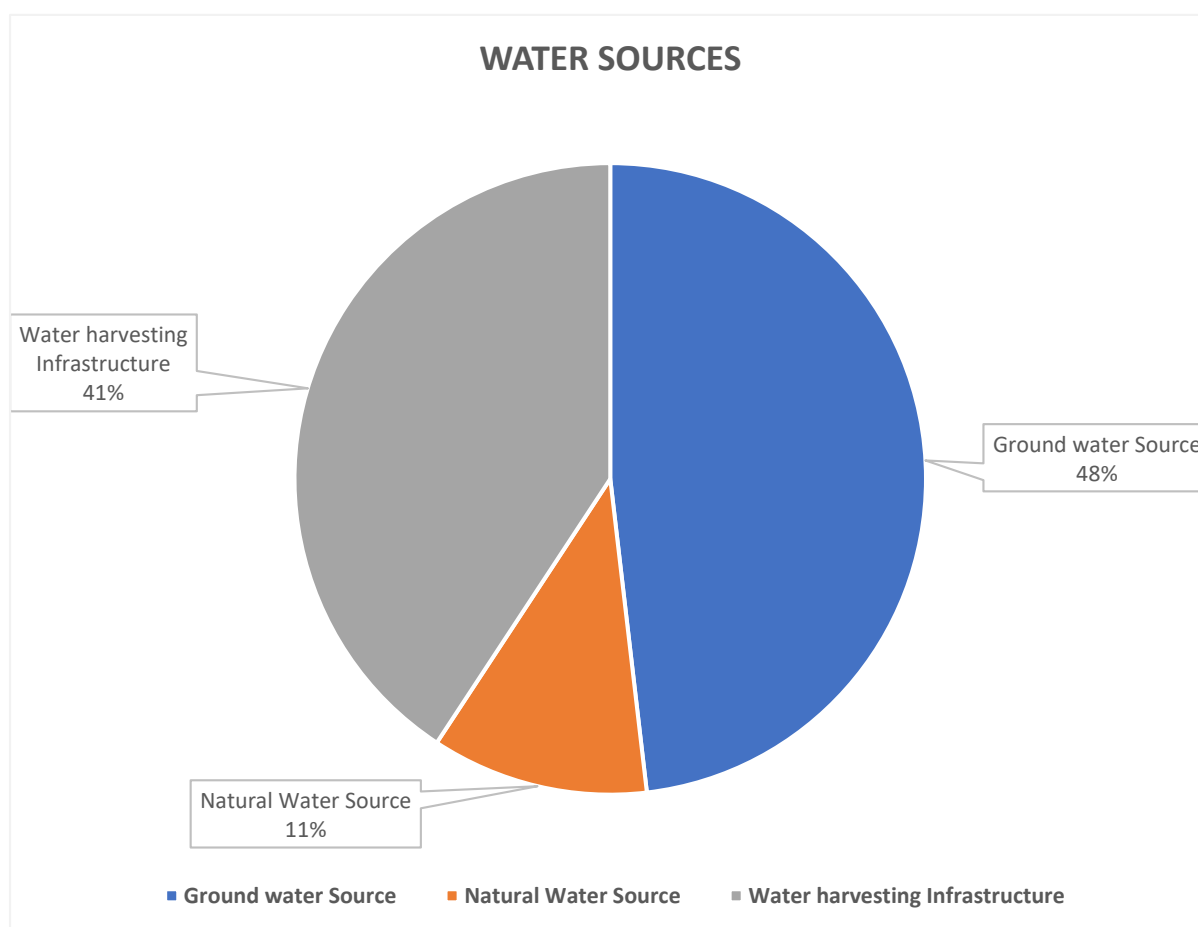
The community also utilizes some of the natural water sources such as; Sekotei Spring, Langata Ormoti and Looskuna Water springs as way to supplement ground water sources. Although water sources seem to be many in the landscape, they are unevenly distributed with all of them being in the southern part of the landscape. This means that the population that have settled in the north part of the landscape, although nonmembers and on temporal basis, have no access to water at all.

3.4.3.2. Animal Consumption

Domestic and wild animals' survival is highly dependent on water availability. Domestic animals are well served by water sources since they co-exist with human beings hence are able to share water sources with them. Wildlife on the other hand has inadequate water sources serving them. This has resulted to human wildlife conflict in competition for this scarce resource.



Chart 8 Water Sources in percentage



Source: Laikipia County Government, 2026



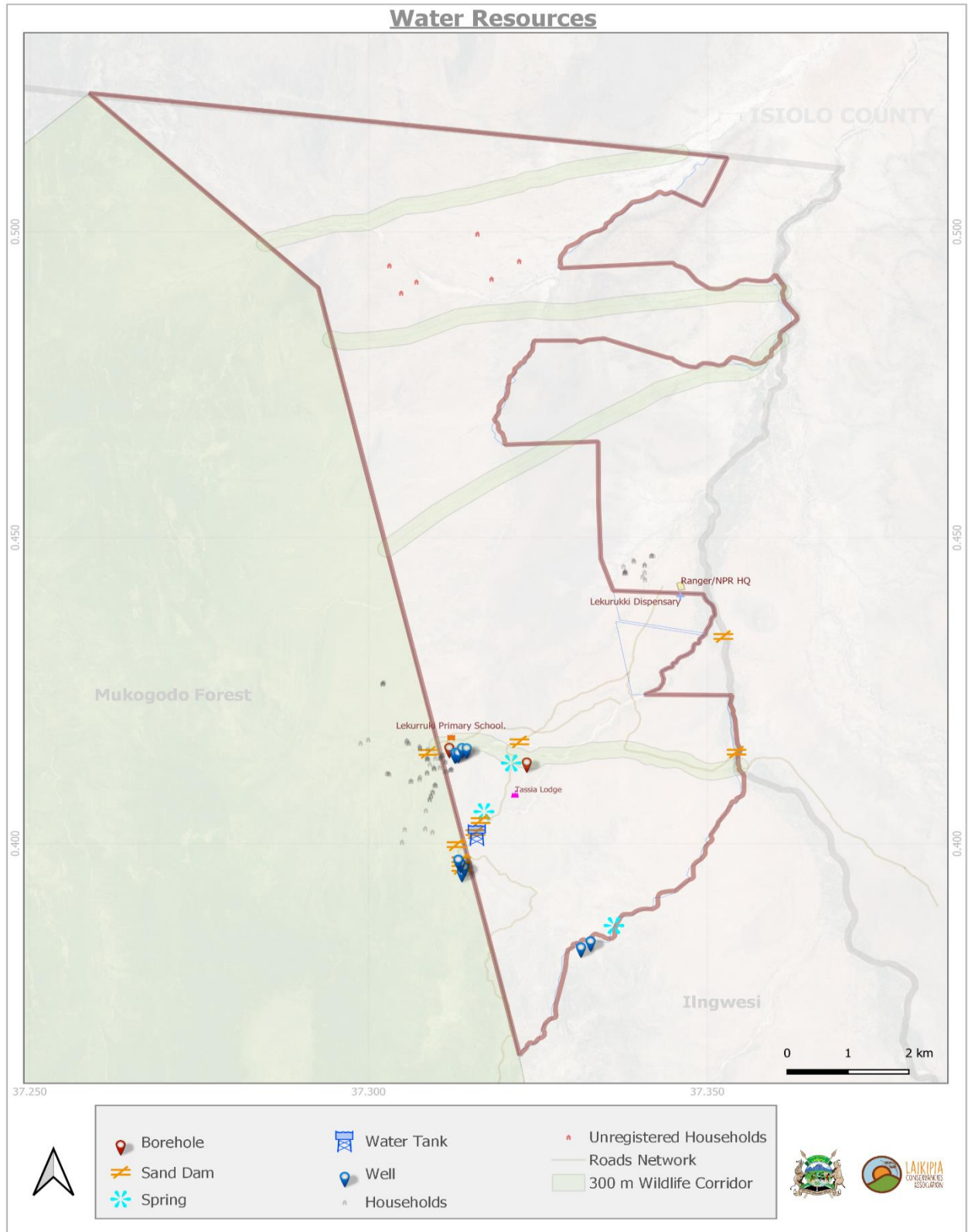
The table below shows the main water infrastructure within Lekurruki Community land and their operational status.

Table 9 Water sources on Site

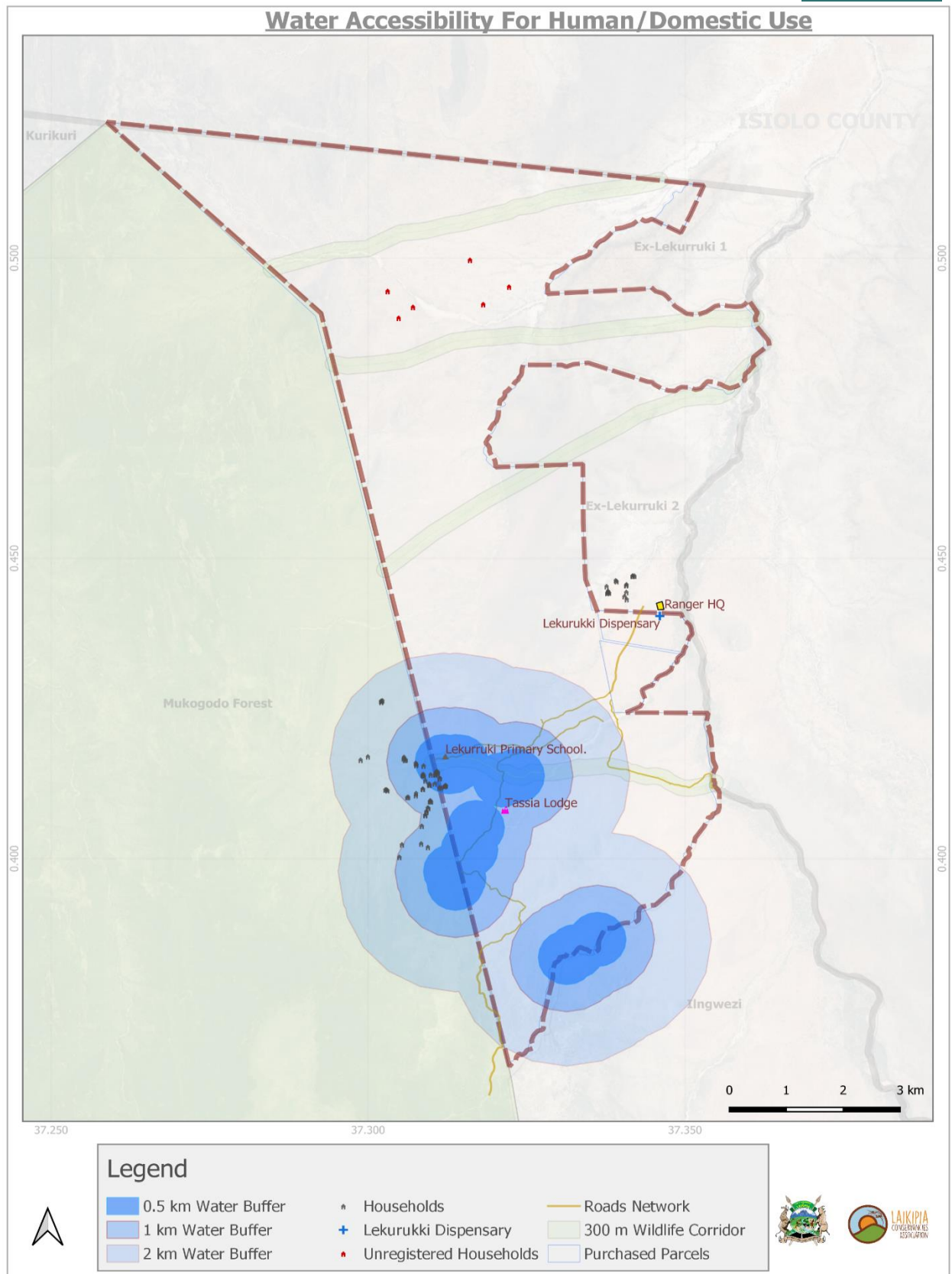
NO	FEATURE	CATEGORY
1.	Norgiriai Shallow well 1	Ground water Source
2.	Lorgiriai shallow well 2	
3.	See Well 1	
4.	See Well 2	
5.	Melita Shallow well	
6.	Lekaas Shallow well	
7.	Tassia Borehole	
8.	Lekurruki Primary Borehole	
9.	Kauro Shallow well 1.	
10.	Kauro Shallow well 2.	
11.	Kauro shallow well 3.	
12.	Kauro shallow well 3.	
13.	Kauro shallow well 4.	
14.	Sekotei Spring	Natural Water Source
15.	Langata ormoti Springs	
16.	Looskuna water Spring	
17.	Sand dam	Water harvesting Infrastructure (Natural or Man Made)
18.	Lekurruki Community Sand Dam	
19.	Lolowuai Sand Dam1	
20.	Norgiriai Sand Dam	
21.	Melita Sand Dam	
22.	Lekaas Sand Dam	
23.	Lowuai water Tank	
24.	Lolasurai Sand Dam	
25.	Sand Dam	
26.	Sand Dam	
27.	Sand Dam	

3.4.3.3. Emerging Issues and Planning Implications

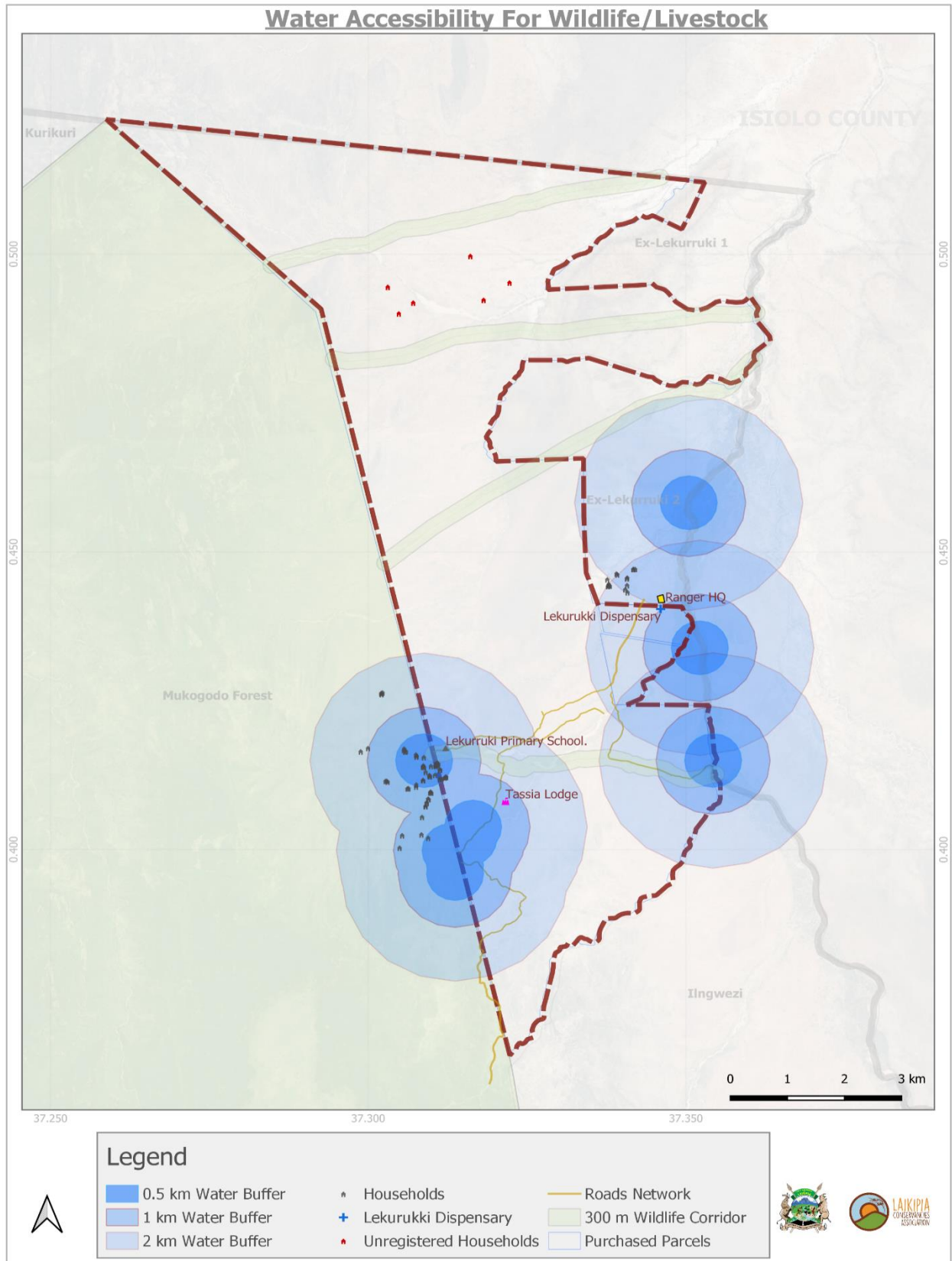
- The community over relies on ground water and water harvesting infrastructure as the two main sources of water
- The community does not practice any water harvesting methods such as rock water catchment despite the landscape providing many rock outcrops all round.
- There is need to pursue alternative methods of purification of water to make it safe for drinking.
- The community should pursue various water projects that allow for provision of water for wildlife.
- New water projects should be developed in the northern part of the landscape to evenly distribute water.



Map 18 Water Resources Map



Map 19 Water Accessibility for Human/Domestic Use





3.5.1. Health Facilities

Lekurruki community is served by one major health facility; Lekurruki Community Dispensary. It is a level 2 facility. The dispensary serves community members and the neighboring population. The facility is currently understaffed and cannot effectively address the community's needs. The major issues encountered in the facility are inadequate water supply, inadequate medical facilities, inadequate staff and inaccessibility.

3.5.1.1. Emerging Issues and Planning Implications

There is only one health facility in Lekurruki community which serves the local population and neighboring communities. The situation results in a strain on the facility considering it is understaffed and cannot comprehensively address all community health needs. Therefore;

- In the short term, it will be imperative to improve staffing levels and have mobile satellite clinics to address urgent health needs.
- There is a need to construct additional health facilities on the central and northern part of the landscape, where locals travel more than ten kilometers to access healthcare.
- Lekurruki also hosts wildlife some of which as dangerous and a threat to the population, such as snakes and other predators. As a result, Lodges and other public facilities should be equipped with antivenoms and staffs on these facilities trained on dealing with human wildlife conflict injuries.

The map above shows there is a considerable population with limited access to the nearest health facility, especially those located in the central and northern parts of the community, considering there is only one health facility in the community land, Lekurruki Dispensary.

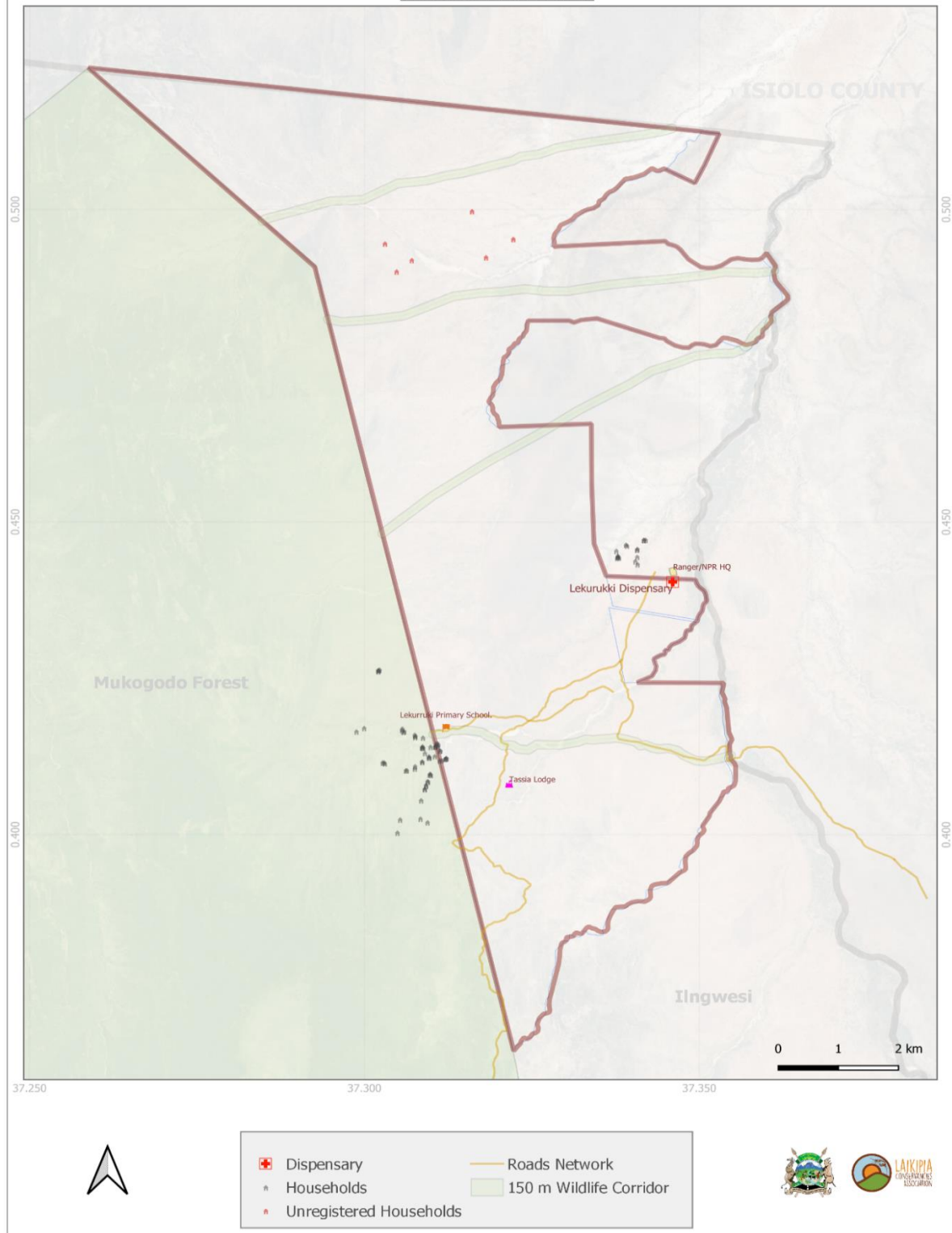
Plate 5: Lekurruki Dispensary





Map 24 Health Facilities in Lekurukki

Health Facilities

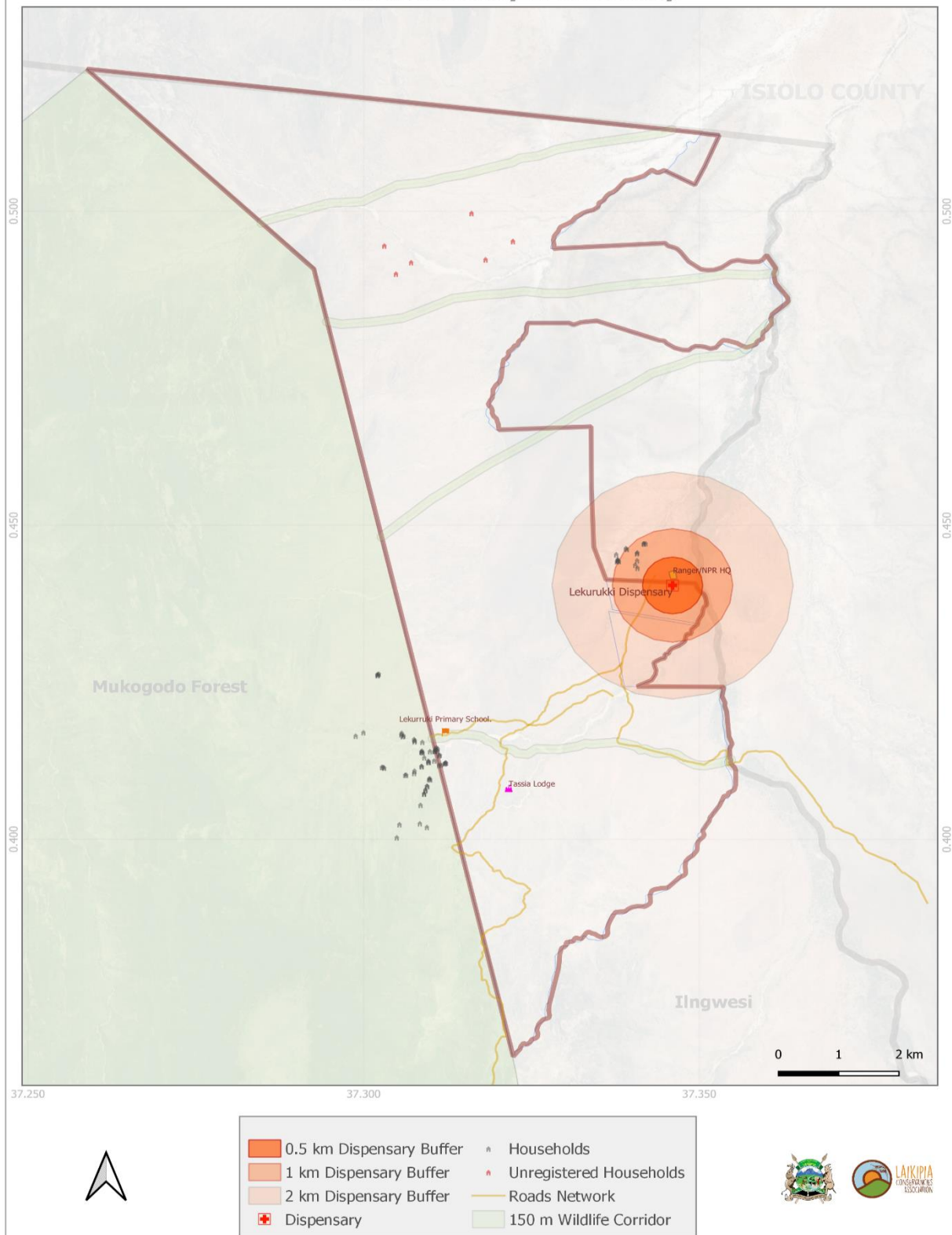


Source: Laikipia County GIS Lab, 2026



Map 2.2: Health Facility Accessibility Index

Health Facility Accessibility



Source: Laikipia County GIS Lab, 2026



Lekurruki Community Land has only one educational facility, i.e. Lekurruki Primary School. The school has 2 classes which are inadequate in serving the existing population. The schools currently are expanding with construction of more classes ongoing.

The school has a total population of 109 students; 65 boys and 43 girls spanning from grade 1-4. It has 4 teachers (3 male and 1 female) with 2 subordinate staffs who acts as cooks for the school through a feeding program funded and managed by the conservancy management.

Other infrastructure hosted within the school is a temporary kitchen, 2 pit latrines for waste management and 2 rooms that serve as staff quarters.

Education is one of the important and critical sectors of the growth and future of a community. An educated population makes more informed and futuristic decisions which help improve their standards of living and fuel developments on site.



Figure 2 Expansion efforts on site



Figure 3 Lekurruki Primary School on site

3.6.1. Emerging Issues and Planning Implications

Lekurruki community has only one educational institution located on the southern part of the site which is inadequate given the scale and population being hosted on the landscape. The school is also located in an area with low security which has been affecting enrollment numbers and chasing away investments

There is a need to improve the literacy levels of the community to safeguard its future.

- In the short term, the existing school should be equipped with adequate educational facilities such as computers, internet, desks and stationery so as to increase the quality of education.

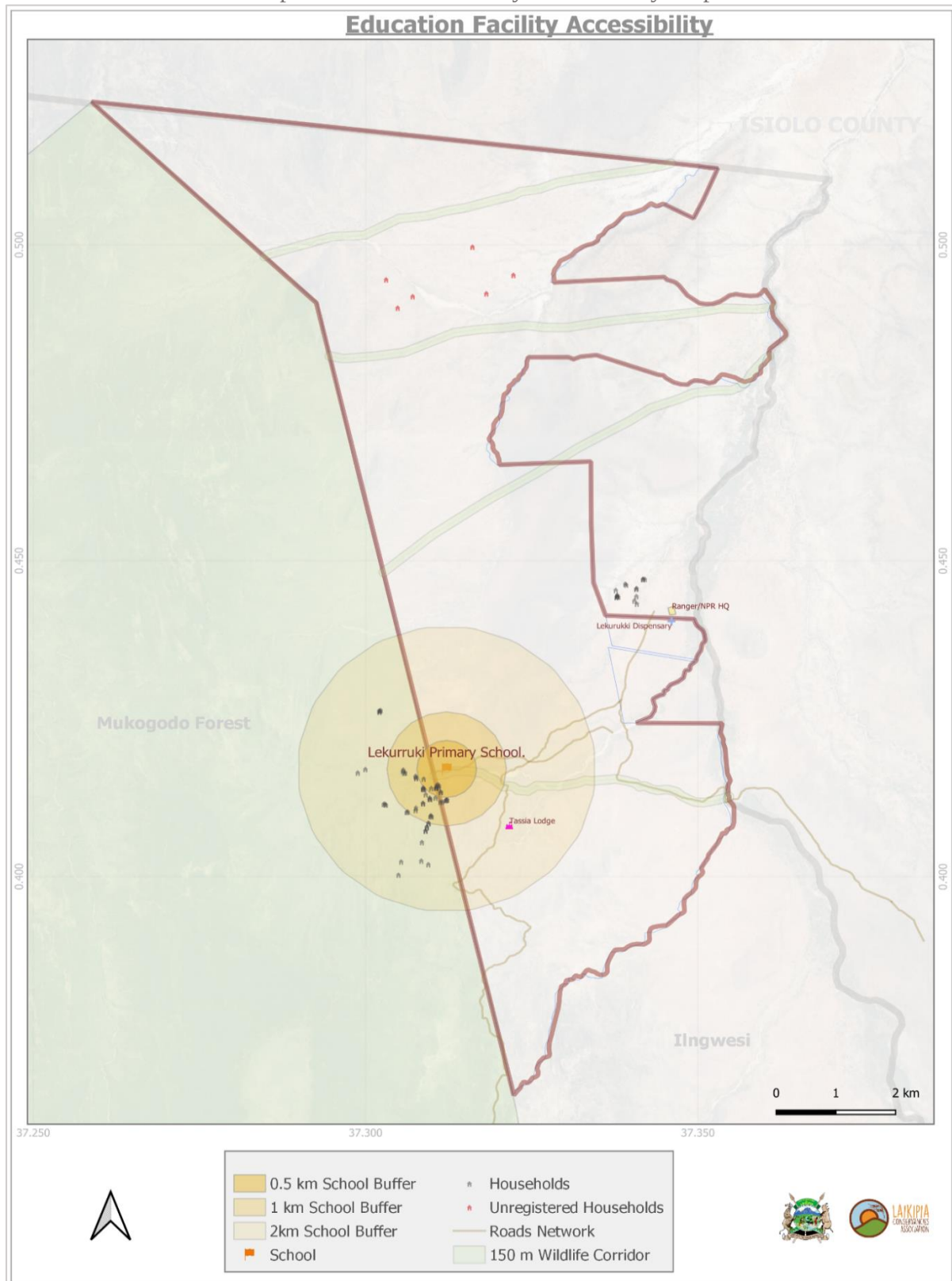


Local community should be sensitized on the importance of education so that they can enroll their children. More students in school make learning better and adds the optionality of grants.

- The existing school should explore more accommodative options, such as transitioning into a boarding school. Given the nomadic nature of the community, this would allow children to continue their education without disruption when their families migrate.
- It is imperative to add education facilities in the Central and Northern parts of the community to cater for the needs of the population who travel more than 5 kilometers to the nearest school.
- It is necessary to provide support infrastructure including sufficient and potable water, electricity, and improve staffing levels.
- Allocate sufficient land for school expansion and construction of enough classes, playground, Dormitories and administration block.



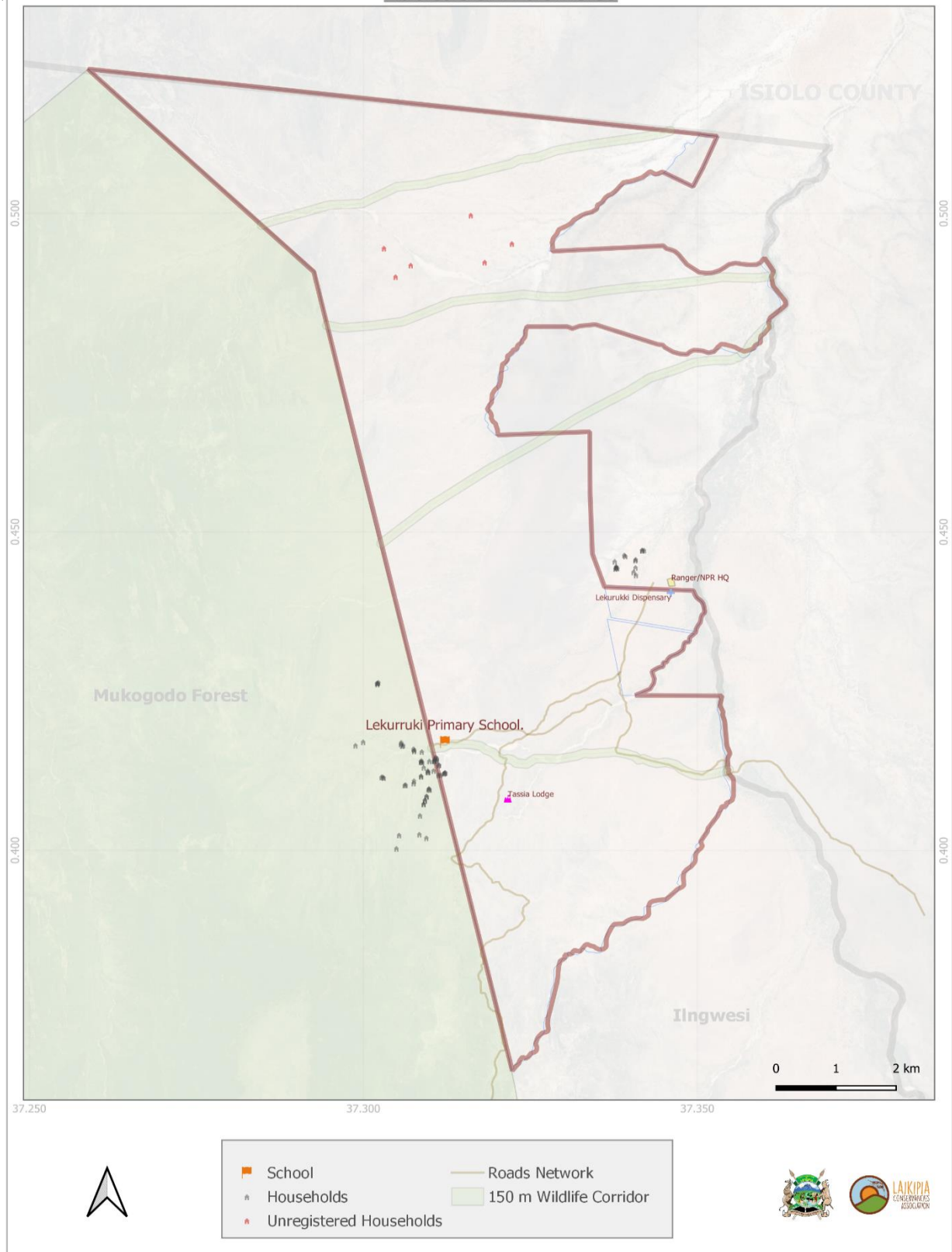
Map 23: Education Facility Accessibility Map



Source: Laikipia County GIS Lab, 2026



Education Facilities



Map 24 Educational Institutions Distribution Map



Lekurruki is deprived of community and economic facilities hosting only one eco lodge. There are various temporary markets that the community hosts sales on some days of the week but are located outside the boundary of Lekurruki Community Land.

Tassia eco lodge is a critical infrastructure for the community. It provides employment to locals, it is a revenue source, a market hub for the community and acts as a social center, hosting community meetings.

The lodge has seven beautifully crafted, eco-friendly en-suite rooms, each with its own private terrace overlooking the Lengishu plains, Nesarge and Lossos hills, and a central dining area and cozy lounge featuring a rustic bar. It also has an infinity pool on a rock edge overlooking the landscape.

Such facilities help increase sense of belonging to the community and help convince local communities to conserve their environment

3.7.1. Emerging Issues and Planning Implications

- The community has overreliance on the lodge which is not sustainable in the long run.
- The community needs to invest in other lodges and other tourism ideas that will supplement the lodge such as rhino sanctuary, fenced conservation/wildlife areas for game drives, horse riding etc.
- There is a need to improve supporting infrastructure, including access roads, water supply, renewable energy systems, and digital connectivity to support the efficiency and better experiences of guests.
- Community facilities increase community resilience and revenues during adverse climatic conditions.
- The community need to strike a balance of empowerment so as to include the male gender especially the youth.



Figure 4 Lodge area



Figure 5 Infinity Swimming pool



Figure 6 Cottages Interior

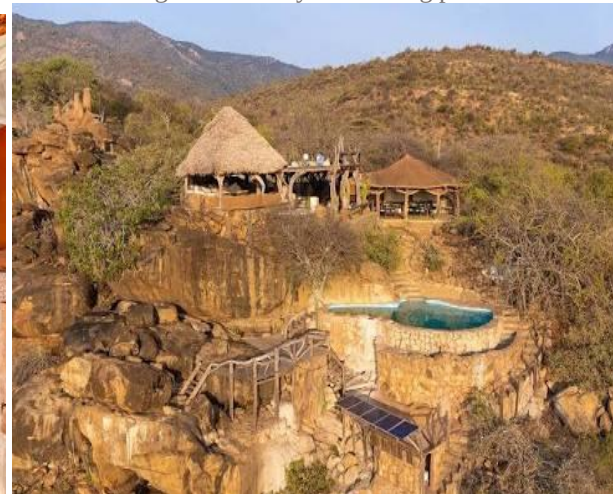


Figure 7 Tassia Lodge at a glance



Figure 8 Community meetings on site



Figure 9 Community meetings on site

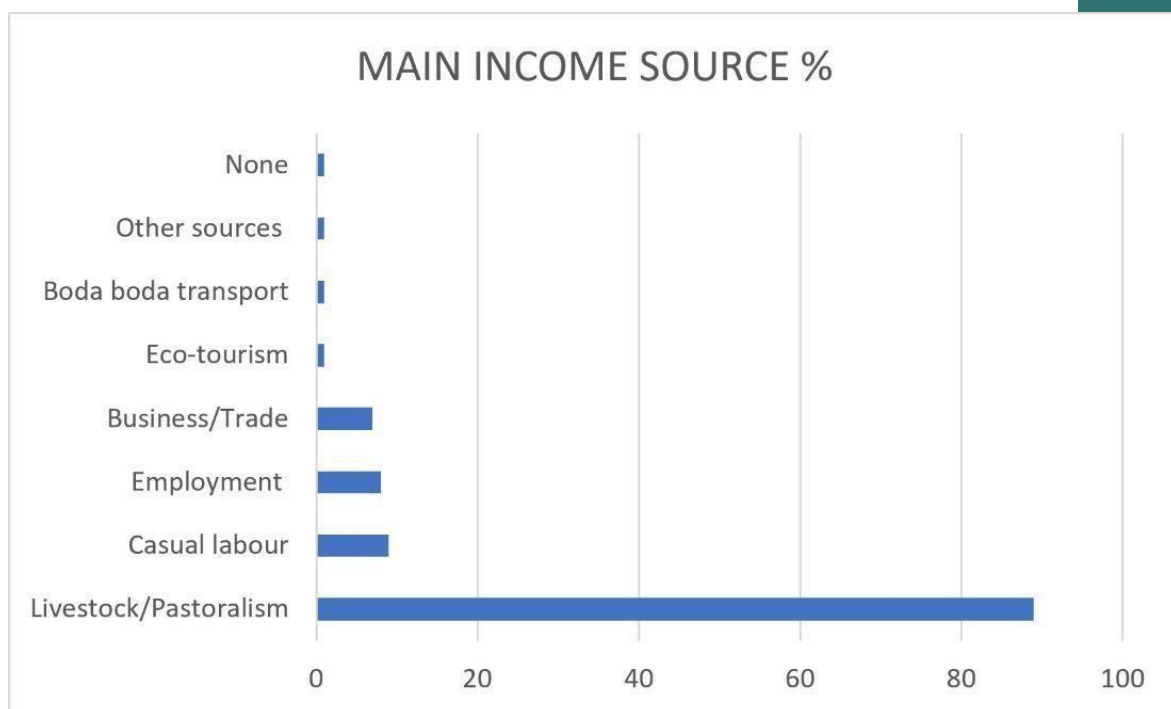


Figure 10 Land Use Planning workshop on site

3.8 Economic Activities

The socio-economic survey findings indicate that livestock keeping, and pastoralism are the dominant sources of income in Lekurruki. Of the **78** households, **39** generate their income from livestock rearing alone while **33** households complement livestock rearing with casual work and **6** with formal employment. This underscores the community's heavy dependence on livestock production as the backbone of the local economy. A very small proportion of respondents reported earning income from ecotourism, manure sales, and other minor activities. The chart shows the main sources of income among the households surveyed.

- **Livestock rearing alone** is the main source of income for about 50% of households (39 of 78). This indicates a strong dependence on livestock keeping and pastoral activities.
- **Livestock combined with casual labour** supports a further 42% of households (33 of 78).
- **Formal employment**, mainly as conservancy rangers, accounts for about 8% of households (6 of 78).
- **Eco-tourism, manure sales and other minor activities** each contribute less than 1%.



Source: Laikipia County Government, 2026

3.8.1. Livestock

The livestock inventory indicates that goats account for the largest number of livestock at **2891** representing **63%** Sheep constitute the second largest livestock group with **1108** animals (**24%**), followed by cattle with **309** animals (**7%**). Poultry contributes **96** birds (**2%**). Donkeys are **55** and camels are **127** representing **1%** and **3%** respectively.

The findings demonstrate that small stock (goats and sheep) comprise of approximately **88%** of all livestock in Lekurruki, highlighting the community's reliance on drought tolerant animals. The comparatively lower cattle population suggests a shift towards more resilient livestock species in response to recurrent droughts, pasture shortages, livestock diseases, and other climate-related challenges. This implies the need for pasture management, grazing plans, paddocking and veterinary/ extension services.

Livestock Type	Total Number	Percentage of Total Livestock
Goats	2891	63%
Sheep	1108	24%
Cattle	309	7%
Poultry	96	2%
Donkeys	55	1%



Livestock Type	Total Number	Percentage of Total Livestock
Camels	127	3%
Total	4545	100.0%

Chart 10: Livestock Distribution in Lekurruki

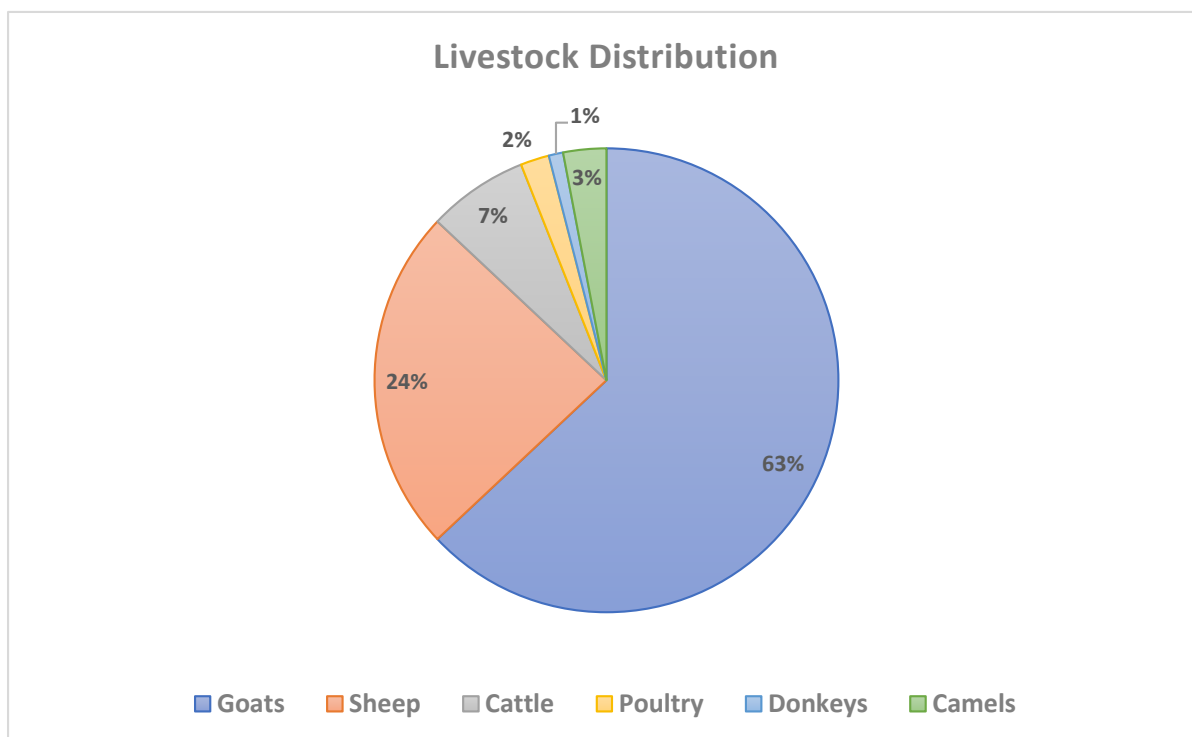


Plate 6: Livestock in Lekurruki

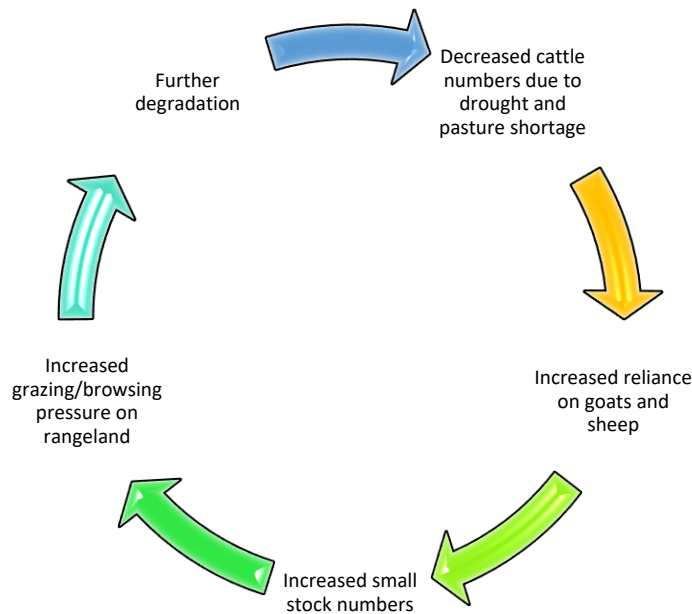


Source: Field Survey, 2026

Ownership of livestock is highly dependent on the availability of grasslands, where the community reduces livestock herds during drought seasons since small stock are more



ptable to prevailing climatic conditions. In addition, goats and sheep are more adaptable to drought, reduced pasture, and overgrazing explaining why the community has more goats and sheep as compared to cattle. Small stock requires less resources than cattle and can utilize vegetation, so that cattle are not able to utilize efficiently. The figure below shows the consequent reactions to drought and probable overgrazing.



Goats and sheep have enabled families to have an economic reliance on them even in the face of poor environmental conditions. However, as they become more dominant, they must be matched not only by better use of the grazing land, but also by better planning of water resources.

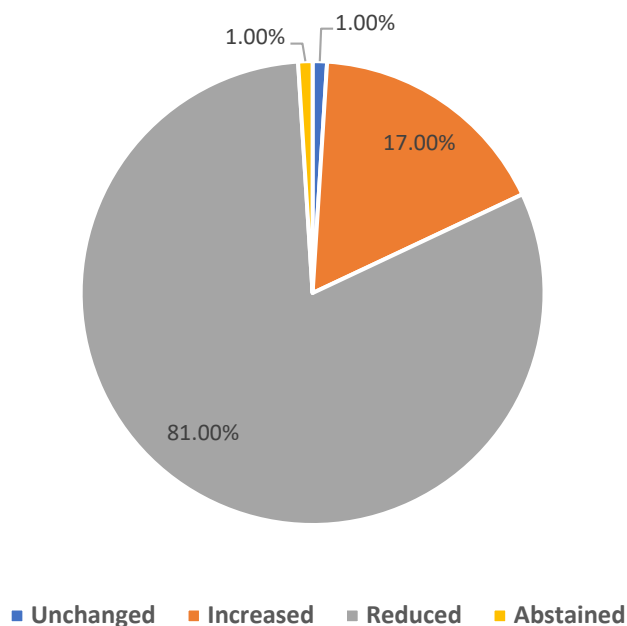
3.8.1.1. Livestock Quantity Fluctuation

The clearest distress signal in the survey is the direction of herd size. 81% of households report fewer animals than five years ago, against 17% reporting growth, 1% unchanged while 1% abstained.



Chart 1: Herd Fluctuation in the Past 5 Years

Herd Change in the Past Five (5) Years



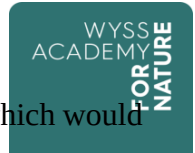
Source: Laikipia County Government, 2026

The survey findings indicated that drought is the leading cause of herd shrinkage in Lekurruki, accounting for 55.13% of respondents.

NO	Cause of Herd Shrinkage	Approx. % of Respondents
1.	Drought	= 55.13%
2.	Livestock diseases	= 2.56%
3.	Drought and Livestock diseases	= 14.1%
4.	Wildlife attacks / predation / human-wildlife conflict	= 1.28%
5.	Banditry / cattle rustling / theft	= 2.56%
6.	Others (Breeding / trading and climate change)	= 24.37%

3.8.1.2. Emerging Issues and Planning Implications

- The community is heavily reliant on livestock for economic gains making them easily vulnerable to climatic change induced calamities such as drought and famine.
- The community does not control herds hence the land suffers from overgrazing while animals die during drought seasons.
- There are other sources of income that if invested with can reduce the reliance on livestock by a big margin. These activities are Bee keeping, Poultry and casual jobs in value addition infrastructure of products.



Tassia Lodge should be marketed to increase the influx of tourists in the area, which would directly influence all other economic activities on site. Additionally, more eco lodges and other supplementary touristic activities should be established to supplement and improve existing tourism activities.

- Due to climate change and adverse weather conditions, the community should look for newer breeds of livestock that are more resilient to drought and famine.
- Programs should differentiate support for small, medium, and large livestock-owning households rather than relying on community averages.
 - ✓ Support smallholders: Prioritize animal health, water access, herd survival, and rebuilding of productive livestock assets.
 - ✓ Strengthen medium-scale producers: Improve access to livestock markets, veterinary services, breeding programs, and pasture-management practices.
 - ✓ Engage large herd owners: Involve them strongly in grazing management, controlled stocking, and rangeland conservation.
- Promote sustainable livestock systems: Encourage livestock diversification while maintaining appropriate stocking rates.
- Improve rangeland management: Invest in pasture restoration, grazing controls, and sustainable management of natural resources.
- Strengthen water management: Improve reliable access to water while managing its use to reduce pressure on grazing areas.
- Develop livestock markets: Better markets can improve household incomes and reduce the need to maintain unsustainably large herds.
- Overall planning priority: Balance the drought resilience and livelihood benefits of small livestock with the long-term ecological sustainability of the rangeland.

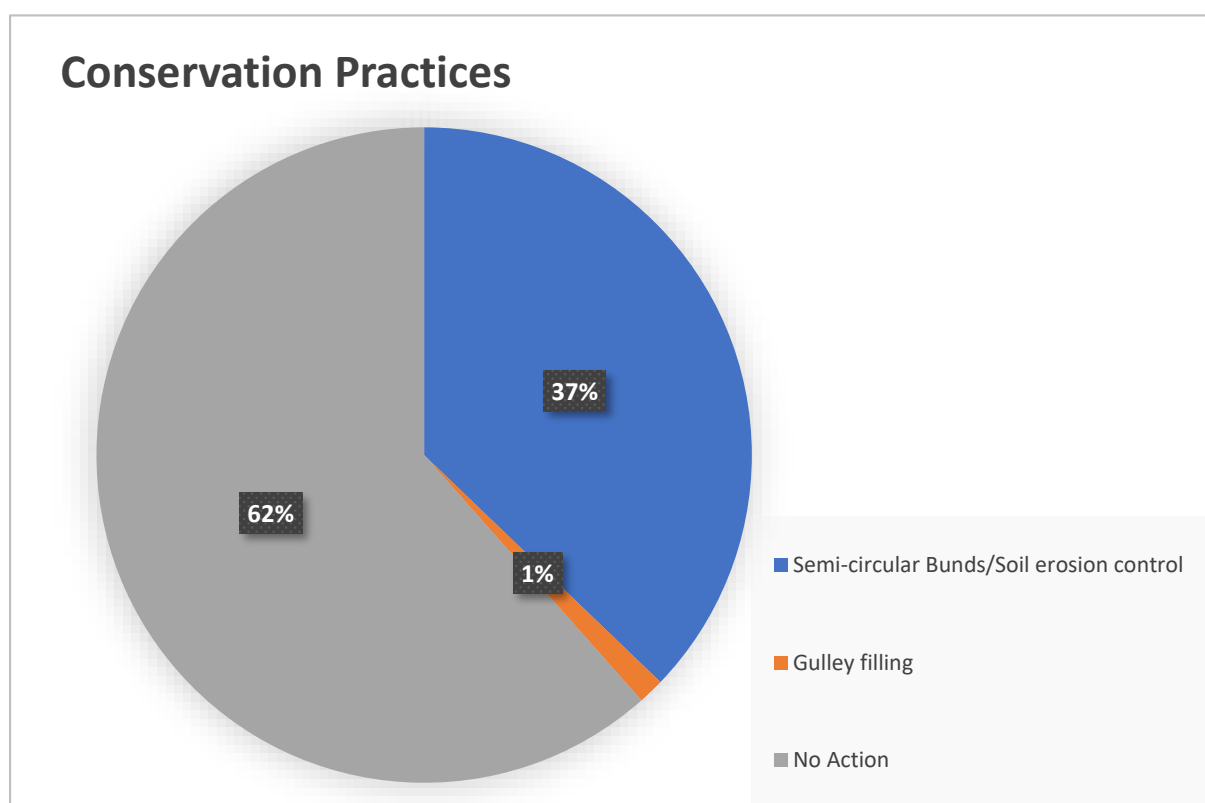


3.9. Conservation Practices

The socio-economic survey findings indicated that Lekurruki community practices conservation through methods such as semi-circular bunds and gulley filling. However, a large percentage of the community tend to abstain from any conservation practices which is evident in the extensive land degradation in Lekurruki community. Below are the findings;

CONSERVATION PRACTICE	HOUSEHOLDS REPORTING	PERCENTAGE (%)
Semi-circular Bunds/Soil erosion control	29	37%
Gulley filling	1	1%
No Action	48	62%
Total Responses	78	100.0

Chart 12: Conservation Practices in Lekurruki



Source: Laikipia County Government, 2026

Local Community Recommended Conservation Practices

In addition to the existing conservation practices, the respondents suggested additional programs for land rehabilitation and reclamation which includes;



- Planting trees
- Fodder cropping
- Paddockking
- More semicircular bunds coverage
- Community sensitization on land conservation practices.

3.9.1. Loss of Vegetation Cover

There has been significant reduction of vegetation cover in Lekurruki community land as reported in at least the past 5 years. The findings indicated that land degradation in Lekurruki Community Land is driven primarily by unsustainable grazing practices, drought, and localized erosion processes, resulting in reduced pasture productivity, declining vegetation cover, topsoil loss. These dynamics justify the need for integrated rangeland management, soil and water conservation measures, and conservative land management practices to restore ecosystem health and sustain pastoral livelihoods.

Declining grass and shrub cover strips away the rangeland's basic productive capacity and reduces the vegetation available to both livestock and wildlife. It also exposes soil to wind and rain erosion, lowers rainwater infiltration, and accelerates the cycle of degradation. Reduced grazing capacity in one area pushes livestock pressure onto the areas that remain vegetated, compounding the loss.

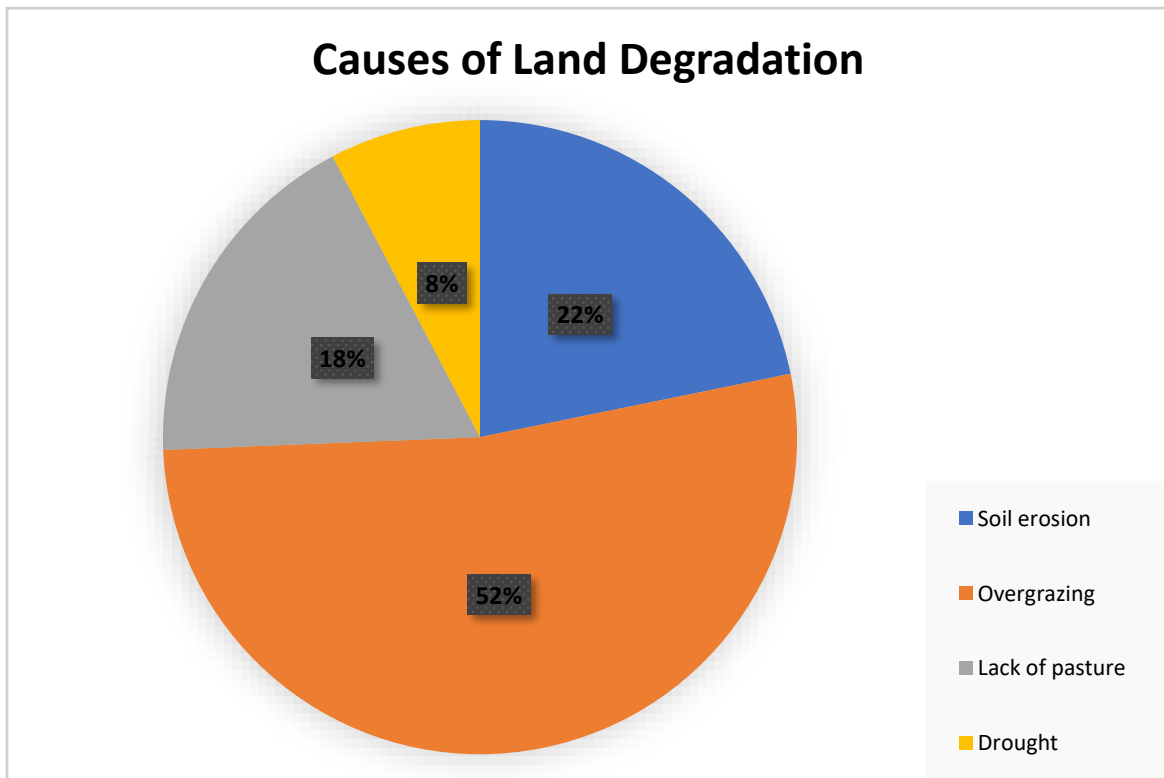
However, the community practices construction of semi-circular bunds to trap runoff rainwater and improve grass growth for livestock consumption as reported by 29 households coupled with gully filling (1 household) can be read directly as a household-level response to this same problem- an attempt to rebuild vegetative cover and stabilize soil using the tools most readily available at the homestead level.

Table 10: Major Causes of Land Degradation in Lekurruki Community Land

LAND DEGRADATION CHALLENGE	RESPONDENTS	PERCENTAGE (%)
Soil erosion	17	22%
Overgrazing	41	52%
Lack of pasture	14	18%
Drought	6	8%



Chart 13: Land Degradation Causes in Lekurruki



Source: Laikipia County Government, 2026

3.9.2. Environmental Significance

Taken together, these findings show a community already responding to a real and identifiable problem- the loss of vegetation cover using the household-level tools most readily available such as semi-circular bunds, and gulley filling.

What remains underdeveloped is the collectively coordinated intervention, rotational grazing and beneficial ways to reduce livestock to the carrying capacity on the land. This would relieve the underlying grazing pressure driving vegetation loss.

3.9.2.1. Emerging Issues and Planning implications

- Prioritize interventions that directly restore vegetation cover, as this is the community's most significant environmental challenge: support for tree-planting and reseedling programs by ensuring reliable access to seed and seedlings.
- Scale up semicircular bund construction and erosion-control structures in the highest-degradation zones identified through spatial analysis.
- Have a maximum ceiling on the number of livestock a household should hold mixed with grazing schedules to avoid overgrazing.



- Targeted outreach to households currently undertaking no conservation activity, to identify and address the specific barriers preventing their participation.

Integrate vegetation restoration, and grazing management into the Community Land Use Plan as coordinated, mapped interventions rather than isolated household choices.

3.10. Human Wildlife Conflict

Human-wildlife conflict is among the most frequently cited threats. The data collected indicated it as a major challenge affecting livelihoods in Lekurruki Community Land. The survey findings recorded that hyena are the most frequently reported problem animals, cited by 77 households, followed by leopards (63 households). The least prominent animal species interacting in human spaces are buffaloes mentioned by 2 households. These can be attributed to shared grazing spaces and water sources. In addition, there is a need to address threats to human safety and damage property. Similarly, human-wildlife conflict is related to human settlements along wildlife corridors disrupting animal movement from one location to another or access to water.

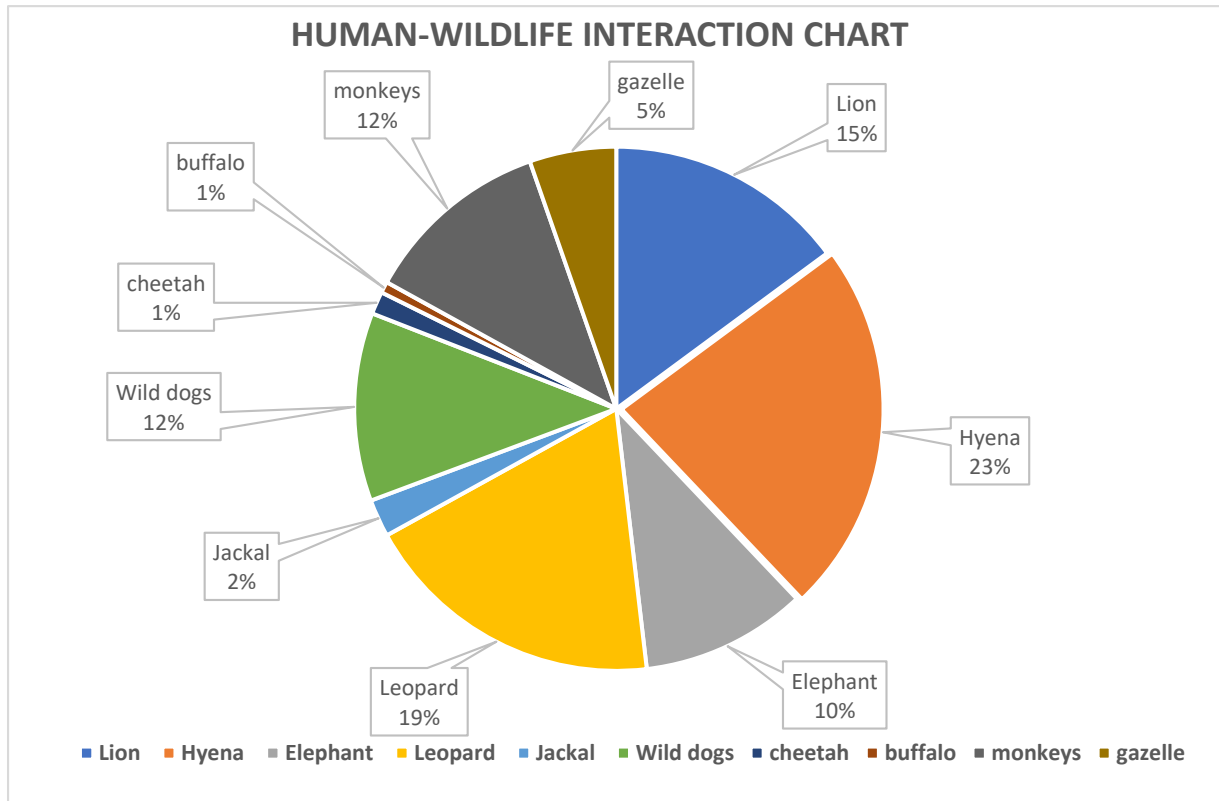
The figure below shows the number of wildlife interactions as reported by the community with hyenas being the most common predator.

Table 11: Human Wildlife Conflict Statistics

WILDLIFE SPECIES	HOUSEHOLD REPORTING OUT OF 78 HOUSEHOLDS	PERCENTAGE (%)
Lion	50	15%
Hyena	77	23%
Elephant	34	10%
Leopard	63	19%
Jackal	8	2%
Wild Dogs	39	12%
Cheetah	5	1%
Buffalo	2	1%
Monkeys	39	12%
Gazelle	18	5%



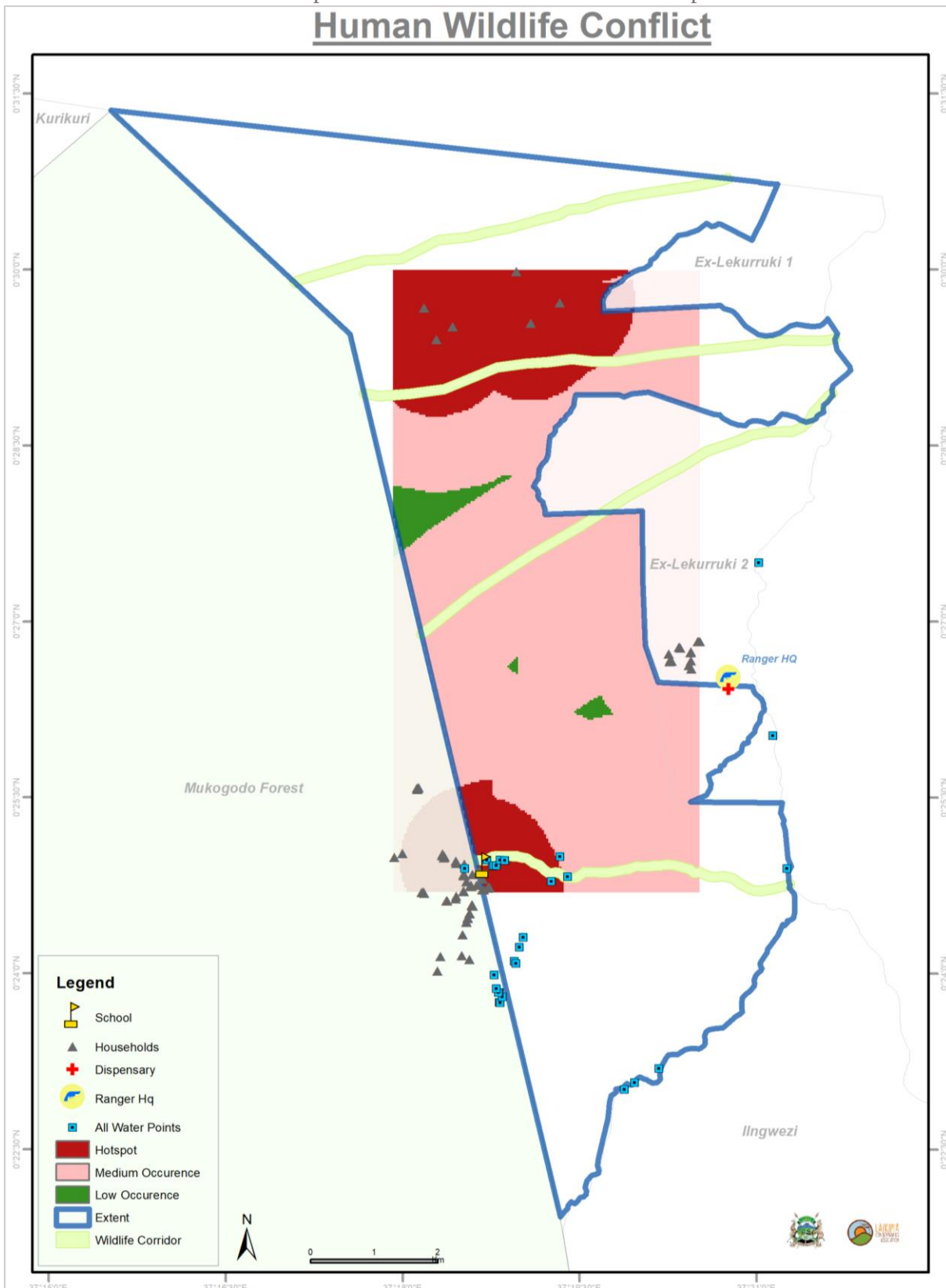
Chart 14 Wildlife Interaction Chart



Source: Laikipia County Government, 2026



Map 25: Human - Wildlife Conflict Hotspots



Source: Laikipia County GIS Lab, 2026



As the map shows, wildlife conflict hotspots are located where animal corridors interact with human settlement. Although the larger population of the community is located outside the boundary, human wildlife conflict still happens in the landscape. This is due to shared grazing spaces and water sources.

Predatory animals such as hyena, leopard, lions, jackals and cheetahs hunt for livestock during grazing periods or at night attacking herd pens.

3.10.1. Emerging Issues and Planning Implications

- Identifying existing wildlife corridors will help in identifying appropriate areas for human settlements and reduce wildlife route disruptions and improve human and livestock safety.
- Identifying the corridors will help in factoring positive wildlife interactions such as eco-tourism into land use planning.
- It is imperative to factor community awareness into planning to enable them to know about positive human wildlife interaction and co-exist productively.
- The use of artificial intelligence and machine learning to track and predict wildlife conflict is an opportunity for future development areas.
- Fencing delineated wildlife corridors to avoid stray wildlife that could cause conflict.
- Fencing of residential areas allow for safety of both livestock and human beings during odd hours.



3.11. Visioning and Swot Analysis

This process was done as part of public participation aimed at identification and development of a set of vision statements that best articulate and represent the desires and perspective of the residents of Lekurruki Community Land and a bottom-up approach analysis that best describes the site.

The engagement of the community in the planning process has been envisioned firmly in the Constitution of Kenya (2010) and other legal frameworks such as The Physical and Land Use Planning Act No 13 of 2019, The Community Land Act of 2016 and The County Government Act of 2012.

The objectives of this process are similar to those of public participation. They are as follows;

1. **Provides a clear direction for development:** The vision statement captures the community's shared aspirations and desired future, guiding the preparation of the local physical and land use development plan.
2. **Promotes community ownership and participation:** Developing the vision and conducting the SWOT analysis through stakeholder engagement ensures that local people actively contribute to decisions affecting their land and development.
3. **Identifies strengths, weaknesses, opportunities and threats:** SWOT analysis helps the community understand existing conditions, available resources, development challenges and potential opportunities that should inform planning decisions.
4. **Helps set realistic priorities and strategies:** The findings enable planners and the community to identify priority development needs, allocate land appropriately and develop practical strategies that respond to local circumstances.
5. **Build consensus and supports sustainable development:** Stakeholder discussions create a common understanding among community members and other stakeholders, reducing conflicts and ensuring that the plan reflects local needs while promoting sustainable and balanced land use.
6. **Help develop a more effective and implementable LPLUDP:** Stakeholder driven statements and proposals represent realistic issues and implementable proposals and projects.

3.11.1. Approach and Methodology

The visioning and SWOT Analysis exercise was conducted through meetings with the community and CLMCs at Tassia lodge. The exercise was done in one meeting starting with Visioning the SWOT Analysis. *(See attached Photos and attendance Lists).*



3.11.2. Visioning

The visioning exercise was a public participation technique used to support stakeholders in establishing a shared vision for the future development of Lekurruki Community Land. The Visioning process involved asking the group of stakeholders to appraise:

1. What is our past?

Few members. The community has grown to understand and respect conservation as a land use.

There was plenty of fodder and few livestock, hence there was little confrontation water points and during feeding with wild animals. There was less land degradation

2. Where are we?

Due to increased human population in recent years, livestock has risen and land size has not changed pushing pressure and stress on available resources to satisfy the needs of the present population.

There have been more efforts on conservation but little to respect on land conditions. A lot of uncontrolled grazing and development has happened which has resulted to the deterioration of land conditions.

3. Where do we want to go?

Through the local physical and land use development plan, there is a chance to rectify and rehabilitate the land while also satisfying the needs of today's population as well as the future population. There will be additional population and flocks of livestock hence there is need to plan the use of land so as to have a better planned Lekurruki.

3.11.3. Overall, Vision Statement for Lekurruki Community Land

"A prosperous, resilient and united Lekurruki community where land and natural resources are secure, biodiversity and cultural heritage thrive, livelihoods flourish, development is inclusive and sustainable, and every generation has an equal opportunity to live with dignity, security and hope."

3.11.4. SWOT Analysis

STRENGTHS	
Livestock	<ul style="list-style-type: none">• Rich indigenous livestock knowledge.• Strong pastoral livestock base supporting household livelihoods and food security.• Established traditional knowledge in livestock keeping and management.• Availability of communal grazing areas within the community land.



	<ul style="list-style-type: none"> • Livestock provides income, food, savings and social value to households.
Large piece of land and Land Tenure	<ul style="list-style-type: none"> • Adequate space for eco-tourism, grazing and settlement. • Provide a strong foundation for long-term planning. • Opportunities to diversify livelihoods through conservation, eco-tourism, grazing and other income-generating activities.
Eco-tourism	<ul style="list-style-type: none"> • Presence of natural and cultural attractions provides an established foundation for eco-tourism development. • Creates employment and income-generating opportunities for local community members. • Provides markets for locally produced goods, cultural products and services. • Promotes environmental conservation through nature-based tourism. • Creates opportunities for greater community participation in tourism enterprises.
Carbon Market	<ul style="list-style-type: none"> • It creates an alternative source of income for the community. • They are a major foundation upon which community conservation activities are based such as restoration.
Strong leadership and Governance	<ul style="list-style-type: none"> • Strong coordination with development partners, mobilizing community members and ensuring development initiatives are implemented transparently for the benefit of the community. • Support effective decision-making, accountability, peaceful coexistence and sustainable management of the community land and its natural resources.
Cultural manyatta and Beadwork	<ul style="list-style-type: none"> • Cultural manyattas provide an authentic representation of local traditions and lifestyles. • Preserve traditional knowledge, practices and cultural heritage. • Provide opportunities for cultural tourism and community-based enterprises acting as a contact point for economic activities of the community.



	<ul style="list-style-type: none"> • Create platforms for showcasing local crafts, food, music and traditional practices. • Strengthen intergenerational transmission of cultural knowledge and identity.
Unity and peace	<ul style="list-style-type: none"> • Strong social cohesion, unity and peaceful relationships provide a stable environment for development and sustainable management. • Encourages active participation and collective decision-making. • Strong foundation for implementing development initiatives.
Rich culture	<ul style="list-style-type: none"> • Strong and diverse cultural heritage can provide opportunities for cultural tourism and heritage conservation. • Unique culture and traditions provide authenticity to cultural tourism experiences that can generate income and create employment.
Natural resources	<ul style="list-style-type: none"> • Sand- can be used to generate income and create casual employment. • Indigenous trees- supports biodiversity conservation, environmental protection and sustainable use of natural resources.
Conservancy	<ul style="list-style-type: none"> • Strong community involvement and interest in conservation of wildlife. • Extensive community land provides opportunities for conservation and ecosystem management. • Supports biodiversity, wildlife habitats and healthy rangelands. • Conservation creates opportunities for tourism and other nature-based enterprises. • Provides a foundation for sustainable land management and restoration initiatives.
Beekeeping	<ul style="list-style-type: none"> • Existing traditional knowledge and experience in beekeeping • Provides an important source of supplementary household income and nutritional value. • Honey production is compatible with conservation and sustainable land use.
Green energy	<ul style="list-style-type: none"> • Opportunity for adoption and development of renewable energy solutions such as solar power.



	<ul style="list-style-type: none"> Green energy can reduce reliance on conventional energy sources and lower environmental impacts and support climate resilient community development.
Good partnership with NGOs AND Government	<ul style="list-style-type: none"> Existing partnerships provide access to technical expertise and development support such Partnerships with LCA and other partners have led to the development of a land use plan which has in turn led to strengthening conservation, tourism and livelihood-development initiatives.
Good Connectivity	<ul style="list-style-type: none"> Connectivity supports access to markets, services and surrounding settlements Facilitates movement of people, livestock, goods and tourism. Supports communication and engagement with partners and service providers.
WEAKNESS	
Dependent on livestock	<ul style="list-style-type: none"> Most community households have relied heavily on livestock and livestock related products for income. This overdependence on pastoralism has greatly increased the vulnerability of community to climate and animal diseases.
Land degradation and soil erosion	<ul style="list-style-type: none"> Overuse of grazing areas contributes to degradation of rangelands, loss of vegetation cover which increases vulnerability to soil erosion. Soil degradation reduces pasture productivity and land carrying capacity. Concentration of livestock around water points can accelerate land degradation. Limited restoration measures may reduce the long-term productivity of community land.
Insecurity and conflict	<ul style="list-style-type: none"> Cattle rustling has claimed life and valuable property i.e. Livestock from the community. Intruders have been grazing on conserved areas resulting in additional conflict with the community.



Invasive species	<ul style="list-style-type: none"> • Spread of invasive species has reduced the availability and quality of grazing resources. • Invasive plants compete with indigenous vegetation and desirable pasture species. • Invasive species if not managed well can contribute to degradation of rangelands and loss of biodiversity increasing pressure on already limited grazing areas. • There are limited resources and capacity for systematic invasive-species control.
Livestock diseases	<ul style="list-style-type: none"> • They reduce herd productivity, livestock losses and negatively affect household incomes and livelihoods. • Lack of access to veterinary services. • Increase on expenditure for treatment.
Encroachment by people from within/outside the community land	<ul style="list-style-type: none"> • Lack of compliance on the agreed land use regulations. • Pressure on land, water and vegetation.
Drought	<ul style="list-style-type: none"> • Recurrent droughts reduce pasture and water availability for livestock which leads to body condition and productivity decline during prolonged dry periods. • Drought increases livestock mortality and household vulnerability. • Food insecurity can increase during prolonged periods of low rainfall. • Heavy dependence on pastoralism increases exposure to climate-related shocks.
Poor road conditions	<ul style="list-style-type: none"> • Poor road conditions have affected movement within and around the community land. • Difficult access during rainy seasons limits transportation and service delivery. • Increases the cost of transporting livestock and goods to markets. • Limits access to health, education and other essential services. • Constrain tourism development and access to eco-lodges and cultural sites.



Poor health services	<ul style="list-style-type: none"> • Limited health infrastructure restricts access to timely medical services. • Long distances to adequately equipped health facilities increase vulnerability. • Treatable diseases can contribute to high morbidity and mortality. • Limited emergency services affect responses to injuries and other urgent cases. • Snake-bite cases are difficult to manage where appropriate antivenom is unavailable. • The availability of just one health facility in the whole community land possesses a great risk to the population.
Unequipped schools	<ul style="list-style-type: none"> • Inadequate school infrastructure has affected the quality of education, limiting learning and constraining student performance • Poor education outcomes have resulted to increased illiteracy levels and reduced education by the community • Long distances to school have limited school attendance and retention.
Illiteracy	<ul style="list-style-type: none"> • Constraint access to information, employment and participation in certain development initiatives. • Limit opportunities that require technical skills.
Water Scarcity & Poor water quality	<ul style="list-style-type: none"> • There is limited availability of reliable water sources, particularly during dry periods. • Long distances to water points increase the burden on households and livestock keepers. • Poor water quality may expose people and livestock to water-related diseases. • Existing water sources face increased pressure during droughts. • Limited water infrastructure constrains livestock, household and economic activities
Difficult terrains	<ul style="list-style-type: none"> • Inaccessibility can affect movement of people, livestock, tourists and access to markets and social services. • Challenging landscape can increase cost and complexity of constructing roads, water infrastructure and other development infrastructure.



Human wildlife conflict	<ul style="list-style-type: none"> • Predation of livestock by Leopards, hyenas and other wildlife causes household losses. • Competition between livestock and wildlife for grazing and water increases conflict. • Conflict may affect community attitudes towards wildlife and conservation.
Limited government support	<ul style="list-style-type: none"> • Inadequate government support in terms of funding, technical assistance, infrastructure development, extension services and capacity building • Limited government infrastructures such as roads, water, schools, health facilities and markets.
Inappropriate private land acquisition from the community land by the private owners	<ul style="list-style-type: none"> • Irregular land acquisition can create land disputes. • Reduce the amount of land that is available for communal use.
OPPORTUNITIES	
Tassia lodge	<ul style="list-style-type: none"> • Its presence provides an opportunity to strength eco-tourism • Creates employment opportunity through tour guides, chefs, waitresses' cleaners and supply of goods. • Create a market for locally produced crafts, cultural products and food. • Conservation awareness.
New lodge	<ul style="list-style-type: none"> • Opportunity for potential new eco-lodge. • Opportunity to attract investors interested in sustainable tourism, conservation, hospitality and community-based development. • Potential access to investment can support infrastructure improvement, expansion and income-generating activities.
Rhino sanctuary	<ul style="list-style-type: none"> • Opportunity to strengthen wildlife conservation and enhance tourism potential.



	<ul style="list-style-type: none"> • Attract local and international visitors, creating opportunities for employment. • Generate revenue and other benefits for the community.
Addition of security camps and NPR training	<ul style="list-style-type: none"> • These security camps will enhance security and strengthen protection of the community and its natural resources creating a safe environment for residents, investors and tourists. • Enhanced training and capacity building can strengthen community-based security. • Improved security can create confidence among residents, tourists, partners and potential investors.
Cultural manyatta income gain	<ul style="list-style-type: none"> • Provide an opportunity to generate income through cultural tourism by offering visitors with experiences such as traditional lifestyles, customs, food, dressing, dances, crafts, beadworks and indigenous knowledge. • Create a market for locally made crafts, traditional products, livestock products and other goods. • Strengthening community participation in tourism while preserving cultural heritage.
Land use actualization	<ul style="list-style-type: none"> • Promote orderly and sustainable management of land and natural resource, while balancing conservation, human settlements and grazing areas. • Reduce land-use conflicts, protect conservation areas and guide appropriate development.
Biodiversity credit	<ul style="list-style-type: none"> • Create opportunities to participate in emerging biodiversity credit markets and generate new sources of income. • Provide financial incentives for protecting and restoring ecosystems, wildlife habitats and indigenous vegetation. • Properly managed biodiversity credits can create long term revenue streams that support community livelihoods. • Attract partnerships with conservation organizations, private investors and other stakeholders
Value addition on beekeeping	<ul style="list-style-type: none"> • Increase community income by processing and adding value to honey and other bee products instead of selling raw products.



	<ul style="list-style-type: none"> • Honey can be processed and packaged into high-quality branded products while beeswax can be used to produce candles, soaps and other products. • Value addition, quality packaging, branding, certification and marketing can increase market value. • Value addition can create employment and strengthen their income.
THREATS	
Conservation area encroachment	<ul style="list-style-type: none"> • Differences in land use priorities and perceptions of conservations benefits may create conflicts.
Land degradation	<ul style="list-style-type: none"> • Land degradation reduces the productive capacity of grazing, limiting the community's ability to sustain livestock production, food security and livelihoods. • It also increases pressure on remaining natural resources.
Drought and climate change	<ul style="list-style-type: none"> • Recurring drought and famine undermine food security, livestock production and household incomes by causing water shortages and livestock losses. • This increases poverty and weakens the community's ability to build resilient livelihoods.
Conflict	<ul style="list-style-type: none"> • Land-use conflicts limit the community's ability to achieve sustainable land management and peaceful development by creating disputes among different land users. • Conflicts can discourage investment, disrupt livelihoods and contribute to insecurity.
Invasive species	<ul style="list-style-type: none"> • Can threaten indigenous biodiversity, degrade natural habitats and disrupt local ecosystem. • Reduce availability and quality of pasture, negatively affecting livestock production and community livelihood. • Significant financial strain to control and remove the invasive species.
Human Wildlife conflict	<ul style="list-style-type: none"> • Through loss of life, livestock and destruction of property, the community ability to sustainably benefit from the land is affected. • Such conflict can undermine conservation and tourism opportunities



Livestock diseases	<ul style="list-style-type: none">• Emerging livestock diseases poses a threat to livestock production which affects household livelihoods and their economic well-being.• Risk of introducing and spreading contagious animal diseases.
Banditry	<ul style="list-style-type: none">• Banditry and cattle rustling undermine livestock production, community safety and economic development by causing loss of livestock, property and human lives. Insecurity also discourages investment, restricts movement and limits access to markets and essential services.
Dependence on livestock and donor funding	<ul style="list-style-type: none">• Reliance on livestock production exposes the community economic and livelihood risk arising from drought and livestock diseases.• Reliance on donor funding may cause uncertainty when funding cycle ends or priorities change.
Extinction of biodiversity	<ul style="list-style-type: none">• Increasing habitat degradation, unsustainable resources use, climate change and human activities pose threat to the survival of indigenous plants, wildlife and other species.• Loss of biodiversity can weaken ecosystem functions and reduce availability of natural resources.• Reduce the attractiveness of the area for eco-tourism and nature-based tourism.



CHAPTER FOUR: PLANNING PROPOSALS GUIDELINES AND STANDARDS

4.0. Overview

The proposed Plan for Lekurruki Community Land is anchored on three interconnected and mutually reinforcing pillars: Human, Livestock, and Wildlife. These pillars form the basic foundation for sustainable development, recognizing that the well-being of the community, the sustainability of livestock production, and the conservation of wildlife and their habitats are closely linked. Addressing the challenges and implementing appropriate proposals under each pillar will contribute to the long-term sustainability of Lekurruki Community Land.

The Human Settlement Strategy will focus on improving community livelihoods, reducing poverty, strengthening communal land governance, and promoting sustainable settlement patterns and access to essential services. It will also encourage alternative income-generating opportunities that reduce excessive dependence on natural resources while enhancing community participation in land management and conservation initiatives.

The Livestock Development Strategy will promote sustainable pastoralism through improved grazing management, protection of livestock routes, rehabilitation of degraded rangelands, and equitable access to pasture and water resources. These interventions will help reduce competition over shared resources, strengthen livestock productivity, and minimize pressure on wildlife habitats while improving the resilience of pastoral households to drought and other climatic challenges.

The Wildlife Conservation Strategy will prioritize the conservation of wildlife habitats, protection of ecological corridors, maintenance of biodiversity, and reduction of human–wildlife conflict. It will promote harmonious coexistence between communities, livestock, and wildlife by encouraging responsible land-use practices, community participation in conservation, and the sustainable management of natural resources.

The three strategies will be implemented in an integrated manner because progress under one pillar can reinforce the objectives of the others. Improved human livelihoods can strengthen community support for conservation; better livestock management can reduce pressure on grazing areas, water resources, and wildlife habitats; and effective wildlife conservation can sustain the ecological systems upon which both communities and livestock depend. Similarly, improved awareness, equitable sharing of conservation benefits, and active community participation can enhance tolerance towards wildlife and encourage the protection of shared resources.



Ultimately, the Plan seeks to establish a balanced and sustainable landscape in which human well-being is improved, livestock production is strengthened, and wildlife and their habitats are conserved. Through coordinated interventions under these three strategies, Lekurruki Community Land can promote sustainable resource use, strengthen community resilience, reduce land-use conflicts, and safeguard its natural and cultural heritage for present and future generations.

4.1. Human Settlement Strategy

The Human Settlement Strategy seeks to guide the development of orderly, accessible, inclusive, and sustainable settlements within Lekurruki Community Land. It aims to improve access to essential services, strengthen community livelihoods, and promote the efficient use of communal land while minimizing scattered settlement and pressure on sensitive ecosystems. The strategy recognizes that human settlement, livestock production, and wildlife conservation are interconnected and must be planned together to sustain the community's livelihoods and natural resources.

Settlement planning will therefore prioritize the consolidation of residential areas, improvement of public facilities and transport infrastructure, and protection of forests, grazing areas, water resources, and wildlife corridors. It will also promote community participation in land-use decisions and explore opportunities for sustainable financing of environmental conservation and climate-resilient infrastructure, including suitable green-financing mechanisms where feasible.

4.1.1 Residential Areas

The designated residential area accommodates the existing population and provides a spatial framework for organized settlement development. Stakeholders proposed that community members currently residing within Mukogodo Forest should be encouraged to relocate to the designated residential area, subject to applicable legal requirements, meaningful consultation, protection of community and individual rights, and appropriate relocation arrangements.

This approach is intended to facilitate access to essential services, reduce scattered settlement, and minimize human pressure on forest resources and wildlife habitats. Any relocation process should be undertaken through a participatory approach that considers the affected households' livelihoods, cultural ties, access to grazing areas, and other resource-use needs.

Future residential development should be guided by appropriate land-use controls, adequate road access, reliable water supply, sanitation, and other essential services. Settlement expansion should also avoid encroachment into designated grazing areas, wildlife corridors, water catchments, and



other ecologically sensitive locations. By concentrating development in designated areas, the Plan seeks to improve living conditions while maintaining the ecological functions that support livestock production and wildlife conservation.

4.1.2 Educational Facilities

The landscape currently has one identified educational facility, the Existing Lekurruki Primary School, occupying approximately 6.58 hectares and designated as Zone 21. Stakeholders recommended upgrading the school to a boarding institution serving both boys and girls. This proposal seeks to improve access to education, particularly for children from dispersed settlements who may face challenges travelling long distances to school.

The proposed upgrade should provide adequate classrooms, boarding facilities, water and sanitation infrastructure, energy, and other essential amenities to ensure a safe and conducive learning environment. The development should also consider the needs of children from pastoral households whose families may move seasonally in search of pasture and water.

Where feasible, the school could support environmental awareness and education on sustainable land management, rangeland conservation, water stewardship, and human–wildlife coexistence. These initiatives would help build community awareness of the relationship between healthy ecosystems, sustainable livestock production, and long-term livelihoods.

4.1.3 Public Purpose and Utilities

Stakeholders identified one designated public-purpose parcel intended to accommodate public facilities and essential services. The parcel, labelled Proposed Chief's Office, covers approximately 1.06 hectares and is designated as Zone 4₁.

The site is intended to accommodate the Chief's Office and may provide space for other compatible public facilities, subject to planning approval, the suitability of the site, and adequate provision for access, utilities, and future operational needs. Concentrating compatible public services within an accessible location will strengthen local administration, improve service delivery, and facilitate coordination between the community and relevant government agencies.

The location and development of public facilities should consider accessibility for residents across the community land, including those in remote settlements and pastoral areas. Infrastructure provision



should also be coordinated with water-resource management, grazing arrangements, and conservation priorities to minimize competition for land and avoid unnecessary disturbance to wildlife habitats.

In the longer term, the community and relevant partners may explore suitable funding mechanisms for essential public infrastructure and environmental improvements. Where green financing is considered, projects should demonstrate clear environmental benefits, financial viability, and transparent governance, without compromising communal land rights or community priorities.

4.1.4 Transportation and Accessibility

The existing road network connects settlements, conservation investments, and neighboring land parcels. According to the data analysis, community members predominantly rely on walking and motorcycles for everyday mobility, while vehicle access also serves tourists and other visitors to the community land. The landscape further contains an existing airstrip serving Tassia Lodge.

Stakeholders recommended upgrading and maintaining the road network to ensure that roads remain passable throughout the year, including during rainy seasons. Priority should be given to improving key access routes, maintaining drainage, and minimizing soil erosion and environmental degradation associated with road construction and maintenance.

Transport planning should take into account the movement needs of pastoral households and livestock, particularly access to designated grazing areas, watering points, markets, and essential services. Road alignments and improvements should avoid obstructing traditional livestock routes or fragmenting important wildlife habitats and corridors. Where necessary, appropriate crossing points and other mitigation measures should be incorporated into road design.

Given the rugged terrain, air transport may continue to serve tourism and other specialized access needs where appropriate. However, improvements to road and air access should be guided by environmental assessments and community consultation to ensure that enhanced accessibility does not lead to uncontrolled settlement expansion, habitat disturbance, or increased pressure on communal resources.

4.1.5 Proposed Settlement Arrangement and Future Development

The proposed settlement arrangement promotes compact, accessible, and orderly development by directing residential growth and essential public services towards designated areas. This approach is intended to minimize scattered settlement, improve the efficient provision of infrastructure and



services, reduce pressure on sensitive ecosystems, and provide a clear framework for future development.

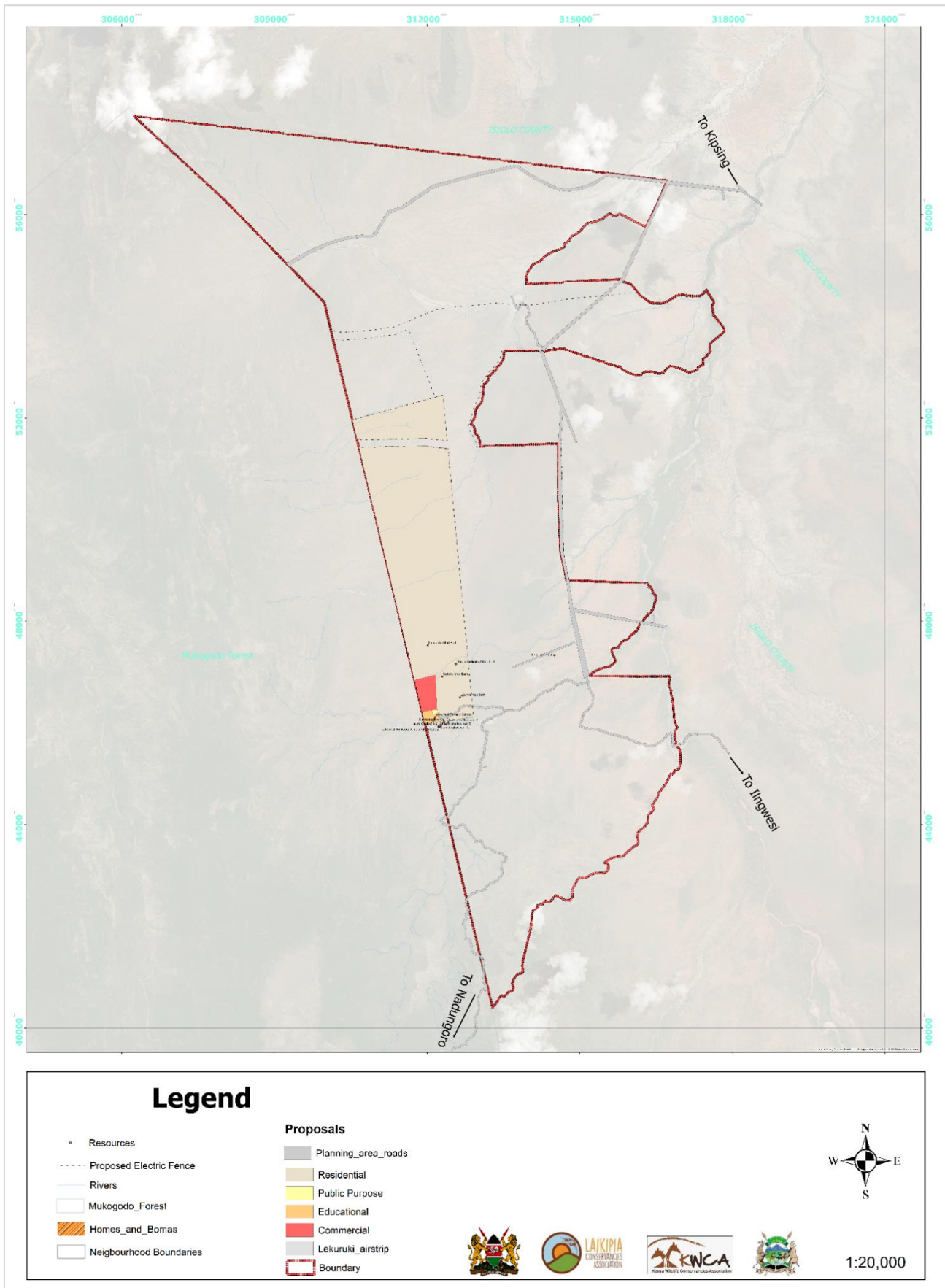
Future settlement expansion should be coordinated with the Livestock Development Strategy and Wildlife Conservation Strategy. In particular, residential areas should be planned to minimize encroachment into designated grazing zones, livestock movement routes, water-resource areas, wildlife corridors, and other ecologically sensitive locations. This integrated approach will help reduce land-use conflicts, maintain access to pasture and water, and support coexistence between people, livestock, and wildlife.

The Plan also recognizes that sustainable settlement development depends on reliable infrastructure, effective community governance, and long-term financing. Opportunities to mobilize public resources, development partner support, private investment, and appropriate green-financing instruments may be explored for eligible projects involving renewable energy, water infrastructure, ecosystem restoration, and climate-resilient community facilities. Any carbon-credit or green-bond initiative should be assessed for feasibility and implemented in accordance with applicable requirements, with transparent community participation and benefit-sharing arrangements.

Ultimately, the Human Settlement Strategy provides a spatial framework for improving living conditions, strengthening access to essential services, and supporting sustainable livelihoods while safeguarding the natural and cultural resources of Lekurruki Community Land. Its successful implementation will depend on coordinated land-use planning, community participation, responsible infrastructure development, and a balanced approach to human settlement, livestock production, and wildlife conservation throughout the 2026–2036 planning period.



4.1.6 Proposed Human Settlement Area





4.2. Proposed Wildlife Conservation Strategy

The proposed Wildlife Conservation Strategy for Lekurruki Community Land adopts an integrated approach that combines water infrastructure, wildlife movement management, habitat conservation, security and emergency response, and sustainable conservation financing. The interventions are intended to reduce competition for natural resources, improve community safety, protect livestock and property, and support the coexistence of people, livestock, and wildlife. To strengthen the long-term sustainability of these interventions, the Plan also proposes exploring green bonds and carbon credits as potential financing mechanisms for conservation, ecosystem restoration, and community-led climate action.

4.2.1 Water Points

Existing water points within Lekurruki Community Land serve as shared sources for domestic use, livestock watering, and wildlife hydration. Their limited and uneven distribution may increase competition around water sources, particularly during prolonged dry periods, potentially intensifying human–wildlife interactions. The Plan therefore recognizes the need to improve water access while ensuring that water infrastructure is located and managed in a manner that considers the needs of the community, livestock, and wildlife.

4.2.2 Proposed Dams

Five additional dams are proposed across the community land, particularly within or near conservation areas, wildlife corridors, and established elephant movement routes. These facilities are intended to improve water availability, reduce pressure on existing water points, and provide alternative water sources during drought periods. Their siting and design should be informed by hydrological assessments, environmental considerations, community water needs, and wildlife movement patterns to avoid creating new conflict hotspots or disrupting natural drainage systems.

4.2.3 Wildlife–Settlement Separation

The proposed dams are strategically intended to provide alternative water sources away from densely settled areas, where site conditions permit. This may help reduce the need for wildlife to move towards homesteads in search of water. However, water infrastructure alone cannot guarantee the separation of wildlife from settlements. The proposed locations should therefore be assessed against seasonal wildlife movements, livestock grazing routes, and ecological connectivity, and



complemented by community awareness, land-use management, and appropriate early-warning measures.

4.2.4 Electric Fencing

Approximately 56 kilometers of electric fencing are proposed around selected conservation areas and wildlife corridors to help manage wildlife movement and protect settlements and development areas. Fence alignment should be determined through ecological and technical assessments, with particular care taken to avoid blocking critical migration routes, fragmenting habitats, or restricting livestock mobility. Appropriate wildlife crossings, maintenance arrangements, and community consultation will be important to ensure that fencing reduces conflict without creating unintended ecological impacts.

4.2.5 Solar-Powered Infrastructure

The proposed electric fence will be solar-powered, taking advantage of the area's solar exposure while reducing dependence on conventional electricity and potentially lowering long-term operating costs. The installation should include appropriate energy storage, routine maintenance, and arrangements for timely repairs to ensure reliable operation. Solar power may also be considered for suitable water pumps, security installations, and other conservation-related infrastructure where technically and financially viable.

4.2.6 Security and Response Facilities

Existing facilities, including the NPR Security Camp near Lekurruki Dispensary in the eastern part of the community land and the conservancy Rangers Headquarters, provide security and emergency response services. The Plan proposes strengthening these facilities through additional NPR personnel and a dedicated wildlife response unit to improve the management of wildlife incidents, enhance community safety, and support coordinated responses to emergencies.

4.2.7 Additional Response Unit

A new security and wildlife response unit is proposed in the southern section of the community land to improve geographical coverage, reduce response times, and increase patrol frequency in areas located farther from existing facilities. Its operations should be coordinated with community representatives, conservancy management, and relevant government agencies. Clear reporting



channels, incident records, community awareness, and appropriate response protocols will be essential to improving effectiveness and accountability.

4.2.8 Green Bonds and Conservation Financing

The Plan proposes exploring green bonds and other nature-positive financing instruments to mobilize resources for conservation and climate-resilient development within Lekurruki Community Land. Green bonds are financial instruments through which funds are raised for eligible environmental projects, potentially including rangeland restoration, rehabilitation of degraded landscapes, sustainable water infrastructure, renewable energy, and biodiversity conservation. The community, conservancy partners, County Government, development partners, and relevant financial institutions could explore opportunities to structure or participate in suitable green-financing initiatives, subject to project feasibility, investor requirements, and applicable regulations.

Potential priority investments could include restoring degraded grazing areas, protecting wildlife corridors, improving water infrastructure, adopting solar-powered conservation facilities, and strengthening climate resilience. Any proposed green bond initiative would require a clear financing structure, credible environmental outcomes, transparent reporting, and a sustainable mechanism for repaying investors where applicable. Green bonds should therefore be considered a potential financing option rather than an assured source of funding.

4.2.9 Carbon Credits and Community Conservation Benefits

The Plan also proposes assessing the feasibility of community-based carbon credit projects as a potential source of long-term financing for conservation and sustainable land management. Such projects may involve rangeland restoration, improved grazing practices, protection and restoration of suitable forest and other carbon-rich ecosystems, and other eligible interventions that demonstrate measurable greenhouse gas emission reductions or increased carbon sequestration.

For Lekurruki Community Land, a preliminary assessment should establish the carbon sequestration potential of the landscape, identify suitable project areas, assess baseline conditions, and determine the technical and financial viability of developing a carbon project. The process should also establish clear arrangements for community participation, monitoring, verification, benefit-sharing, and long-term protection of the ecosystems concerned.

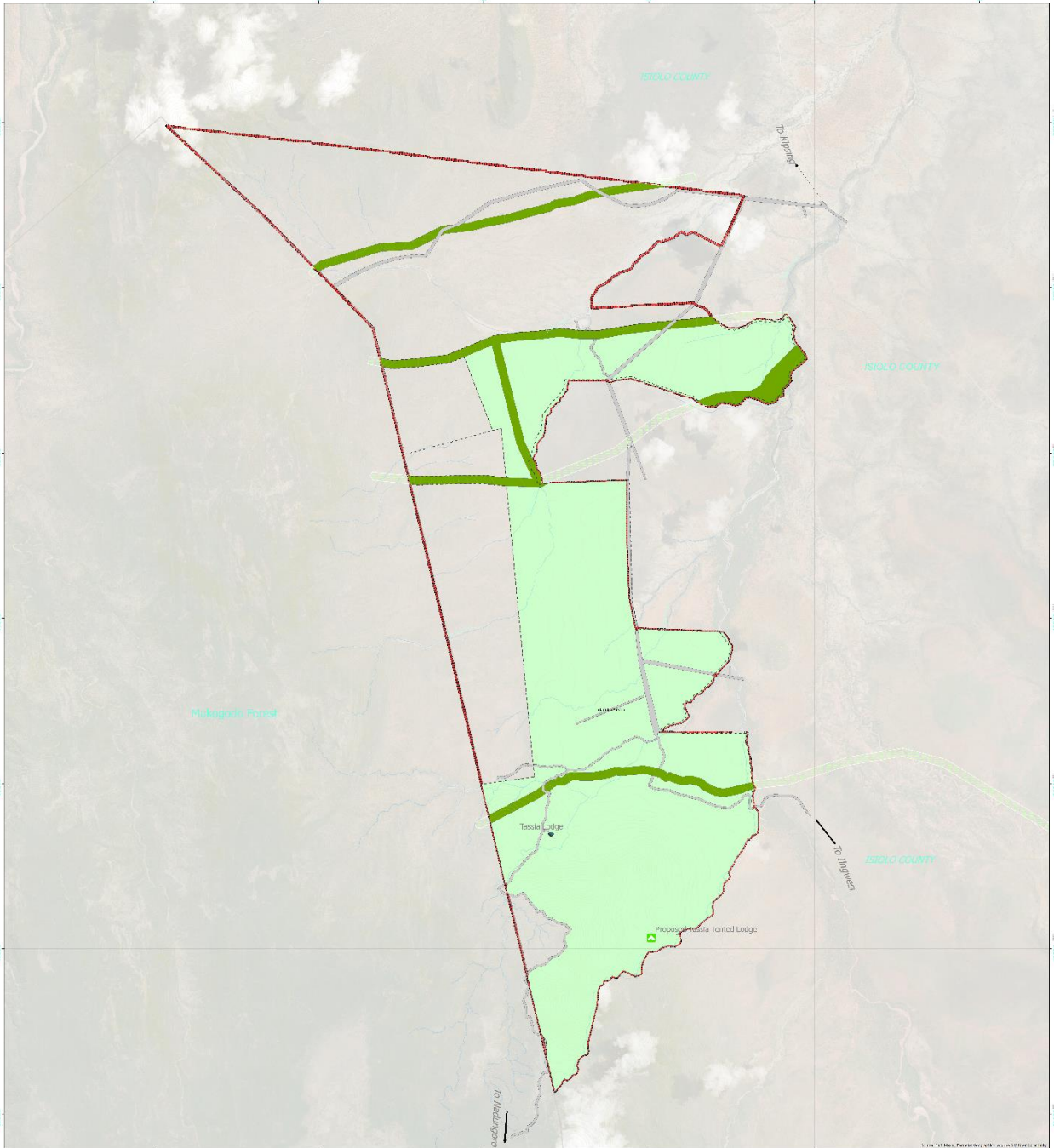


Carbon market activities in Kenya are governed by the Climate Change Act and the Climate Change (Carbon Markets) Regulations, 2024. Community land-based carbon projects must comply with applicable approval procedures, community consent requirements, and community development agreement provisions. These safeguards are important to protect community interests and ensure that conservation benefits are shared transparently and equitably. Any revenues generated could, subject to the applicable legal framework and agreed benefit-sharing arrangements, help finance community conservation initiatives, water infrastructure maintenance, rangeland rehabilitation, wildlife conflict mitigation, and livelihood diversification. The community should retain a central role in deciding whether to participate in carbon projects, how projects are governed, and how benefits are distributed. Carbon credits should be pursued only where credible environmental benefits can be demonstrated and community land rights, livelihoods, and customary resource-use practices are safeguarded.

4.2.10 Integrated Conflict Management and Sustainable Financing

The proposed interventions aim to balance wildlife conservation, community safety, livestock production, tourism, and settlement development while reducing competition for natural resources and minimizing human–wildlife conflicts. Combining physical interventions with sustainable financing mechanisms could help address the long-term costs of conservation infrastructure, ecosystem restoration, monitoring, and community engagement.

Accordingly, the Plan recommends developing a coordinated conservation financing framework that considers public funding, development partner support, private-sector investment, green bonds, carbon credits, and other appropriate nature-positive finance mechanisms. The framework should prioritize community benefits, transparent financial management, measurable conservation outcomes, and the long-term maintenance of infrastructure. This integrated approach will help strengthen the financial sustainability of conservation efforts while supporting the coexistence of people, livestock, and wildlife across Lekurruki Community Land.



Legend

- Proposed Tassia Lodge
- Tassia_Lodge
- Contours
- Proposed Electric Fence
- Rivers
- Conservation_Area
- Proposed_Corridor
- Continuous corridor
- Mukogodo_Forest
- Boundary
- Transport
- Lekuruki_airstrip
- Homes_and_Bomas
- Neighbourhood Boundaries
- Planning_area_roads



1:20,000



4.3. Livestock Development Strategy

The Livestock Development Strategy seeks to strengthen sustainable pastoralism within Lekurruki Community Land by improving grazing management, water availability, livestock mobility, rangeland health, and security. The strategy recognizes livestock as a key source of livelihoods, food security, cultural identity, and household resilience. It is therefore closely linked to the Human Settlement and Wildlife Conservation Strategies, with the aim of balancing livestock production, community development, and the conservation of wildlife and their habitats.

4.3.1. Designated Grazing Areas

The proposed grazing zone covers approximately 2,355.36 hectares in the northern block of Lekurruki Community Land. It is intended to provide a designated area for livestock grazing while reducing encroachment into residential settlements and sensitive conservation areas. Management of this zone should be guided by grazing capacity, seasonal pasture availability, livestock population, and the condition of the rangeland. The community should also identify and protect livestock routes, access points, and areas requiring temporary rest to allow vegetation to regenerate.

4.3.2. Existing Water Infrastructure

Existing water infrastructure supports livestock watering and includes sand dams along the laggas, namely Lekurruki Community, Norgiriai, Melita, Lekaas, Lolowuai, and Lolasurai sand dams, as well as shallow wells, springs, and boreholes, including Tassia Borehole and Lekurruki Primary Borehole. These facilities are essential to pastoral livelihoods, particularly during dry periods when surface water and pasture become scarce.

The Plan proposes maintaining and rehabilitating existing water facilities, improving their distribution where necessary, and managing access to reduce pressure on individual water points. Water-use arrangements should consider domestic needs, livestock requirements, and wildlife hydration to minimize competition and reduce the likelihood of human–wildlife conflict.

4.3.3 Proposed Dams and Drought Resilience

Additional dams are proposed in the northern, eastern, and southern sectors of the community land to improve water availability, reduce livestock travel distances, and strengthen resilience to drought. These proposals complement the five dams identified under the Human–Wildlife Conflict Management Strategy. Their implementation should be coordinated through an integrated water-



resource plan to ensure that livestock and wildlife interventions complement rather than duplicate one another.

The location and design of the proposed dams should be informed by hydrological assessments, seasonal water demand, grazing patterns, wildlife movement routes, and environmental considerations. Where appropriate, water infrastructure should provide for livestock while maintaining suitable access for wildlife and avoiding the creation of conflict hotspots near homesteads. Proper maintenance, equitable access arrangements, and community-based water management will be essential to ensuring long-term functionality.

4.3.4 Rotational Grazing and Rangeland Restoration

The Plan promotes rotational grazing through the subdivision of grazing areas into manageable zones, allowing grazed areas sufficient time to recover before livestock return. This approach is intended to reduce overgrazing, improve vegetation regeneration, protect soil structure, and maintain the productivity of the rangeland.

The community should establish grazing schedules and seasonal access arrangements based on pasture conditions, rainfall, livestock numbers, and drought conditions. Areas experiencing severe degradation may require temporary resting, reseeding with suitable indigenous species, erosion control, or other rangeland rehabilitation measures. These interventions will help sustain livestock production while protecting habitats and forage resources used by wildlife.

4.3.5 Livestock Mobility, Security, and Conflict Management

The existing NPR Security Camp and conservancy Rangers Headquarters provide security support that can help improve the safety of pastoralists and facilitate livestock movement, particularly in the remote northern grazing area bordering Isiolo County. The proposed additional security and wildlife response unit in the southern section of the community land could further strengthen coordination and response coverage.

The Plan recommends coordination among pastoralists, community leadership, conservancy management, security agencies, and wildlife authorities to address livestock theft, grazing disputes, wildlife encounters, and other incidents affecting pastoral activities. Livestock routes and watering points should be clearly identified and managed to minimize overlap with sensitive wildlife habitats and densely settled areas.



Where fencing is proposed under the Wildlife Conservation Strategy, its alignment should be assessed to avoid unnecessarily restricting livestock movement or access to pasture and water. Appropriate crossing points and community consultation will help ensure that conflict-management infrastructure protects settlements and wildlife without undermining pastoral livelihoods.

4.3.6 Green Financing and Carbon Credits for Sustainable Livestock Production

The Plan proposes exploring green financing, including green bonds and carbon credits, as potential mechanisms for supporting sustainable rangeland management and climate-resilient pastoralism. Potential investments could include rangeland restoration, rehabilitation of degraded grazing areas, improved water infrastructure, solar-powered water facilities, and measures that enhance the resilience of livestock production to drought.

Carbon credit opportunities may be assessed for eligible projects that demonstrate measurable greenhouse gas emission reductions or increased carbon sequestration. Depending on the ecological conditions and project design, opportunities may include improved rangeland management, restoration of degraded landscapes, and protection or restoration of suitable carbon-rich ecosystems. Such initiatives would require technical feasibility assessments, credible measurement and verification, compliance with applicable carbon-market requirements, and informed community participation.

Green bonds may also be explored to mobilize investment for eligible environmental and climate-resilience projects. However, neither green bond financing nor carbon credit revenue should be assumed to be guaranteed. Any proposed initiative should demonstrate financial viability, transparent governance, clear community benefit-sharing arrangements, and safeguards for customary land rights and pastoral livelihoods.

4.3.7 Integrated Land-Use Management and Human–Livestock–Wildlife Coexistence

The proposed livestock land-use arrangement seeks to balance rangeland conservation, livestock production, water provision, settlement development, and wildlife conservation. Effective implementation will require coordination with the Human Settlement Strategy and Wildlife Conservation Strategy to ensure that residential areas, grazing zones, water points, and wildlife corridors function as complementary components of the wider landscape.



Improved livestock management can reduce pressure on shared water sources and wildlife habitats, while effective conservation can sustain the ecological processes that support pasture and water availability. Similarly, secure livelihoods, community participation, and equitable access to natural resources can strengthen support for conservation initiatives.

Ultimately, the Livestock Development Strategy aims to establish a resilient pastoral system that sustains livestock productivity, protects the communal rangeland, reduces resource-based conflicts, and supports harmonious coexistence between people, livestock, and wildlife. By integrating grazing management, water infrastructure, security, ecosystem restoration, and potential conservation financing, the Plan provides a framework for sustaining Lekurruki's pastoral livelihoods throughout the 2026–2036 planning period.





4.4. Proposed Land Use, General and Specific Standards and Guidelines

LAND USE	PROPOSED MINIMUM LAND SIZES:		GENERAL GUIDELINES	SPECIFIC GUIDELINES
Residential	Proposed Residential Zone – Low Density (858.15 Ha)	Minimum of 0.5 Acres Maximum depends on herd and family size	All residential areas should be well accessible and close to critical infrastructure that supports high standards of living such as; water sources, security and other social public infrastructure.	<ul style="list-style-type: none"> • All residential developments in the rangelands are limited to ground plus one in height. • All developments shall be self-sufficient, i.e. have their own waste management facilities on site • All permanent developments shall be required to process development approvals before construction. An approval letter from the CLMC will be a requirement in the development application process. • Permanent structures are highly encouraged to promote development in the community land. • Avoid location of residential areas in flood-prone or high-slope (>12%) areas.
Educational	Existing Lekurruki Primary School	6.58 Ha	Any proposed school grounds should be located in places with least climatic hazards such as floods and away from disruptive	<ul style="list-style-type: none"> • All educational facilities shall be fenced off to avoid conflicting land uses such as wildlife and grazing activities.



LAND USE	PROPOSED MINIMUM LAND SIZES:		GENERAL GUIDELINES	SPECIFIC GUIDELINES
			land uses such as industrial facilities, sewage or dump sites. Grounds should be levelled for ease of use especially learners' playing fields. Educational facilities should be within 2 km walking distance of households for ease of access, especially for children going through ECDE.	<ul style="list-style-type: none"> Educational facilities should be left free of encroachment Educational facilities may be repurposed to other educational uses only. (No change of use to other land uses). ECDEs may be established on residential areas on need bases. A radius of 2Km. . All educational facilities should have a playing ground. It shall be provided in areas with a (<2%) gradient. Ensure adequate drainage to carry surface water off the field.
Public Purpose	Proposed Chief Office	1.06 Ha	<ul style="list-style-type: none"> The planning guidelines stipulate those administrative offices should be located near commercial centers with ease of accessibility to majority of the population. Further, there should be provision for accessibility and away from conflicting land uses like industrial sites and 	<ul style="list-style-type: none"> All public facilities shall be fenced off to avoid encroachment. All health facilities proposed and existing shall be equipped with staff and medical facilities. i.e., Medicine, antivenom, medical machines. Religious institutions with substantial land sizes shall incorporate complementary public-purpose
	Existing Lekurruki Dispensary	--		
	Existing NPR Security Camp	--		



LAND USE	PROPOSED MINIMUM LAND SIZES:		GENERAL GUIDELINES	SPECIFIC GUIDELINES
			<p>dumping sites. The land requirement for police station and chief's camp is dependent on the population and area served.</p> <ul style="list-style-type: none"> Ensure adequate access roads for the local population to access facilities. 	<p>facilities such as dispensary and/or educational facilities.</p>
Commercial	Existing Tassia Lodge	--	<p>Commercial centers and facilities are located with sufficient road network to facilitate circulation and center functionality. In addition, there should be supporting infrastructure including electricity, water, and waste disposal areas. Commercial facilities must comply with zoning regulations while markets require waste collection and water points.</p>	<ul style="list-style-type: none"> Existing road Plan for supporting infrastructure including electricity, water, and waste disposal. commercial development to comply with zoning and development control guidelines. Designated markets to have central refuse collection and water points.
	Proposed Tassia Lodge	--		
Public Utility	Existing sand dams, shallow wells, springs and boreholes	--	<p>Location of water resources considers accessibility for human and animal consumption. Ensure adequate measures to protect water resources against contamination and pollution and reduce spread of water-borne diseases.</p>	<ul style="list-style-type: none"> Water resources should be at least within 2km service radius for human consumption while livestock use up to 5km. Discourage direct livestock watering from the source to prevent contamination.



LAND USE	PROPOSED MINIMUM LAND SIZES:		GENERAL GUIDELINES	SPECIFIC GUIDELINES
				<ul style="list-style-type: none"> • Site latrines, cattle dips, and waste disposal points outside water sources. • Fence sensitive water infrastructure where contamination risk is high.
Transport	Roads	137.26 Ha	The road reserve for the main artery should be a minimum of 30m while local distributor roads should be between 12m and 15m. There should be no encroachment on road to allow for installation of utilities like electricity lines and water reticulation. All land uses must have adequate access roads. The guidelines stipulate that conflicting land is used to ensure that airstrips are free of obstacles such as high-rise buildings. It is imperative to limit location of land uses that attract wildlife like dumping sites attracting birds and animal water points.	<ul style="list-style-type: none"> • Road reserve widths for the main artery to be a minimum of 30m and local access roads 12-15m. • Permanent structures are not permitted on road reserve and will be used for electricity lines and water reticulation. • Every land use must have adequate road access • Maintain the Obstacle Limitation Surfaces around airstrips no high-rise buildings • Keep dumpsites/landfills at least 13 km from the airstrip to reduce bird-strike risk. • Avoid locating animal watering points similar wildlife-attracting uses near the airstrip
	Existing Lekurruki Airstrip	4.87 Ha		
Conservation	Proposed Conservation Zone	3,590.61 Ha	Designating wildlife corridors must aim to protect human settlement and livestock from	<ul style="list-style-type: none"> • Wildlife corridors should be routed to avoid traversing through settlement or grazing zones directly.
	Proposed Wildlife Corridor (150 m wide)	334.79 Ha		



LAND USE		PROPOSED MINIMUM LAND SIZES:	GENERAL GUIDELINES	SPECIFIC GUIDELINES
	Proposed Electric Fence	56 Km (length)	wildlife invasion. Identified wildlife corridors have a minimum buffer of 250m to allow for animal movement to access water and migration. It is imperative to have a wildlife fence to reduce livestock invasion. There should be limited human activities such as settlements in designated conservation area. Compatible land uses in conservation areas include eco-tourism facilities. Conservation area should include environmental regeneration activities like reforestation and reseedling.	<ul style="list-style-type: none"> • Use appropriate fencing at corridor–settlement/livestock interfaces to reduce conflict • Prohibit new settlement within designated conservation zones • Low-footprint eco-tourism is an accepted compatible use but should operate under a community/conservancy management agreement. • Environmental regeneration to include reforestation, reseedling, and erosion control as a standing requirement for conservation areas.
Agriculture	Proposed Grazing Zone	2,355.36 Ha	The guidelines indicate that there should be no erecting of structures on grazing area. There should be sufficient access to watering point and mitigate against pollution of water infrastructure like dams. Manage areas where grazing land overlap with wildlife corridors to access watering points. Cattle crush location should be near a	<ul style="list-style-type: none"> • Prohibit erecting structure on designated grazing land. • Where grazing land overlaps a corridor, manage through time-based access so livestock and wildlife aren't competing for the same watering point simultaneously. • Locate cattle crush near a reliable water source while protecting it from chemical contamination.
	Proposed Cattle Crush	--		



LAND USE	PROPOSED MINIMUM LAND SIZES:	GENERAL GUIDELINES	SPECIFIC GUIDELINES
		<p>reliable water source for the collecting yard trough. However, there should be measures to protect the water sources from contamination by chemical runoffs. There should be treatment mechanisms and proper drainage where chemicals cannot reach ground water for domestic consumption. It should be centrally located on grazing areas.</p>	<ul style="list-style-type: none"> • Provide proper drainage so chemical runoff cannot reach groundwater or domestic water sources. • Centrally located within the grazing block it serves, with vehicle access for veterinary supply and maintenance.



CHAPTER FIVE: IMPLEMENTATION FRAMEWORK

CATEGORY	PROPOSALS	RESPONSIBLE ACTORS	PRIORITY
Livestock & Economic Development	<p>Diversify livelihoods beyond livestock by expanding beekeeping, poultry keeping, casual labor, and include value-addition; introduce drought-resilient livestock breeds and differentiate support by herd size (smallholder, medium-scale, large herd owner); promote livestock markets, veterinary services and breeding programmes.</p> <p>These will reduce livestock diseases and enhance livestock-related economic activities.</p>	County Livestock Production & Veterinary Services, KALRO, Community Livestock Management Committees, Laikipia Conservancies Association, and related Non-Governmental Organizations.	Medium (medium term)
Rangeland & Grazing Management	<p>Promote controlled grazing guided by spatial degradation mapping to help environmental conservation and rangelands regeneration to ensure uninterrupted availability of grazing lands; scale up semi-circular bund construction and erosion-control structures in the highest-degradation zones. Gully filling would be essential in areas susceptible to soil erosion.</p>	County Livestock/Veterinary Dept, Community Grazing Committees, Kenya Forest Service, NGO such as LCA, Wyss Academy and other partners	High (short term)



CATEGORY	PROPOSALS	RESPONSIBLE ACTORS	PRIORITY
Vegetation Restoration & Invasive Species Control	Expand tree-planting and grass-reseeding programmes with reliable access to water, seed and seedlings; scale up biological control of invasive Opuntia alongside continued manual extraction; carry out targeted outreach to households not currently undertaking conservation activity.	Kenya Forest Service, NEMA, County Environment Department, Community Conservation Committees, NGOs	High (short term)
Land Use Planning & Wildlife Corridors	Identify and map out wildlife corridors to guide settlement locations; fence identified corridors and maintain the proposed 150 m wide wildlife corridors where wildlife transverse to access water points or migrate to other locations to mitigate against crossing in residential zones; integrate corridor protection and grazing management into the Community Land Use Plan as coordinated, mapped interventions.	County Physical Planning Department, Kenya Wildlife Service (KWS), National Land Commission, Community Land Management Committee and other Non-Governmental Organizations	High (short term)
Human-Wildlife Conflict Mitigation	Build community awareness on positive human-wildlife interaction and co-existence. These will help in promoting eco-tourism.	Kenya Wildlife Service (KWS), County Government, Community Conservancy Committees	High (short term)



CATEGORY	PROPOSALS	RESPONSIBLE ACTORS	PRIORITY
	<p>Promote wildlife tracking to determine their movement and migration routes and reduce the risk of wildlife conflicts. It will also help in early response for locations susceptible to attacks on humans and domestic animals.</p> <p>Construction of electric fence around residential and commercial areas to restrict movement of stray wildlife.</p>		
Water Resources & Infrastructure	<p>Make provision for separate water points for human and animal consumption; make effective water reticulation systems from major water sources such as sand dams, springs, existing and proposed boreholes and the proposed dams to ensure the community have access to potable water; maintain and repair non-functional boreholes, Protect and increase the available sand dams and rock catchments to ensure water accessibility.</p>	County Water Dept., Water Resources Authority (WRA), NGOs, Community Water Committees	High (short term)
Solid & Liquid Waste Management	<p>Make provision for solid-waste management and disposal sites, prioritizing areas of concentrated activity around Tassia Lodge, Lekurruki Primary School, Lekurruki Dispensary and the Rangers Headquarters;</p>	County Government (Environment/Public Health Dept.),	Medium (medium term)



CATEGORY	PROPOSALS	RESPONSIBLE ACTORS	PRIORITY
	promote recycling and reuse as alternative waste-management activities; Facilitate community awareness on proper solid and liquid waste practices to reduce the risk of preventable and communicable diseases.	NEMA, Community Land Management Committee	
Primary Healthcare Capacity	Improve staffing levels at Lekurruki Dispensary and establish additional health facilities in the central and northern parts of Lekurruki to ensure easier accessibility to health services; upgrade Lekurruki Dispensary from Level 2 to Level 3 with essential health services; expand maternal, reproductive and child-health services, including prenatal and post-natal healthcare.	Ministry of Health, County Health Dept., Community Health Volunteers	High (short term)
Educational Infrastructure Expansion	Add education facilities in the central and northern parts of Lekurruki, especially ECDE centers to improve education accessibility to a maximum of 1km radius; provide potable supporting infrastructure such as water, electricity and improve staffing in schools; allocate sufficient land for school expansion, administrative	Ministry of Education, County Education Dept., TSC, Parents/Community, Development Partners	High (short term)



CATEGORY	PROPOSALS	RESPONSIBLE ACTORS	PRIORITY
	offices, and playing ground; enhance community awareness on the value of education.		
Land Tenure & Governance	Regularize land ownership for public institutions that include Lekurruki Dispensary, Lekurruki Primary School, the proposed Chief Office and religious institutions.	County Physical Planning Dept., National Land Commission, Community Land Management Committee	Medium (medium term)
Renewable Energy Access	Support and expand solar and other renewable energy sources to reduce firewood dependency that results in environmental degradation; lobby donor/NGO funding to offset high solar installation costs.	Rural Electrification & Renewable Energy Corporation. (REREC), County Energy Dept., Private solar providers, Development Partners/NGOs	Medium (medium term)
Community & Social Facilities	Improve supporting infrastructure (access roads, water, sanitation, renewable energy, digital connectivity) at community centers; broaden empowerment programming to include men and youth alongside women; develop the proposed Chief Office and a community hall with electricity, water and waste-management infrastructure.	County Government, Community Land Management Committee, Development Partners/NGOs	Low (long term)



CATEGORY	PROPOSALS	RESPONSIBLE ACTORS	PRIORITY
Roads & Transportation Infrastructure	Upgrade the main access roads to all-weather standard, including the roads towards Ilngwesi Community Land, Nadungoro and Kipsing and the roads serving Tassia Lodge, Lekurruki Primary School, Lekurruki Dispensary and the Rangers Headquarters; open up access to the remote northern parts; ensure proper drainage along major roads; maintain existing transportation corridors continuously.	County Roads Dept., National Government, Community	High (short term)
Eco-Tourism & Economic Diversification	Market Tassia Lodge more actively and develop the proposed new Tassia Lodge to increase tourist inflows; develop value-addition infrastructure for livestock products, honey and other diversified livelihoods.	County Trade & Tourism Dept., Community Cooperatives, NGOs, Private Investors	Low (long term)



CHAPTER SIX: MONITORING AND EVALUATION

6.1. Monitoring and Evaluation Framework

Monitoring and evaluation (M&E) of the proposed interventions for Lekurruki Community Land is essential to ensure effective implementation, accountability and adaptive management. Drawing on the proposals set out for Lekurruki spanning livestock and rangeland management, vegetation restoration, land use planning, human-wildlife conflict, water, sanitation, health, education, land tenure, energy, social infrastructure, roads and eco-tourism the following indicators, verification methods, responsible actors and monitoring frequencies are proposed to track progress in implementing this Plan.

No.	Category	Key Monitoring Indicators	Means Of Verification	Responsible Actor(S)	Frequency
1	Livestock & Economic Development	<ul style="list-style-type: none"> Number of households diversifying into beekeeping, poultry and value-addition activities Number of drought-resilient livestock breeds introduced Functionality of veterinary and breeding support services 	County Livestock Dept. records; CLMC activity reports; household surveys	County Livestock Production & Veterinary Services, KALRO, Community Livestock Management Committees, NGOs	Annually
2	Rangeland & Grazing Management	<ul style="list-style-type: none"> Area (Ha) under rotational/controlled grazing Number of semi-circular bunds and erosion-control structures constructed 	Spatial degradation mapping/GIS reports; Grazing Committee records; field inspection	County Livestock/Veterinary Dept., Community Grazing Committees, Kenya Forest Service, NGOs	Bi-annually



No.	Category	Key Monitoring Indicators	Means Of Verification	Responsible Actor(S)	Frequency
		<ul style="list-style-type: none"> Reduction in degradation levels in mapped high-risk zones 			
3	Vegetation Restoration & Invasive Species Control	<ul style="list-style-type: none"> Number of trees planted and survival rate Area (Ha) reseeded with grass Area (Ha) cleared of Opuntia through biological/manual control Number of households reached through outreach on conservation activity 	KFS/NEMA planting and clearance records; Community Conservation Committee reports	Kenya Forest Service, NEMA, County Environment Dept., Community Conservation Committees, NGOs	Annually
4	Land Use Planning & Wildlife Corridors	<ul style="list-style-type: none"> Wildlife corridors formally mapped and gazetted Length (Km) of corridor fencing completed Corridor protection integrated into the Community Land Use Plan 	County Physical Planning Dept. maps; KWS reports; approved Community Land Use Plan	County Physical Planning Dept., Kenya Wildlife Service (KWS), National Land Commission, Community Land Management Committee	Annually



No.	Category	Key Monitoring Indicators	Means Of Verification	Responsible Actor(S)	Frequency
5	Human-Wildlife Conflict Mitigation	<ul style="list-style-type: none"> Number of community awareness sessions on co-existence conducted AI/machine-learning early-warning tools piloted and operational Response time and number of predator/elephant incidents managed 	KWS incident reports; Conservancy Committee records; training attendance registers	Kenya Wildlife Service (KWS), County Government, Community Conservancy Committees	Quarterly
6	Water Resources & Infrastructure	<ul style="list-style-type: none"> Separate human and livestock water extraction points established Purification systems installed at major sources (e.g. sand dams and boreholes) Number of non-functional boreholes, sand dams and rock catchments repaired 	Water Resources Authority (WRA) records; Community Water Committee reports; site inspection	County Water Dept., Water Resources Authority (WRA), NGOs, Community Water Committees	Bi-annually
7	Solid & Liquid Waste Management	<ul style="list-style-type: none"> Waste collection/disposal site established (areas around Tassia Lodge, Lekurruki Primary School, 	County Environment/Public Health Dept. records;	County Government (Environment/Public Health	Annually



No.	Category	Key Monitoring Indicators	Means Of Verification	Responsible Actor(S)	Frequency
		<p>Lekurruki Dispensary and Rangers HQ prioritised)</p> <ul style="list-style-type: none"> Number of households practising recycling/reuse Number of household sanitation facilities constructed 	NEMA compliance reports	Dept.), NEMA, Community Land Management Committee	
8	Primary Healthcare Capacity	<ul style="list-style-type: none"> Staffing levels at Lekurruki Dispensary against required norms Lekurruki Dispensary upgraded from Level 2 to Level 3 Number of satellite clinics/additional facilities established in the central and northern parts Uptake of maternal, reproductive and child-health services 	Ministry of Health/County Health Dept. records; facility registers	Ministry of Health, County Health Dept., Community Health Volunteers	Annually



No.	Category	Key Monitoring Indicators	Means Of Verification	Responsible Actor(S)	Frequency
9	Educational Infrastructure Expansion	<ul style="list-style-type: none"> Number of new education facilities established in the central and northern parts Schools with potable water, electricity and adequate staffing Land allocated for school expansion School enrolment trends 	Ministry of Education/County Education Dept. records; TSC staffing data; school registers	Ministry of Education, County Education Dept., TSC, Parents/Community, Development Partners	Annually
10	Land Tenure & Governance	<ul style="list-style-type: none"> Number of public institutions (Lekurruki Dispensary, Lekurruki Primary School, Chief Office,) with formalised title 	National Land Commission records; County Physical Planning Dept. title registry	County Physical Planning Dept., National Land Commission, Community Land Management Committee	Annually
11	Renewable Energy Access	<ul style="list-style-type: none"> Number of households/institutions with solar or other renewable energy installations Level of donor/NGO funding secured to offset installation costs 	Rural Electrification & Renewable Energy Corp. (REREC) records; County Energy Dept.	Rural Electrification & Renewable Energy Corp. (REREC), County Energy Dept., Private solar providers, Development Partners/NGOs	Annually



No.	Category	Key Monitoring Indicators	Means Of Verification	Responsible Actor(S)	Frequency
		<ul style="list-style-type: none"> Reduction in firewood dependency 	reports; donor/NGO funding agreements		
12	Community & Social Facilities	<ul style="list-style-type: none"> Access roads, water, sanitation, energy and digital connectivity at community centres improved Number of men and youth participating in empowerment programmes Chief Office and community hall developed with supporting infrastructure 	County Government project records; Community Land Management Committee reports	County Government, Community Land Management Committee, Partners/NGOs	Annually
13	Roads & Transportation Infrastructure	<ul style="list-style-type: none"> Main access roads (towards Ilngwesi, Nadungoro and Kipsing, and to key facilities) upgraded to all-weather standard Drainage works completed along major roads 	County Roads Dept./National Government works records; site inspection	County Roads Dept., National Government, Community	Bi-annually



No.	Category	Key Monitoring Indicators	Means Of Verification	Responsible Actor(S)	Frequency
		<ul style="list-style-type: none"> Frequency and quality of ongoing road maintenance 			
14	Eco-Tourism & Economic Diversification	<ul style="list-style-type: none"> Tourist inflows to Tassia Lodge Value-addition infrastructure developed for livestock products and honey Number of community cooperatives/private investors engaged 	County Trade & Tourism Dept. Records, visitor statistics	County Trade & Tourism Dept., Community Cooperatives, NGOs, Private Investors	Annually



6.1.1. M&E Implementation Notes

- The Community Land Management Committee (CLMC) should serve as the primary coordinating body for consolidating monitoring data across all categories and reporting progress to the community and partner agencies.
- High-priority, short-term interventions (rangeland management, vegetation restoration, wildlife corridors, human-wildlife conflict, water, healthcare, education and roads) should be monitored at least bi-annually to allow for timely corrective action.
- Medium- and long-term interventions (economic diversification, waste management, land tenure, renewable energy, social facilities and eco-tourism) can be monitored annually, aligned with county planning and budgeting cycles.
- Baseline data should be established for each indicator at the start of implementation to allow meaningful comparison over time.
- An annual M&E report should be compiled and shared with the community, County Government departments and development partners to inform decision-making and resource allocation for subsequent years.