

Stakeholder Engagement Session: Kalobeyei Corridor Planning and Spatial Assessment for Kakuma-Kalobeyei

Summary Report (28th and 29th September 2020)



Stakeholder Engagement Session: Kalobeyei Corridor Planning, and Spatial Assessment for Kakuma-Kalobeyei

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Acronyms

AAHI	Action Africa Help International
ASAL	Arid and Semi-Arid Lands
CIDP	County Integrated Development Plan
ECDC	Early Childhood Development Centre
EEZ	Enterprise Economic Zone
GCP	Ground Control Points
KISEDIP	Kalobeyei Infrastructure Socio-Economic Development Plan
IEBC	Independent Electoral and Boundaries Commission
IFC	International Finance Corporation
ISUDP	Integrated Strategic Urban Development Plan
LAPSSET Corridor	Lamu Port-South Sudan-Ethiopia-Transport Corridor
NEC	North-East Corridor
NOREB	Northern Rift Economic Bloc
NRC	Norwegian Refugee Council
ODK	Open Data Kit
OSR	Own-Source Revenue
SDG	Settlement Development Group
SWOT	Strengths, Weaknesses, Opportunities, Threats
UNHCR	United Nations High Commissioner for Refugees
WFP	World Food Programme

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Pedestrians and vehicles frequently crosses a major lagga frequently, which is prone to rapid flooding.

1. Overview

On 28th and 29th September 2020, UN-Habitat and Turkana County Government hosted a two-day virtual workshop. The purpose of the workshop was to receive feedback and facilitate discussions with Turkana County officials on the potential land-use proposals based on the existing situational analysis as well as proposals provided by the community, private sector, National and County Government Ministries and agencies from previous multi-level and multi-sector meetings. This plan would also support the County Government for the conferment process of the proposed Kakuma-Kalobeyei Municipality.

1.1 Background

UN-Habitat has been supporting Turkana County Government as technical lead of the Spatial Planning and Infrastructural Development thematic working group of the Kalobeyei Integrated Socio-Economic Development Programme (KISED) - which is a multi-sectoral and multi-partner initiative that aims to promote the socio-economic integration of refugees and the host community by leveraging on the opportunities emanating from the refugee settlements.

In 2019, Turkana County Government in partnership with UN-Habitat initiated a series of stakeholder engagements for spatial planning in Kakuma-Kalobeyei. These included the organisation of consultations with county officials, community engagement workshops with local leaders, participatory planning process meetings with Settlement Development Group (SDG) members, and workshop with private sector stakeholders, UN agencies, and national and county officials.

1.1.1 Turkana West

Turkana West sub-county is one of the most impoverished and marginalized areas in the region and the obstacles facing the Turkana community, in terms of climate change, limited local resources and access to socio-economic opportunities are significant. These obstacles are often exacerbated due to the pressure of hosting refugees for almost three decades, which has led to integrated scale development programming targeting both hosts and refugees (such as KISED) to help ease the pressures and support improved cohesion between the groups.

1.1.2 Kakuma-Kalobeyei

Kakuma-Kalobeyei hosts two refugee settlements: Kakuma Refugee Camp and Kalobeyei Settlement.

In addition, there are two towns: Kakuma Town and Kalobeyei Town, with multiple host community villages in the region. The total population across these four settlements is estimated at around 244,527 host and refugees. The presence of refugees over the last decades has presented opportunities for businesses and livelihoods development, which has encouraged a growing influx of host community members such as Turkana pastoralist to settle in these areas and find alternate livelihood opportunities. For example, in the vicinity of Kalobeyei Settlement, informal developments can be observed and are reminiscent of the rapid urbanisation of Kakuma Town which was influenced by Kakuma Refugee Camp.

In addition, Kakuma-Kalobeyei has the advantage of being situated along the A1 Corridor, also known as the Lamu Port-South Sudan-Ethiopia-Transport (LAPSSET) Corridor, connecting Kenya, South Sudan, and Ethiopia. This geographical advantage can potentially link Kakuma-Kalobeyei and Turkana West to neighbouring regions in East Africa through these countries, providing access to their markets and economies. Leveraging this advantage can provide Turkana County Government an opportunity to accelerate the socio-economic development in the area – for both host and refugee communities.

Moreover, Turkana County Government is also preparing to attain municipality status for Kakuma-Kalobeyei; and therefore the planning of this Corridor, Kalobeyei Town and the eventual Integrated Strategic Urban Development Plan (ISUDP) will be key to support sustainable urbanisation, safe and orderly migration as well as providing urban infrastructure, basic services and the growing business climate to support local economic development.

Hence, there is an urgent need to adequately address urbanisation (by the abovementioned factors) in the area. Given the experience of the informal development of Kakuma Refugee Camp, the county and partners have embraced spatial planning as one of the tools to manage developments in the area¹. Moreover, an uncontrolled rapid urbanisation can often lead to overcrowded conditions coupled with a lack of adequate housing, basic infrastructure, and basic services. This is especially critical considering the lessons learnt from the COVID-19 pandemic where overcrowding in low-quality housing increases the risk of rapid transmission².

1 Kalobeyei Infrastructure Corridor Development Plan, pg. 3

2 Policy Brief: COVID-19 in an Urban World, pg. 3

2. The Workshop Summary

Day One

The workshop began with an overview by UN-Habitat on current urban developments in Turkana County, followed by a presentation of the Spatial Profiling of Kakuma and Kalobeyei. The Spatial Profile is a multi-sectoral assessment of Kakuma and Kalobeyei, which collates and creates spatial data to help inform decision making, specifically regarding the proposed Kakuma-Kalobeyei Municipality. Discussions of the Spatial Profiling was guided by a SWOT (strengths, weaknesses, opportunities, threats) analysis of Kakuma and Kalobeyei, with the aim of clarifying, verifying and identifying gaps in the research that has been conducted so far. This analysis was able to confirm some of the major findings of the profile while also adding new perspectives to existing topics such as the tourism potential of Kakuma-Kalobeyei, changing political dynamics, the green energy potential of Turkana County and environmental conservation.

Day Two

The workshop resumed with presentations of the Socio-economic Survey, the Business and Local Economic Development Survey, and the Kalobeyei Infrastructure Corridor Development Plan by UN-Habitat. Each presentation was followed by a question and answer session to understand the perspectives of the local authorities. Topics that arose from these discussions included the institutional arrangements to support the local economy, environmental management of the invasive species *Prosopis Juliflora*, value chains such as retail and commercial charcoal and timber production and climate change. It also included proposals for potential industrial investments like the meat production and processing plants as well as logistics and transport planning which is key in stimulating local businesses and promoting flow of goods, services, capital and people in North-Western Kenya part of the LAPSET corridor. This session builds upon a previous stakeholder engagement workshop in March 2020.³

2.1 Specific objectives

- Present the findings of UN-Habitat's Spatial Assessment of Kakuma-Kalobeyei and receive feedback;
- Undertake a 'Strength, Weakness, Opportunities, and Threat' (SWOT) Analysis and Kakuma and Kalobeyei to understand the strengths, weaknesses, opportunities and threats of both settlements;
- Present the results of the mapping survey and social economic survey results for the Kalobeyei Infrastructure Corridor Development Plan;
- Hold technical discussions on the potential land use proposals for the Kalobeyei Infrastructure Corridor Development Plan.

³ Kalobeyei Infrastructure Corridor Development Plan, Stakeholder Workshop on Mobilizing Investments: <https://unhabitat.org/kalobeyei-infrastructure-corridor-development-plan-stakeholder-workshop-on-mobilizing-investments>



A view of Kakuma Refugee Camp from the plane.

3. Workshop Day 1 (28th September)

3.1 Opening Session

Joshua Lemuya (Chief Officer) thanked all participants for attending the workshop. He took the opportunity to acknowledge the importance of planning and the benefit of having participants from many different government departments present for the workshop. Following which, all participants introduced themselves.

Yuka Terada acknowledged the travel restrictions currently put in place by the National Government in light of COVID-19, and emphasised UN-Habitat's enthusiasm to resume working with Turkana County Government.

3.2 Overview of Planning and Urban Development in Turkana County

Davies Munialo (Director of Physical Planning) gave a brief overview of the history of planning in Turkana County – at the beginning there was only a National Scale Plan and now Turkana County has provided plans for eight towns (Kakuma, Lokichoggio, Lokori,

Lorugum, Lowarengak, Kalokol, Lokitaung, Lokichar), with the hope that the plans would be approved by the County Assembly. UN-Habitat in collaboration with Turkana County Government and partners have also prepared an Advisory Development Plan for Kalobeyei Settlement, which is currently being amended and tabled to the County Assembly for approval. He emphasised that Turkana West has three plans approved (Kakuma, Lokichoggio and Kalobeyei Settlement), which is more than most sub-counties. He concluded by mentioning that the Kalobeyei Infrastructure Corridor Development Plan is underway, and this will unlock the economic potential of Turkana west.

Joseph Egiron (Director of Urban Areas Management) added that Turkana County Government is prioritising the first eight plans for approval before focusing on approval for Kalobeyei Settlement Advisory Development Plan.

Joshua Lemuya (Chief Officer) talked about the future plans for Kalobeyei, about the intentions of the County Assembly's and Ministry of Lands, Housing, Energy and Urban Areas Management's intention to attain municipality status for Kakuma-Kalobeyei.

3.3 Presentation of the Spatial Assessment of Kakuma-Kalobeyi

3.3.1 Introduction

Jonathan Weaver explained the purpose of the Spatial Assessment, which involves a spatial and multi-sectoral assessment, description and analysis of an area with urban characteristics. By spatially analysing the context, local authorities as well as humanitarian and development actors can be in a better position to understand the challenges and opportunities and to respond with holistic, sustainable and evidence-based development interventions. The Spatial Assessment should be used to inform decision making on future infrastructure investments and to guide future interventions such as the proposed Kakuma-Kalobeyi Municipality.

He added that in humanitarian and refugee crises, there remains a legacy of incomplete data, with multiple actors and several ongoing activities. The Spatial Assessment aims to collate all existing Strategic, County and Settlement plans, and understand where gaps exist and propose future development scenarios. The purpose of the workshop was to receive feedback from stakeholders on profiling so far prior to the development of the future scenarios.

3.3.2 Presentation of Spatial Assessment - National and County Scale

Jonathan Weaver and **Lucy Donnelly** provided an overview of the progress of the Spatial Assessment so far. The Spatial Assessment has been divided by National, County, Sub-County and Settlement scales. At the National Scale, Kenya was described as one of the fastest growing economies in Africa and is rapidly urbanizing⁴. However, the prosperity of this growth is not distributed equally, with the sparsely populated northern regions of Kenya, such as Turkana County, facing high rates of poverty and chronically low infrastructure provision. The rapid urbanization that Kenya is currently experiencing means that rural-urban connectivity is becoming increasingly important.

Kenya's population is expected to exceed 100 million by 2058 and declining birth-rates⁵ and the accompanying dependency ratio⁶ indicates that Kenya has approximately the next 30 years to take advantage

4 [https://www.cia.gov/library/publications/the-world-factbook/fields/349.html#:~:text=rate%20of%20urbanization%3A%202.06%25%20annual,\(2015%2D20%20est.\)&text=total%20population%20\(2020\)-,rate%20of%20urbanization%3A%201.66%25%20annual%20rate%20of%20change,\(2015%2D20%20est.\)&text=rate%20of%20urbanization%3A%201.86%25%20annual,\(2015%2D20%20est.\)&text=rate%20of%20urbanization%3A%201.57%25%20annual,\(2015%2D20%20est.\)](https://www.cia.gov/library/publications/the-world-factbook/fields/349.html#:~:text=rate%20of%20urbanization%3A%202.06%25%20annual,(2015%2D20%20est.)&text=total%20population%20(2020)-,rate%20of%20urbanization%3A%201.66%25%20annual%20rate%20of%20change,(2015%2D20%20est.)&text=rate%20of%20urbanization%3A%201.86%25%20annual,(2015%2D20%20est.)&text=rate%20of%20urbanization%3A%201.57%25%20annual,(2015%2D20%20est.))

5 <https://worldpopulationreview.com/countries/kenya-population>

6 Based on 2019 Census data.

of the high productivity of its young workforce. To ensure that the full advantages of Kenya's demographic dividend are capitalized on, investment in infrastructure is critical. The LAPSET Corridor is an important infrastructure corridor that will pass through Kakuma-Kalobeyi and which will be instrumental in opening up Northern Kenya into the national economy.

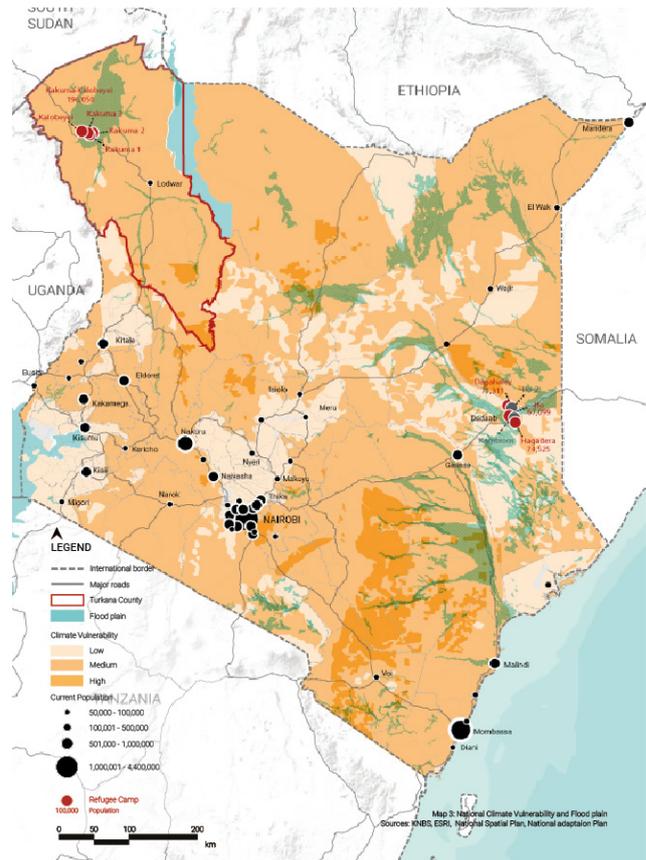


Figure 1 Analysis of National Climate Vulnerability and Flood plain

Kenya is highly vulnerable to climate change, in particular Arid and Semi-Arid Lands (ASAL) and counties such as Turkana. Climate related crises such as flooding and drought have caused severe crop and livestock losses, famine, population displacement and even death. Climate crises in surrounding countries to Kenya can result in increased displacement, and persons seeking refuge in Turkana County. Most refugees in Kakuma-Kalobeyi are from South Sudan and Democratic Republic of the Congo (DRC), due to their proximity. Although Turkana County Government and humanitarian partners have been aiding refugees since 1992, 67% of Kakuma Refugee Camp's population have arrived in just the last five years. Since Kalobeyi's establishment in 2016, the combined urban settlements of Kakuma Town, Kakuma Refugee Camp, Kalobeyi Town, and Kalobeyi Settlement are the largest cluster of human settlements in Turkana County.

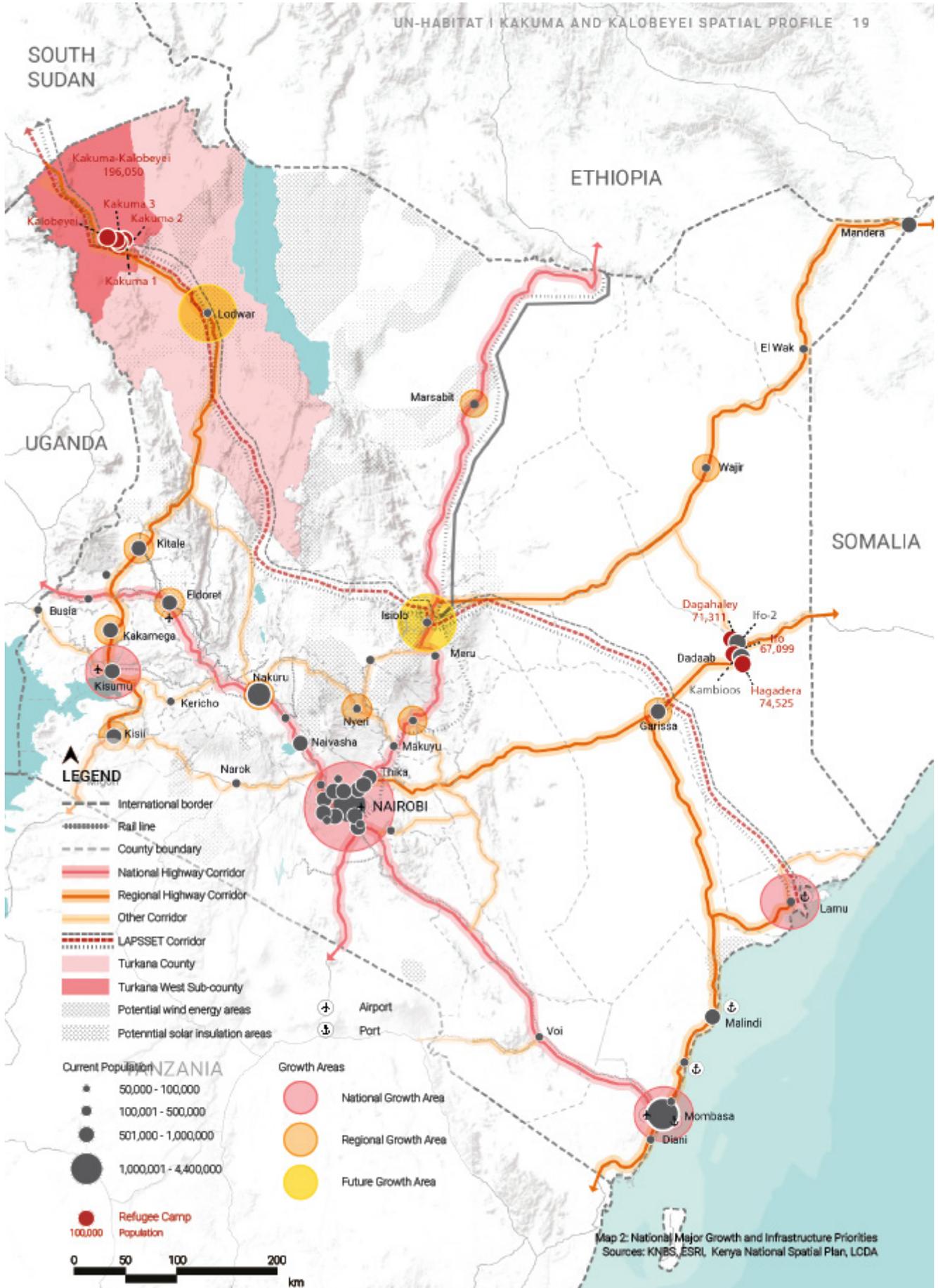


Figure 2 Analysis of National Major Growth and Infrastructure Priorities

At a County and Sub-County level, Kakuma Refugee Camp and Kalobeyei Settlement comprise 17% of Turkana County's population and 45% of Turkana West Sub-County's population. The refugees contribute to the Sub-County's high population density and young population profile and have the potential to be an economic engine if provided with education and employment opportunities. Although Turkana County has multiple international borders, it is isolated from the rest of Kenya due to poor road and rail networks, which also stifle the economic growth of the County.

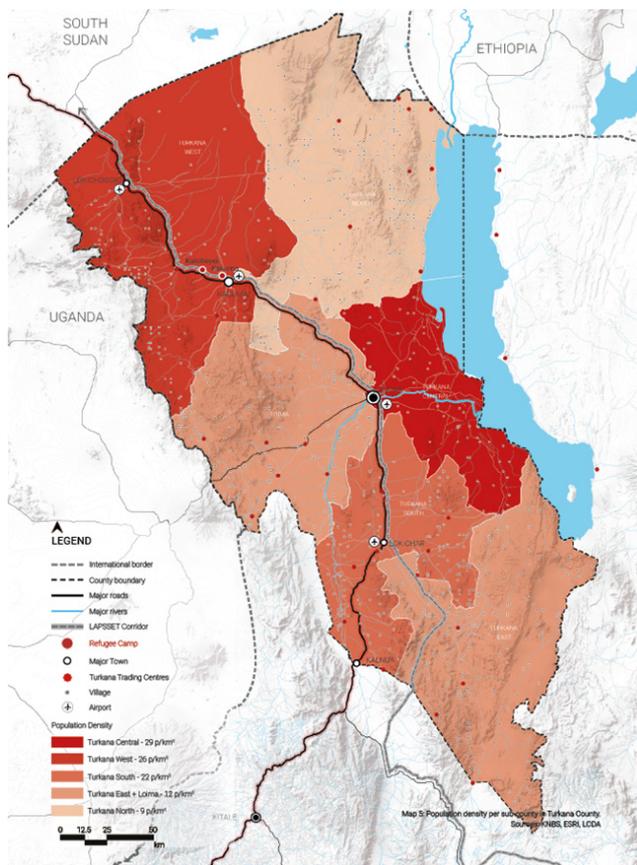


Figure 3 Analysis of Population density per sub-county in Turkana County

As an ASAL County, Turkana County is characterised by low rainfall patterns and sparse vegetation, resulting in pastoralism being the predominant livelihood in the County. Increasingly unpredictable and extreme climatic conditions are however threatening the viability of pastoralism as a livelihood for the Turkana. This has been compounded by unsustainable land and water management practices, the recent locust infestation and the COVID-19 pandemic that have led to conflict between host and refugee communities.

Land in Turkana County is predominantly classified as community land (including Kakuma Refugee Camp and Kalobeyei Settlement), however more clarity is needed

regarding the classification of land in the County as community or public land. The predominant funding (92%) for Turkana County comes from National Transfers with own source revenue potential making up only an estimated 2%.

As the presence of refugees in Turkana-West Sub-County increases its population density, this can be used as leverage for greater investment in infrastructure. The impact of the current poor-quality infrastructure drives up the cost of commodities in the Sub-County. Due to the projected growth of Kakuma-Kalobeyei and all other factors mentioned, a more complex development model needs to be considered.

3.3.3 Discussions

Joseph Egiron (Director of Urban Areas Management) sought more information about land adjudication and the engagement of stakeholders. **David Kitenge** explained that the stakeholder engagement process is a multi-level and multi-sectoral process and there have been many meetings with the community, organisations, private sector to ensure all perspectives are shared. Moving forward, more stakeholders will be engaged.

Nadio Etabo Clement (Director of Environment) pointed out that Turkana West Sub-County is rich in wild animals and Lotikipi National Reserve is planned to be gazetted with the support of Kenya Wildlife Service, so this should be reflected in future databases including mappings. A 10% tree cover should also be considered as it is a constitutional requirement. *Prosopis Juliflora* and its impact must also be considered.

3.3.4 Presentation of Spatial Assessment - Settlement Scale

Jonathan Weaver presented the next section of the presentation, focusing on the settlement scale. The overlapping County, Sub-County and ward boundaries were important to illustrate in the profile. The accessibility analysis that was prepared illustrates that the A1 Corridor remains the only key access-way in the area and flooding prevents access between the settlements. The Market Accessibility Analysis illustrated that Kakuma Town is less dense and has fewer markets than Kakuma Refugee Camp. Kakuma is highly susceptible to flooding and this needs to be considered when prioritising areas of future development. Population density is highest in Kakuma Camp 1 and lowest in Kakuma Camp 3, followed by Kalobeyei Settlement, Kalobeyei Town, and Kakuma Town which have much lower population densities. Based on population growth projections, denser land-use planning will need to be carefully considered. He concluded that the next steps require greater understanding of how the Kakuma ISUD Plan, Kalobeyei Settlement Advisory Development Plan,

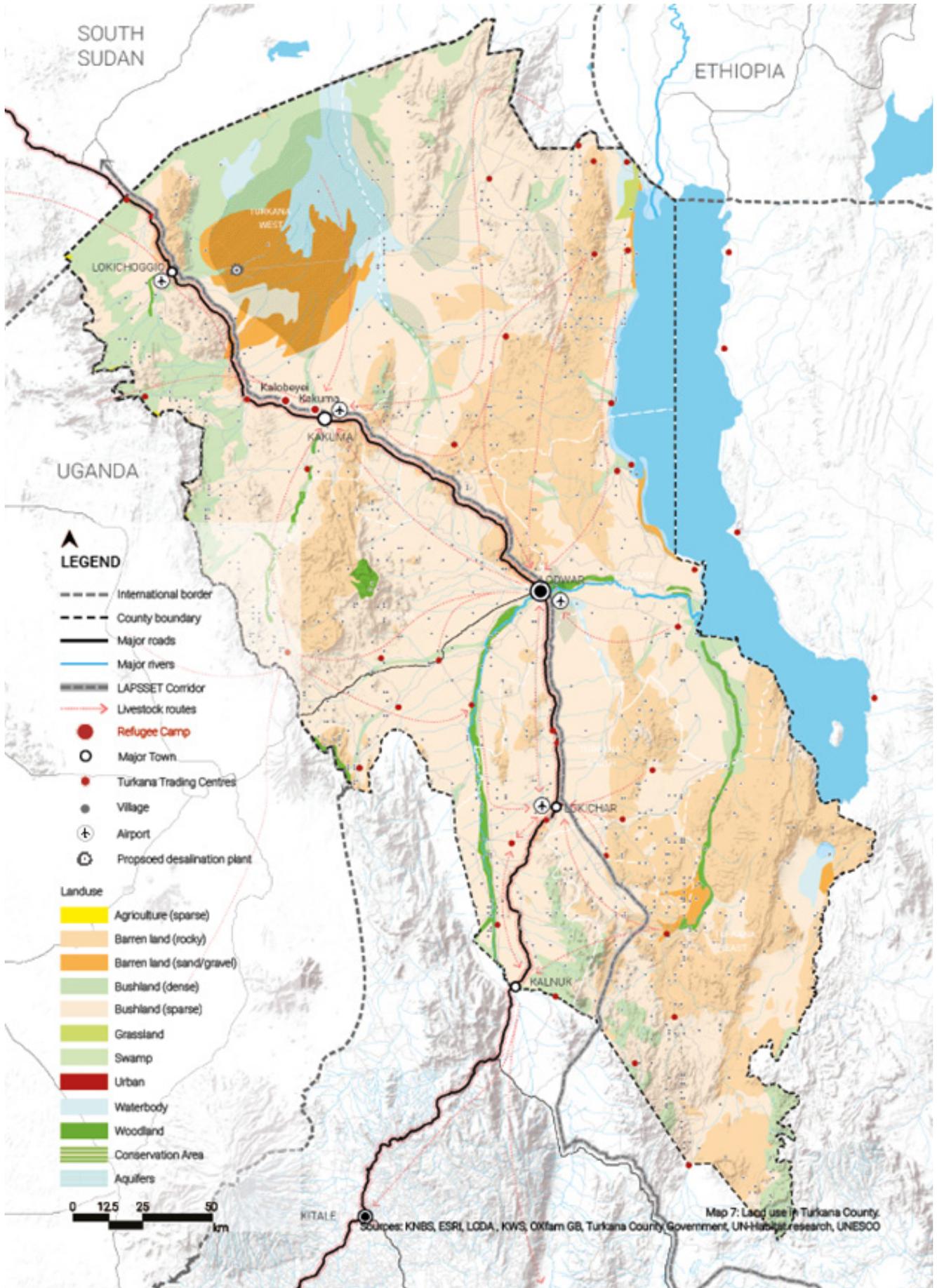


Figure 4 Analysis of Land use in Turkana County

Kalobeyei Infrastructure Corridor Development Plan, and LAPSET Corridor influence one another.

3.3.5 Discussions

Nadio Etabo Clement (Director of Environment) noted that the last slide of the presentation has indications of development around LAPSET and asked if steps have been taken to relay the information to the LAPSET Corridor Development Authority to ensure coordination with existing elements. **David Kitenge** explained that the existing LAPSET route passes through Kalobeyei Settlement and Kakuma Town instead of outside. A letter will be written to the LAPSET Corridor Development Authority to request for a re-routing of the corridor and the relevant authorities are aware of the conflict.

Stephen Njoroge (Urban Planner) enquired if the re-routing of the LAPSET Corridor would result in changes to the existing settlements, and that people may migrate according to the proposed corridor areas for livelihood and economic opportunities. **Jonathan Weaver** replied that changes to the LAPSET corridor will be considered and addressed when the information becomes available. The Turkana County Government reminded participants on the intention to attain municipality status of Kakuma-Kalobeyei and that the control points of the proposed boundary have been drafted. **Jonathan Weaver** requested for the control points to be shared with UN-Habitat to be incorporated into the Spatial Profile.

Moru Jacob (Ministry of Infrastructure and Public Works Representative Engineer) proposed to identify and agree on which areas and infrastructure require critical attention to improve the coordination between planning teams and other areas of government. **Jonathan Weaver** stated that UN-Habitat would be interested to know of any planned infrastructure which could be mapped and added to the Spatial Profile. UN-Habitat would like to arrange follow-up bilateral meetings with both Turkana County Government Departments and humanitarian actors to provide a comprehensive overview of planned infrastructure in Kakuma-Kalobeyei.

David Kitenge requested for clarification on whether UN-Habitat is conducting further analysis of basic services and infrastructure based on density, quality and the number of people accessing the service, which could be useful in making decisions for policy makers. **Jonathan Weaver** clarified that UN-Habitat's Spatial Survey looks into spatial details and allocation of services and will not include qualitative details and information on services and staffing. When the data is available, UN-Habitat will analyse the distribution of facilities and provide recommendations accordingly.

Joseph Egiron (Director of Urban Areas Management) asked for the geographical scope of the assessment and whether it would include villages external to the proposed area. **Jonathan Weaver** responded that field verification is required for the mapping of facilities and further discussion with consultants is required.

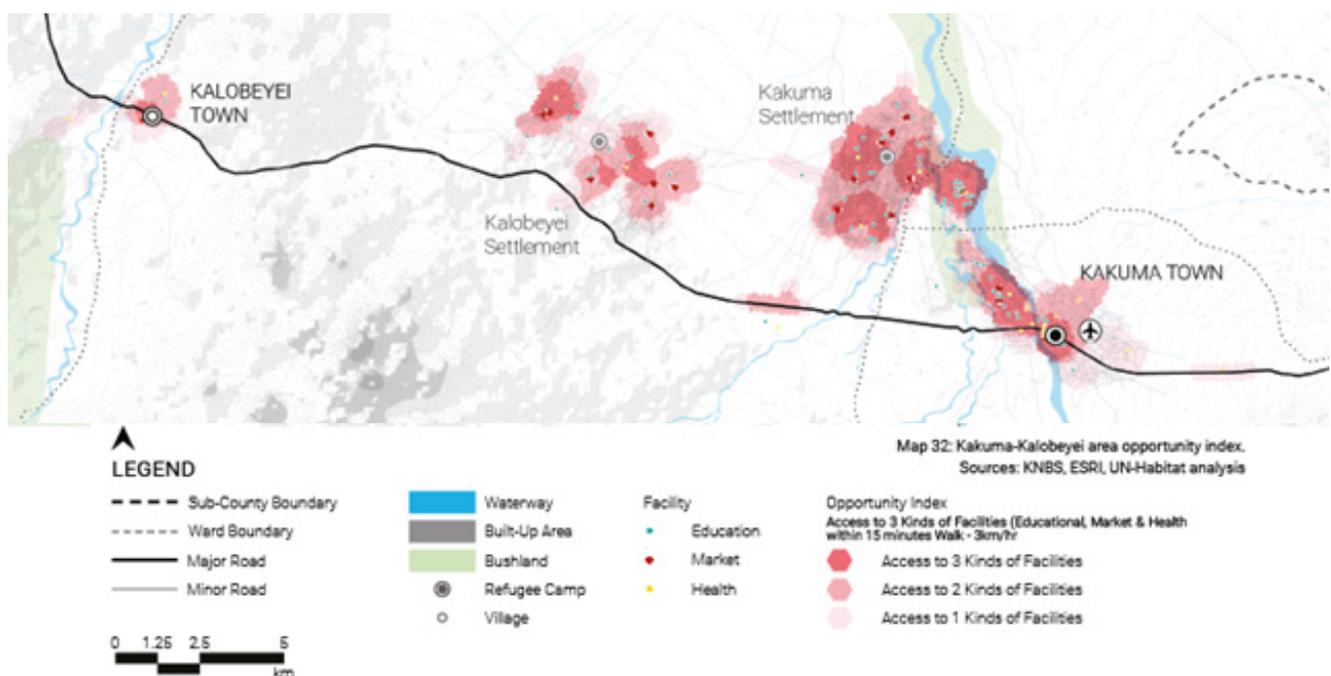


Figure 5 Analysis of Kakuma-Kalobeyei area Opportunity index

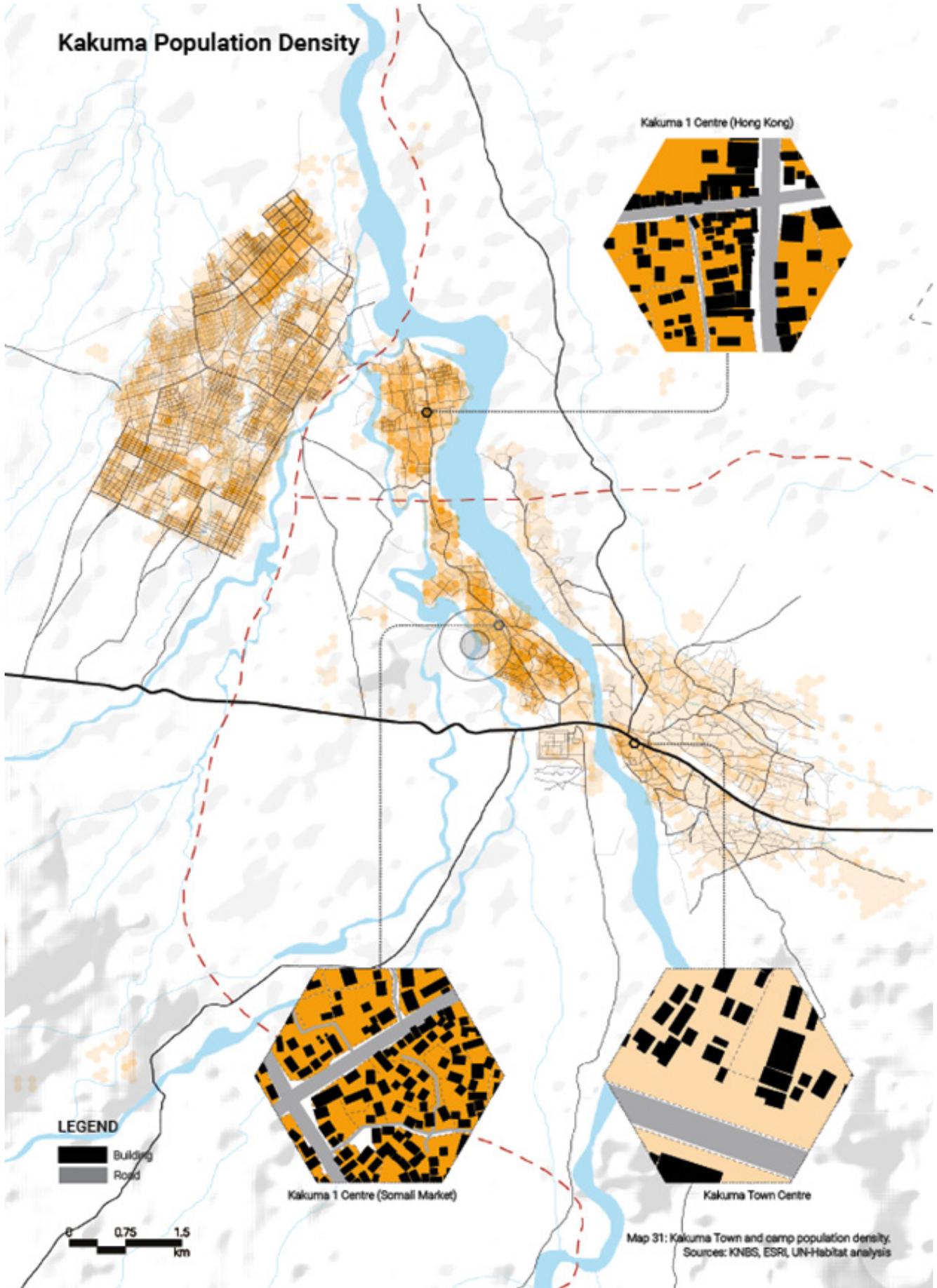


Figure 6 Analysis of Kakuma Town and Camp Population density

3.4 SWOT analysis and group discussions on existing settlements

3.4.1 SWOT

A SWOT Analysis exercise was carried out by the workshop participants. The aim of this exercise was to receive feedback from Turkana County Government officials on what they saw as the main challenges and opportunities for existing settlements in Kakuma-Kalobeyei (i.e. Kakuma Town, Kakuma Refugee Camp, Kalobeyei Town, Kalobeyei Settlement), which could be integrated into the Spatial Assessment. The outcomes of the SWOT assessment are summarized in the following figure below.

3.4.2 Next Steps and Closing Remarks

Jonathan Weaver requested information on:

- Planned infrastructure and service provision

- in Kakuma-Kalobeyei to be added to a digital database;
- Lotikipi Reserve;
- The boundary of the proposed municipality.

Jonathan Weaver also asked how the profile could be further articulated, in terms of additional data and analysis to be included for recommendations to be aligned with the needs of Turkana County.

Jonathan Weaver, Yuka Terada and David Kitenge thanked all for attending Day One of the workshop. **Yuka Terada** emphasised how the spatial planning relates to the corridor planning. **Joshua Lemuya** (Chief Officer) remarked that the workshop was very interactive with great contributions. He confirmed that the Advisory Development Plan will be approved, considered and implemented, and that there are a lot of expectations on the Advisory Development Plan. He concluded by thanking all attendees for their participation.

STRENGTHS		WEAKNESSES	
Kakuma <ul style="list-style-type: none"> • Large population, which has created a vibrant economy and market availability • Strategic geographical location along A1, LAPSET Corridor and international borders • Political goodwill from local leadership • Presence of Kakuma Refugee Camp • Sufficient land available for future development • Availability of existing plans (Kakuma, Kalobeyei and Corridor Plan) • Favourable climate of the region 		Kakuma <ul style="list-style-type: none"> • Fragile ecosystem • Prone to soil erosion • Lack of proper waste management system. Solid and liquid waste systems are not in place and the ones that are are not legally licensed • Lack of an Urban Governance Institution for proposed municipality • Lacked of skilled labor • Improper water and sanitation 	
Kalobeyei <ul style="list-style-type: none"> • Enough land for expansion of housing and infrastructure • Availability of sources of green energy (ie. solar) • Geographical location both on A1 Highway and close to South Sudan and Lokichoggio • High population density • Livestock market and business hub 		Kalobeyei <ul style="list-style-type: none"> • High transport cost to other local towns eg. Kakuma • No waste management system • Improper WATSAN facilities • Improper transport facilities leading to high transport costs • Poor land tenure system not suitable for investors 	
OPPORTUNITIES		THREATS	
Kakuma <ul style="list-style-type: none"> • Proposed municipality • Proposed Lotikipi game reserve. Kakuma and Kalobeyei could become a possible tourism hub • Availability of Lotikipi water aquifer to provide water in a large scale support agricultural activities • LAPSET corridor which will bring opportunities and boost communication • Presense of Prosopis juliflora to provide fuel • The availability of new skills from rural-urban coming looking for employment 		Kakuma <ul style="list-style-type: none"> • Presence of Prosopis juliflora having a negative impact on pastures and supressing indigenous tree • Overreliance of humanitarian actors and NGO support • Changing political dynamics with the upcoming election • Erosion of the Tarach River bank which can cause massive flooding and destroy property and life • Deforestation for charcoal production + building materials due to population growth • Rural-urban migration overpowering ability of government to provide infrastructure 	
Kalobeyei <ul style="list-style-type: none"> • Availability of low cost materials • Cultural diversity - good interaction between refugees and host community • Cross border trade opportunities with Sudan • Access to educational facilities in Kalobeyei town (eg. technical schools) 		Kalobeyei <ul style="list-style-type: none"> • Cattle rustling with pastoralists • Operlap on policy and regulatory frameworks - urban areas and cities act and refugee act • Internal migration - locals moving to Kalobeyei hence overdependence on social amenities • Concentration of resources on one area leads to inaequate distribution of resources 	

Figure 7 Kakuma-Kalobeyei SWOT Analysis summary



A workshop held for research assistants was conducted with strict adherence to COVID-19 measures.

4. Workshop Day 2 (29th September)

4.1 Opening Session

David Kitenge welcomed participants to the second day of the workshop. He noted that in the previous day's workshop there were good discussions on spatial profiling, and explained that the second day will focus on the planning of the corridor, which will present several processes including an analysis of Turkana West's local economic condition, a mapping survey and situational analysis of the planning site, and initial proposals for the planning site.

David Kitenge also welcomed new participants, which included **Odera Jeckoniah** (Physical planner for Turkana County Ministry of Lands), **Romanus Opiyo** (Consultant for UN-Habitat for Socio-Economic Survey), and **Cyrus Mbisi** (Consultant for UN-Habitat for Local-Economic Development).

4.2 Sustainable Economic Development along Turkana West Corridor through Enhanced Connectivity

A series of presentations were conducted by various representatives around the programme: Sustainable Economic Development along Turkana West Corridor through Enhanced Connectivity. This programme consists of three key components: (1) Socio-Economic conditions, (2) Local Economic Development, and (3) Spatial Planning. The objective of the programme is to enhance connectivity and networking along the Turkana West Corridor for sustainable local economic development, with increased entrepreneurship and job creation for refugees, host communities, and rural-urban migrants in the Kakuma-Kalobeyei cluster. As part of the process, various issues are looked at including population dynamics, healthcare and facilities, education and human resource, livelihood patterns, social interactions, households incomes and finances, human settlement patterns, to name a few.

David Kitenge explained that Turkana County and UN-Habitat have held several meetings with stakeholders:

- Meeting to get consent to plan the area as

the land is communally owned, and to hold meetings with the Ministry of Lands;

- Meetings with civil society meetings;
- Meetings with private sector, UN agencies, national and local government in Lodwar to discuss proposals on what can be done in the corridor.

4.2.1 Socio-Economic Survey's findings

David Kitenge mentioned that it was difficult to conduct the Socio-Economic Survey due to the COVID-19 pandemic, and desktop reviews were first conducted to deliver these initial findings. In addition, **Romanus Opiyo** noted that the findings are developed from a preliminary review, and the purpose of the presentation is to seek feedback from the participants. **Romanus Opiyo** also shared that the Socio-Economic Survey will begin in the following week (5th October 2020 onwards) and there will be further opportunity to interact with the participants directly.

A. Introduction

Turkana West is a unique Sub-County in Turkana County, that is comparable only to Garissa County in terms of integration of host and refugee communities. In addition, Romanus Opiyo noted that Turkana West employs an inclusionary approach by “host(ing) one of the most progressive initiative” which is KISED. The Socio-Economic Survey found that most studies in Turkana West focused on Kakuma-Kalobeyei with respect to the host and refugee communities, but do not analyse the Sub-County as a system. This systemic lens recognises that Turkana West “is not an island”, and it is important to understand its interactions with other parts of the county and even within Northern Rift Economic Bloc (NOREB)⁷, such as the inflow and outflow of goods and people with other parts of the county. Romanus Opiyo added that this is in line with the previous discussion on the planned Lotikipi National Reserve⁸ as the migratory patterns of wildlife will extend beyond the Sub-County’s borders – emphasising the importance of interconnectedness between Sub-Counties and Counties.

B. Objectives of the Socio-Economic Survey

The Socio-Economic Survey has three objectives:

- Mapping strategic initiatives in Turkana West and the existing potential in enhancing connectivity and networking along the Turkana West Corridor for sustainable economic development;

⁷ Northern Rift Economic Bloc, comprising of 8 counties as an economic bloc, including Baringo, Elgeyo Marakwet, Nandi, Samburu, Trans Nzoia, Turkana, Uasin Gishu and West Pokot.

⁸ From workshop day 1.

- Analysis of drivers of development of Turkana West;
- Identifying of the socio-economic status of Turkana West.

C. Methodology

The methodology of the Socio-Economic Survey is as follows:

- Inception and Desktop review;
- Development of Data collection tools;
- Coding of the Questionnaire in Open Data Kit (ODK);
- Recruitment of Data collectors (locals);
- Training of Data collectors;
- Field work;
- Data downloading and Importation;
- Generation of and Analysis of outputs;
- Preparation of Project report;
- Report validation.

D. Threats and Opportunities to Socio-Economic Development

Preliminary findings have identified a number of threats and opportunities to socio-economic development in Turkana West:

Threats

- Harsh climatic conditions have led to droughts and famines, which in turn have affected the economy and livelihoods of locals. This is especially because most community members (majority are hosts) rely on livestock for their livelihoods;
- Poor environmental management and conditions, such as large-scale tree cutting and clearing of vegetation;
- Conflict between host and refugee communities over access and use of resources, such as water and firewood, which has led to mistrust and hostile relationships;
- Socio-cultural differences, such as religion, culture, language and tribal.

Opportunities

- Land is an asset that communities can capitalise on, such as for development and grazing for pastoralists;
- If harnessed, integration of migrants and host community can provide positive opportunities, such as employment, sharing of skills and ideas;
- The LAPSET Corridor will increase access into both Turkana County and Turkana West Sub-County, improving accessibility to other parts of Kenya and neighbouring countries (e.g. Uganda);

- On the other hand, socio-cultural diversity can also enhance development, such as through the exchange of culture and language;
- Both host and refugee communities have social and economic networks of refugees and host (business networks) - for instance, migrant communities have global (business and other) networks, and the host communities have their networks which are important in supporting development;
- Milk processing plant in Kakuma (Turkana County Investment Plan) - create jobs and markets for milk production among the host community.

E. Emerging issues from the literature review

Desk reviews conducted have identified several emerging concerns in Turkana West:

- Education is a concern with the recent census noting that 68.8% of Turkana West's population has never been to school (KNBS, 2020). Romanus Opiyo explained that running of school feeding programmes are very important not only for education, but for the retention and enrolment of students in Turkana West. In addition, the school feeding programme also helps to tackle malnutrition and food insecurity in most parts of Turkana and Turkana West;
- Health is another concern, with causes of diseases associated with poor housing, high illiteracy, food insecurity, and dusty environments (Turkana County Health Strategic Plan 2018 – 2022);
- Mental health is also emerging as a health concern (The Centre of Victims of Torture), and most mental health concerns may be casually handled;
- Water is also a concern, with lack of access to adequate water infrastructure being the biggest challenge for residents (both host and refugee communities) of Turkana West;
- Food insecurity is another concern, with studies noting that there are examples of both host and refugee communities going without food;
- Human waste management is both an environmental and health concern, with open defecation still being practiced (KNBS, 2020);
- Access to credit and finances is another concern, and a lack of access becomes the main barrier to business development.

F. Conclusion

The initial findings from desk reviews for the socio-economic survey noted that:

- There is concern on the existence of inequalities

and exclusion of either host or refugee communities in access to basic services and livelihood opportunities. This is further compounded by the fact that host community feels that refugees have better access to opportunities;

- Refugee communities generally seem to have better connections and support systems beyond Turkana West;
- Food insecurity seems to be more rampant in the host communities, and for example this affects the school attendance and retention;
- Priority should be given to improving the conditions of the natural environment, such as through conservation, as it sustains other sectors and will be critical in attaining of a desirable and sustainable socio-economic condition in Turkana West.

G. Discussions

Romanus Opiyo posed a few questions to facilitate the discussion:

- What informs various collaborative development initiatives and proposals in Turkana West e.g. location of milk processing plant in Kakuma?
- What are the projected impacts, such as the local communities (host and refugees) - children, youth, women, men, elderly?

James Ereng Lokwale (Director of Trade) asked **Romanus Opiyo** (1) what are the modalities of conducting the socio-economic survey, (2) what is the plan to engage various stakeholders during the fieldwork, and (3) whether the survey has been commissioned. **Romanus Opiyo** explained that there are two levels of engagement, based on a participatory approach. First, the survey will collect quantitative data from households and businesses – based on experience from the previous 2016 Socio-Economic Studies. The team will be working with the County and other partners such as United Nations High Commissioner for Refugees (UNHCR) in accessing the households and the community, and will work with local research assistants which has already been established through UN-Habitat and partners. Second, the survey will collect qualitative data through key informants (experts) such as the National and County governments and other collaborators. In addition, the survey will also conduct focus group discussions with organised groups such as youth, women, livestock keepers and traders to understand their socio-economic conditions, such as daily lives on different aspects and where they source their goods. The survey shall also integrate observations, such as conditions of roads, and will employ the use of participatory mapping with the community and county officials, such as to identify location of facilities and planned implementations.

Joseph Egiron (Director of Urban Areas Management) gave feedback to Romanus Opiyo that the milk processing plant is not viable at the moment as there is not enough supply of milk to support this investment. On the other hand, he added that investment in value-addition for livestock is feasible. **Romanus Opiyo** responded that the suggestion for the milk processing plant is a review from Turkana County Investment Plan, and is not a proposal from the survey. This is one piece of information that the survey will look into.



Trained research assistants conduct surveys in a safe manner by adhering to measures such as physical distancing and wearing of masks.

4.2.2 Business and Local Economic Development Survey's findings

Cyrus Mbisi explained that the presentation is related to the previous presentation on the socio-economic conditions of Turkana West, and will focus on the second component: local economic development.

The surveys for businesses are meant to inform planning for local economic development in Turkana West Sub-

County, i.e. Kakuma urban renewal and the Kalobeyei Infrastructure Corridor Development Plan that envisions the establishment of an Economic Enterprise Zone (EEZ), and planning/policy interventions that aim to enhance greater integration of the local economy and human settlements in Kakuma-Kalobeyei. Specifically, the study focuses on both local and regional interventions for local economic development in Turkana West combining with socio-economic and spatial analysis (at different scales) to develop a comprehensive understanding of businesses and local industries in Turkana West.

A. Introduction

The survey is aligned to (1) KISED, which is on its second (2018 – 2022) of three phases, and (2) the LAPSET Corridor Development. In addition, KISED is integrated with Turkana County Integrated Development Plan (CIDP 2018 – 2022) and forms the basis for project programming by both county government and development partners.

B. Objectives of the Business and Local Economic Development Survey

The survey will help identify key industries to support the development of an enterprise hub. Initially, the project will identify two key investment projects, for the corridor, which are strategic in supporting promotion of businesses and local industry development in Turkana West. This will be achieved through confirmation of the following:

- Development networks;
- Two self-organised and self-funded regional level support communities;
- Three local level industries and related networks.

C. Methodology

The survey will map stakeholders during baseline surveys, identify and activate candidate industries through multi-stakeholder forums.

D. Literature review

Opportunities

The North-Western Corridor, which Kakuma-Kalobeyei lies on, is essential for development of the network for the following reasons:

- The corridor links Nairobi to Lokichoggio and South Sudan;
- The corridor can be developed to link Turkana West with other markets within Turkana County and NOREB region;
- The corridor links with LAPSET, Eastern Africa's largest and most ambitious infrastructure project linking Kenya, Ethiopia, and South

Sudan. Through these countries, the corridor is able to further link with other regions in Africa and to other networks;

- The corridor links with North-East Corridor (NEC) through Eldoret, Kitale, Lodwar and Nadapal/Lokichoggio (an important border town which is not fully developed).

International Finance Corporation (IFC) (2018) identified three private sector actors with potential to develop based on opportunities available in the towns and camps in Kakuma:

- Commercial firms (banks, micro-finance institutions, telecommunication companies, and small and medium enterprises) from other sectors (stone, livestock, agriculture, fishing, retail and wholesale, tourism);
- Social enterprises (companies that look to attain and maximise financial, social, and environmental impacts);
- Local entrepreneurship from both the refugee and host communities.

There are also potential value chains⁹ for development:

- Agricultural: Kales (Sukuma Wiki), cabbages, and tomatoes;
- Non-Food Items: Sugar, maize flour, rice, and clothing.

Emerging constraints/barriers to development of businesses and local industries

However, there are also several emerging constraints and barriers that the government and development partners can recognise and tackle through policies and investments to establish these critical enablers to local economic development:

- There is an infrastructure deficit which increases the cost of doing business, such as gaps in road connectivity, market integration, energy access, water access, poor and inadequate market facilities;
- The socio-economic condition of the population can also present constraints and barriers, such as poverty, low levels of literacy, poor health, low savings, conflicts between host and refugee communities, restriction of movement among the refugee communities;
- There is also inadequate capacity amongst private sector actors, such as low financial literacy, weak access to capital and credit

9 The survey will track the household consumption, demands and purchase; and following up with the chains such as where are the products being purchased from, from which markets, and where possible the sources of these products. From this, gaps will be identified in terms of infrastructure, capacity of operators, government's role - and further identify the entry points/intervention areas to address these gaps through policies or other recommendations.

(compounded by a gender bias), weak business administration capacity, and a high level of informality;

- Insecurity;
- Marginalisation;
- Regulatory barriers;
- Land tenure system;
- Livestock diseases;
- Inadequate public investment in urban development/management;
- Low Own-Source Revenue (OSR) Base;
- Proliferation of counterfeit goods/contrabands
- Natural resource management and emerging risks, such as resource degradation, flooding & drought, pandemics that are impacting/ disrupting economic production and supply chains.

E. Discussions

Cyrus Mbisi posed a few questions to facilitate discussion:

- What sectors hold potential for development of businesses and industries in Turkana West?
- For the identified sectors above, what are the barriers/constraints to their development in Turkana West?
- How has your sector/Turkana County Government supported development of the identified sectors?
- In the current financial year (FY 2020/2021), what are the specific programmes/ budget allocation to support development of the identified sectors in Turkana West?
- What are Turkana County Government's plans for the development of the identified sectors?
- List the stakeholders for the development of the identified sectors and their specific roles?

James Ereng Lokwale (Director of Trade) reflected that most of the feedback the County has received from the business community in Turkana West is that there are inequalities in business opportunities between refugee camps and local communities. **Cyrus Mbisi** explained that the team would like to engage the private sector and Turkana County Government to receive recommendations, such as insights into the issues mentioned by the James Ereng Lokwale (Director of Trade).

Nadio Etabo Clement (Director of Environment) explained that for potential value chains, *Prosopis Juliflora* management is a good opportunity in Turkana West as there is a flagship project under the Turkana County Government to sustainably manage *Prosopis Juliflora* in Turkana County. Turkana County is also aspiring to expand this through value addition so that it can be of

commercial value – and provide livelihood opportunities for the community to benefit from *Prosopis Juliflora* as a resource, through the production of various products like in Baringo County. Example of products include commercial charcoal production, production of timber (which is already happening in Turkana west in small scales). However, **Nadio Etabo Clement** (Director of Environment) noted that one of the barriers experienced by Turkana County for *Prosopis Juliflora* management and value addition is technology and capacity. Turkana County is allocating resources towards training of the community and procurement of charcoal kits, but there is still need for more effort including on the technology front and to encourage people to venture into this business. **The Director** added that another barrier is that this business will require a lot of manual labour. He also noted that there are other resources in Turkana County, for example aloe vera. In addition, people are already harvesting aloe vera, though illegally and in small scales which shows that these are opportunities that can be expanded.

Nadio Etabo Clement (Director of Environment) also shared that Turkana West is a potential area for tourism and can support various groups – including tour guides and transport to Lokitipi national reserve. This will similarly help to boost the socio-economic status of the locals, including Kakuma and Kalobeyei, in the next few years once the national reserve is gazetted. However, **the Director** continued to explain that people are killing wildlife in Lokichoggio and Songkot. Turkana County has allocated resources on the proposed national reserve in Turkana West and require support from stakeholders, including Kenya Forestry service and Kenya Wildlife service.

Lastly, **Nadio Etabo Clement** (Director of Environment) explained that Turkana County is engaging NOREB and on matters of environment and climate, and have already developed a concept note for the Green Climate Fund.

Cyrus Mbisi responded that the team noted the comments and will be seeking more information from key informants including the Turkana County Government. He also added that the team will further explore *Prosopis* and notes that tourism resources will become evident as the team collects more information and engage in group discussions. **Cyrus Mbisi** stressed that the team will also work with different partners and stakeholders to identify the different issues and barriers.

4.2.3 Kalobeyei Infrastructure Corridor Development Plan

A. Introduction

Wilson Kironyo explained that UN-Habitat has started planning activities last year, with consultative meetings to agree on the type of advisory plan for the planning site. The consultative meetings also covered the timeline and the objectives of the advisory planning. He also shared that the meetings concluded with an agreement on the advisory plan, which will be used to create complementary land uses in the area around Kalobeyei Settlement to promote integration and sustainability in the area and competitive local economy that can attract investors (public or private). The presentation will focus on the third component: human settlements and spatial development analysis.

B. Scope of Advisory Plan

The preparation of the Advisory Local Physical Development Plan in Kenya is a statutory mandate for the Director of Physical Planning as outlined in Part V of the Physical and Land Use Planning Act, No. 13 of 2019. In addition, according to the constitution of Kenya, the fourth schedule assigns the functions of county planning to the County Government – the plans are prepared with respect to private, public and community lands.

The plan lies in the corridor adjacent to Kalobeyei Settlement in Turkana County (see AAA). This puts the planning site in close proximity with (1) the upcoming planned LAPSET Corridor, (2) Kalobeyei Settlement and Kakuma Refugee Camps, and (3) Kalobeyei Town and Kakuma Town.



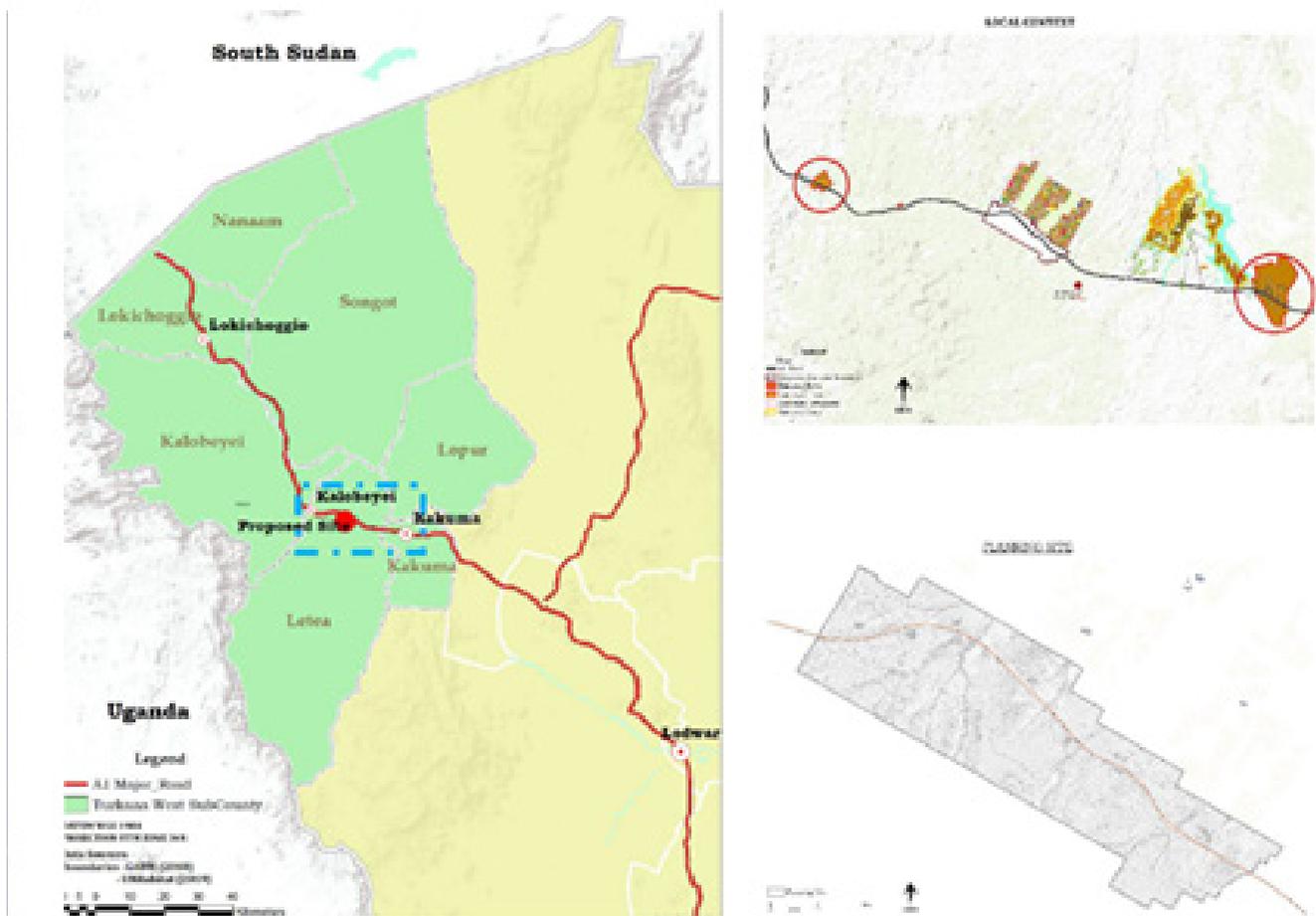


Figure 8 Mapping of the planning site at different scales

C. Objectives

UN-Habitat will be working with Turkana County Government to prepare an Advisory Physical Development Plan for the proposed site within the provision of a planning horizon of 15 years. This will provide a spatial framework to guide and promote environmental conservation for sustainable development of the planning site and its immediate surrounding area.

D. Methodology

A methodology has been developed for the planning process (summarised below), split into four main phases:

- UN-Habitat in conjunction with the Ministry of Land and Physical Planning initiated and completed the Inception phase of the project, the inception report was developed based on initial consultations with national and county officials, UN agencies, private sector, local leaders, SDGs group, and local communities;
- Following the completion of the inception report, UN-Habitat and the Ministry of Land embarked on the Assessment of Existing Conditions, Contexts and Site Surveys phase.

The site topographical survey was mainly conducted by the Ministry with support from UN-Habitat, while the assessment of the existing condition were done primarily through desk reviews;

- The findings from the assessment phase will be used to inform the next phase, Plan Formulation, Feasibility Studies and Policy Recommendation;
- The last Plan Finalisation and Way Forward phase will seek to finalise the plan, allowing the County Government to begin implementation.

	Stakeholders/Community Workshop/meeting	Location and Date
1	A series of consultation meetings with County Officials (Directorate of Land, Physical Planning, Urban Area Management and Survey) Turkana County as well as the Chief Officer Ministry of Lands	Lodwar June to August 2019
2	Local leaders and County Officials Inception meeting- Discussions on Planning needs, processes and Community participation	Kakuma 25th September 2019
3	Community engagement workshop with the Local leaders and County Officials - Introducing the project to the Community	Kalobeyei 6th December 2019
4	Topographical survey	7 th - 13 th December 2019
5	Community and SDGs participatory planning process Meeting	Kalobeyei 1 st February 2010
6	Kalobeyei Infrastructural corridor planning Private sector workshop (IFC, UDD, LAPSSET, UNHCR, GIZ, RAS, UNHabitat, FAO, WFP)	Lodwar 2 nd -3 rd March 2020
7	Kalobeyei Infrastructural corridor technical meeting between UN-Habitat and Turkana County Government; the Ministry of Lands, Housing, Energy and Urban Management	Webinar 13 th May 2020
8	Kalobeyei Infrastructural corridor technical meeting between UN-Habitat and LAPSSET Authority	Webinar 18 th May 2020
9	Private sector stakeholders meeting workshop	Webinar 28 th May 2020

Figure 9 List of activities carried out to date

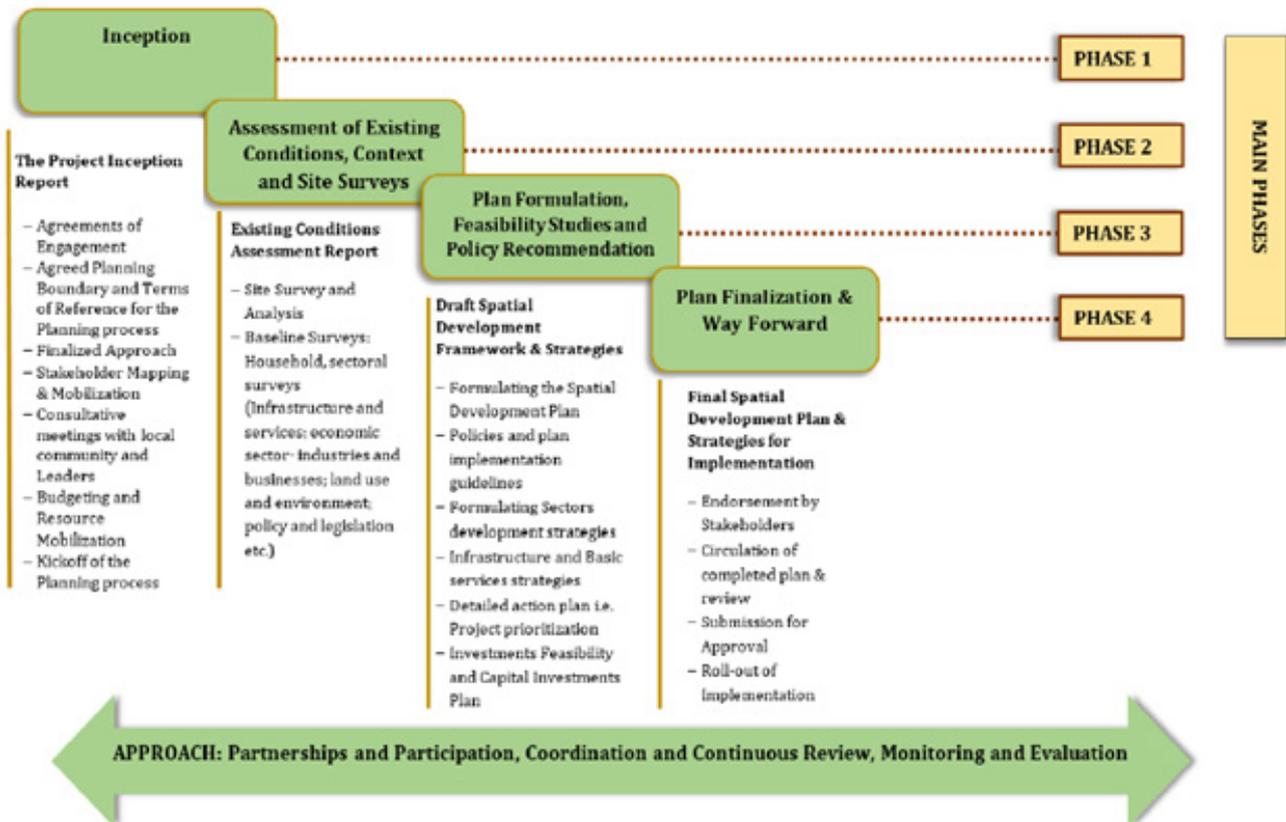


Figure 10 Kalobeyei Infrastructure Corridor Development Planning Process

E. Topography Survey

A topography survey has been conducted by Turkana County's Ministry of Lands, Housing, Energy and Urban Areas Management with the support of UN-Habitat from 7th - 13th December 2019. The objective of the survey was to provide an up-to-date topographical map of the area, to be used for planning purposes. In the survey, the team conducted the following:

- Establishment of Ground Control Points (GCP);
- Assessment of the existing salient features (natural and manmade) such as laggas;
- Picking ground positions and levels of spot heights.

The survey team used the following survey equipment: 4 RTK DGPS enhanced, comprising of GNSS receiver (1 base and 3 rovers) and 1 GPS. The team intended to produce the following as the outputs:

- A topographical survey map;
- Log files of all spot heights in excel formats, GCP/Benchmark.

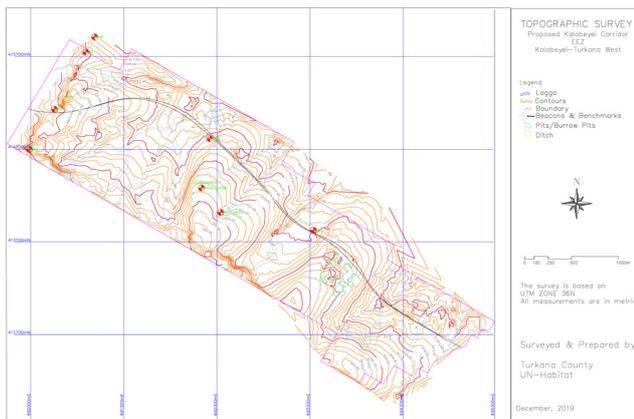


Figure 11 Topographical Survey Map

Through the survey, a number of characteristics of the site were identified:

- There are borrow pits within the planning site that are being used by a road construction company to excavate soils for road construction;
- There is an existing small dam to the North-West of the planning site that is likely to pose development challenges as well as providing an opportunity for enhanced environmental conservation;
- There are several laggas on the planning site, and the areas along the laggas are expansive and poses several environment issues such as prone to erosion and floodings. This hinders optimal utilisation of the land for physical and social infrastructural development in the long-term;
- The planning site is relatively flat and its

elevation ranges from 608 – 630m, which provides for ease of planning and development.

F. Situational Analysis

The situational analysis was conducted through desk reviews of open source data, and research carried out in Kakuma and Kalobeyei by various international organisations such as IFC, University of Oxford, World Bank Group and Regional Development and Protection Programs, UN agencies and partners reports such as UN-Habitat Socio-Economic survey, UNHCR periodic operation and study reports, WHO insights, GIZ studies, Turkana County Reports such as CIDP II, County Annual Development Plan among other relevant reports.

Natural Conditions: Topography

Observations
<ul style="list-style-type: none"> • The observations from analysis of open source data complements the findings from the observations of the topography survey; • The site is relatively flat; • The site elevation ranges from 621 – 646m; • The average slope of the area is 1 - 4%.
Opportunities and Constraints
<ul style="list-style-type: none"> • The area is susceptible to floods and occasional erosions along the steep river gully; • The site is relatively flat, and therefore has the potential for optimal development with utilities and infrastructure services with minimal development cost.

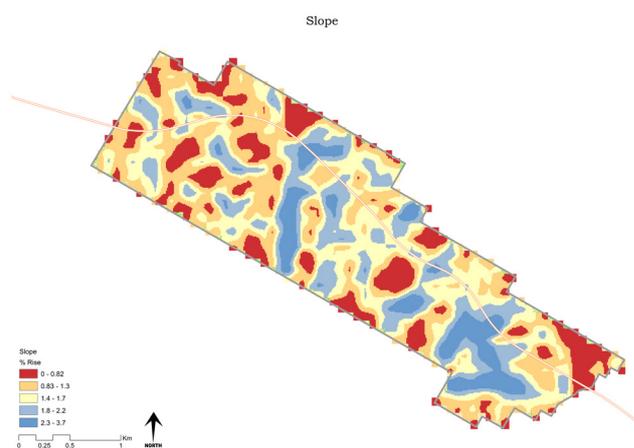


Figure 12 Mapping of Slopes in planning site

Disaster: Hydrology and Flood Risk

Observations
<ul style="list-style-type: none"> There are several dry streams (Elelea, Esikiriait, and Kangura) with their sources from the west, near Uganda. These streams will guide management of water resources and planning and development of public services and utilities such as storm water drainages and agricultural land.
Opportunities and Constraints
<ul style="list-style-type: none"> There are chances of flooding during the long rains; Water levels can suddenly rise due to the relative gentle and flat terrain; There is potential for tapping water (shallow wells).

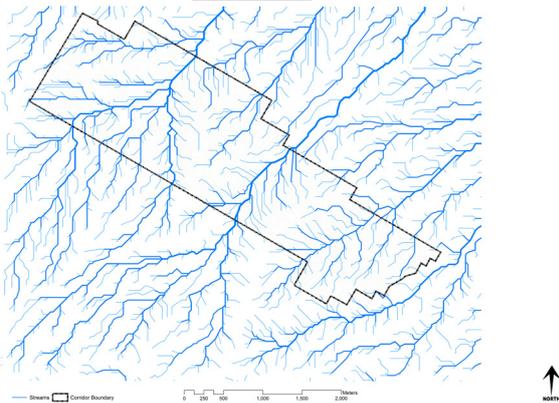


Figure 13 Mapping of Hydrology in planning site

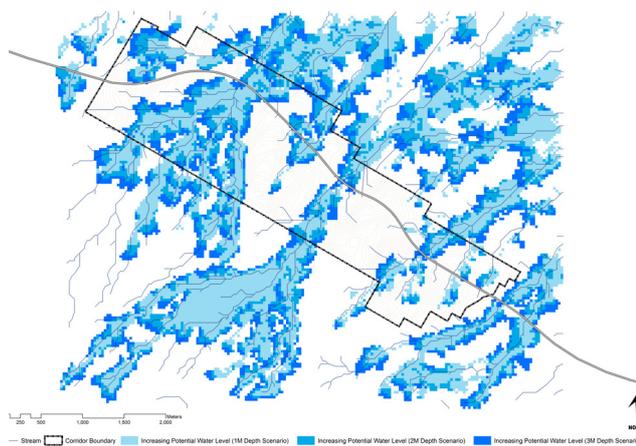


Figure 14 Mapping of Flood Risk in planning site

Soil and Vegetation

Observations
<ul style="list-style-type: none"> Agro-climate Zones VI (bushland and scrubland). Vegetation includes Acacia Tortilis "Ewoi" and Reficiens "Eregai", Prosopis Juliflora "Mathenges", Salvadora Persica "Esokon", Cordia Sinensis "Adome"; The area is dotted with loose sands and rock outcrops, and riverine vegetation provides the area with rich biodiversity; This zone has low potential for crop growth and average annual potential evaporation between 1900 – 2400mm; The soil types in the area are type F8 (North-West of the planning site) and type Y5. The soil PH is between 8.0 - 9.5 and clay content is between 15 - 35%.
Opportunities and Constraints
<ul style="list-style-type: none"> There are bare areas, which generally corresponds to the high transit frequency of humans and livestock in the area; There is a need for resource management strategies, such as conservation of the existing riverline vegetation and Prosopis Juliflora.

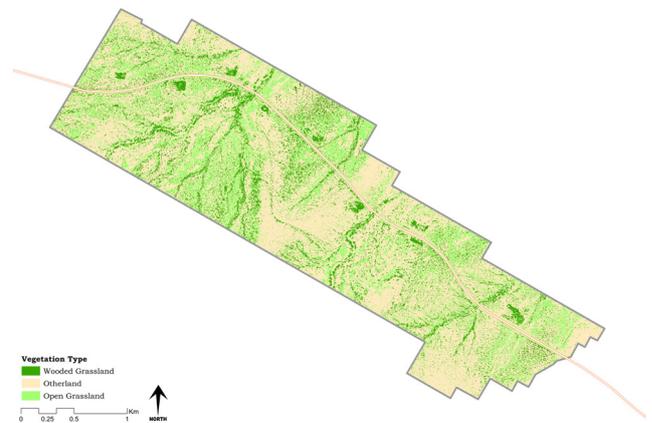


Figure 15 Mapping of Vegetation in planning site

Site Suitability Analysis

A Weighted Overlay Analysis is conducted to identify areas conducive for development and areas that are not - this is important to ensure the site is utilised optimally and sustainably. Areas that show high potential for development are represented in green while the risk areas are shown in red.

However, it is important to note that there are existing human settlements that are not located in areas that are conventionally recognised as suitable. For example, along the laggas there are some existing human settlements which could have settled there for the trees which provide shade in the harsh environment.

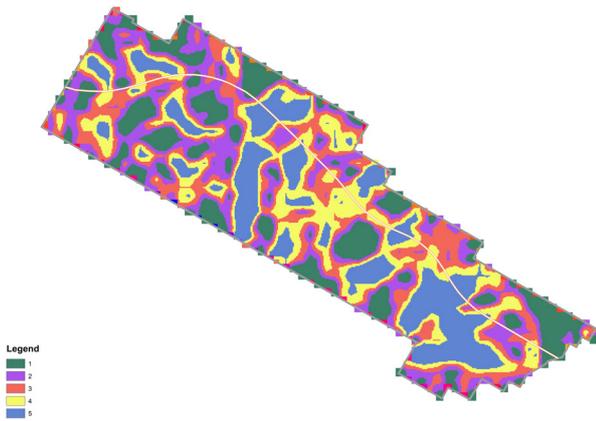


Figure 16 Weighted Analysis of Slopes in planning site

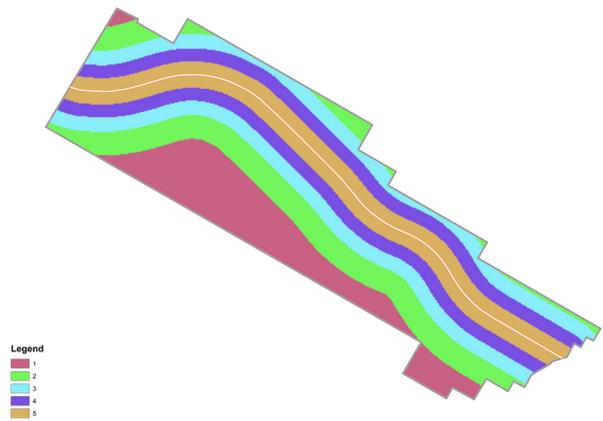


Figure 18 Weighted Analysis of Euclidean Road Distance in planning site

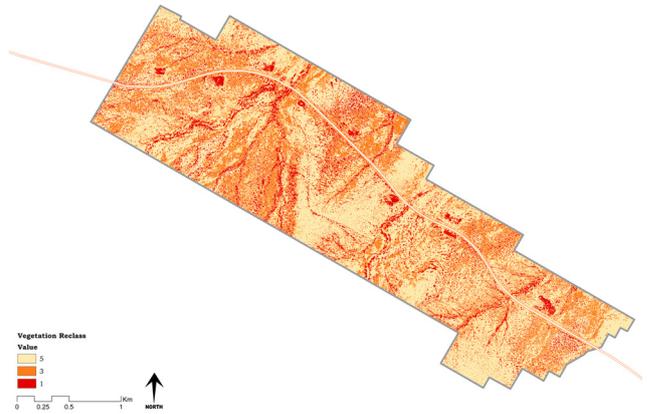


Figure 19 Weighted Analysis of Vegetation in planning site

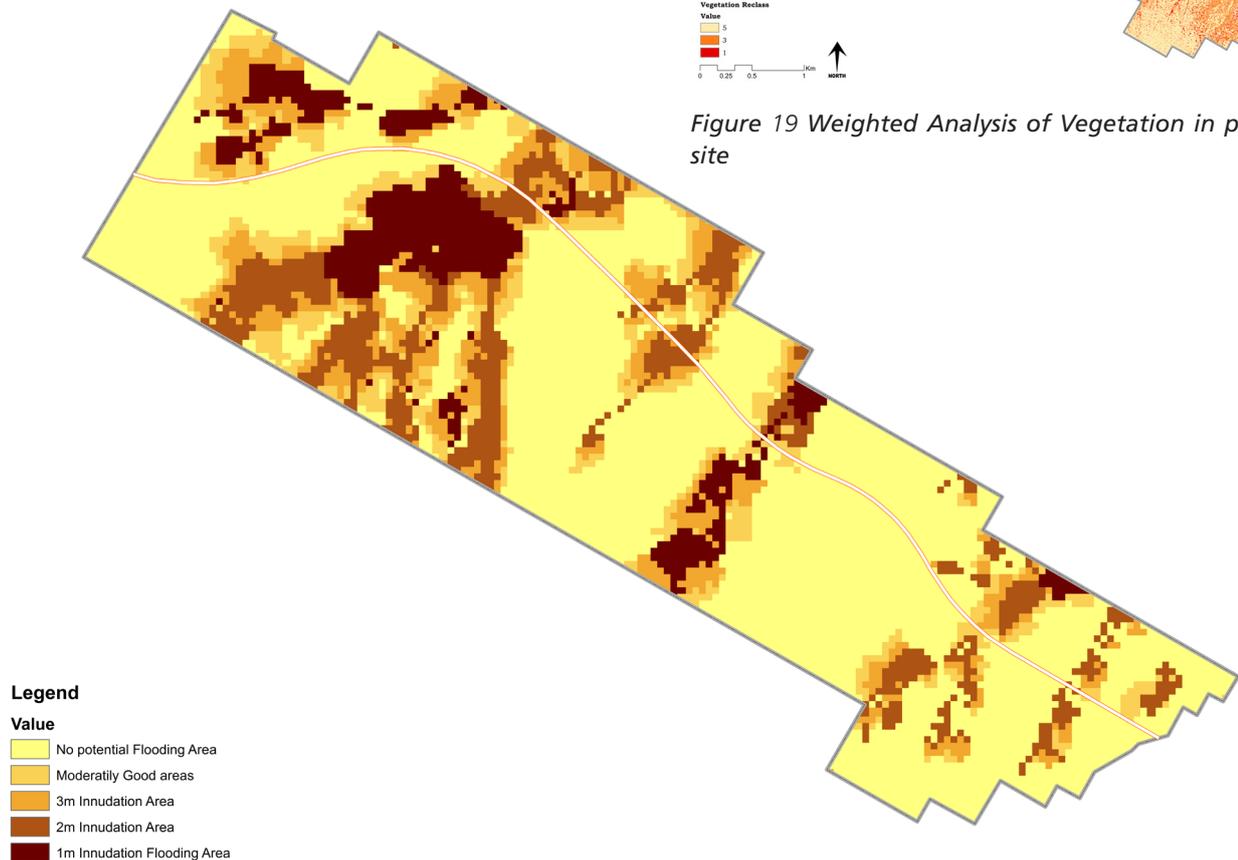


Figure 17 Weighted Analysis of Flood Risk in planning site

Land, Shelter Distribution, Homestead and Pastoral Enclosures

Observations
<ul style="list-style-type: none"> • There is no established order on land allocation within the site; • The land is communally owned, and land administration handled by Turkana County; • Irregular shaped fenced areas defined as homestead and pastoral enclosures made of live vegetation and dry “Mathenges” twigs; • Housing typology within the site: <ul style="list-style-type: none"> • Grass huts made of twigs; • Permanent houses constructed of quarry stones, provided by UNHCR; • Semi-permanent shelters which are constructed of iron sheets; • There are 204 shelters within the site; • 74% of these shelters are traditional huts, while 25% are permanent shelters, and 1% are semi-permanent shelters; • There are 4 villages: Esikiriait, Kangura, Elelea, and Eyanae Engidapal.

Opportunities and Constraints
<ul style="list-style-type: none"> • There are 140 schools in Turkana West out of the total of 640 in Turkana County (including universities, adult education, and youth polytechnic). Of the 140 schools in Turkana West, 124 are Early Childhood Development Centres (ECDCs), primary and secondary schools; • 40% of the total population attending primary vis a vis 19.7% in secondary schools, 3.5% in vocational schools, and 1.1% in higher education levels; • Tertiary education in Kakuma in the recent past has gradually evolved and a considerable number of students are enrolling. UNHCR research indicates that 3% of interviewed host respondent households and 17% of displaced respondent households had a household member that enrolled in vocational training. For example, Don Bosco has 2,222 students of which 697 are females and 1,525 are males. In Masinde Muliro University (MUST), 460 students are enrolled in the university’s certification, diploma, and degree programmes. More than half of them are refugees, and the rest are Kenyans. So far, 1,503 refugees have accessed higher education.

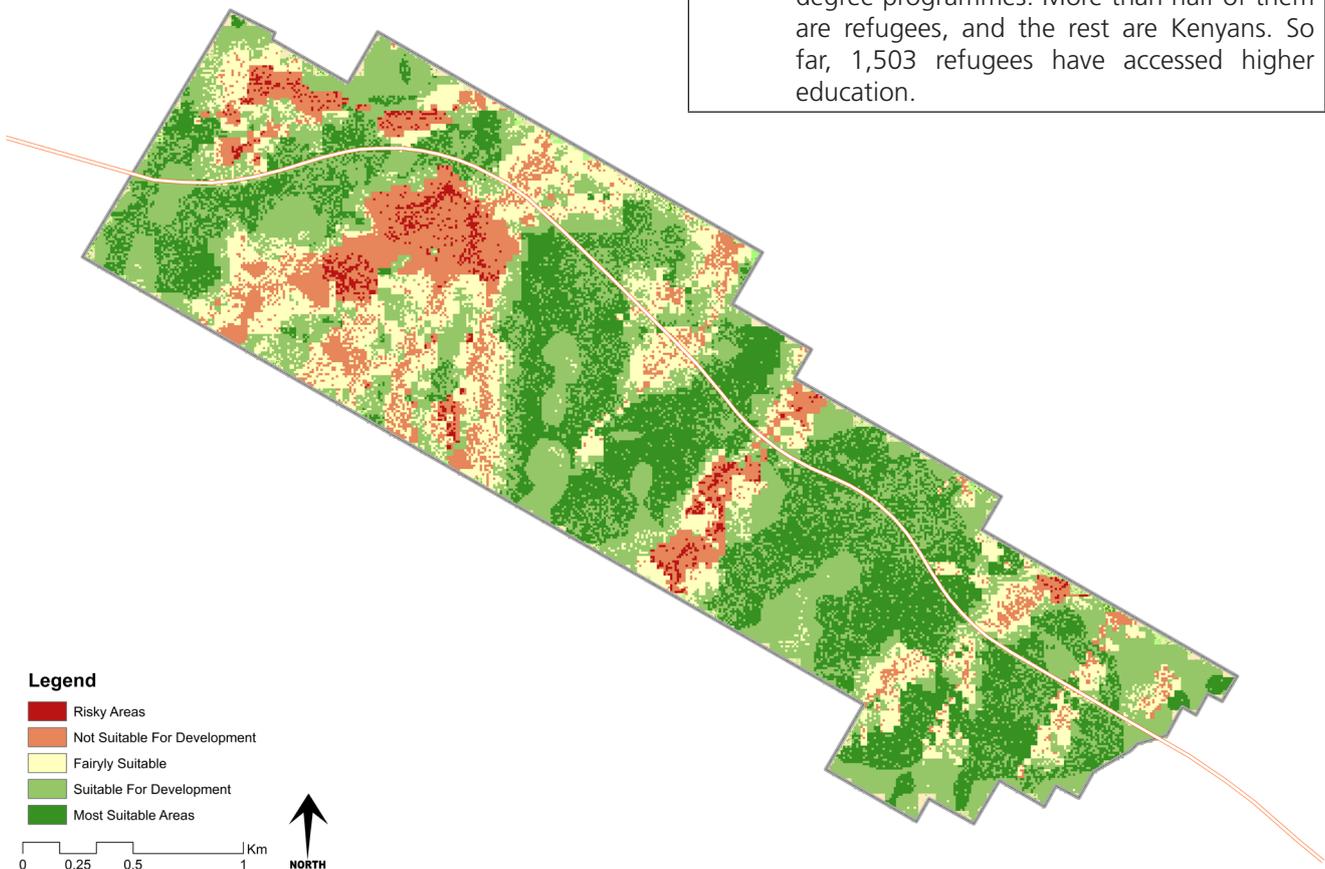


Figure 210 Weighted Analysis of Suitability in planning site¹

¹ Criteria scale used: 1 to 5 with the most suitable areas rated as 5, the areas with potential flooding was weighted 60% to influence development in the planning site, while vegetation, slope and distance to the existing A1 road were weighted 20%, 15% and 5% respectively. vegetation, the open lands are suitable for development while most wooded grassland occurs along the laggas thus rating of 5 and 1

Social Infrastructure: Public Facilities (Education)

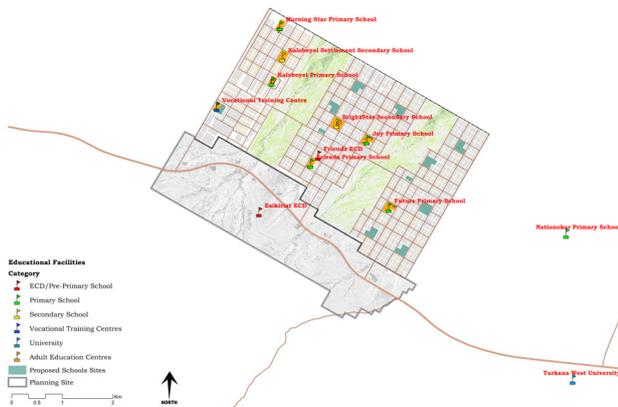


Figure 21 Mapping of Educational Facilities in Kalobeyei Settlement

Social Infrastructure: Public Facilities (Health)

- Observations
- There are 56 health facilities in Turkana West out of a total of 182 in Turkana County;
 - There are six health facilities in Kakuma camp and two health facilities in Kalobeyei Settlement, accessible to both host and refugee communities;
 - Most of the refugees (58%) in Kakuma Camp seek medical assistance from the camp facilities, and in contrast only 20% of the refugees visit Kakuma Mission Hospital in Kakuma Town;
 - Walking is the common means of access to health facilities with 92.9% of respondents walking to the facilities as compared to 5.7% who uses motorbikes.

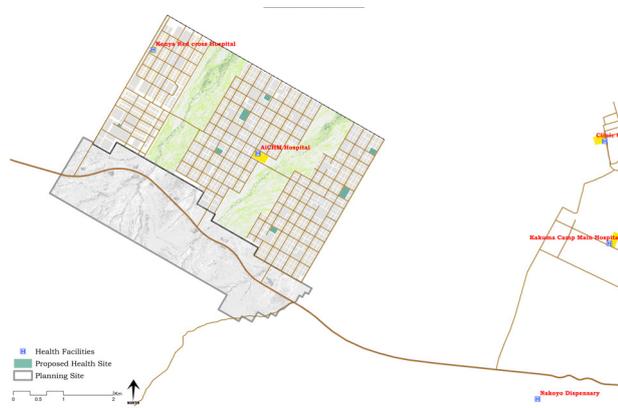


Figure 22 Mapping of Health Facilities in Kalobeyei Settlement

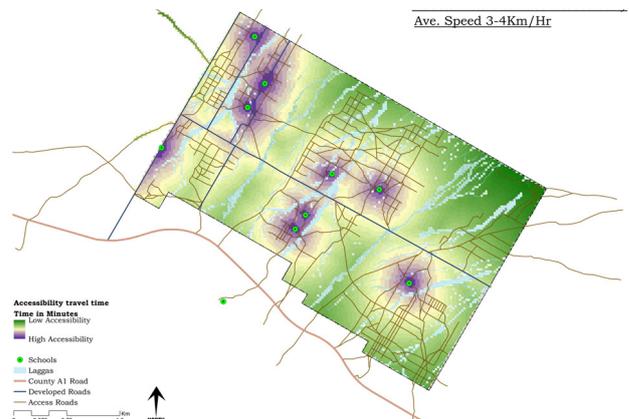


Figure 23 Accessibility Analysis of Educational Facilities in Kalobeyei Settlement

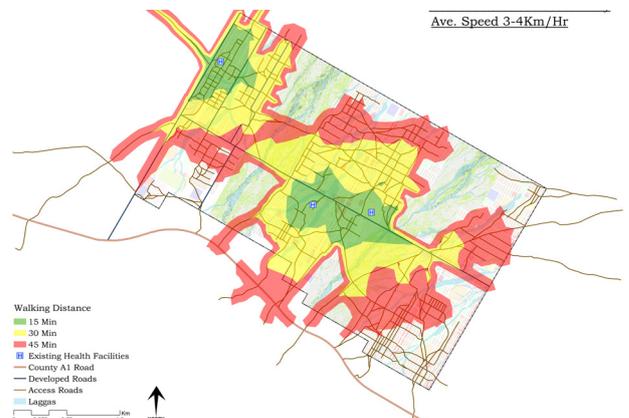


Figure 24 Accessibility Analysis of Health Facilities in Kalobeyei Settlement

Social Infrastructure: Public Facilities (Other Public Facilities)

- Observations
- Public facilities in Kalobeyei Settlement include social and community halls, religious centres, public spaces, police stations, cemeteries and playgrounds among others;
 - There are three police posts in Kalobeyei Settlement, two police stations in Kakuma Town and one in Kalobeyei Town, with 6 police posts in Kakuma Camp. In Kalobeyei Settlement, there is only one functional cemetery in Village 1;
 - Playgrounds are accessible to both host and refugees. Majority of the open ground are in the existing primary and secondary schools;
 - Three child-friendly facilities were constructed in Villages 1, 2, and 3;
 - One modern sport complex being constructed in Village 1. Green spaces are fairly distributed within the settlement, with two community friendly public spaces in Villages 1 and 2.

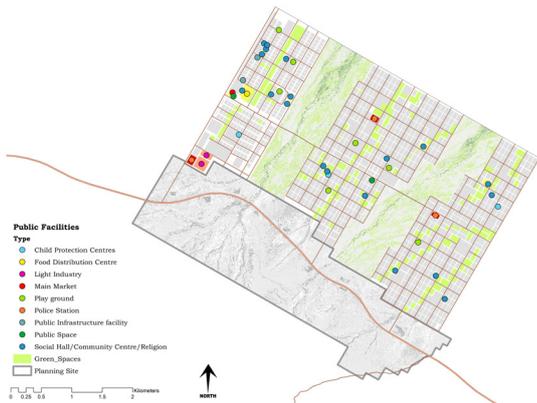


Figure 25 Mapping of Public Facilities in Kalobeyei Settlement

Physical Infrastructure: Public Facilities (Energy)

Observations

- Charcoal and firewood are main sources of cooking energy, with alternatives such as briquette and energy saving jikos;
- In Kalobeyei Settlement, the major sources of light are 33% battery powered lamp, 31% solar lanterns, and 12% from fire. The host community relies on tin lamp, solar lamp, and fire from burning of wood;
- 12% of the population living in Turkana County have access to electricity or generators. There is no national electricity grid serving the area. Kakuma town is connected to two 500kVA diesel-powered generators mini-grid (REA);
- In Kalobeyei Settlement, 342 households, 127 businesses and 12 institutions are connected to a 60 kWp PV Solar mini-grid;
- In Kalobeyei Town 98 households, 28 businesses and 6 Institutions are connected to a 20kWp mini-grid. Second phase plan of 170kWp mini-grid is underway;
- 1000 streets lights are installed in Kakuma and Kalobeyei and at least 30 diesel mini-grid generator operators in Kakuma.

Physical Infrastructure: Public Facilities (Water)

Observations

- Charcoal and firewood are main sources of cooking energy, with alternatives such as briquette and energy saving jikos;
- In Kalobeyei Settlement, the major sources of light are 33% battery powered lamp, 31% solar lanterns, and 12% from fire. The host community relies on tin lamp, solar lamp, and fire from burning of wood;
- 12% of the population living in Turkana County have access to electricity or generators. There is no national electricity grid serving the area. Kakuma town is connected to two 500kVA diesel-powered generators mini-grid (REA);
- In Kalobeyei Settlement, 342 households, 127 businesses and 12 institutions are connected to a 60 kWp PV Solar mini-grid;
- In Kalobeyei Town 98 households, 28 businesses and 6 Institutions are connected to a 20kWp mini-grid. Second phase plan of 170kWp mini-grid is underway;
- 1000 streets lights are installed in Kakuma and Kalobeyei and at least 30 diesel mini-grid generator operators in Kakuma.



Figure 27 Mapping of Water Facilities in Kalobeyei Settlement

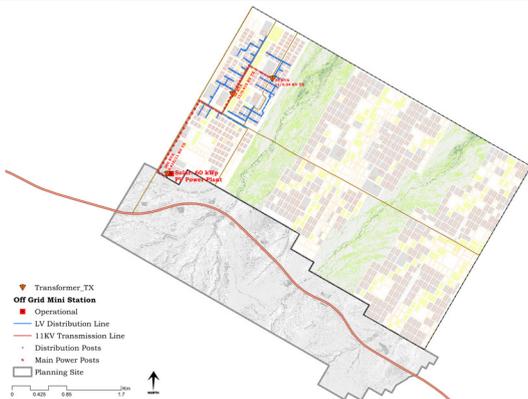


Figure 26 Mapping of Electricity Power Distribution Line Network in Kalobeyei Settlement

Physical Infrastructure: Public Facilities (Sanitation and Waste Management)

Observations

- Pit latrines are used by over 90% of the households in Kalobeyei Settlement;
- Open defecation is still a popular disposal method for host community in Kalobeyei Town. In Kakuma Town, it is practiced by 15.3% of the total population;
- There are 600 communal pit latrines in Kalobeyei Settlement, 1,171 Household latrines and 26 institutional latrines blocks;

Observations
<ul style="list-style-type: none"> 62% of the population living in Kalobeyei Settlement have access to improved sanitation, while only 32 % of host communities have access; There are 10,419 latrines in Kakuma Refugee Camp; In the refugee settlements, waste and garbage disposal is mostly managed by Norwegian Refugee Council (NRC). In the surrounding towns, Turkana County Government manages the waste; Garbage pits, burning, and public garbage heap are the common modes of disposal; There is a designated waste management site managed by the County Government and a new proposed site for waste management, around 2 - 3km away from the planning site.

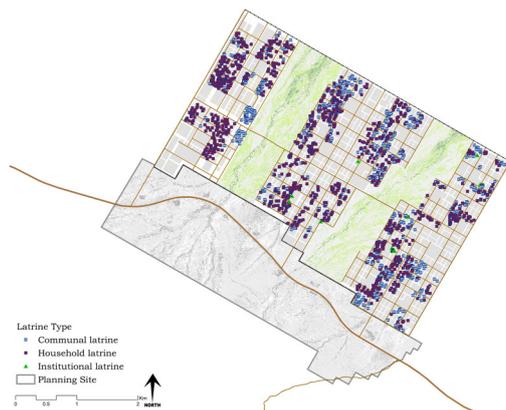


Figure 28 Mapping of Sanitation Facilities in Kalobeyei Settlement

Physical Infrastructure: Transportation

Road network observations
<ul style="list-style-type: none"> The planning site is linked to the nearby Kalobeyei and Kakuma Towns by Lodwar-Lokichoggio road. The A1 road, also known as LAPSSSET Corridor, connects Kenya to South Sudan and Ethiopia.
Public transport system observations
<ul style="list-style-type: none"> There are no designated matatu terminus in the area, however there exists a few informal, unplanned terminals which serves the matatu arriving to and from town. The terminals are located along the A1 Corridor, but are not well defined and not systematically located by direction or destination; Outside the town, there are also no lay-bys for matatus. Matatu will often stop arbitrarily on the roadside to pick or drop passengers.

Mode of transport observation
<ul style="list-style-type: none"> The major modes of transport are Matatus, Toyota Probox cars, and Boda-bodas. Matatus and Toyota Probox cars operate between Kakuma Town and Lodwar Town, as well as Lokichoggio Town. Boda-bodas mostly operate locally; The Kakuma-Kalobeyei area is served by one airstrip located in Kakuma Town approximately 20 km away from the site, but there is one proposed airstrip located near the planning site.

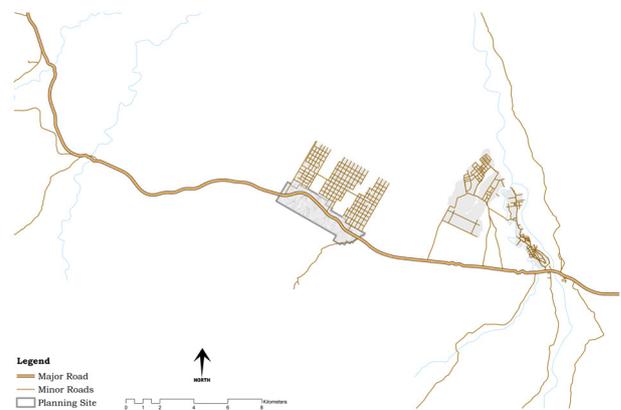


Figure 29 Mapping of Road Network in Kalobeyei Settlement

Physical Infrastructure: Housing

Observations
<ul style="list-style-type: none"> 18% of refugee households living in Kalobeyei Settlement have access to improved housing, compared to only 12% in Turkana County; 5,357 shelters in Kalobeyei Settlement have been converted to permanent shelters while the rest are constructed of tarpaulin, mud and bricks; Within the host community, as of 2015, 69.7% of the houses were constructed of mud and wood, 10.9% out of mud and cement, and 2.5% out of bricks; In Kakuma Refugee Camp, there are around 41,721 temporary shelters made from mud bricks; 99% of the shelters in Kalobeyei Settlement are iron roofed and in contrast only 27% of the shelters in the host community have iron roofs. Other options include makuti, grass carton, sisal, and twigs; The average person per room in Kalobeyei Settlement is 4.5 to 5 persons, as compared to 4.2 persons in the host population abodes.

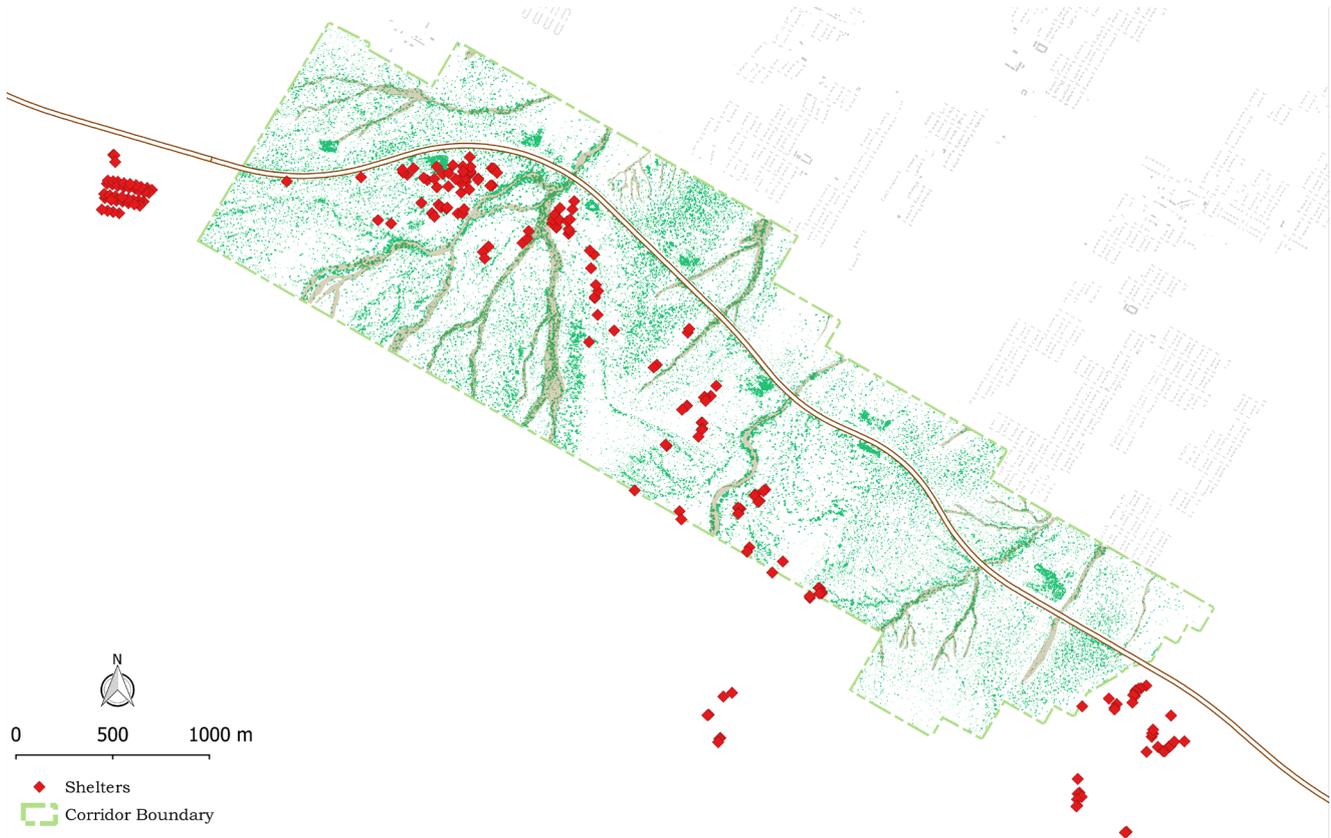


Figure 30 Mapping of Shelter Distribution in Kalobeyei Settlement

Physical Infrastructure: Human Settlements

Observations
<ul style="list-style-type: none"> • The spatial structure is influenced by the existence of the refugee population, its economy, and the A1 Corridor; • Spatial structures, which emphasizes on spatial configuration, largely evolved as a result of current functional roles of the areas; • Kakuma Town has developed linearly along the A1 Corridor and mainly serve as a service and market town. Kalobeyei Town is a cluster town which mainly serves the local people. Kakuma Refugee Camp is significantly congested and has developed organically while Kalobeyei Settlement is a planned neighbourhood.

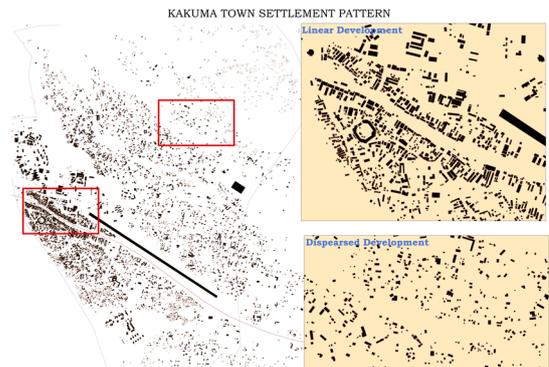


Figure 31 Settlement Pattern Analysis of Kakuma Town

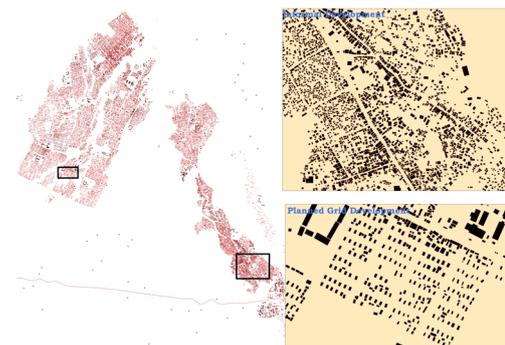


Figure 32 Settlement Pattern Analysis of Kakuma Camp



Figure 33 Settlement Pattern Analysis of Kalobeyei Settlement

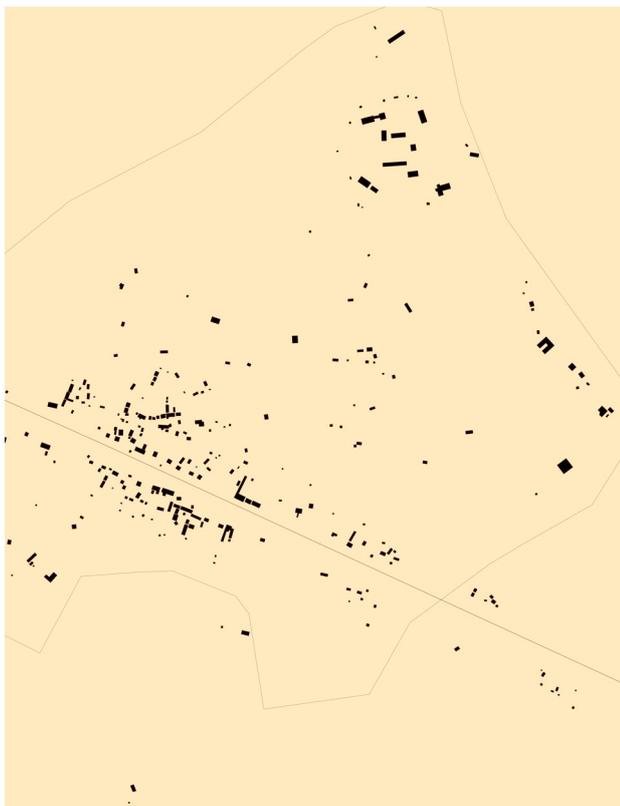


Figure 34 Settlement Pattern Analysis of Kalobeyei Town

Economic Activities: Markets

Observations
<ul style="list-style-type: none"> • There are five formal markets and several informal markets in Kalobeyei Settlement. Businesses are thriving, with many businesses located within the neighbourhoods and along the designated settlement roads; • There are 300 businesses in Kalobeyei Settlement, and World Food Programme (WFP) have also constructed 16 shops to host traders from the local Turkana community;

Observations
<ul style="list-style-type: none"> • In Kalobeyei Settlement, UNHCR have constructed stalls while WFP and Action Africa Help International (AAHI) have constructed modern open-air market structures and business incubators. The open-air market structures currently hosts 122 traders, with most of them from the refugee communities; • Most fresh food vendors in Kalobeyei and Kakuma are women. Cabbages and tomatoes are sourced from Kitale market, 400km away and red onions from Uganda’s Muroto Town about 260 km away.

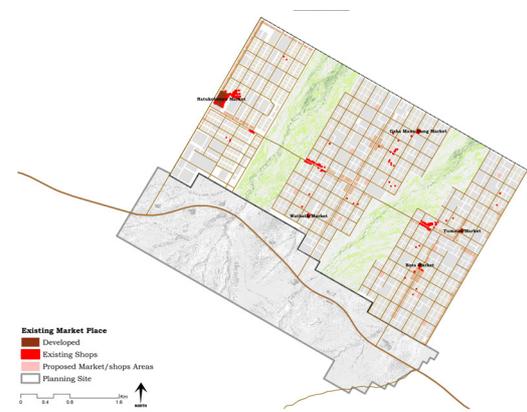


Figure 35 Mapping of Markets in Kalobeyei Settlement

Economic Activities: Agriculture and Livestock

Observations
<ul style="list-style-type: none"> • Livestock keeping (cattle, sheeps, goats, donkey and camels) is the major economic activity in the region. However, livestock keeping faces several challenges that includes: <ul style="list-style-type: none"> • Inadequate pastures due to the frequent droughts; • Loss of livestocks due to the frequent droughts; • High disease incidence; • Poor quality breeding and livestock management techniques. • Additionally, poor infrastructure, lack of information, and low initiatives on value addition has contributed to low number of ventures; • The host and refugee communities are small scale farmers, with 46% of refugees and 27% of host having access to agricultural land. More than 600 families practice farming within Kalobeyei Settlement and several households within the settlement carry out kitchen gardening;

Observations

- WFP has constructed green houses in Village 1 that will be used for horticultural farming;
- Commercial farming is not a popular income generating activity. Only 19.4% and 18.8% practices commercial farming as a source of income in Kakuma Refugee Camp and within the host community respectively as of 2015. This has been attributed to lack relevant skills and competition from other ventures such self-employing businesses.

Economic Activities: Industries, Trade and Commerce

Observations

- Main economic activities in the region are wholesale, retail trade, hotels, Boda-boda transport, sand harvesting, quarrying of stones and sale of animal produce. In Kalobeyei Settlement, there are several informal commercial businesses (sale of second-hand clothes, food and vegetables kiosks, fruits, grains, etc., operating mainly in makeshift stalls and stationary kiosks);
- There are no financial institutions within the settlement. Money transfer agents like MPESA are randomly distributed within the settlement as well as banking agents such as Equity agent, particularly in areas where there are existing markets;
- Financial services in the settlement are accessed through banking and borrowing;
- There are no major light industries within the settlement, with only the UNHCR warehouse and vehicle garage that operates exclusively on car repairs. Petrol stations are located along the A1 Road;
- The most vibrant light industry is the Jua Kali sector (carpentry, garages, tailoring, second-hand vending and workshops);
- Lomidat abattoir is a major holding area, located 4km away from the planning site towards Kakuma Town.

Economic Activities: Livelihood, Income and Employment

Observations

- 90.5% of the host community mainly keeps livestock while majority of refugees engage in income generating activities such as crop husbandry;

Observations

- 18.5% of the population in Kakuma Town, and 14.5% of the population in Kakuma Refugee Camp owns shops and groceries;
- In Kalobeyei Settlement, the working population accounts for only 39% of the total population. Of this, 59% of the population are classified as inactive in Kalobeyei Settlement as compared to 35% of the non-refugee Turkana residents. Only 37% of the population in Kalobeyei Settlement is employed. 4% of the working age group are unemployed due to lack of job opportunities, requirements of entrepreneurial skills, and professional skills and studies among others;
- The majority of refugees are engaged in low paying wage employment and family businesses as part of income generating activities, while most of the host community are engaged in self-employment and wage employments. Employment in the formal sector is quite low among the refugees, while in the host community the opportunities available are not adequate. Informal sectors such as construction, welding, and carpentry, employ a significant number of host and refugees who have the relevant skillsets.

G. Planning area considerations

Possible site planning considerations include:

- Site suitability;
- Other site constraints, such as burrow pits and laggas;
- Land terrain;
- Existing residential population.

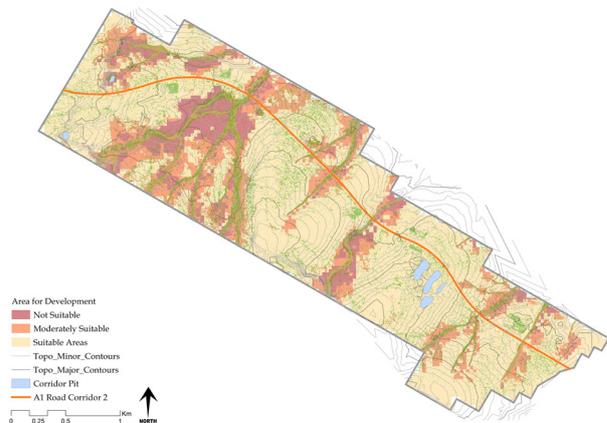


Figure 36 Analysis of Potential Areas for Development in planning site

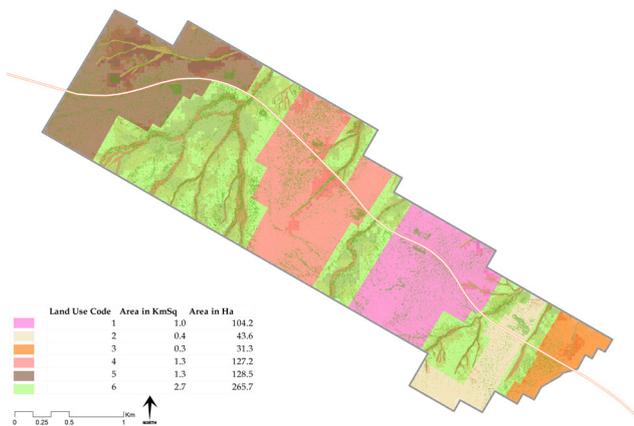


Figure 37 Analysis of Potential Development Zones in planning site

4.2.4 Corridor Development

Kono Yoichiro explained that “corridor developments” around the world has been growing since it was first advocated for in the 1990s, and countries in Africa have developed and planned many such economic corridors.

4.2.4.1 Success Factors

Kono Yoichiro notes that the local economic development will not improve if their accessibility and logistics are developed solely through road construction priorities. In addition, urban utilities are often constructed in a disorderly manner, in various places. These factors will drastically increase construction and implementation costs of the project, resulting in the public sector being unable to maintain the infrastructure.

Moreover, the private sector often develops the area without consideration of the local economy and the social impact of the project. This can be seen in examples where natural resources have been eroded and in turn agriculture. The following factors are key factors for the success of corridor developments internationally:

- A short and long-term development vision is necessary to (1) enable an organised construction of infrastructure, reducing the burden on the government, (2) allow calculation of appropriate amounts of necessary infrastructure and it can clarify investment costs, and (3) influence local economy effectively;
- Participatory planning;
- Investment promotion;
- Environmental and social considerations are necessary to minimise the impacts of development on the environment and society. The planning process can rely on GIS analysis to select land for development in an appropriate and sustainable manner;
- Benefit to the local economy;
- Governance and human development;
- Infrastructure development;
- Agglomeration of industries will allow sharing of infrastructure such as logistic hubs and roads, which helps to reduce costs for each industry.

Sector	Opportunities	Constrains
1 Natural Conditions	<ul style="list-style-type: none"> • The area is relatively flat thus suitable for development • The area has a potential for underground water • The soil can support legumes and fruits farming 	<ul style="list-style-type: none"> • The laggas are impediments to development • The land is prone to flooding • Soil Erosion and Decrease in vegetation cover • Poor access to water resource
2 Social Infrastructure	<ul style="list-style-type: none"> • The existing population provide a readily available workforce • Integrated cultures provide bases for ideas and knowledge exchange • Creation of new economic nodes and opportunities for more economic growth • Development of compact that will ease provision of services • Partnership with UN-Agencies to improve on facilities provisions • High potential to invest in recreation areas • High no of community facilities 	<ul style="list-style-type: none"> • High unemployment rate • Low literacy level • Land speculation • Uncontrolled land sub-division • No security of tenure • Un-Surveyed land • High teacher: student ratio • Not adequately accessible schools • High poverty level • Inadequate No of Health facilities
3 Physical Infrastructure	<ul style="list-style-type: none"> • Presence of A1 Road and Proposed LAPSET Corridor • Linkages to markets • Proposed designated waste management sites 	<ul style="list-style-type: none"> • Poor Road conditions • Lack of water connection
4 Economic Activities	<ul style="list-style-type: none"> • High population within the settlement • Development of new market area • Agro-based and livestock processing value addition industries • Skills development on modern agriculture • Establishment of Jua-kali industrial park 	<ul style="list-style-type: none"> • Inadequate financial institutions • Inadequate pasture due to occasion drought • Drought-Climate change • High disease incidence • Poor quality breeding and livestock management techniques • Lack of modern livestock and agriculture skills and techniques

Figure 38 Emerging Planning Sectorial Issues

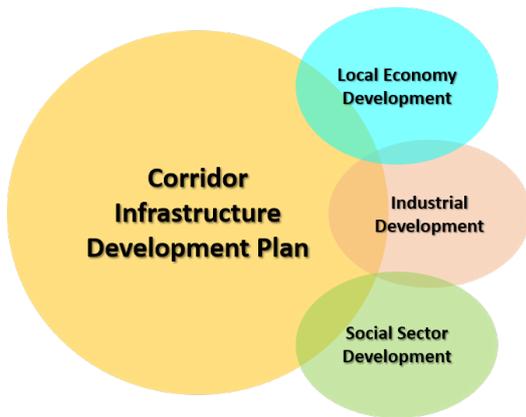


Figure 39 Factors for successful Corridor Infrastructure Development Plan

4.2.4.1 Benefits of Corridor Development

Kono Yoichiro explained that there are two ongoing corridor projects in Kenya:

- Northern Corridor from Mombasa to Kampala;
- LAPSSET Corridor.

In the short-term (by 2025) the corridor projects will help to reduce travel time and costs between Kalobeyei and Lodwar. However, this does not result in increased cargo demand. Hence, the long-term vision (by 2035) is to increase exports and imports (trade) and create an economic corridor linking Kalobeyei to other markets.

4.2.4.2 Development Framework for Kalobeyei Infrastructure Corridor Development Plan

The planning process will consider these three pillars:

- Enhancement of the local economy;

- Maximisation of the impact of LAPSSET Corridor;
- Creation of new industries (value-adding).

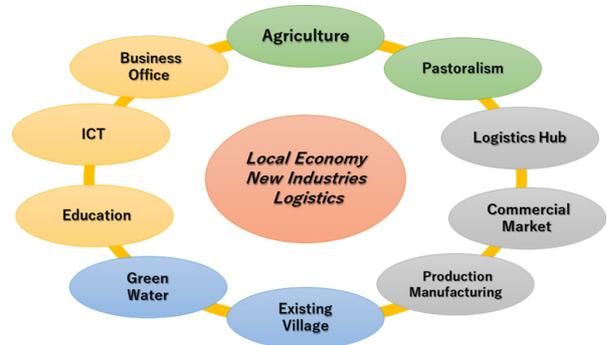


Figure 40 Key industries and sectors for a successful Infrastructure Corridor Development Plan

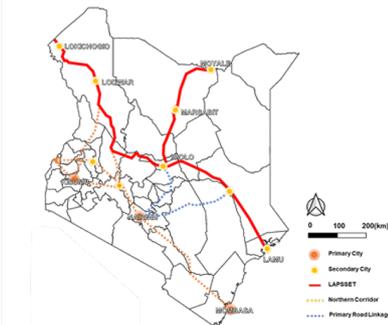
Under the advisory plan, pastoralism will be the main economic activity. However, currently there is a lack of markets and facilities. Hence, in the short-term, the vision is to increase the number of markets and livestock. In the long-term, the vision is to produce value-added products such as meat processing to capitalise on the increase in raw produce (livestock) and reliable infrastructure such as factories and warehouses with refrigeration.

To maximise the impact of the LAPSSET Corridor in the short-term, facilities such as logistics hub and warehouses will be necessary to reduce transport costs and for importing and exporting products. Once cargo demand increases, to continue maximising the impact of LAPSSET Corridor in the long-term, it is necessary to introduce service areas such as car repair shops, fuel stations, restaurants, hotels, and shops to

Potential Development Path for Corridors

Transport Corridor

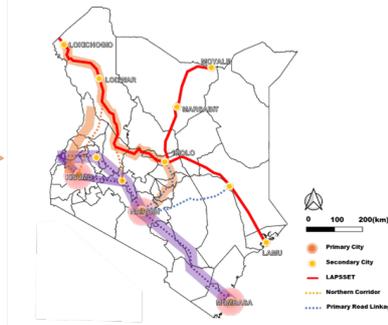
Improvement of Transport Services



- ✓ Reduction of travel time and cost
- ✓ Restructuring supply chain

Logistics Corridor

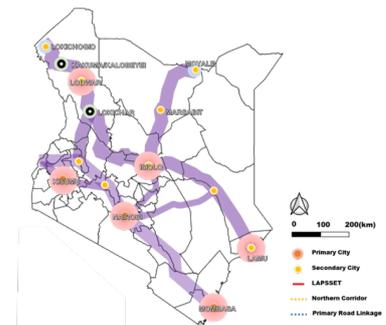
Logistics Coordination + Trade Facilitation



- ✓ Improvement of logistics
- ✓ Possibility to export local products
- ✓ Accessibility to proposed natural reserve

Economic Corridor

Logistics Coordination + Trade Facilitation



- ✓ Value-added products
- ✓ New industry

Figure 41 Potential Development Path for Corridors in Kenya

sell local products. In addition, car parking presents a high potential to make profits from the high amount of traffic.

Furthermore, new industries and public facilities should also be considered in the short-term. These can be complementary to the pastoralism and logistics industries, such as (1) enterprises providing ICT skills and logistics such as inventory management, and (2) educational facilities which are necessary to help develop capacity and produce skilled workers for these industries (a university is currently being constructed in Kalobeyei). In addition, a lack of job opportunities is a major challenge, and creating new industries and public facilities will increase job opportunities in the

area. Moreover, compared to the heavy industries, these new industries and public facilities do not need heavy investments in infrastructure. In the long-term, the planning site will also require facilities such as medical facilities, educational facilities, and infrastructure such as public transport to meet future demands and attract skilled workers.

4.2.4.3 Planning Area Concept

The proposed development zones are prepared based on GIS analysis of existing data and open source data, but will be updated following the findings from the discussions in this workshop.



Figure 42 Key industries and sectors for a successful Corridor Infrastructure Development Plan from short-term to long-term (2025 -2035)

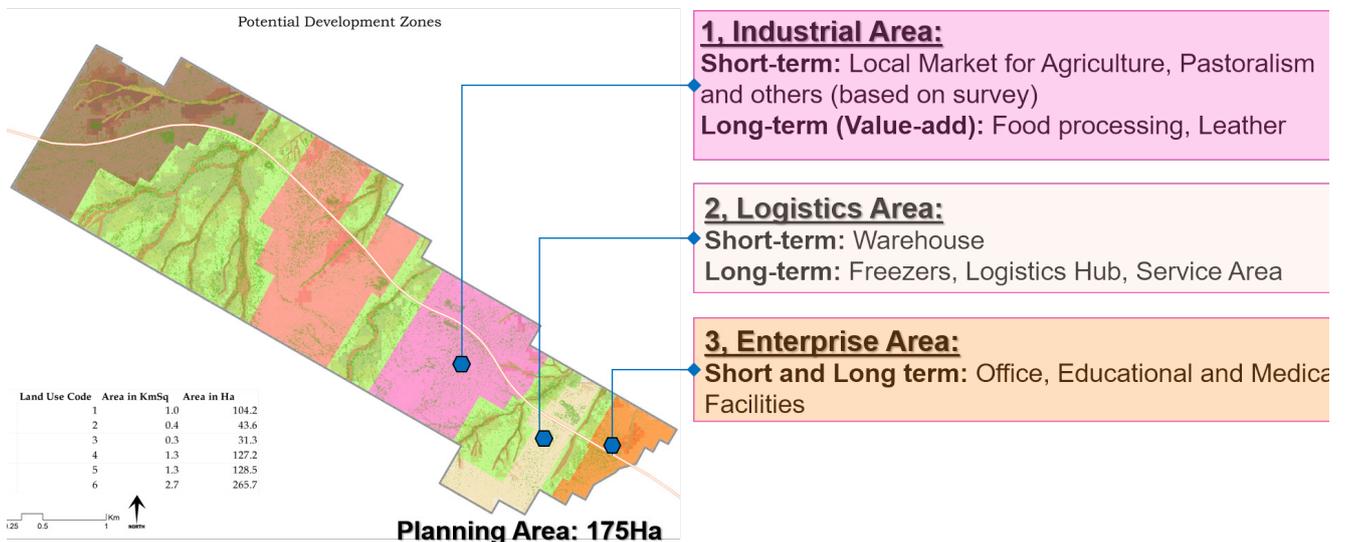


Figure 43 Potential Development Zones in planning site

4.2.4.3 Discussions

Kono Yoichiro posed a series of questions to the participants to facilitate the following technical group discussions:

- For 2025 (short-term vision)
 - Pastoralism and Agriculture: what kind of facilities are required to improve the current situation?
 - New industries: what kind of industries have development potentials? (e.g. logistics, meat production, leather production)
 - Enterprise: what kind of enterprises could be introduced?

Nadio Etabo Clement (Director of Environment) asked if UN-Habitat and Ministry of Lands included personnel from the Ministry of Environment when they were conducting the mapping survey. **Davies Munialo** (Director of Physical Planning) explained that the process was happening in various levels and the ministry is planning to engage all the stakeholders in the various project activities. **Wilson Kironyo** clarified that when UN-Habitat and the Ministry of Lands and Housing started this exercise, the team wanted to adopt a participatory approach as much as possible. However, due to circumstances such as the COVID-19 pandemic, the team were not able to conduct extensive participatory planning workshops involving many stakeholders. To resolve this, the team first conducted analysis using open source data to establish information such as on environmentally sensitive areas and flood risk areas. This information will then be shared with stakeholders for feedback.

Nadio Etabo Clement (Director of Environment) noted that the presentation was good but it missed addressing critical environmental issues such as conducting an Environmental and Social Impact Assessment which is a requirement before planning. He added that the team is facing challenges because environmental studies have not been conducted, and a baseline survey would be important to evaluate the impact of the implementation by comparing the current situation and that of the future. **Wilson Kironyo** shared that the team is open to support from the Ministry of Environment and will work with the Ministry of Lands, Housing, Energy and Urban Areas Management to look at the modalities of collaboration. He further notes that UN-Habitat is aware that in terms of investment and implementation of development, an Environmental Impact Assessment (EIA) will be needed and the team will work with the Ministry of Environment moving forward.

Davies Munialo (Director of Physical Planning) raised a concern of the borrow pits left by a construction

company developing the A1 Corridor. He asked if there was an update on the current situation and what could be done. He noted that the Director Environment is in the meeting, and that this could be explored further. **Wilson Kironyo** responded that during the topographic survey, the construction company were still excavating soil at the moment and the borrow pits were still opened. It was observed that during the rainy season children are swimming in the pits which posed a risk. He also noted that these pits are an environment hazard. **Nadio Etabo Clement** (Director of Environment) noted that according to the EIA, approved by the County Government, the construction company is supposed to restore the borrow pits, and explained that the Ministry of Environment has issued several environment restoration orders which require the construction company to restore the sites. **Stephen Njoroge** (Urban Planner) added a comment on the burrow pits left by a construction company near the planning site, noting that the law requires the contractors to restore the sites into their original state.

John Mutemi (Surveyor, from Ministry of Land, Housing, Energy and Urban Areas Management) suggested that UN-Habitat should share the size of the planned area and identify areas that has potential for development for the team to understand and determine how various land uses will be proposed and organised. **Wilson Kironyo** responded that UN-Habitat has mentioned the scope and size of the planning site, and the total area is approximately 6.3 km² – and the areas generally not conducive for development are around 2.65 km².

David Kitenge enquired if the Turkana County Government has any mandate in ensuring compliance of environmental conservation during the road construction. **Nadio Etabo Clement** (Director of Environment) explained that National Environmental Authority is a member of the County Environmental Committee and the requirements include (1) the contractor should conduct an environment assessment, (2) the contractor should receive a licence limiting the contractor from leaving burrow sites open after the excavation. However, in practice the contractors conducted the work without an environmental assessment and then seek to regularise the process after. However, the Turkana County Government is mandated to hold them accountable. In this case, the County Environment Committee can take them to court in case of any illegality.

Moru Jacob (Ministry of Infrastructure and Public works Representative Engineer) noted that the map for the Kalobeyei Corridor and Turkana West does not show the road networks in Turkana County that the Ministry of Transport and Public Works has developed. In addition, he asked how the ministry can integrate the Turkana West road networks with the future road infrastructure in the

corridor. **Wilson Kironyo** responded that the team has several levels of planning which the advisory plan will be integrated comprehensively, such as ISUDP for Kakuma, a similar planned ISUDP for Kalobeyei Town, and the municipality plan. One of the current challenges faced by Kalobeyei Settlement is that the population choosing to settle to conduct businesses, informally occupying land around the settlement. During the topography survey, the team observed that there were many enclosures in the community land without occupants. The advisory plan is a tool to organise these informal developments and will accommodate other requirements (such as infrastructure and roads) within the area. The Ministry of Transport and Public works can support this planning by evaluating what is practical within the site in terms of infrastructure development and determine the support the ministry can provide. This will complement work by the Ministry of Land in establishing the site as an EEZ. In the following weeks, the team will seek to establish the connectivity between the County and the Sub-County, and the condition of the existing roads.

David Kitenge shared that **Moru Jacob** (Ministry of Infrastructure and Public Works Representative Engineer) was concerned about how the advisory plan will be aligned to the broad strategies to support connectivity by the Ministry of Infrastructure. **Davies Munialo** (Director of Physical Planning) and **Wilson Kironyo** mentioned that there are several levels of planning under which infrastructure development can be integrated. Once the municipality plan is developed, it will be integrated and will identify the road networks needed in the municipality and other infrastructural needs. **Moru Jacob** (Ministry of Infrastructure and Public Works Representative Engineer) was also concerned in terms of infrastructural development. **David Kitenge** noted that the team will coordinate with the Ministry of Infrastructure to ensure that the advisory plan is connected to the corridor and the municipality developments.

4.3 Technical Group Discussions

The team was divided into two groups to discuss preliminary land use proposals looking at both potential short-term and long-term interventions.

4.3.1 Presentations from Group A: Davies Munialo (Director of Physical Planning)

Short-term proposals (5 – 10 years)

- There is an urgent need for a waste disposal site - liquid and solid waste disposal sites;
- Public purpose - will host most of the public facilities e.g playground, recreational areas;
- Plan for animal migration routes for pastoralist - since main economic activity is pastoralism;
- Learning institutions - need for schools once people settle in the area;
- Health facilities;
- Truck parking areas - this is urgent, as the A1 road heads towards South Sudan and there is a lot of expected traffic in the future from trucks so that the drivers can park and rest;
- Provision of land for cemetery;
- Urban forestry - such as planting of trees, to beautify our environment and to mitigate against soil erosion;
- Waste transfer station - expected a lot of waste generated from commercial activity;
- Administrative area - to accommodate county's and other partners' offices.

Long-term proposals (above 10 years)

- Tertiary institutions - such as colleges;
- Conservation and protection of sensitive lands - for example trees can be planted along the seasonal rivers to prevent erosion;
- Set aside land for processing of *Prosopis Juliflora* - common invasive plant that should be convert into useable items;
- Waste recycle plant/ facility - a lot of waste expected to be generated, so recycling will be good. This will also take care of Kakuma and Kalobeyei settlements, and can be used in production of energy to support settlements around;
- Agricultural activities - irrigation agriculture is practised in some parts, therefore we need to embrace the practise and set aside land for this activity;
- Public utilities - such as water, electricity.

4.3.2 Discussions

Nadio Etabo Clement (Director of Environment) explained that Turkana West has a lot of Prosopis Juliflora as compared to the other counties, and it is necessary to set aside land to process various products from Prosopis Juliflora. The waste management facility will be necessary as the group anticipated that a lot of waste is going to be created – both degradable and non-biodegradable – and will serve both Kakuma and Kalobeyei settlements. In addition, it is important to have a facility that will be able to serve Lokichoggio, along the A1 Corridor, and recycle the waste to produce various by-products and if possible, energy. This can be linked with the harvesting of Prosopis Juliflora which can additionally be used to produce energy to support settlement in Kalobeyei. **Cyrus Mbisi** reminded the director to share data on volume for Prosopis and its concentrations to inform the situational analysis and any subsequent proposals for such industries in the corridor plan.

Romanus Opiyo requested the Turkana County Government to share the per capita waste for Turkana West, Kalobeyei, and Kakuma. In addition, he is also interested in the existing capacity of the parking space for delivery trucks, and explained that this can be projected for the future when A1 and LAPSSET becomes operational. He also enquired if the County Government has standards or is aware of the dimensions for parking space. **Davies Munialo** (Director of Physical Planning) responded to **Romanus Opiyo** that currently there are no standards for parking space. The group proposed this with expectation that with an operational LAPSSET and existing A1 road, there will be traffic from trucks transporting goods to the neighbouring country, Sudan. Hence, the group proposed to plan for parking, and to deliberate over truck park designs. **Kono Yoichiro** added that there is information on cargo demand forecasts in the feasibility study of the LAPSSET Corridor, and the team would review. However, he added that it is critical that the parking space should be expandable as it is difficult to forecast cargo and traffic demand progress.

David Kitenge explained that UN-Habitat conducted a waste management survey for the four settlements, Kakuma town, Kakuma Refugee Camp, Kalobeyei Town, and Kalobeyei Settlement on waste characterisation and composition to understand the nature of waste generated by the host and refugee communities. The survey also conducted institutional analysis to understand the kind of institutions and CBOs that can support disposal and management of waste. In addition, the survey also studied the percentage and willingness of people to pay for collection, the capacity in terms of equipment for people to be able to collect waste at

household level and transporting it to the landfill, and issues related to management and recycling. He also mentioned that he would share the report with both the team and the County Government. He also asked the county whether there was a waste management strategy for the major towns or even a policy document for waste management. **Joseph Egiron** (Director of Urban Areas Management) noted that they have a waste management policy for Lodwar Municipality, and they are in the process of developing policies for the other urban centres. He added that they are also in the process of municipality status for some urban centres (which will have a town manager, administrators, and a committee) which will be responsible for developing the strategy and implementing the solid waste management. **David Kitenge** confirmed that each planned municipality will develop a strategy for solid waste management.

Davies Munialo (Director of Physical Planning) additionally highlighted that the team should find ways to avoid linear growth along the area transverse by the A1 Corridor. Hence, the group recommends that the commercial nodes should be distributed slightly away from the A1 Corridor so that the planning site can avoid the same linear development found in Kakuma Town.

4.3.3 Presentations from Group B: Odera (Senior Planner from Ministry of Lands)

Short-term proposals (5 – 10 years)

- Planning population - 10000 - 20000 persons;
- Establish dumpsite - the area is already occupied, and the people are generating waste;
- Sensitive land – Reforestation along laggas;
- Etirae/Prosopis - used as fuel, building materials, animals feed;
- Irrigated farms;
- Creation and regularisation of residential areas - low, high, medium density;
- Establishment of solar energy as a short-term solution to the energy issue.

Long-term proposals (above 10 years)

- Establish recreational park;
- Processing industry - light and heavy;
- Market places;
- Commercial zones;
- Agricultural zones with enough extension services to educate farmers;
- Industrial park - the area is developing fast;
- LAPSSET Corridor that is around 500m - 250 both sides within planning zone;

Long-term proposals (above 10 years)
<ul style="list-style-type: none"> • ECDC - to be expanded to host primary/secondary school, and area around to be described for public purpose used to include health centres and other public uses; • Waste management system - sewer system to be design; • Responsible persons - County Government, private stakeholders; • Way forward to planning - should be participatory from beginning; • Regularisation of already existing settlements; • Planning for animal movement corridor - Pastoralism and agriculture; • Size of plots - consider size of plot during subdivision. 50ft by 100ft size plot is not enough to live with goats; • Commercial areas - distributed at a radius of distance of 1-2 km.

4.3.4 Discussions

Romanus Opiyo asked what level and standards the group envisaged for the proposed commercial centre, designed to be distributed at a radius of 1-2 km. He is also interested in the population envisioned by the group, and explained that for a sustainable commercial centre, the population should be able to support the centre. He also asked about the proposed sewer line (routes for the sewer line depending on the topography of the area). **Wilson Kironyo** commented that the plan will be carried out in accordance with the existing guidelines as provided in the physical planning handbook that stipulated different sizes of land for specific land uses.

Davies Munialo (Director of Physical Planning and Survey) reminded that when the team plans for the classification of the residential zones: high, medium and low density, the plot size for residences will vary depending on the classification and use. **Jeckoniah Odera** (Physical Planner) added that the team could include the deferred land in the plan. **David Kitenge** noted that the Director's comments would be concerning as it is challenging to distribute the land uses in the zone, because the A1 Corridor cut across these areas. He asked the participants how planning could distribute the commercial and logistic centres. He shared the challenge of the team not knowing where most of the traffic will be, to raise this with the LAPSSSET Corridor authorities in the next technical meeting to agree on the land use strategy for the area – and align to the economic corridor proposal.

4.4 Way forward

Kono Yoichiro thanked all participants for the informative discussions, that the team would review and reformulate the advisory plan. He added that as a way forward, the team will update the land-use plan based on the discussion, and will also begin the infrastructure planning process. The team will note the concerns on how to mitigate social and environmental impacts, and the importance of public participation and involvement of other public sectors for local economic development. He shared that there are many points to consider due to the complexity, and partners and stakeholders would need to coordinate and collaborate effectively. He also raised a concern for the lack of data, and would appreciate if the Turkana County Government can share more information.

4.5 Closing remarks

Davies Munialo (Director of Physical Planning) took the opportunity to thank the participants, and noted that the team is going in the right direction. He also requested to fast track the process. He expressed that the team have achieved a lot and proposed that they look into details of the proposal in another session. The team would need to the suitability of various land-use proposals on the planning site. He emphasised that the team spirit is strong, and he looks forward to a future session to validate the proposal. He thanked UN-Habitat for hosting the Turkana County Government and for the deliberations of the workshop.

David Kitenge concluded the two-day workshop, and mentioned that the team need would need to conduct a few follow-ups. He explained that starting next week UN-Habitat will be working on the situational analysis and will be meeting with different departments in Lodwar. Ultimately, UN-Habitat will be working to support the Turkana County Government in Turkana West to develop plans that can be translated to local economic development initiatives.

5. Conclusion

The discussions in the workshop have revealed multiple opportunities in Turkana West and Kakuma-Kalobeyei that Turkana County Government and partners can leverage to improve the socio-economic situation for both locals (including hosts) and refugees. This includes the presence of LAPSSSET Corridor coupled with the upcoming municipality status of Kakuma-Kalobeyei. In turn, the findings and discussions have shown that there are existing trends such as informal developments which are occurring in the vicinity of Kalobeyei Settlement, which need to be addressed with good planning.

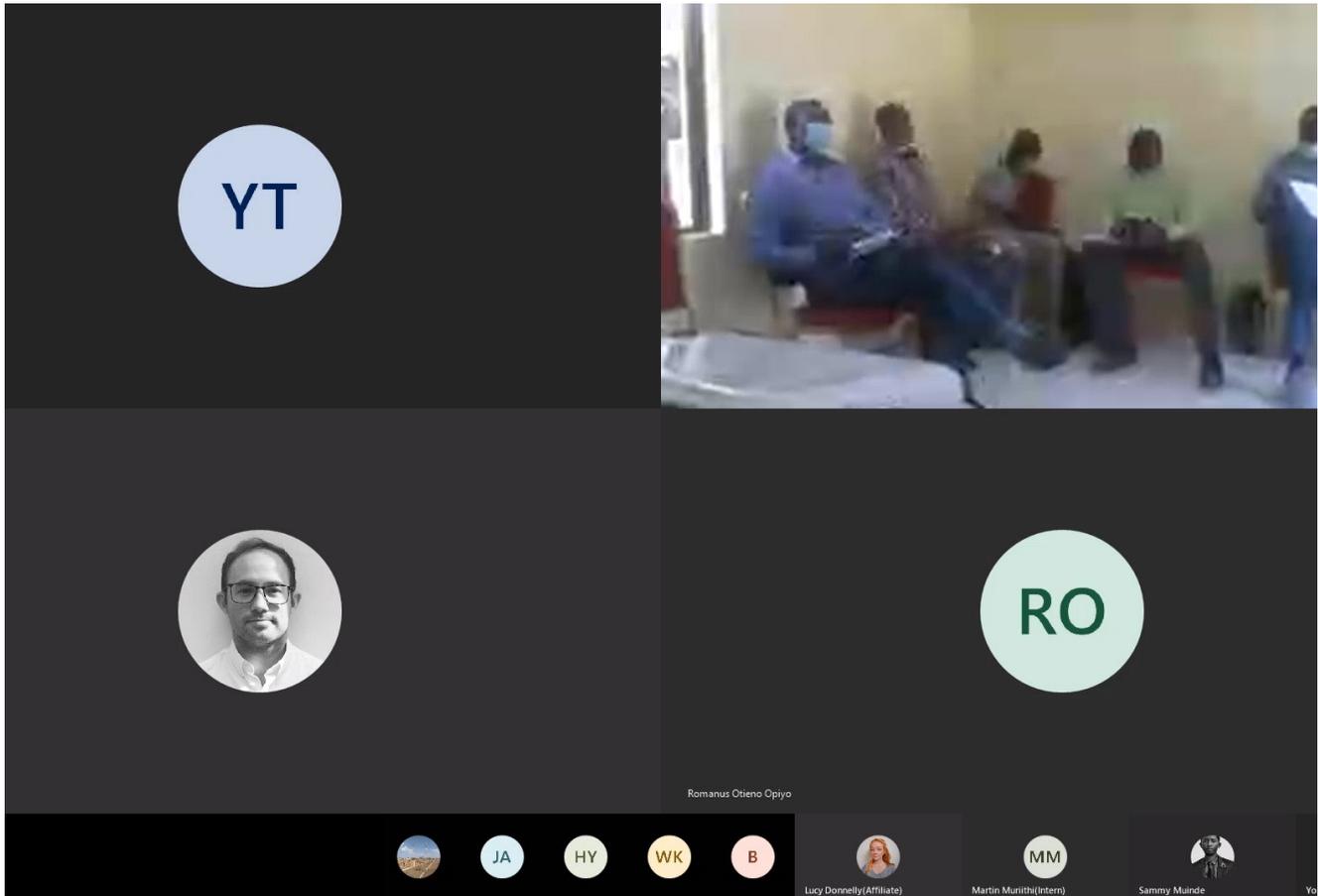
Spatial planning is critical in providing Turkana County Government and partners an opportunity to organise both planned and ongoing informal developments. In addition, spatial planning is also able to accommodate multi-sectoral requirements such as needs for infrastructure and basic services (present and future). In response to participants' concern, the workshop has also shown that spatial planning provides an avenue to integrate plans across different scales and existing plans, as the ISUDP for Kakuma, a similar planned ISUDP for Kalobeyei Town, and the Kakuma-Kalobeyei Municipality Plan.

Participants have provided insights into multiple existing and upcoming resources that development can tap on, including processing and value-adding of *Prosopis Juliflora*, and a planned Lotikipi Game Reserve. Moreover, the workshop revealed existing challenges

that the planning process should factor to encourage for a sustainable and appropriate development. These findings were used to update planned surveys to obtain accurate feedback.

Additionally, UN-Habitat has prepared spatial assessments to support spatial profiling. The spatial and multi-sectoral assessment, description and analyses provide a baseline of information and data to ensure the alignment of holistic, sustainable, and evidence-based interventions. Furthermore, as the spatial assessment seeks to collect multi-sectoral data through a spatial lens, it has the added advantage of providing different stakeholders a common platform for discussion and decision making.

Development in Turkana West and Kakuma-Kalobeyei is a multi-year and multi-sectoral process that requires continued and active engagement of stakeholders to produce a sustainable and appropriate plan. However, the COVID-19 pandemic has limited the stakeholder engagement processes essential for planning, as compared to before. In response to these limitations, the planning process has focused on developing preliminary findings through desk reviews, compiling open-source data, and creating a functional feedback loop with different stakeholders. As the situation improves and more in-person and participatory processes can occur, the team will begin conducting ground survey and engaging stakeholders in person.



The workshop between Turkana County Government and UN-Habitat Kakuma Field Office was held in Kakuma, with UN-Habitat colleagues joining remotely.

