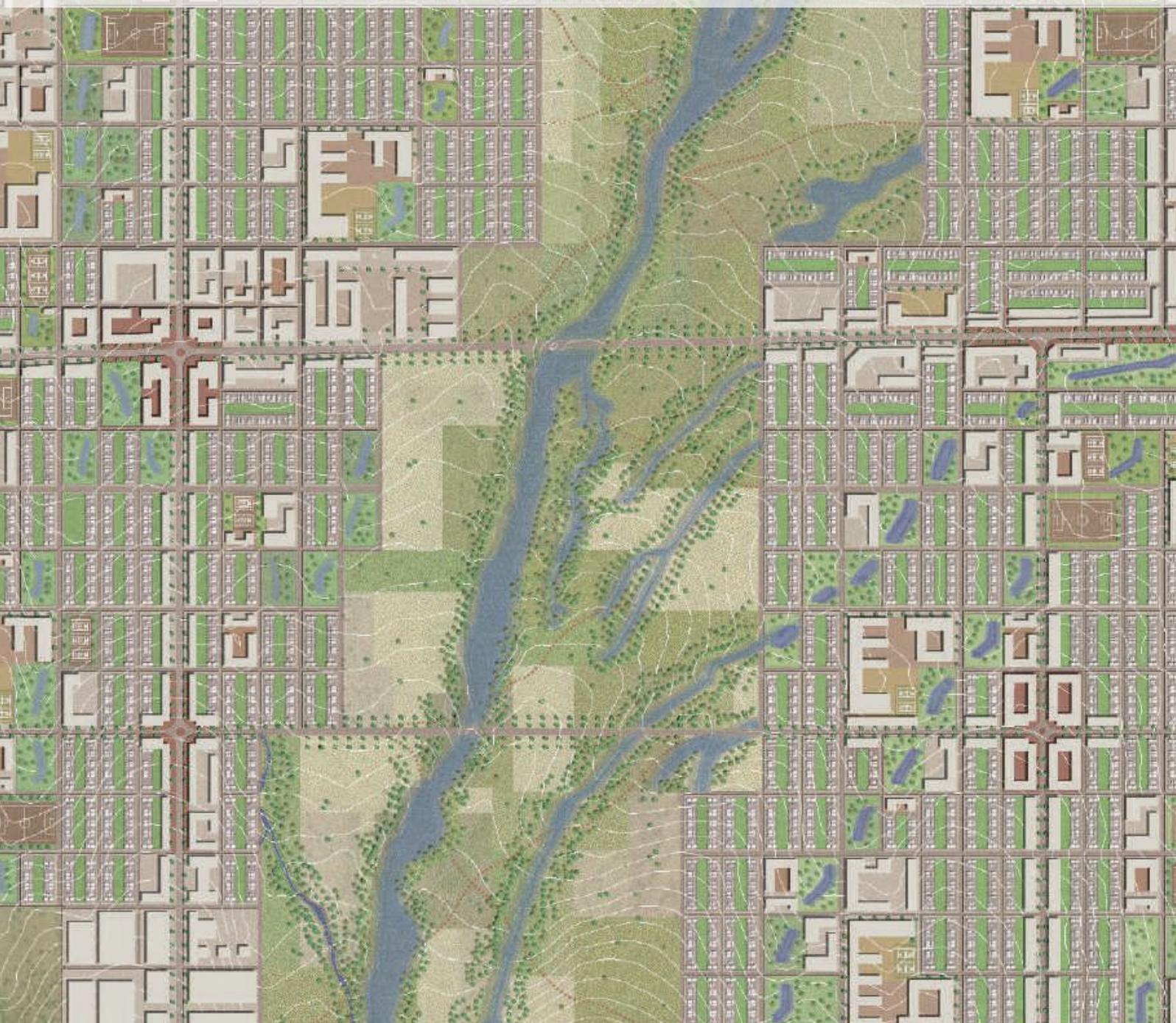


KALOBEYEI SETTLEMENT ADVISORY DEVELOPMENT PLAN

KALOBEYEI INTEGRATED SOCIO ECONOMIC DEVELOPMENT PROGRAMME
TURKANA COUNTY, KENYA

SEPTEMBER 2018



Kalobeyei Settlement: Advisory Development Plan (2016-2026)

Prepared by UN-Habitat: Urban Planning and Design Lab and Turkana County Government, in collaboration with United Nations High Commissioner for Refugees (UNHCR), Kenya. The Plan is prepared under supervision of the Turkana County Government Chief Officer in charge of Lands, Physical Planning & Urban Area Management, in accordance with the provisions of the Kenya's: County Government Act, Physical Planning Act-Cap 286, Urban Areas and Cities Act-Cap 275, Environmental Management and Coordination Act and Legal Notice dated 16th of June 2016.

This report is a presentation of the Kalobeyei Settlement Development: Advisory Local Physical Development Plan. The plan report is for Turkana County Government consultation, approval and adoption. An extensive stakeholder consultation process was undertaken during the formulation of this draft plan.

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A COMPONENT OF
KALOBYEI INTEGRATED SOCIO ECONOMIC DEVELOPMENT PROGRAMME
TURKANA COUNTY, KENYA

SEPTEMBER 2018



Prepared by
UN-Habitat

In collaboration with
Turkana County Government and UNHCR

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List of Abbreviations

ALPDP	Advisory Local Physical Development Plan
ASAL	Arid and Semi-Arid Lands
CDIC	Community Dialogue and Implementation Committee
CEC	County Executive Committee
CIDP	County Integrated Development Plan
CIP	County Investment Plan
CLA	Community Land Act
CSP	County Spatial Plan
DCP	Development Control Policy
DRA	Department of Refugees Affairs
ECD	Early Childhood Development
EIA/EA	Environmental Impact Assessment and Audit Regulations
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
Ha/HA	Hectare
ICT	Information and Communications Technology
IDP	Internally Displaced Person
ISUDP	Integrated Strategic Urban Development Plan
KISED	Kalobeyei Integrated Socio-Economic Development Programme
LAPSSET	Lamu Port-South Sudan-Ethiopia-Transport
LOKADO	Lotus Kenya Action for Development organization
NEMA	National Environment Management Authority
NGO	Non-Governmental Organisation
NMT	Non-Motorised Transport
PIU	Plan Implementation Unit
RFFA	Rapid Financial Feasibility Assessment
SDG	Sustainable Development Goals
SEA	Strategic Environmental Assessment
SeDG	Settlement Development Group
TOD	Transit Oriented Development
ToE	Terms of Engagement
UNESCO	United Nations Educational, Scientific and Cultural Organization
UN-Habitat	United Nations Human Settlement Programme
UNHCR	United Nations High Commissioner for Refugees
WFP	World Food Programme
WHO	World Health Organisation

Executive Summary

Introduction

The integration of host communities with incoming refugees is a subject that has gained great interest in the last decade, owing to an increase in the number of people in protracted displacement situations. Kenya, which is strategically located in the high-conflict horn of Africa region, has been home to refugees for more than two decades. Some of these refugees have been accommodated in Turkana County, and specifically the area of Kakuma and Kalobeyei. Here the Kenyan government, with support from the United Nations High Commissioner for Refugees (UNHCR) has been enabling the resettlement of almost 200,000 refugees for the last 26 years.

The approach adopted over the years has been based on the assumption that the refugee situation is 'temporary' and that the solution for displacement would be found soon. However, with the currently indefinite displacement situation continuing, it became clear that the current form of settlement is not tailored to the needs, situation and prospects of both refugees and host communities.

Furthermore, this approach to temporary settlement has led to a negative impact on the environment and the poorly planned conditions of the previous camps have put significant strain on scarce water resources, forest and vegetation cover. The damage to the environment has also acted as a catalyst for conflict between host and refugee communities. The inefficient land use and infrastructure provisions as well as ad-hoc development patterns has exacerbated this and created difficult situations for encouraging integration between the communities, (host and refugees).

To shift from this approach, the Turkana County government in collaboration with UNHCR and partners embarked on the Turkana Initiative, which was designed to introduce a new strategy to the way refugee assistance is undertaken in the county. This also came at a time when UNHCR, Kenya Government and the International community was responding to the refugee crisis emerging from South Sudan.

As such, in June 2015, 1500 hectares of land in Kalobeyei, Turkana West Sub-County, were allocated for establishment of a new integrated refugee and host community settlement following negotiations between UNHCR, the National Government, the County Government of Turkana and the host community of Kalobeyei. The land allocation was tied to a commitment that the implementation would restructure refugee assistance programming in Turkana County, with an emphasis on socio-economic integration.

The new site was to be developed such that 60,000 refugees and members of the host community could settle in an accessible, vibrant and functional settlement, complete with adequate social and physical infrastructure and a diversity of economic opportunities. The county government of Turkana was to be involved in the settlement planning, construction, monitoring and evaluation; and was to take over its management in the medium to long term. Based on UN-Habitat's expertise in spatial planning, UNHCR and the county government invited the agency to partner in the new settlement development process under the framework of the Kalobeyei Integrated Social Economic Development Programme (KISED P).

Accordingly, UN-Habitat and UNHCR in partnership with the Turkana County Government began a process of spatial planning for the 1500 hectare site in early 2016. This planning process is a part of the Spatial Planning and Infrastructure development sub-component of KISED P. Other components of KISED P include: Sustainable Integrated Service Delivery and Skills Development Agriculture and Livestock, and Private Sector and Entrepreneurship.

In order to achieve the vision of a sustainably integrated settlement, three key areas of intervention were identified:

- Formulation of a spatial plan which would act as the guiding framework to develop the new settlement in line with local county and national development goals;
- Local capacity development and livelihoods improvement for the two communities; and
- Formulation and enactment of a strategy to enhance the managerial capacity of the local governance structures to both enforce and monitor the settlement growth.

Planning Approach

The formulation of this plan was through a multi-layered collaborative and participatory process, informed by the principles of an integrated planning and design approach. Integrated planning entails formulating plan proposals that consider the economic, physical, social and environmental conditions of the planning area. The strategy used to achieve this was through participation at both the community and key stakeholder levels.

Throughout the planning process, regular consultations were done with partner organisations, within the KISED P framework, and with various county and national government institutions, including county departments and local chiefs.

Community (public) participation was conducted through household surveys, community planning and design workshops and focus group discussions, in which the planning team received input on desired settlement provisions from the two communities and incorporated them in the spatial plan. For the formulation of the plan, UN-Habitat formed two settlement development groups, one for the host community and one for the refugee settlement. These two groups, comprising of members distributed across age, gender and levels of vulnerability, were trained on participatory planning processes around the objective of the Kalobeyei initiative, and were directly engaged throughout the planning process. Besides developing a responsive spatial plan, this also helps to ensure a sense of local ownership of the plan, which can greatly contribute to ease of its implementation and in turn the achievement of long term integration.

Policy and Legal Context

The preparation of the plan itself is informed by National, County and International Policy. Strategic documents such as Kenya Vision 2030, Kenyan National Spatial Plan, LAPSSSET, County Integrated Development Plan, SDG 11 and The New Urban Agenda, played an instrumental role in influencing the planning decisions.

The plan is also aligned with the applicable legislation, in particular the Constitution of Kenya, County Government Act, Physical Planning Act- Cap 286, Urban Areas and Cities Act – Cap 275, National Land Commission Act No. 5 of 2012, Community Land Act,

2016, Lands Act, Environmental Management and Coordination Act, Climate Change Act, Survey Act – Cap 299, Building Code, 1968, and the Refugees act 2006.

Situational Analysis

The plan is very much rooted in an understanding of Turkana County which is the second largest county in Kenya (in land size). Its 77000km² is made up of 7 sub counties of which one is Turkana West Sub-County where Kalobeyei is located. As such, research and analysis covered an area including the surrounding 5 wards (Kalobeyei, Kakuma, Lopur, Songot and Letea), all within Turkana West Sub-County focusing on the physical and socio-economic conditions including analysis the vulnerabilities of the two communities (host and refugees) and the opportunities for their integration. From the Baseline Socio-Economic Survey and mapping, more detailed analysis zoomed in on the specific areas of Kakuma and Kalobeyei Wards. Communities in these two wards were also identified as the key local stakeholders of the planning process. As the host community, participatory activities ensured their specific participation in planning workshops and survey validation meetings.

The socio-economic survey and site constraint analysis zoomed in from the regional information on climate, demographics, livelihoods, access to public services, housing, basic services, to detailed analysis on the vegetation, flood risk and land development suitability of the site itself.

Key findings included:

Regional economic context:

- There is a regional imbalance of economic growth, with an over reliance of the existing camps for income and development. Underpinning this, the connection along the A1 highway between Kalobeyei town and Kakuma is extremely important and enhancing this is crucial supporting potential integration of host and refugee communities.

Demographics:

- The average household size for the host is 4.6 as compared to refugees at 5.9.

Executive Summary

- In terms of education, 29.9% of the host community report to have no formal education as compared to 37.1% of refugees.
- 73.6% of the host community and 60.9% of the refugee community earn less than Ksh 5000 per month.
- 87.63% of the aggregate population is aged under 35, and a 61.88% is aged under 18.

Access to services:

- The imbalance in provision and cost of services where refugees have better and free access to water, health, education and other public services as opposed to host community who often have to travel longer distances and face cost implications.

Livelihoods

- The main farming activity amongst host community is livestock whilst the majority of refugees practice crop farming. However overall, the majority of the population in both communities are most interested in engaging in off-farm income generation.

Housing

- Whilst host community housing is often of poorer quality than refugees, they are substantially higher with regard to space standards. With regard to materiality, appropriated/local materials are those that are most commonly used for extension/incremental development.

Infrastructure

- Energy access is extremely limited, with no main grid network. Due to the substantial use of charcoal and firewood as cooking fuel, there has been major pressure on the environment which can often cause inter-community conflict.
- Existing water sources are severely constrained, with extreme scarcity in the region and equity of access to water is of major concern with host community often having to travel further to access water. A reliable water supply is inevitable for sustainability.
- The most common disposal strategy for solid waste is through burning, having a significant negative environmental impact. The implementation of a waste management system

could contribute to improve the health and environmental conditions, as it serves as a catalyst for business opportunities.

- Fecal waste is mainly disposed through pit latrines and open defecation.

Site constraints

- The weather and land are very dry (300-400mm rainfall per year) therefore; there is water scarcity that makes crop husbandry and water harvesting a challenge.
- The area is very flat, being buildable in most of its area. However, due to the large number of waterways that run through the site, it is also liable to flooding.
- Existence of settlements for host community will require resettlement.

Plan Proposals

Based on a deep understanding of the site and its context, an iterative urban strategy was developed to assist in empowering the refugee and host communities to take advantage of the emerging economic opportunities, and creating equitable access to public services. The concept of integration adopted in the spatial plan encourages both inward and outward integration, in which spaces of interaction such as commercial areas, public facilities agricultural zones and social spaces are provided within and on access routes leading into the new settlement. These spaces are interlinked through an efficient road network which provides access to both refugees and host community members which would be further supported by the implementation of a well organised public/private transport system. Further to this, the adopted approach emphasizes on equitable provision of basic services to the two communities; development of a knowledgeable community which is empowered to be innovative, self-sustaining (socially and economically) and resilient to emerging challenges and conflicts; and adherence to the principles of sustained equitable and prosperous development.

The approach to distributing land use functions has been developed as a hybrid approach that aims to meet the pre-requisites associated with the National and County Planning legal processes whilst supporting the short term humanitarian needs for basic infrastructure, housing and amenity provision. As such, the plan adheres to humanitarian guidance as set out by Sphere, World Health Organisation (WHO) and UNHCR as well as the guidelines provided by the Draft Physical Planning Handbook of Kenya. These concepts and guidelines are integrated into the layout of the settlement through sustainable planning principles to form the basis of the long term urban structure. These include:

- Promoting economic vitality through an incremental commercial land use strategy responding to the changing economic baseline of the settlement where individuals and medium scale business owners from host and refugee communities can find space to carry out trade.
- Setting out a mixed land use distribution scheme to support easy access to public services and trading opportunities for both host and refugee communities; while also building diverse communities and a vibrant street life.
- Designing an efficient street hierarchy to encourage walkability, interconnectivity and safety, and integrating this as part of the public space strategy, providing at least 30% of the total area including streets, parks, and green corridors.
- Incorporating a neighbourhood concept, to support equitable access to service as well as increased identity and ownership of the local residential environment.
- Recommending incremental housing typologies, to facilitate individual household development in the future, allowing adaptation to cultural and family needs.
- Promoting socio-cultural integration through the residential function, where both host and refugee communities are recommended to occupy the neighbourhood.

The plan recommends that durable solutions such as resilient infrastructure and shelter be used in order to ensure a sustainability of investment. The potential positive impact of the LAPSET corridor also promises to add a further rationale for taking a long-term approach to infrastructure investment. Although this can involve additional up-front investment this will pay both economic and social dividends and save future retro-fitting costs and at the same time underpinning a long term and sustainable platform for the areas development.

The resilience and risk reduction component aims to respond to the natural ecological constraints, avoiding development on sensitive areas. Furthermore, the plan aims to integrate these areas as public leisure spaces as a way of providing use to the preserved land and creating a community asset. The waterways act as natural watershed drainage channels that can be used as part of the flood mitigation and water harvesting system. To prevent food insecurity, an agricultural strategy is integrated into the urban structure, allowing nutritional needs to be supplemented as well as potentially generating an additional source of income among the communities. Further to this, the plan recommends future growth and development close to the highway corridor in order to protect community pasture lands, but also to fully harness the economic development potential along the highway.

To prevent conflict and to enhance integration, the families of the host community living currently on the site should be approached and an agreement for integration within the site or alternative resettlement will be done.

It is also noted that the new settlement will attract growth around the area (the 1500Ha site); hence the need to develop a strategy to manage such growth.

Finally a basic services strategy has been developed that relates to the emergency context and offers recommendations of how to incrementally shift into a more long term sustainable strategy. This includes a focus on decentralised renewable energy, safe access to individual household sanitation and the proposal for waste management that can support business development. Most crucially, the plan identifies an outline approach to water management, which is of extreme scarcity in the region.

Executive Summary

Implementation Framework

This spatial plan under the umbrella of KISEDIP intends to lay the ground for a physical, economic and governance structure that can evolve over time and ensure the long-term sustainability of the Kalobeyei settlement, provide predictability and confidence for the investment community. As such, an incremental approach towards creating a formal legal structure should be taken to allow for the site to be administered and managed by UNHCR in collaboration with Turkana County Government during the emergency phase and then shifted gradually to be under the full control of the County. Meanwhile the plan recommends for the formulation of a Plan Implementation Unit.

An annual evaluation of the settlement development process is recommended. This evaluation will be aimed at measuring the level of impact; how the implementation has addressed the planned targets and indicators. This data and information will be used to inform project reviews, introduce management measures etc. This proposal allows a degree of responsiveness to the highly changeable context of the region, given the potential change in the rate of influx of refugees from neighbouring South Sudan, the level of contributions from donors/private investors and other socio-economic factors that bear influence.

Part of the implementation activities of this plan will be to extend planning activities to address the wider Kakuma-Kalobeyei Area, integration with the County Spatial Plan and County Integrated Development Plans, in an effort to integrate the New Site with the wider human settlement development system in Turkana West. And also to develop a growth and shrinkage settlement management strategy; which will in detail, map out the settlements resilience towards rapid influx or influx of refugees.

Having outlined the vision of the plan, the planning team categorically identifies the water solution as a key pivot holding the success of this settlement. In order for this settlement to be viable, it is strongly recommended that a reliable water supply, not only for the Kalobeyei New Settlement, but for the wider Kakuma-Kalobeyei area to be developed immediately. Without this reliable water supply, the New Kalobeyei Settlement, as envisioned in this plan is not viable. This implies that in the long term, accommodating the targeted population in the New Site without a reliable water supply will only escalate the environmental and development constraints already being experienced in the area and could be a trigger for conflict. Overall, the success of implementing this plan will largely depend on the level of commitment by each key stakeholder, political goodwill, reliable water supply, policy and legal support, financing and the institutional capacity deployed.

Conclusion

The plan for Kalobeyei, developed as a multi-stakeholder collaborative endeavour supported by the involvement of the Kalobeyei host and refugee community looks to create a sustainable urban structure, which is both productive and resilient to emerging challenges. It should provide the Turkana County Government, relevant agencies and implementation partners the necessary guidance to monitor growth of the new settlement, help direct investment, stimulate economic growth, and ensure progress towards achieving the County's aim of creating urban settlements that are functional, commercially vibrant.

Kalobeyei New Settlement: Advisory Development Plan

This plan has been prepared as per the requirements of the Constitution of Kenya, County Governments Act 2012, Urban Areas and Cities Act 2011, Physical Planning Act, and other relevant laws of Kenya. This plan has fulfilled the statutory requirements and is hereby approved.

Certification:

Signed: _____ Date _____

Name: _____ Registered Physical Planner
Ministry of Lands, Energy, Housing and Urban Area
Management

Signed: _____ Date _____

Name: _____ Member, County Executive Committee
Ministry of Lands, Energy, Housing and Urban Area
Management

Approval (County Assembly):

Signed: _____ Date _____

Name: _____ Finance, Planning and Trade Committee
Turkana County Assembly

Signed: _____ Date _____

Name: _____ Clerk, Turkana County Assembly

Approval (Governor):

Signed: _____ Date _____

H.E Josephat Koli Nanok, Governor, Turkana County

Approved Plan No: _____



Site Preparation for Emergency Shelter, Kalobeyi New Site, Kenya © UN-Habitat/Julius Mwelu

1. INTRODUCTION

PROJECT INCEPTION & VISIONING



Temporary Clinic, Kalobeyi New Site, Kenya © UN-Habitat/Julius Mwelu

Project Background

Overview of the Refugee Context in Turkana County

Kenya government, with support from the United Nations High Commissioner for Refugees (UNHCR) has been enabling the resettlement of refugees in Kakuma for the last 26 years. After the enactment of the Kenya Constitution of 2010, which formed national and county governments, Kakuma became part of the Turkana County. Located in Turkana West Sub-County, the Kakuma Refugee Camp was established in 1991 for South Sudanese refugees and currently consists of four settlement clusters: Kakuma Refugee Camps I, II, III, and IV. By the end of November 2016, Turkana County sheltered 163,192 registered refugees in Kakuma¹. Adjoining the camp is Kakuma town, which is the second largest urban center in Turkana County after Lodwar Town. In 2009, the Kenya Population and Housing Census reported the population of Kakuma town as 36,494 people².

Turkana County is the second largest county in surface area; occupying 77,000 square kilometres, accounting for 13.5% of the total land area in Kenya³. It's nineteenth in terms of population size⁴, with a census reported population of 849,277 people in 2009, of which 11.8% was classified as urban⁵. The County's annual population growth rate was calculated as 6.4% for the 1999 to 2009 intercensal period, and the Kenya National Household Budget Survey of 2005/06 reported 67.5% as the poverty gap of the county (then district)⁶. This presents the County government with a formidable and at the same time, a critical task of accelerating human development in the vast county. This is alongside managing a regional challenge of refugee crisis, as thousands of refugees continue to flee from civil strife across Central Africa, Eastern Africa and Horn of Africa.

By the end of September 2016, the number of South Sudanese refugees sheltering in neighboring countries (includes Kenya) passed the 1 million mark⁷. Recently (February 10, 2017) UNCHR declared the South Sudan refugee crisis as the largest in Africa, with more than 1.5 million having left the country to seek refuge in neighboring countries, including Kakuma, Kenya⁸.

While the refugees in Kakuma camp are mainly from South Sudan, the camp also hosts refugees from 14 other nationalities, including Ethiopians, Rwandans, Burundians, Congolese, Eritreans, Somalis, and Sudanese. Many of the refugees have spent up to 20 years in the camp. In light of the ongoing political instability in South Sudan and the Great Lakes Region, the refugee influx in Turkana County is anticipated to grow. Indeed, the influx of new arrivals from South Sudan in 2014 resulted in Kakuma camp surpassing its capacity by over 58,000 persons⁹. This has had significant social, economic and environmental implications, and thus it necessitated stakeholders to reconsider approaches to sheltering refugees in the area, given the likelihood of increased influx. It also compelled Turkana County and partners to develop a new approach of balancing humanitarian and developmental demands in a complex landscape-social-political, geographical and economic. This new approach is being applied in the development of the new Kalobeyi New Settlement, which this plan has been prepared to guide.

1 UNHCR. (2016). Kenya Factsheet: November 2016 Highlights. (2016).

2 See: Republic of Kenya. (2012). 2009 Kenya Population and Housing Census: Volume VIII (see footnote 2)

3 Turkana County Government (2016). County Investment Plan 2016-2020

4 Commission on Revenue Allocation. (2013). Kenya County Fact Sheets: June 13 Second Edition. (2017). Retrieved 10 January 2017, from (2013). Retrieved 10 January 2017, from <http://www.crakenya.org/wp-content/uploads/2013/07/CRA-County-Fact-sheets-2nd-Edition-June-2013.pdf>

5 See: Republic of Kenya. (2012). 2009 Kenya Population and Housing Census: Volume VIII, Analytical Report on Urbanization. Nairobi, Kenya National Bureau of Statistics

6 Takes Note of Commission on Revenue Allocation. (2013). Kenya County Fact Sheets: June 13 Second Edition (see footnote 1).

7 UNHCR. (2016). Refugees fleeing South Sudan pass one million mark. UNHCR. Retrieved 10 January 2017, from <http://www.unhcr.org/news/latest/2016/9/57db2d94/refugees-fleeing-south-sudan-pass-million-mark.html>

8 UNHCR. (2017). South Sudan, Africa's largest refugee crisis, needs urgent response – UN agency. Retrieved 15 February 2017, from: <http://www.un.org/apps/news/story.asp?NewsID=56147#.WKRfLdJ95GF>

9 UNHCR. Kakuma Refugee Camp. Retrieved 10 January 2017, from <http://www.unhcr.org/ke/479-kakuma-refugee-camp.html>

1.1. Project Inception

The Rationale for a New Approach

In June 2015, 1500 hectares of land in Kalobeyei, Turkana West Sub-County, were allocated for establishment of a new integrated refugee and host community settlement. This was after negotiations between UNHCR, the National Government, the County Government of Turkana and the host community. The land allocation was tied to a commitment that the implementing partners will restructure refugee assistance programming in Turkana County, with emphasis on socio-economic integration. Part of this demand for a paradigm shift is related to that fact that the repatriation of Sudanese refugees in 2005 triggered an “economic collapse”¹⁰. During a November 2014 Roundtable on Integration of Refugees and Host Community Economies, the partners were in consensus that a different approach to refugee assistance programming in Turkana County is imperative for long-term sustainability of interventions.

An Unsustainable Business as Usual

It was noted that the ongoing care and maintenance program has been based on the assumption that the refugee situation is ‘temporary’ and that the solution for displacement would be found soon. As such, refugees have been receiving full assistance for their basic needs until durable solutions are found for them. This takes unusually long than anticipated, which subsequently creates challenges of sustaining the refugee camps and increasing conflict between refugee and host communities related to unbalanced access to resources, among other factors. With the displacement situation ongoing for over two decades, the current form of aid is not tailored to the needs, situation and prospects of refugees and host communities. This is compounded by the emergent of high levels of refugee crisis in other parts of the world, and in the process resulting in increasingly scarcity and competition over limited resources.

Although informal robust trade between the refugees and host community has emerged over time, the economic potential of the camp has not been exploited and the host community feels that it has not benefited much from the presence of refugees. On environment, the impact of high influx of refugees in Turkana; Kakuma and Lokichoggio is evident. The host community practices pastoralism, meaning that establishment of refugee settlements could result in reduced land available for grazing. The reliance on firewood for energy has often been associated with forestry and vegetation cover depletion. Likewise, construction of refugee settlements result in increased extraction of ground water, a scarce resource in Turkana County.

Overall, the unbalanced assistance between refugee and host communities has led to socio-economic inequalities and in various ways even contributed to social conflicts or tensions between host and refugee communities.

Establishing the Turkana Initiative for New Approach

Subsequently, UNHCR in collaboration with the World Bank formulated the Turkana Initiative: Kalobeyei Integrated Social and Economic Development Programme (KISED). This was designed as multi-agency collaboration to guide the development of the Kalobeyei New Settlement and other programmes in Kakuma-Kalobeyei area, and with partnership with the Turkana County. KISED was thus premised on the point of departure that durable solutions are required in undertaking refugee related assistance programming in Turkana County, with emphasis on an integrated approach that result in equitable benefits between refugee and host communities.

¹⁰ UNHCR. Kalobeyei Settlement. Retrieved 10 January 2017, from <http://www.unhcr.org/ke/516-kalobeyei-settlement.html>

Within the KISED P framework UN-Habitat and UNHCR signed a MoU in July 2016¹¹, to jointly partner with the Turkana County Government in planning for the 1500 hectares spatial development and other related activities. This planning process is a sub-component of the Spatial Planning and Infrastructure, which is Component Two of KISED P. Other components of KISED P include: Component One-Sustainable Integrated Service Delivery and Skills Development; Component Three- Agriculture and Livestock, and Component Four-Private Sector and Entrepreneurship.

The process, being led jointly by the Turkana County Government, UN-Habitat and UNHCR, has resulted in an Advisory Plan for the Spatial Development of Kalobeyei New Settlement.

¹¹ Prior to this inter-agency MoU, Turkana County Government with Government of Kenya and United Nations System in Kenya agreed on a "Turkana County-United Nations Joint Programme 2015-2018". It's within this framework that UN agencies are coordinating development assistance in Turkana County, including KISED P.

1.1.1. Purpose of Kalobeyei Integrated Socio-Economic Development¹²

KISED - Kalobeyei Integrated Socio-Economic Development Programme

According to the draft concept note of the Turkana Initiative: Kalobeyei Integrated Socio-Economic Development Programme Project (KISED), the project was created to facilitate collaboration and coordination between the government, UN agencies, development actors, NGOs, private sector and civil society to deliver services and create socio-economic opportunities for self-reliance in Kalobeyei, a settlement envisioned to accommodate a population of over 60,000 (refugee and host communities).

The development is designed to have direct benefits to both refugees and host communities, with emphasis on a participatory process that will yield integration; and hence contribute towards its sustainability. In that case, Local Economic Development is part of the priority areas in implementing KISED.

The realization of KISED was conceptualized to unfold in three key phases as follows:

- Phase 1: 2016-2020 (4 years) - This phase will focus on laying down the foundations for long-term development interventions including developing strong coordination and synergy across various projects initiated and funded before KISED. It is also at this period that the project anticipates reacting to the emergency needs that may arise due to on-going civil strife in South Sudan. It should also be noted that with Government of Kenya's decision to close Daadab¹³, some of the refugees could be transferred to Kakuma-Kalobeyei during this period. This spatial plan for the settlement is among the initial and key activities of this first phase.

- Phase 2: 2021-2025 (5 years)-The second phase anticipates focusing on building sustainable services and economic opportunities, including undertaking major investments that are planned to transform Kalobeyei. The preparation of refugees for return and building resilience of the host community will also be a priority undertaking during this phase.
- Phase 3: 2026-2030 (5 years) - The project assumes the situation in South Sudan will have improved and that a number of the refugees will return. In order to retain the development build on the previous years, the project will focus on building local economic development, resilience and greater integration of the settlement in the regional economic flows.

The strategic and effective planning, accompanied by efficient implementation, collaboration and coordination across the activities and partners, will be a major catalyst for the success of Kalobeyei New Settlement. This Advisory Spatial Plan is seen as among the key foundations of anchoring the framework for a coordinated and well planned development of Kalobeyei.

¹² UNHCR & World Bank. (2015). Turkana Initiative: Kalobeyei Integrated Socio-Economic Development Programme (KISED). October 27, 2015. Draft Concept Note

¹³ Refugees, U. (2017). UNHCR statement on the future of Kenya's Dadaab refugee camps. UNHCR. Retrieved 11 January 2017, from <http://www.unhcr.org/news/briefing/2015/4/552d0a8a9/unhcr-statement-future-kenyas-dadaab-refugee-camps.html>

1.1.2. Plan Scope and Expected Outputs

Planning Scope Area

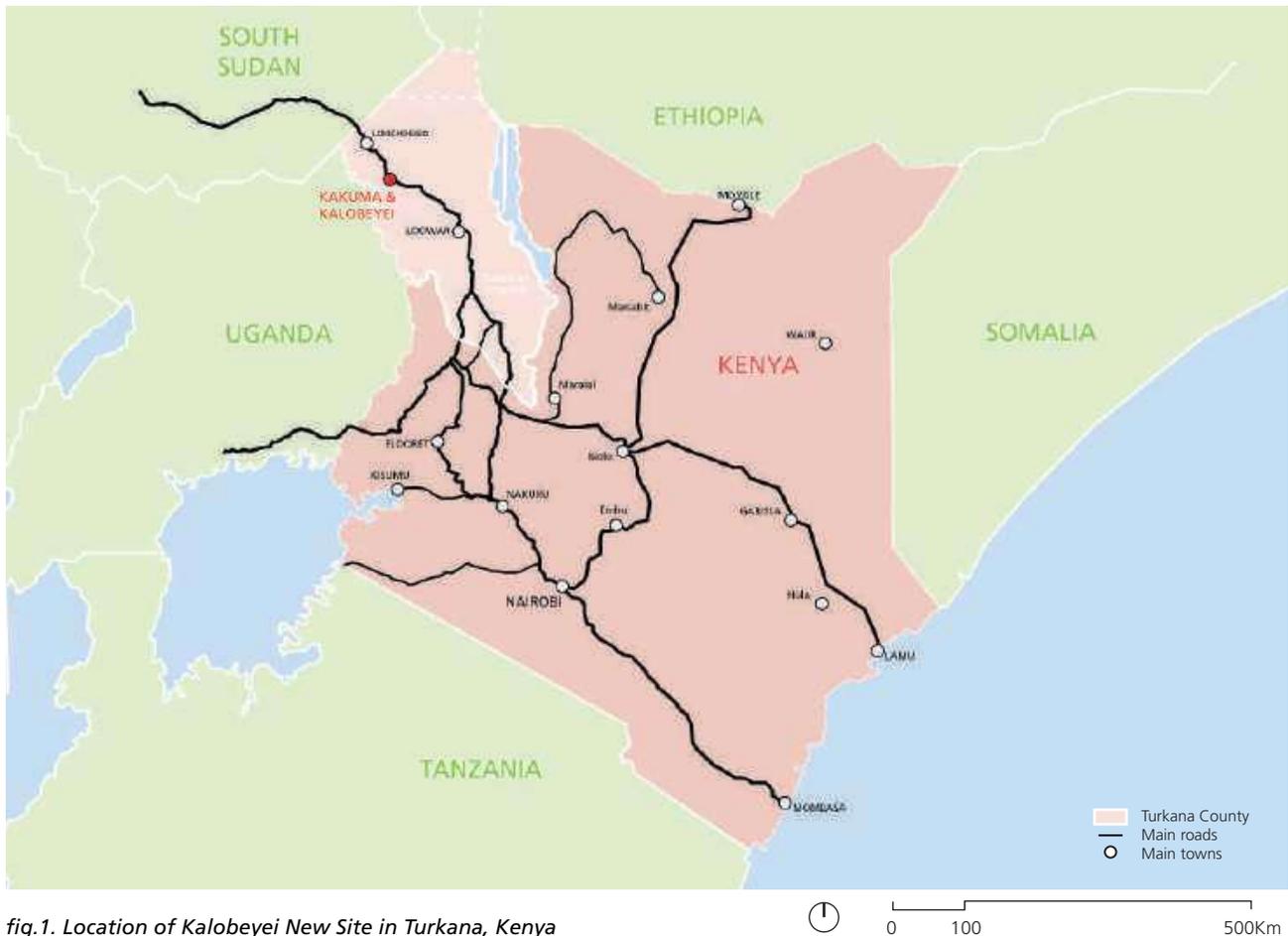


fig.1. Location of Kalobeyei New Site in Turkana, Kenya

The advisory plan for Kalobeyei covers the 1500 hectares of land that has since been demarcated as the site for the new settlement, and its immediate surroundings. The site is located in Kalobeyei Ward, Turkana West Sub-County. In formulating this plan, studies and analysis however covered a larger area. For instance the Baseline Socio-Economic Survey and Mapping covered Kakuma and Kalobeyei Wards. Communities in these two wards were also positioned as the key local stakeholders, as the host community. In that case, participatory activities of the planning process ensured participation of local stakeholders drawn from these two wards.

The expected outputs of the planning process are:

- Advisory Spatial Plan for Kalobeyei Settlement Development
- Enhanced capacity of Stakeholders on matters spatial planning and settlement development.
- Baseline Survey-informs the Advisory Spatial Plan and other policy and development decisions for the Kakuma-Kalobeyei Area.

1.1.3. Brief on the Planning Area

Planning Scope Area

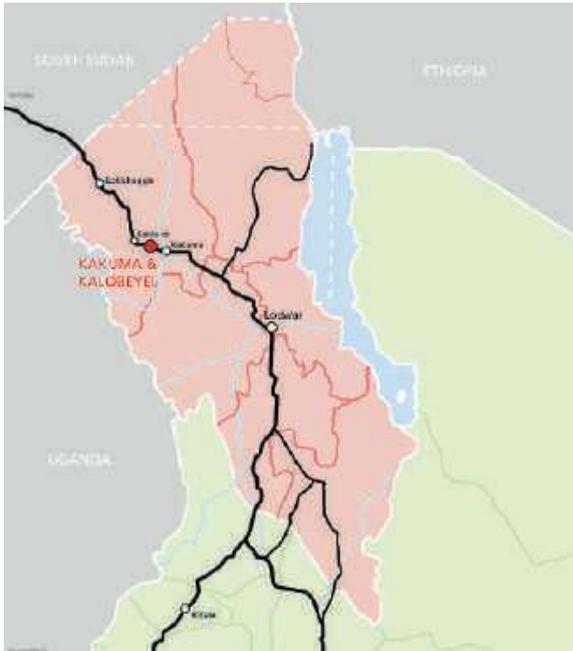


fig.2. Turkana County, Kenya

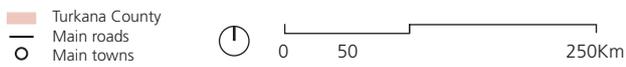


fig.4. Turkana West Sub-County, Kenya

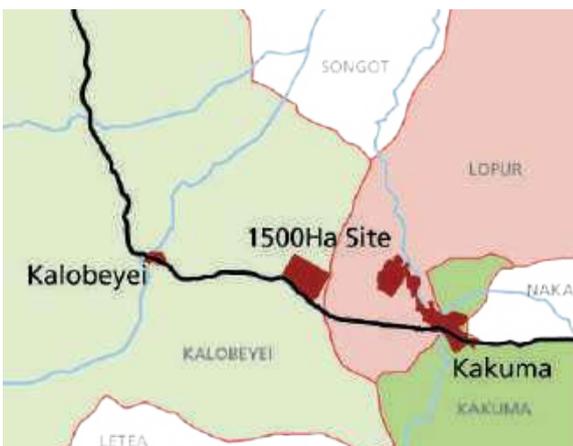
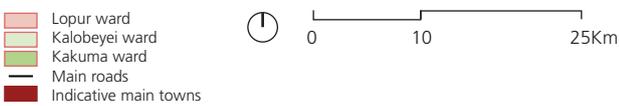


fig.3. Location of Kalobeyei New Site within the ward context



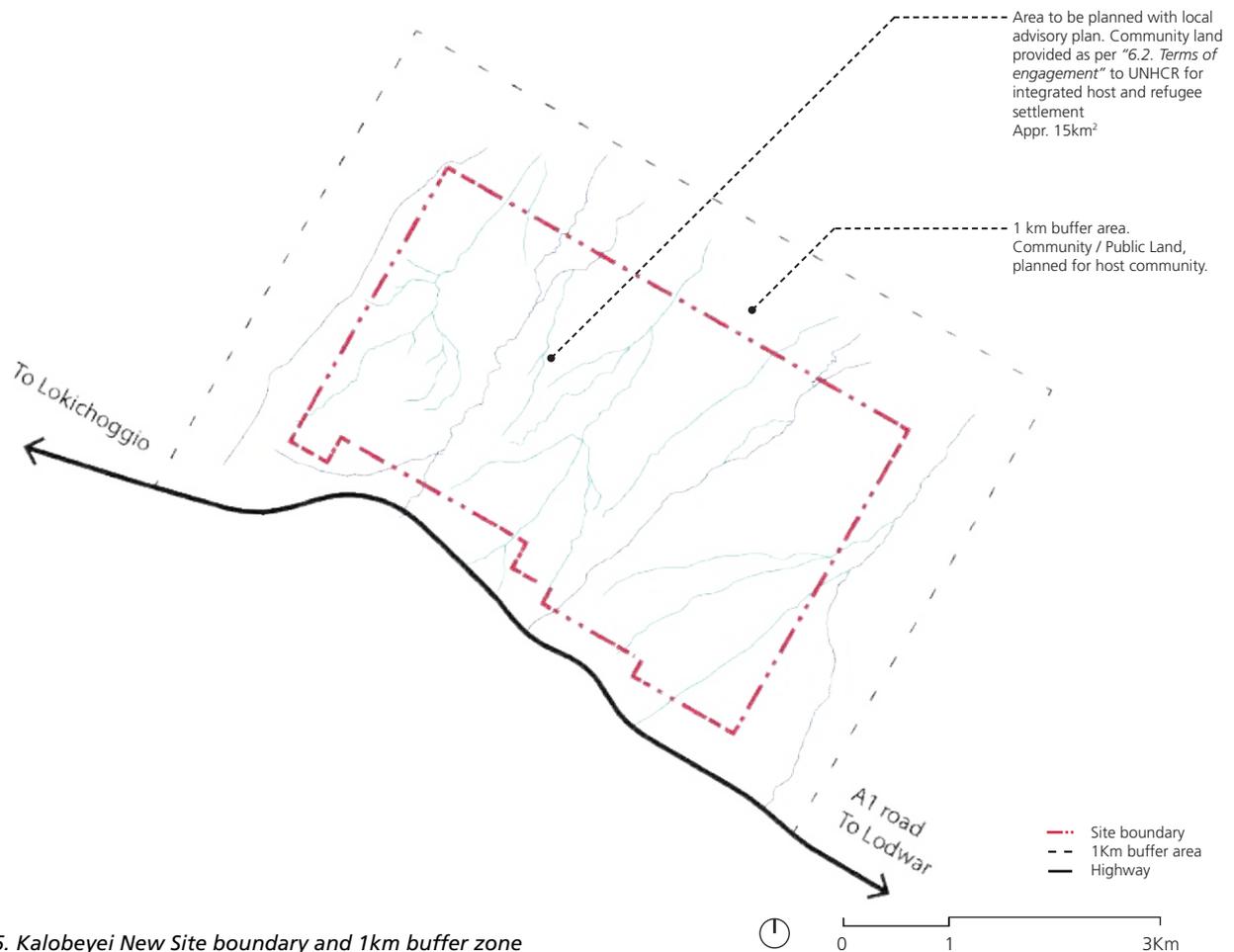


fig.5. Kalobeyei New Site boundary and 1km buffer zone

As aforementioned, the planning area is 1500 hectares of land located in Kalobeyei Ward. The site bounded by the A1 Road (the Lodwar-Lokichoggio section) on the South. This road links Kenya and Southern Sudan, now part of the Lamu Port-South Sudan-Ethiopia-Transport (LAPSSET). The site is situated 13 kilometres away from Kakuma town, and 12 kilometres from Kalobeyei town-along the A1 Road (See: "Chapter 2.2.1.National Policy Context, LAPSSET").

The moderately flat area used to be a grazing land for the local Turkana community, and with several villages (manyattas). The site's vegetation cover is mainly the grass and shrubs, with a surface hydrological pattern defined four main laggas (two within the site) draining the site.

1.2. Methodology

The Plan Formulation Process

The formulation of this plan was through a collaborative and participatory process, informed by an integrated planning and design approach. This integrated approach entails formulating plan proposals that consider, in relation to one other, the economic, physical, social and environmental conditions of the planning area. This is to ensure that plan guidelines are synergetic and that each investment adds value to another. In order to achieve this, consultations and coordination across the KISED P thematic components was undertaken, as well as by ensuring that the plan addresses the key sectors of settlement development including: infrastructure and housing, economy, land use and environment, population and demographics, governance, policy and legal frameworks, land use planning and design, and amenities.

Overall, the planning process was undertaken in three main phases: Inception; Baseline Assessment and Concept development and Plan formulation. The process was not sequential as would be observed with conventional planning processes. For instance formulation of the concept plan and draft settlement layout was undertaken prior to a comprehensive baseline survey, but was based on pre-existing (secondary data) which included: institutional reports (e.g. UNHCR and partner organization reports, Turkana county documents), site topographical survey undertaken by UNHCR, documented literature on refugee-host community issues in Kakuma/Turkana County, and other relevant documents. This enabled the planners to start developing conceptual plans that have been significant in guiding implementation of emergency response plans (e.g. shelter delivery) the nexus between the imperatives of emergency plans and the long-term settlement development plan (this plan). Therefore, this planning process was undertaken simultaneously with emergency response activities which entailed construction of emergency shelters, and provision of other support systems for the refugee influx during the period.

It is worth noting the iterative nature of the aforementioned process, where the design was constantly being adapted to respond to the analytical outcomes of an incremental accrue ment of new data.

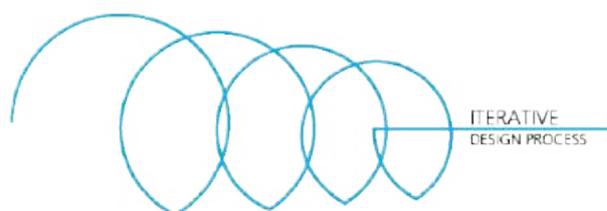


fig.6. Iterative process concept

Stakeholder Engagement and Public participation

Participation during the planning process was undertaken through a number of activities: a) bi-monthly and quarterly meetings of the partner organizations in the Spatial Planning and Infrastructure Development Component of KISED P; b) Workshops with Host and Refugee communities; c) consultation with Turkana County government officers, and d) consultation with local community leaders in Kalobeyei.

A comprehensive participatory baseline survey and mapping was undertaken during the planning process. This entailed conducting household surveys and participatory mapping of facilities and holding focused group discussions. After this study, validation workshops were held for host community and development partners in Kalobeyei and Kakuma, respectively. Throughout the engagements, the stakeholders have contributed to identifying issues: challenges and opportunities and making recommendations on various planning provisions especially social services, housing and environmental management.

UN-Habitat established Settlement Development Groups (SeDGs) to assist with the community engagement process for both the refugee and host community in Kakuma-Kalobeyei. It's within these groups that the plan formulation aspects were discussed. The activities of these groups are summarized as follows:

Host Community SeDG

- Introduction meeting with the host community and presentation of the project to the host community
- Nomination and selection of the host community SGD by the elders and community leaders
- Participatory planning workshop
- Training in town planning and livelihoods
- Presentation and validation of the key emergent issues
- Presentation and validation of the UN-Habitat proposal in supporting planning for integrated refugee and host community

Refugee Community SeDG

- Introduction meeting with the refugee community and presentation of the project
- Selection of the host community SGD
- Participatory planning workshop
- Training in town planning and livelihoods
- Presentation and validation of the key emergent issues
- Presentation and validation of the UN-Habitat proposal in supporting planning for integrated refugee and host community.

Several workshops were conducted for both refugee and host communities and other for combined. Some of key workshops are indicated in the timeline.

Data Collection Process

As aforementioned, the planning process employed an extensive data collection strategy. The plan relied on both secondary and primary data (Quantitative and Qualitative).

A detailed topographical survey of the 1500 hectares site was conducted, initially by UNHCR and later expanded (in terms of scope and detail) by UN-Habitat. The data of this survey was instrumental in optimizing design proposals for location of facilities, drainage and transportation networks, housing and general land use structure.

Mapping of facilities and socio-economic patterns, and collection of household and business data was undertaken for the wider Kakuma - Kalobeyi Area, including Lopur and Songot areas. This was done for the purposes of providing the planners with an in-depth understanding of the physical and socio-economic conditions for refugee and host community populations in the area.

The other major source data was documents provided by various development agencies and Turkana County offices. This information provided vital quantitative and qualitative data for informing planning proposals, with the aim of establishing appropriate strategies for building a new approach to Kalobeyi settlement.

Project Timeline

fig.7 outlines the project timeline: key phases; events and activities. The planning process was begun with the allocation of the 1500 hectares for the settlement, followed by the creation of the Turkana Initiative. A notice of Intention to plan (See “6.1. Intention to plan”) established the planning process within the legal framework of the plan preparation, as stipulated by the Physical Planning Act. The timeline also mark important milestones recorded during the plan preparation process. The plan took approximately 14 months to develop (See *fig.7*).

Project Timeline

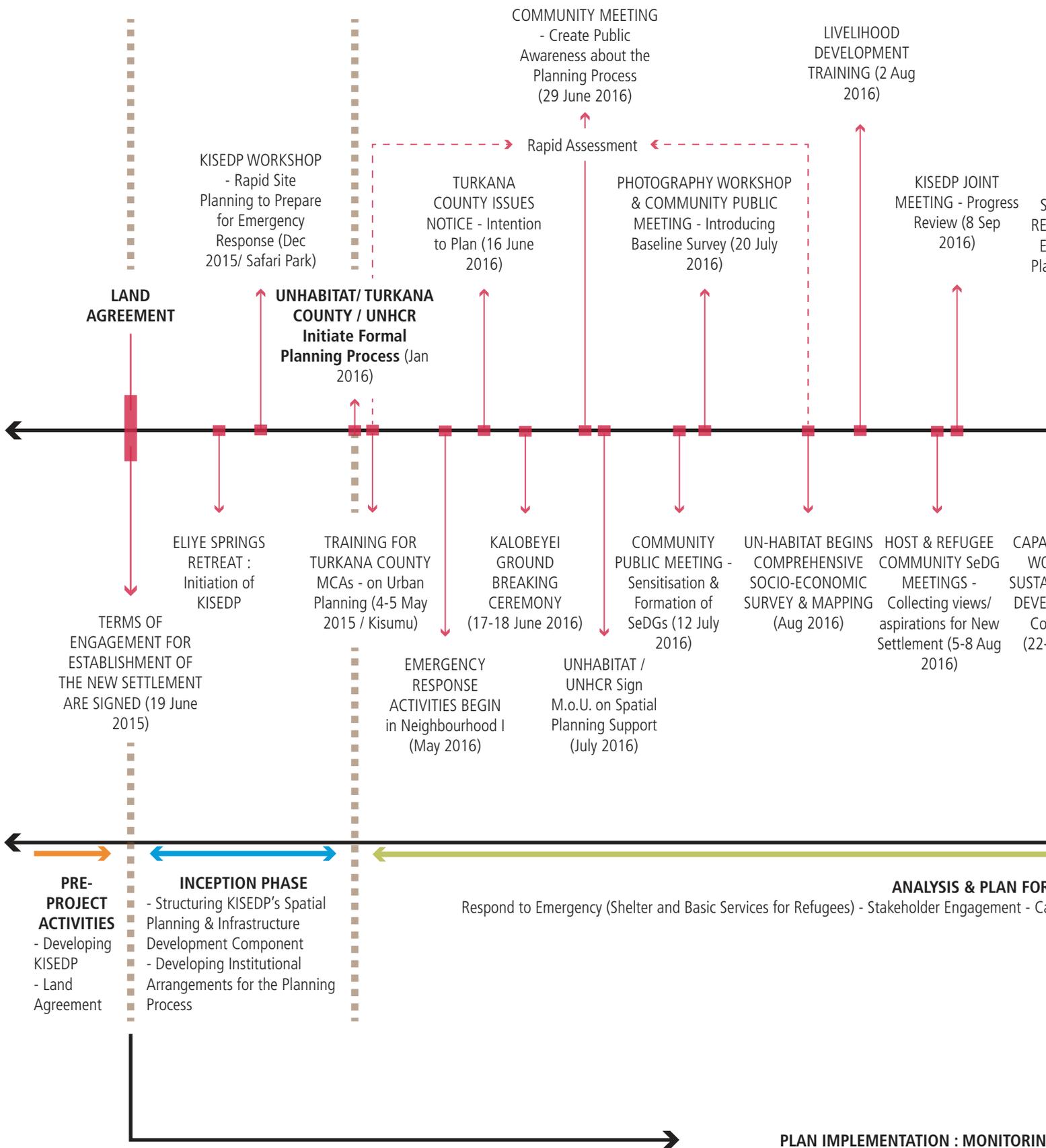
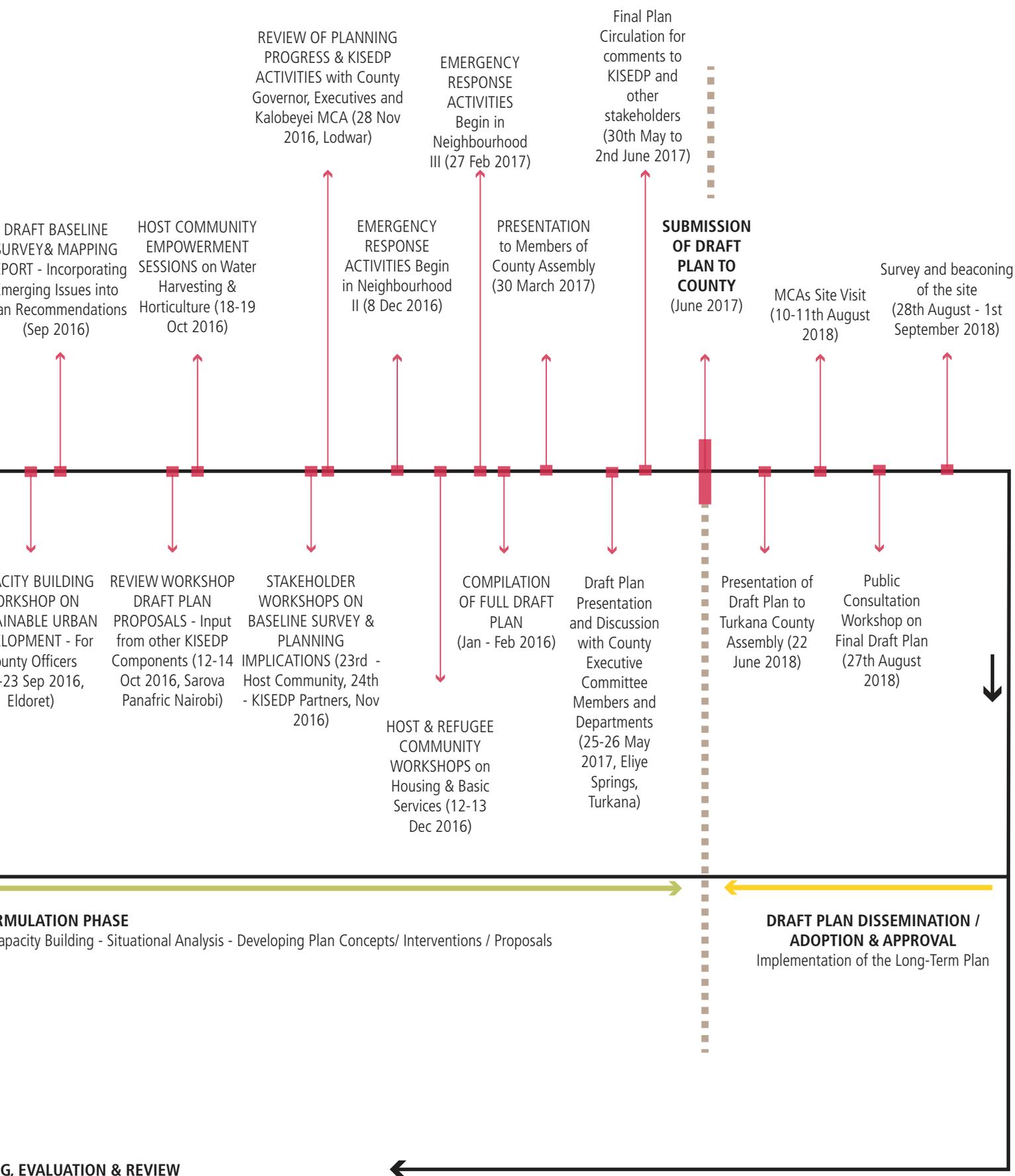


fig.7. Kalobeyei New Site project timeline © UN-Habitat





Situational Analysis Validation Workshop, Kalobeyi Town, Kenya © UN-Habitat/Julius Mwelu

2. POLICY, LEGAL AND INSTITUTIONAL CONTEXT

FRAMEWORK FOR SUCCESSFUL PLANNING & IMPLEMENTATION



Planning Workshop with Refugee Settlement Development Group, Kalobeyi New Site, Kenya © UN-Habitat/Julius Mwelu

2.1. Overview

Policy Framework

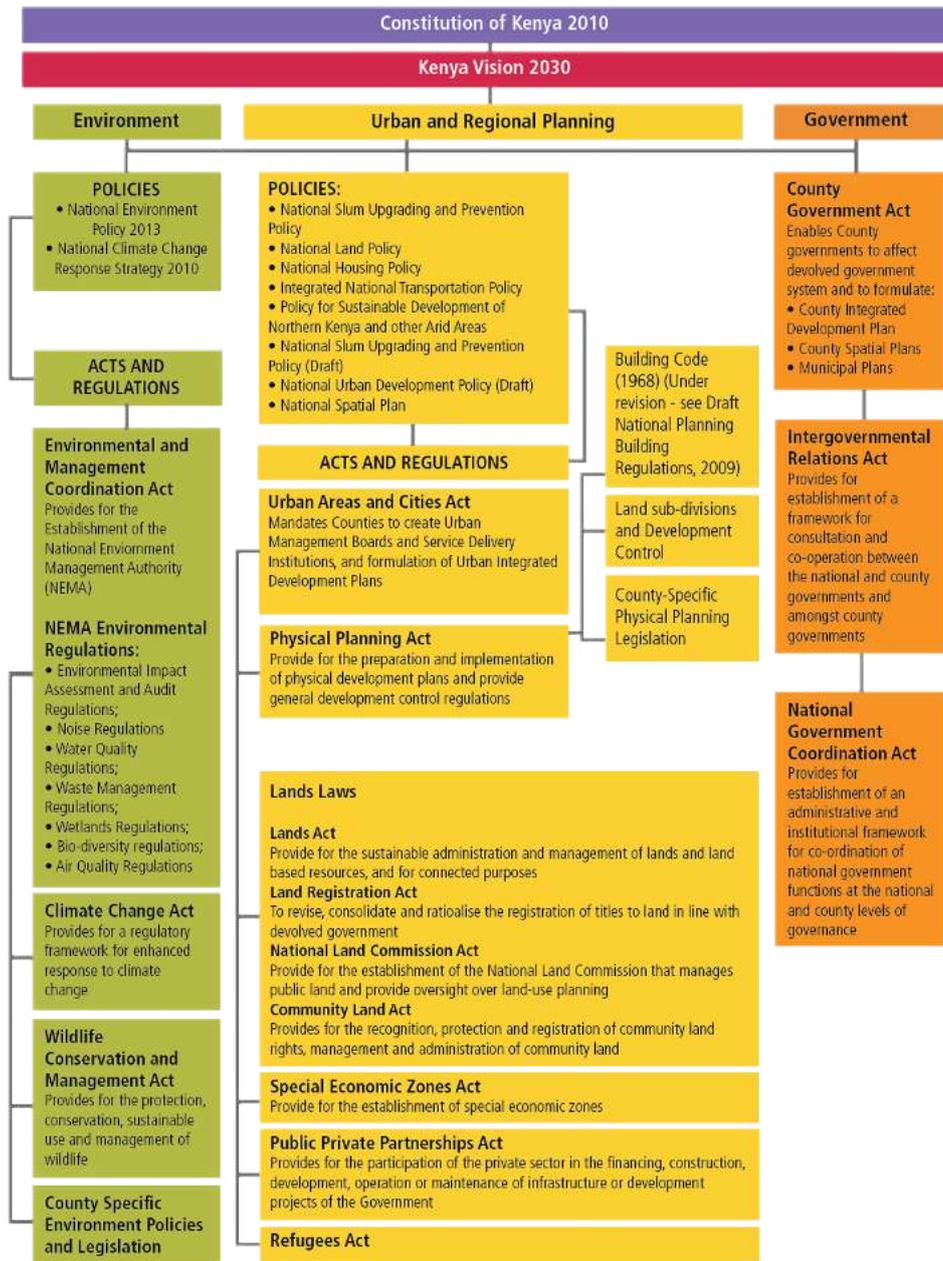


fig.8. Policy and Legal framework guidelines. © UN-Habitat

The preparation of this Plan is aligned to the provisions of various policies and legislations on spatial planning; at national and county government levels, as well as the relevant international policies (United Nations, which Kenya is a member state). The plan preparation and implementation is driven by a collaborative institutional arrangement, owing to the complex nature

of development. The chapter begins by outlining the policy framework, followed by the legal framework and later the institutional framework. *fig.8* summarizes the policy and legal framework guiding the formulation of this plan.

2.2. Policy Framework

2.2.1. National Policy Context

Kenya Vision 2030

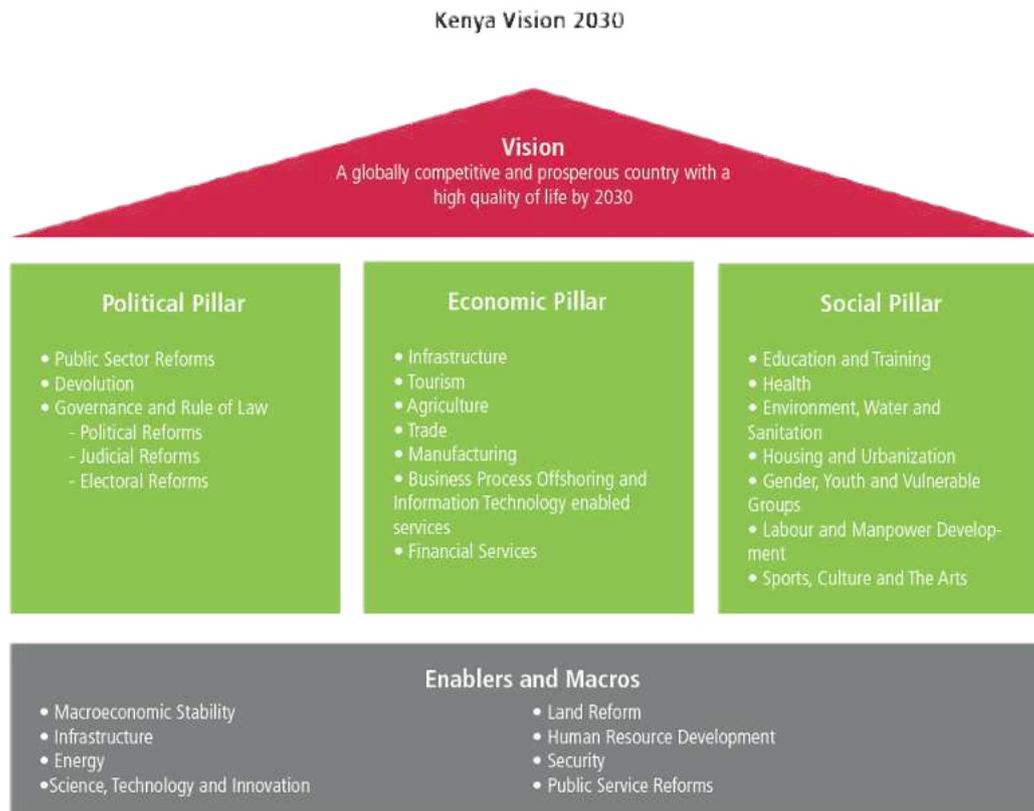


fig.9. Kenya Vision 2030

Source: Information Source: Kenya Vision 2030 <http://www.vision2030.go.ke/>

The policy context of this plan is analyzed at two levels: national and county level, and additional guidelines from UN charters/resolutions on refugees.

Kenya Vision 2030¹⁴ is the country's current development blueprint covering the period 2008 to 2030. It aims to transform Kenya into a newly industrializing, "middle-income country providing a high quality life to all its citizens by the year 2030". It contains the vision, strategies, plans and implementation.

The Vision is structured into three key pillars of deliverables¹⁵: Economic—"To maintain a sustained economic growth of 10% p.a. over the next 25 years";

Social: "A just and cohesive society enjoying equitable social development in a clean and secure environment"; and Political: "An issue-based, people-centered, result-oriented, and accountable democratic political".

The foundation of the Kenya Vision 2030 pillars is anchored on: infrastructure; science, technology and innovation; land reform; human resource development; security; and public service reform.

Of specific relevance to the Kalobeyei project development process are the following key aspects: Special attention to investment in arid and semi-arid (ASAL) districts.

14 See: Government of the Republic of Kenya (2012). Kenya Vision 2030. Sessional Paper on Kenya Vision 2030. Official Website for Kenya Vision 2030: <http://www.vision2030.go.ke/>

15 See: Government of the Republic of Kenya (20007). Kenya Vision 2030. The Popular Version.

LAPSSET Corridor



fig.10. LAPSSET route, Kenya

Source: <http://www.lapsset.go.ke/>

Aspiration to create an interconnected network of roads, railways, ports, airports, water and sanitation facilities, and telecommunications.

- Encouraging more private generation of power, and separating generation from distribution as well as developing the exploitation of renewable energy sources.
- Promoting the reform and respect of property rights to land, whether owned by communities, individuals or companies, as an important driver of rapid economic transformation.
- Promoting integration of host and refugee communities towards addressing “security, peace building and conflict management”.
- Promoting sustainable human settlement development, in view of housing and urbanization elements of the vision.

Lamu Port and Lamu-Southern Sudan-Ethiopia Transport (LAPSSET) Corridor

LAPSSET¹⁶ is among the Kenya Vision 2030 flagship infrastructure projects. It is a regional infrastructure megaproject that links Kenya, South Sudan and Ethiopia, and upon completion will be Kenya’s second major transportation corridor, the other being the Northern corridor. The development is also anticipated to boost-in significant way-efforts to open-up Kenya’s Northern frontier for increased investments, as well as accelerating urban development in the largely rural region.

This infrastructure project comprise of railway line,

¹⁶ See Official LAPSSET website for more information: <http://www.lapsset.go.ke/>

National Policy Context

highway, oil pipeline, energy projects, resort cities and other related projects. The A1 road: Lodwar-Lokichoggio Road is part of the LAPSSET, which in turn presents growth opportunities for Kakuma-Kalobeyi area as it's located along this transport corridor. Therefore, the formulation of this plan puts into consideration the need to harness the investments of LAPSSET for local economic development, especially with relation to market access, capital flows and industrial development. In addition to the transportation and oil pipeline infrastructure, LAPSSET has identified a site to develop a resort city in Turkana.

National Environment Policy

The Ministry of Environment, Water and Natural Resources, Kenya, formulated a National Environment Policy¹⁷, which policy proposes a broad range of actions needed to address environmental issues and challenges in Kenya, with emphasis on the value presented by environmental conservation and good management practices to national and local economic development.

Among other policy provisions, the following are proposed by the policy:

- Promote and enhance best practices for optimal and sustainable land use.
- Promote sustainable urban and peri-urban land uses.
- Involve and empower communities in land utilization and management.
- Involve and empower communities in the management of Arid and Semi-Arid Lands (ASAL) ecosystems.
- Develop and enforce integrated land use planning at all levels.
- Promote efficient adaptation measures for productive and sustainable resource management in the ASALs.
- The protection of wetlands, riverbanks, hilltops and slopes from unsustainable practices to prevent soil erosion and environmental degradation.
- Promote adaptation of the cleaner production concept in all energy production and consumption activities.

- Develop and implement a strategy to contain, control and mitigate alien and invasive species.
- Promote reduction of negative environmental footprints in production and trade practices.
- Strengthen capacity for national and county level institutions to support national climate resilience, low carbon development through integrating climate change into implementation strategies.

While the plan formulation and the proposals contained in this report are not limited to the above policy directives, the content of the plan promotes environmental sustainability from a wide range of provisions, including: energy, land-use mix and transportation, densities, water and sanitation, greenery and vegetation cover, and agriculture. For instance, the orientation of the blocks, network of green open spaces and urban agriculture provisions ensure that the natural hydrological system is protected and enhancement of greenery/vegetation cover in the site-after development. Rainwater harvesting, solar and wind power production, sustainable urban drainage techniques, improved dry sanitation techniques and water-conserving toilet systems, and alternative building materials are some of the environmentally-sensitive design approaches employed by the plan.

National Land Policy

The National Land Policy, Sessional Paper No. 3 of 2009¹⁸ was formulated to guide Kenya "towards efficient, sustainable and equitable use of land for prosperity and posterity". The policy formulation was premised on the following principles: equitable access to land, intra- and inter-generational equity, gender equity, secure land rights, effective regulation of land development, sustainable land use, access to land information, efficient land management, vibrant land markets, and transparent and good democratic governance of land.

The policy identifies three types of land: public land, community land, and private land. The policy directed the government to formulate various land laws, including the Community Land Act. The Kalobeyi New Settlement site is located in a community land area.

17 Government of Republic of Kenya, (2013). National Environment Policy, 2013. Ministry of Environment, Water and Natural Resources. Nairobi

18 Government of Republic of Kenya (2009). National Land Policy: Sessional Paper No.3 of 2009. Government printer, Nairobi

The policy also provides for land use planning as an essential tool for guiding sustainable utilization and management of land.

Of specific importance to this plan, the National Land Policy has addressed the land related issues of resettling refugees and internally displaced persons.

Section 3.6.8 Refugees and Internally Displaced Persons

Under this section, the policy recognizes the land and environmental challenges associated with setting up refugee camps. In order to address these issues and challenges, the policy states that:

The Government shall:

- Ensure that the establishment of refugee camps is subject to development planning and control;
- Put in place a legislative and administrative framework for establishing, planning and managing refugee camps taking into account this Policy, the Environmental Management and Coordination Act and other sectoral laws on natural resources;
- Build the capacity of relevant ministries, communities and the private sector to appreciate and address land-related environmental concerns in refugee camps;
- Involve host communities in setting up, planning and managing refugee camps; and
- Ensure the provision of adequate resources for the maintenance and rehabilitation of refugee camps.

The formulation of this plan has indeed considered and integrated the philosophy of the above provisions. The premise of formulating this Advisory Spatial development plan for Kalobeyei was to ensure that the establishment of the settlement is guided by a plan, with the county government taking lead in its formulation and ensuring developments that follow are anchored on the plan. At the same time, intense engagement with the host community has been factored during the formulation and subsequent implementation of this plan.

National Housing Policy for Kenya (2004)¹⁹

This policy was designed with the intention of addressing “deteriorating housing conditions countrywide and to bridge the shortfall in housing stock arising from demand that far surpasses supply, particularly in urban areas”. Provision for adequate shelter and health living environment at affordable rates to all socio-economic groups in Kenya, is a top priority of the policy. This is anchored on a broader goal of promoting sustainable human settlement development in the country, which includes prevention of informal settlements.

On that backdrop, this plan aims to inform a planned human settlement that promotes adequate shelter, quality living environment, and development that does not result in informal settlements in Kalobeyei. This contributes to overall national housing vision, as framed by the national housing policy.

Policy for Sustainable Development of Northern Kenya and other Arid Lands –Sessional Paper No. 8 of 2012

This policy was formulated “to facilitate and fast-track sustainable development in Northern Kenya and other arid lands by increasing investment in the region and by ensuring that the use of those resources is fully reconciled with the realities of people’s lives”. Key areas of focus include: Strengthening national integration, cohesion and equity; improve enabling environment for development with emphasis on infrastructure development, human capital, and security and the rule of law; developing alternative approaches to services delivery, governance and public administration; and strengthening climate resilience of communities. The development of Kalobeyei, as an integrated settlement will contribute towards improved livelihoods for the host and refugee community-especially on infrastructure and service delivery, human capital development, and build community resilience as the plan promotes alternative techniques in energy production, food production and integrates disaster risk management.

¹⁹ Government of Republic of Kenya, (2004). National Housing Policy for Kenya. Sessional Paper No. 3 of 2004. Ministry of Housing, Nairobi

National Policy Context

National Climate Change Response Strategy, 2010

The strategy was formulated to respond to the challenges and opportunities posed by climate change in Kenya, aiming for a climate change resilient country. The policy provides a global context of climate change, assesses the local impact in Kenya and goes ahead to formulate areas of strategic focus, as well as action plans. Sectoral strategies are in the sectors of agriculture, water, health, forestry, energy, tourism, social infrastructure and human settlements, physical infrastructure, and fisheries, coastal and marine eco-systems. Among the specific mitigation interventions proposed by the policy are: increasing forest cover, accelerating development of green energy and promoting energy efficiency, and improved crop production.

This plan builds on this strategy by integrating various mitigation measures such as use of alternative and sustainable green energy (e.g. solar and wind power), investing in technologies to increase food production in an arid area, environmental conservation, rain water harvesting, water and energy efficiency etc. The overall aim of the plan is to guide a low-carbon development, characterized by resource efficiency.

National Spatial Plan 2015-2045

This is a long-term national spatial plan intended to guide Kenya's spatial development for a 30 year period (2015-2045), including providing for national physical planning policies for informing micro level (lower-level) physical development plans. The National Spatial Plan provides development strategies for managing global impacts, optimizing the use of land and natural resources, promoting functional and livable human settlements, creating regional balance, transforming rural areas by modernizing agriculture, integrating national transportation, ensuring efficient and adequate infrastructure and conserving the environment.

National Land Use Policy²⁰ (Draft)

This policy is being drafted with the aim of providing "legal, administrative, institutional and technological framework for optimal utilization and productivity of land and land related resources in a sustainable and desirable manner at National, County and local level". Section 3.10 of the draft policy is on "Human Settlements and Urbanization", upon which the policy advocates for adequate planning at all levels, adequate shelter for all, use of local construction materials, and provision of adequate infrastructure and services in settlements. The policy also intends to address land use planning and land management. This plan aims to guide the sound development of Kalobeyei New Site in manner that land is effectively used and managed.

The plan has a comprehensive land-use framework (See "4.4. Land Use Framework"), as well as proposals for infrastructure and shelter development, community development, and environmental management.

National Urban Development Policy (Draft)

The rapid urbanization in Kenya has presented its equal share of opportunities as well as challenges. In order to harness the potential of urbanization, as envisioned in the Kenya Vision 2030, and to address the challenges facing urbanization and urban development in the country, policy makers embarked on the formulation of the National Urban Development Policy. The policy aims to provide an overall framework for sustainable urban development in Kenya. The focus areas of the policy are urban governance, urban finance, urban economy, urban planning, urban land, environment and climate change, urban infrastructure, urban housing, and urban disaster and risk management. Subsequently, the formulation of this plan takes into consideration the urban development processes associated with establishment of refugee settlements; hence, the plan aims to guide sustainable settlement development that creates value for the residents and local economy in Kalobeyei, but also contributes to the national vision of sustainability.

²⁰ Government of Republic of Kenya, (2016). National Land Use Policy. Draft, May 2016. Accessed on 26/01/17: <http://www.ardhi.go.ke/wp-content/uploads/2016/06/Draft-National-Land-Use-Policy-May-2016.pdf>

National Slum Upgrading and Prevention Policy,
Sessional Paper No. 2 of 2016 (Draft)

This policy aims to address the slum challenge in Kenya. It proposes policy measures to address existing slums and prevention of new ones developing. These policy provisions touch on socio-economic integration, security and safety, land tenure and administration, shelter and housing, infrastructure and services, finance, and legislative arrangements. The formulation of the Kalobeyi Plan will contribute towards realization of adequate and affordable shelter, infrastructure services and amenities, socio-economic integration and enhanced safety. Overall, this plan aims to shift previous approaches to refugee camp construction that have resulted in slum-like settlements, towards a planned settlement development that prevents growth degenerating into slum conditions.

2.2.2. County Policy Context

County Policy Context

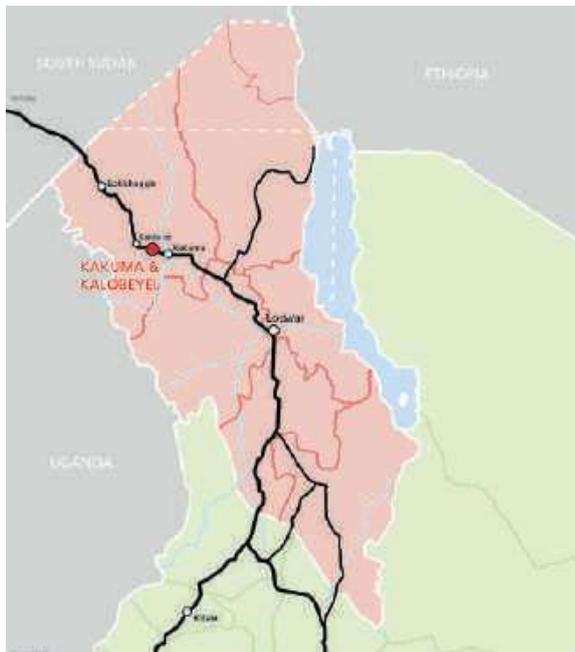
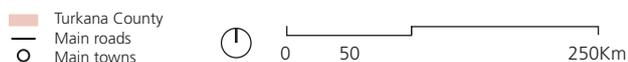


fig.11. Turkana County, Kenya



County Integrated Development Plan 2013-2017²¹

The County Integrated Development Plan (CIDP) provides a framework and coordination of development projects in the county. The plan covers the key development sectors, and prioritizes areas of focus for the 2013-2017 periods.

The CIDP strategies aim to address the key development challenges facing the county. Such challenges include: Communal land tenure system that undermines private sector investments, drought, poverty, inadequate water, insecurity, environmental degradation and climate change, inadequate marketing system, livestock diseases, low literacy levels, and gender inequality (especially under-empowerment of the woman).

The CIDP Chapter on Lands, Physical Planning and Urban Areas Management states the county's vision for the sector as "to develop spatial policies and plans for proper administration of land use, physical planning and urban areas management for socio-economic development". Spatial planning is a priority for the county government, as well as coordinated development, infrastructure development, land administration and management, and urban areas management.

The Kalobeyei Plan will significantly contribute towards achieving the CIDP objectives on planned settlement development, and upon implementation, result in infrastructure development, improved security, increased access to basic services such as health care, water and sanitation, and energy, increased access to education etc.

²¹ Turkana County Government (2013). County Integrated Development Plan 2013-2017.

County Investment Plan 2016-2020²²

The County Investment Plan (CIP) identifies the investment opportunities available in Turkana County. These include: infrastructure, energy, whole sale and retail, tourism, pastoral economy and agriculture, health, education, finance and banking, land and housing, ICT, human resource development, security, and manufacturing.

In terms of infrastructure, part of the aims of the capital investment plan is to improve water and sanitation in the major towns including Kakuma, increased connection to electricity grid to 30% of the population, improved road infrastructure, additional 100 ECD, 200 primary and 100 secondary school classrooms, energy projects (mainly wind, geothermal and solar), and housing development.

It is anticipated that the implementation of the Kalobeyi Plan will attract investments in the Kalobeyi-Kakuma area, especially on education, health care, infrastructure and housing, energy and transportation. Overall, KISED P linked with LAPSET and County investments will have significant impact on transforming development in Kalobeyi-Kakuma area.

²² Turkana County Government (2016). County Investment Plan 2016-2020.

2.2.3. International Policy Context

International Policy Context

The fact that majority of the Kalobeyei New Settlement will be refugees, this plan has taken into consideration the various United Nations policy directives that apply to this planning process.

Agenda 2030 for Sustainable Development²³

The expiry of the Millennium Development Goals, the United Nations member states formulated and adopted the Sustainable Development Goals (SDGs). These are seventeen Goals that will guide the development agenda for the next 15 years, from 2016 to 2030. The General Assembly declaration empowers each government to “decide how these aspirational and global targets should be incorporated into national planning processes, policies and strategies”.

For the first time, a Goal was specifically formulated for cities and human settlements. Goal 11 that commits member states to “Make cities and human settlements inclusive, safe, resilient and sustainable”. Under this goal, the targets address: access to adequate, affordable housing and basic services, access to affordable and sustainable transportation system, sustainable human settlement planning and management, safeguarding cultural and natural heritage, resilience, environmental management, public spaces, inclusion, urban-rural linkages, development planning, and sustainable buildings.

Art 23. Of the Agenda commits governments to empower vulnerable people, who include: “all children, youth, persons with disabilities (of whom more than 80 per cent live in poverty), people living with HIV/AIDS, older persons, indigenous peoples, refugees and internally displaced persons and migrants.”

Further, the agenda states that “We recognize the positive contribution of migrants for inclusive growth and sustainable development. We will cooperate internationally to ensure safe, orderly and regular migration involving full respect for human rights and the humane treatment of migrants regardless of migration status, of refugees and of displaced persons.

Such cooperation should also strengthen the resilience of communities hosting refugees, particularly in developing countries.” Subsequently, the planning of Kalobeyei is premised on the guidelines of the SDG and has specific focus on how integrated refugee and host community settlement will be developed to contribute towards global, national and county contribution to the SDG Agenda.

New Urban Agenda: Quito Declaration on Sustainable Cities and Human Settlements for All²⁴

By 2050, the World’s urban population is expected to nearly double, which will make urbanization a significant transformation of the twenty-first century. This necessitates governments and other actors to invest in strategies that will harness the potential of sustainable urban development, address the challenges facing cities and human settlements such as slums and informal settlements, growing inequalities and environmental degradation, spatial segregation and economic exclusion, and emerging challenges. The New Urban Agenda calls for readdressing the way “cities and human settlements are planned, designed, financed, developed, governed and managed”. The declaration outlines commitments in various areas including:

- Transformative commitments for sustainable urban development,
- Sustainable urban development for social inclusion and ending poverty
- Sustainable and inclusive urban prosperity and opportunities for all
- Environmentally sustainable and resilient urban development
- Building the urban governance structure: establishing a supportive framework
- Planning and managing urban spatial development

This plan aims to guide stakeholders involved in the Kalobeyei settlement development, undertake implementation activities that build-up to a sustainable human settlement, as envisioned by the New Urban Agenda.

²³ See http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

²⁴ United Nations General Assembly (2016). Implementation of the outcomes of the United Nations Conferences on Human Settlements and on Housing and Sustainable Urban Development and strengthening of the United Nations Human Settlements Programme (UN-Habitat). New Urban Agenda. 71st Session Agenda Item 20

Universal Declaration of Human Rights (1948)

The United Nations General Assembly, proclaimed the Universal Declaration of Human Rights as common standard of achievements for all peoples and all nations. Therefore, this plan aims to guide an integrated settlement that offer quality of life to both refugees and the host community.

The Right to Adequate Housing²⁵

The Right to Adequate Housing is a declaration that recognizes adequate housing is a necessity of everyone. On refugees, an excerpt of the declaration reads as follows: "Refugee and IDP camps around the world, particularly when displacement is protracted, are often dilapidated and overcrowded, providing inadequate shelter and services. Sometimes their inhabitants enjoy no basic services at all. Displaced women and girls living in camps can be subject to sexual and gender-based violence, for instance because not enough attention is paid to their specific needs and vulnerabilities in the design and layout of the camp".

In the same way, the declaration also addresses housing issues of indigenous peoples (in this case of the Kalobeyei plan, the host community is interpreted as indigenous peoples). An excerpt from the declaration reads: "Indigenous peoples are more likely than other groups to live in inadequate housing conditions and will often experience systemic discrimination in the housing market. Of particular concern is their generally poor housing situation (especially compared to majority populations), including inadequate basic services, their vulnerability as groups affected by displacement, the insecure tenure they often have over their traditional lands, and the culturally inappropriate housing alternatives often proposed by the authorities."

The declaration further advocates for a participatory approach to housing delivery in order to respond to social-cultural imperatives of housing typologies. In an effort to address this, the Kalobeyei planning process conducted a comprehensive household survey, with housing needs-including design issues-covered in the study. The findings indicated that housing transformations have a strong connection to social-cultural practices; hence, the proposed site plans and housing designs envision flexibility in the long-term, although at the emergency phase a standard housing unit is being delivered due to funding limitations and the need to react to the emergency situation.

²⁵ Office of the United Nations High Commissioner for Human Rights

2.3. Legal Framework

2.3.1. The Constitution of Kenya (2010)

The Constitution of Kenya (2010)

The Constitution of Kenya (2010) introduced a two-tier government system in Kenya: national government and county governments (forty-seven of them). Distributions of functions between these two levels of government are stipulated in the Fourth Schedule of the constitution. With regards to planning, the national government is charged with housing policy, general principles of land planning and the coordination of planning by the counties, among other functions. At the county level, county governments are mandated to undertake county planning and development, including: statistics, land survey and planning, boundaries and fencing, housing, electricity and gas reticulation etc.

Chapter Five of the constitution addresses Land and Environment where three types of land are defined: public land, community land and private land. The site demarcated for the Kalobeyei New Site is community land. Art.63.4 of the Kenyan constitution states that before the enactment of the Community Land Act County government should refrain from disposing of communal rights and only the Community Land Act would regulate the nature and extent of those rights²⁶.

Article 60 of the constitution, outlines the land policy in Kenya, by stipulating that “land in Kenya shall be held, used and managed in a manner that is equitable, efficient, productive and sustainable, and in accordance with the following principles:

- Equitable access to land;
- Security of land rights;
- Sustainable and productive management of land resources;
- Transparent and cost effective administration of land;
- Sound conservation and protection of ecologically sensitive areas;
- Elimination of gender discrimination in law, customs and practices related to land and property in land; and
- Encouragement of communities to settle land disputes through recognized local community initiatives consistent with this Constitution.”²⁷

The planning process and the resultant land use framework proposed for Kalobeyei New Settlement considers the above principles, as outlined in the detailed explanation in “4. Planning Proposals” of this report.

On Approval of Plans:

Article 185(1)-4, b: A county assembly may receive and approve plans and policies for:

- The management and exploitation of the county’s resources;
- Development and management of its infrastructure and institutions

Fourth Schedule-Part 2: Functions of County Governments:

- 8: county planning and development

²⁶ Art.63.4 of the Kenyan constitution: “Community land shall not be disposed of or otherwise used except in terms of legislation specifying the nature and extent of the rights of members of each community individually and collectively”.

²⁷ Republic of Kenya. (2010). The Constitution of Kenya, 2010.

2.3.2. Specific Laws and Regulations

Specific Laws and Regulations

County Government Act

The County Government Act was enacted to provide legislative framework for implementing the devolved government system as per Chapter Eleven of the Kenya Constitution (2010). This act “provide for county governments’ powers, functions and responsibilities to deliver services and for connected purposes”²⁸. Part XI of the County Government Act, “County Planning”, is dedicated fully to addressing planning issues in the county, with emphasis on integrating economic, physical, social, environmental and spatial planning.

County planning is based on four types of plans²⁹:

- County Integrated Development Plans (CIDPs)
- County Sectoral Plans
- County Spatial Plans (CSP); and
- cities and urban areas plans as provided for under the Urban Areas and Cities Act (No. 13 of 2011).

The CIDPs are 5-year plans intended to identify development initiatives in the county, including infrastructure, physical, social, economic and institutional development whereas the county spatial and sectorial plans are 10-year plans that form part of the CIDP³⁰. However, CSPs provide a spatial depiction of the social and economic development programme of the county³¹ while the sectorial plan is programme based and the basis for budgeting and performance management³². Finally, the city or municipal plans provide:

- Functions and principles of land use and building plans;
- Location of various types of infrastructure within the city or municipality; and
- Development control in the city or municipality within the national housing and building code framework³³.

The County Government Act identifies: equity, social and economic integration, environmental conservation, resource mobilization, stakeholder engagement, sustainability and policy integration among a set of principles for undertaking planning. KISEDPA aims at guiding the realization of an integrated settlement development that addresses land, infrastructure and services, economic and social needs of the residents. The plan also makes reference to such principles, and has subsequently formulated strategies for promoting integration and sustainability. The plan’s analysis of existing conditions identifies a set of opportunities and challenges, upon which the plan proposals seeks to harness the local development potential, address spatial and socio-economic integration, and has been formulated as a tool for resource mobilization and coordination of planning, budgeting and financing of the development, which are part of county planning objectives.

The legislation has also provided room for participation of non-state actors in planning, and emphasis that planning processes should be undertaken in a participatory environment. This plan didn’t not undertake stakeholder participation as a mere compliance to the provisions of this Act and other legislation, but it did so as a principle, on the fact that plans formulated in a participatory manner are easier to implement and their outcomes are sustainable.

On Approval of Plans:

Article 30 [1] [f] of the County Government Act of 2012- gives the County executive responsibility to “submit the county plans and policies to the county.”

8: Role of County Assembly, include:

- Approve county development planning
- Perform the roles set out under Article 185 of the Constitution

²⁸ Government of Republic of Kenya, (2012). County Governments Act: Chapter 265.

²⁹ S.107, Republic of Kenya, (2012). County Governments Act: Chapter 265

³⁰ S. 108, Republic of Kenya, (2012). County Governments Act: Chapter 265

³¹ S.109, Republic of Kenya, (2012). County Governments Act: Chapter 265

³² S.110, Republic of Kenya, (2012). County Governments Act: Chapter 265

³³ S.111, Republic of Kenya, (2012). County Governments Act: Chapter 265

Specific Laws and Regulations

Physical Planning Act Cap 286³⁴

This legislation provides a framework for the preparation and implementation of physical development plans. The legislation was formulated before the Kenya Constitution of 2010 that introduced devolved governments. However, the Act remains relevant in the context of its provisions for preparation of physical development plans. In that case, this plan formulation resonates with the provisions of the Act that relate to preparation of local physical development plan, specifically the issues and content that such plans should address-Sections 24 and 25, and Second and Third Schedules of the Act. Anchored on these provisions, this plan has provided guidelines for: land-use, development control-density, building lines, setbacks and construction, provisions for infrastructure development, environmental management and socio-economic development. The planning process also commenced with a Public Notice on Intention to Plan, a requirement by this law. Other areas of alignment to this law were public/stakeholder participation.

Urban Areas and Cities Act-CAP 275

This Act “provide for the, classification, governance and management of urban areas and cities; to provide for the criteria of establishing urban areas, to provide for the principle of governance and participation of residents and for connected purposes”³⁵. On planning the Act stipulates that any settlement with a resident population of above 2000 people is a planning unit. First Schedule of the Act provides criteria for classifying cities and towns by services. According to the Act a city should have a population of at least 250,000 people; at least 70,000 population and maximum of 249,000 for a municipality, and at least 2,000 and below 70,000 population for a town, based on the final gazetted results of the latest population census. Besides population, there are other requirements³⁶ that include:

- Demonstrable economic, functional and financial viability;
- The existence of an integrated development plan in accordance with this Act;
- The capacity to effectively and efficiently deliver essential services to its residents as provided in the First Schedule (these include: Street Lighting, Cemeteries and Crematoria, Libraries, Heath Facilities, Sports and Cultural Activities, Abattoirs, Refuse Collection, Solid waste management, Air noise, Child Care Facilities, Pre-Primary Education, Community Centers and Guest Houses);
- Sufficient space for expansion.

The Second Schedule covers Rights of, and Participation by Residents in Affairs of their City or Urban Area. The Third Schedule specifically covers preparation of an integrated plan. The Act also provides for the establishment of urban boards for urban management, as well as citizen fora for participatory governance of urban centres.

The Act does not explicitly address the status of settlements whose dominant population is refugees.

34 Republic of Kenya. (2010). Physical Planning Act-CAP 286

35 Republic of Kenya. (2010). Urban Areas and Cities Act

36 S.10.2, Republic of Kenya. (2010). Urban Areas and Cities Act

The Kenya Population and Housing Census reported the population of Kakuma town as 36,494 people³⁷, which imply that the population of the refugee camp area was not considered in calculating the town's population. Kenya National Bureau of Statistics started reporting on refugee statistics in 2015, although in 2009 data on refugees was collected but not analyzed³⁸. For Kalobeyei New Settlement to be conferred a town status, there will be need for further engagement with the legal provisions beyond the Urban Areas and Cities Act.

National Land Commission Act No. 5 of 2012

This legislation was enacted to “make further provision as to the functions and powers of the National Land Commission, qualifications and procedures for appointments to the Commission; to give effect to the objects and principles of devolved government in land management and administration, and for connected purposes”³⁹. The Act tasks the National Land Commission with the responsibility of managing and administering all unregistered trust land and unregistered community land on behalf of the County government. The Commission is also mandated to monitor and have oversight responsibilities over land use planning in Kenya.

Community Land Act, 2016⁴⁰

The legislation was formulated to “provide for the recognition, protection and registration of community land rights; management and administration of community land; to provide for the role of county governments in relation to unregistered community land and for connected purposes.” The Act recognizes customary land rights, and directs county governments to hold in trust all unregistered community land on behalf of the communities for which it is held.

For purposes of acquiring community land by the state, the Act states that “Subject to Article 40 (3) of the Constitution and the Land Act, no interest in, or right over community land may be compulsorily acquired by the State except in accordance with the law, for a public purpose, and upon prompt payment of just compensation to the person or persons, in full or by negotiated settlement”. The transitional provisions of the Community Land Act state that all transactions in community land executed before the Community Land Act was enacted should be continued in accordance with the provisions of the Act⁴¹. Pursuant to the Community Land Act (CLA)⁴², community land as well as the community holding it should be registered. Unregistered community land cannot be sold, disposed, transferred or converted⁴³. Similarly, the Act restricts the function of land use and development planning to a registered community⁴⁴. Moreover, in the event of State expropriation, the county government holds the compensation received in trust for the community⁴⁵.

37 Republic of Kenya (2012). 2009 Kenya Population and Housing Census: Analytical Report on Urbanization. Kenya National Bureau of Statistics, Nairobi

38 See: <http://www.efta.int/sites/default/files/documents/statistics/training/Refugee%20Statistics%20in%20Kenya.pdf>

39 Government of Republic of Kenya. (2012). National Land Commission Act.

40 Government of Republic of Kenya. (2016). The Community Land Act, 2016. Government Printer, Nairobi.

41 S.46.2 Community Land Act No. 27 of 2016

42 The Community Land Act No. 27 of 2016

43 S.6.8 , The Community Land Act No. 27 of 2016

44 S.19.1, The Community Land Act No. 27 of 2016

45 S.6.2, The Community Land Act No. 27 of 2016

Specific Laws and Regulations

Lands Act⁴⁶

This an “Act of Parliament to give effect to Article 68 of the Constitution, to revise, consolidate and rationalize land laws; to provide for the sustainable administration and management of land and land based resources, and for connected purposes.” The act recognizes four forms of tenure: 1) freehold, 2) leasehold, 3) such forms of partial interest as may be defined under the Act and other law, including but not limited to easements; and 4) customary land rights, where consistent with the Constitution. Section 7 of the Act stipulates the methods of acquisition of title to land, which include allocation, compulsory acquisition, settlement programmes etc. For management of community land, the act states that “Community land shall be managed in accordance with the law relating to community land enacted pursuant to Article 63 of the Constitution” (Article 37). Article 160 (2, c) of the Act mandates the Commission (National Land Commission) make regulations “to establish, plan and manage refugee camps”, and under purposes for Land Settlement Fund, the establishment and management of refugee camps is among the areas listed for support.

Environmental Management and Coordination Act⁴⁷

The Act was enacted to provide the country with institutional framework and procedures for the environmental management. In 2015, the Act was amended to align it to the Kenya Constitution, 2010. Through this Act the National Environment Management Authority (NEMA) was established. NEMA has subsequently formulated the following policy guidelines to promote environmental conservation and management in Kenya: Environmental Impact Assessment and Audit Regulations (EIA/EA), No. 121 of 2003, Noise: Environment Management and Co-ordination (Noise and Excessive vibration Pollution Control) Regulations, No. 61 of 2009), Water Quality: Environment Management and Co-ordination (Water Quality) Regulations, No. 120 of 2006), Waste Management: Environment Management and Co-ordination (Waste Management) Regulations, No. 69 of 2006). According to the Environmental Management and Coordination Act, activities that involve major change of land use as well as urban development projects need to undergo an environmental impact assessment⁴⁸. This plan has integrated the relevant provisions of these guidelines within the plan and design content, and as part of the Environmental Management Strategy for the development. An EIA study was undertaken through UNCHR and submitted to NEMA, as per the requirements of this Act. The plan further recommends that periodic Environmental Audit as a monitoring and evaluation tool for environmental sustainability.

46 Government of Republic of Kenya. (2012). Land Act, Chapter 280.

47 Republic of Kenya. (2012). The Environmental Management and Coordination Act. Government Printer, Nairobi

48 Second schedule S. 58.1& 2, “The proponent of a project shall undertake or cause to be undertaken at his own expense an environmental impact assessment study and prepare a report thereof.....which is submitted to the National Environment Management Authority, in the prescribed form, giving the prescribed information and which shall be accompanied by the prescribed fee.”

Climate Change Act 2016⁴⁹

This legislation was enacted to “provide for a regulatory framework for enhanced response to climate change; to provide for mechanism and measures to achieve low carbon climate development, and for connected purposes”. The Act aims to promote development that enhances climate change resilience and low carbon development, including uptake technologies that improve efficiency and reduce emissions. This plan promotes such technologies e.g. green energy, and sustainable infrastructure solutions for drainages, paving etc.

Survey Act Cap 299⁵⁰

This Act makes “provision in relation to surveys and geographical names and the licensing of land surveyors, and for connected purposes”. It indicates that any land survey work related to land transactions and marking of boundaries for land holding have to be done in accordance of the law. The registration of the Kalobeyei Settlement Site thus requires application of this law and other land-related legislation.

Building Code, 1968

The building Code was enacted in 1968 to regulate the building process in Kenya. The code provides regulations for: Siting and space about buildings (affects development control), building materials-includes for utilities and engineering works, advertisements, and has general provisions. Owing to its context, during formulation and advancement in the planning, design and construction sectors, a process of formulating a new building code is underway. Part of the progress made by the review process was the publication of draft “Planning and Building Regulations, 2009”, in five volumes: 1) Interpretation and Administration, 2) Physical Planning, Siting and Site Preparation, 3) Structure and Materials, 4) Building Services and 5) Safety, Disaster Risk Management and Maintenance. The Kalobeyei plan considers the relevant provisions of the Building Code and the draft regulations.

49 Republic of Kenya. (2016). The Climate Change Act, 2016. Government Printer, Nairobi

50 Republic of Kenya. (2012). The Survey Act, Chapter 299. Government Printer, Nairobi

Refugees Act 2006⁵¹

To address the accommodation of refugees, the Kenya government enacted the refugees Act in 2006. The Act makes “provision for the recognition, protection and management of refugees and for connected purpose”. The Kalobeyei New Settlement will provide residency to refugees. With reference to that, the plan recognizes the legal provisions regarding refugees in Kenya. The plan aims to facilitate a settlement “maintained and managed in an environmentally sound manner”. The Act provides for the establishment of Department of Refugee Affairs and Commissioner for Refugee Affairs⁵². The Commissioner is supposed to “ensure, in liaison with the United Nations Agencies and any other institutions, the provision of adequate facilities and services for the protection, reception and care of refugees within Kenya; manage refugee camps and other related facilities; ensure that refugee economic and productive activities do not have a negative impact on host communities, natural resources or the local environment; ensure sustainable use of resources in designated refugee hosting areas;” (Article 7) among other functions. The Act further establishes the Refugee Affairs Committee, the Refugee Appeal Board and the Refugee Camp Officer who is an appointed government official tasked to manage the refugee camp.

51 Republic of Kenya. (2016). Refugees Act, No. 13 of 2006. Government Printer, Nairobi

52 The DRA has been discontinued and it is been substituted by the Refugee Secretariat.

2.4. Institutional Framework for the Planning Process

Institutional Framework for the Planning process

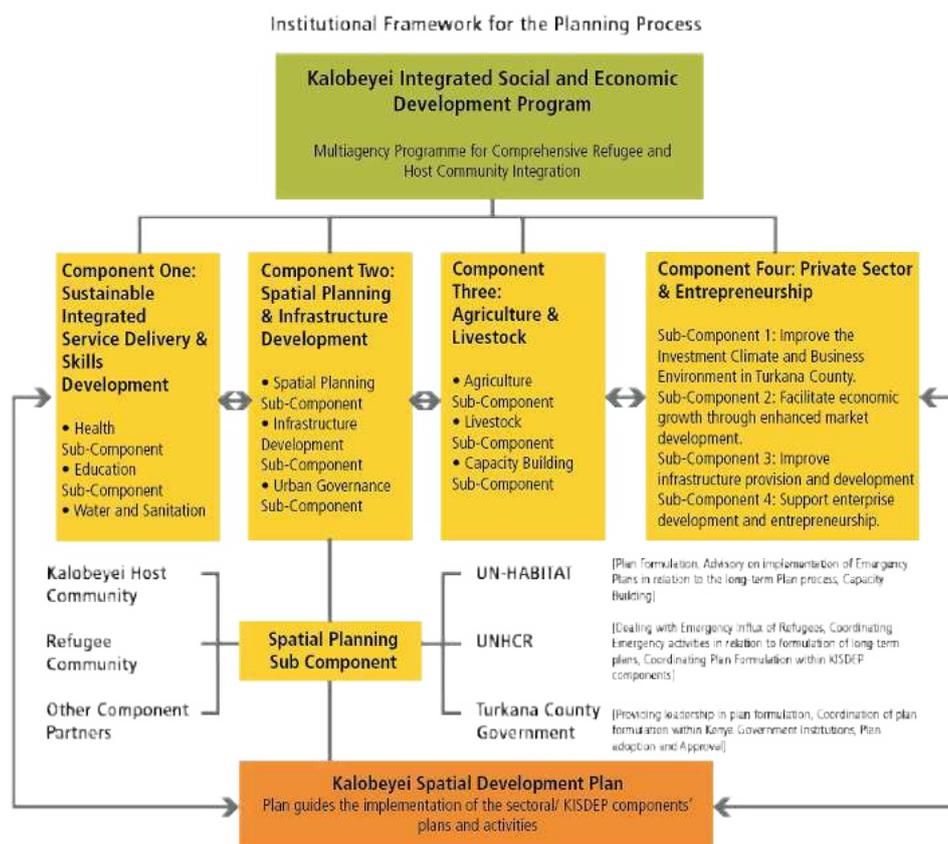


fig.12. Institutional Framework for the planning process © UN-Habitat

A multi-stakeholder approach was required for the planning process. This entailed coordination and collaborations with government, development partners, private sector and host and refugee community. UN-Habitat together with UNHCR and Turkana County Government as the lead coordinating institutions for planning had the responsibility of ensuring all key stakeholders were actively engaged during the plan formulation process. The key responsibilities and functions of these institutions are outlined in fig. 12.

Coordination, participation and engagement in the planning and development was not only designed to comply with the statutory planning process, but also to build long-term support and buy-in from government, development partners and local community towards successful implementation of the plan.

To oversee effective implementation of the plan, a plan implementation unit will need to be established, with a clear mandate and adequately equipped to perform its functions. Furthermore, a management framework for the New Site will have to be established, in interest of enhancing efficiency in the implementation process.

3. SITUATIONAL ANALYSIS

UNDERSTANDING THE CONTEXT





Community Activities, Kalobeyei New Site, Kenya © UN-Habitat/Jonathan Weaver

3.1. Location

3.1.1. Turkana County Context

Turkana County Context

Turkana County occupies much of north-west Kenya. It lies just north of the equator, within the Great Rift Valley and shares boundaries with three other African countries Uganda to the northwest, South Sudan to the north and Ethiopia to the northeast. It is also contiguous with four other Kenyan counties (West Pokot and Baringo to the southwest, Samburu to the southeast and Marsabit to the east).

Turkana County is the second largest county in Kenya, its 77000km² are rated mainly as semi-arid (19%), arid (42%) or very arid (38%). It is made up of 7 sub-counties, 30 wards, 56 locations that are further divided into 156 sub-locations.

According to the Turkana County Integrated Development Plan, it is stated that aims to become a prosperous, peaceful and just county with an empowered community enjoying equal opportunities. In order to achieve this, and of particular relevance to this project, Turkana County will need to undergo a systemic change, particularly in the way that development is planned and implemented.

The Turkana people are traditionally pastoralists and a notable migration pattern is rural to rural movement in the form of nomadism. However as a result of population growth and the effects of climate change access to good pasture lands is under severe pressure. As such, the traditional modes of livelihood are finding it increasingly hard to sustain the needs of a growing population.

Consequently, new ways of making a living may need to be adopted, including possible alternatives to pastoralism.

Fishing is practiced in the waters of Lake Turkana with Tilapia and Nile perch being among some of the fish species caught in the Lake. Goats, camels, donkeys and zebu cattle are the most common livestock kept by the communities in the region. Kerio River and Turkwell dam supply the region with water for cultivation and for livestock⁵³.

Lodwar, the capital of Turkana County, is the biggest town in North-Western Kenya. The administrative and commercial centre of the county, with numerous economic activities including fish trade and basket weaving.

Urban centres have experienced significant growth in recent years, and in order to harness the human capital and build capacity for human and economic development - good planning is essential.

The county overall offers a huge potential for investments in uncounted promising fields, be it in transport, agriculture, the fishing industry, geothermal and wind power production, water bottling or housing and real estate business.

The tourism sector is up for growth and ready for investments in the hospitality and catering industry to build much needed hotels, restaurants and conference facilities. The county's tourist attractions include Lake Turkana, Sibiloi National Park and two islands on Lake Turkana that migratory birds use as a stopping ground. The parks are also habitats of Nile crocodiles, hippopotamus and snakes.

⁵³ County Integrated Development Plan 2013-2017, Turkana County Government, 2013

Turkana County Context

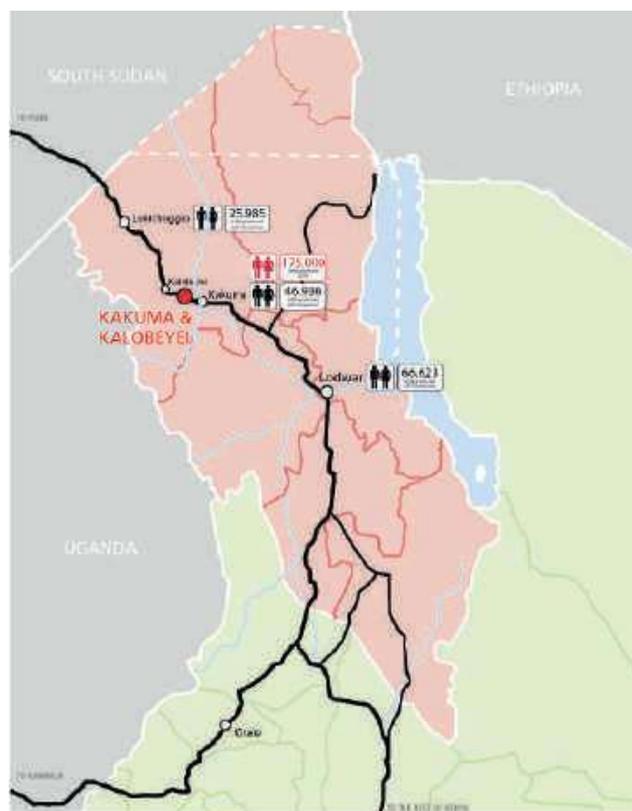


fig.13. Demography in Turkana County, Kenya

Source: Turkana County Integrated Development Plan (2013/2014 - 2017/2018)
 Source: Demographic information: KPHC 2009

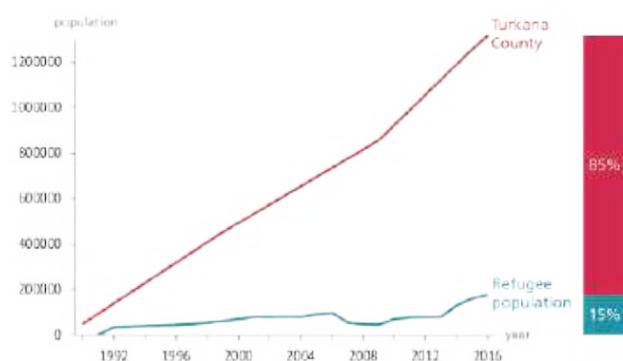


fig.14. Comparative demographic profile (Turkana County and Refugee population)

Source: Refugee Impacts on Turkana Hosts, World Bank Group (2016)
 Source: The Economics of Refugees and their Dynamics in Kakuma, Kenya, UNHCR (2017)
 Source: Demographic information: KPHC 1989, 2009, 2012, 2016

Demographic Context

Demographic profile of a population is an important variable in any development process since it determines the pattern of resource allocation and utilization.

The population of the County was at 855,399 in 2009. The County's population was set to grow to 1,427,797 by the year 2017⁵⁴. This represents an increase of 67 percent for the period 2009 to 2017. If the same percentage increases happen over the 6 years the population will reach over 2.3 million.

There are more males than females for all age-cohorts. The County has a young population with 60 percent being under the age of 19 years⁵⁵. This young population highlights the need for suitable education facilities covering all levels of education (Pre-school, primary and secondary school). As well further higher education facilities such as vocational training and tertiary education, to develop a skilled labour force. The skewed population statistic also indicates there is a need for children's health, maternal health, and reproductive health service.

County Political Structure

There are 7 political constituencies in the County: Turkana North, Turkana West, where the site is located, Turkana Central, Loima, Turkana South, Turkana East and Kibish. Only 30.2 percent of eligible voters are registered to vote, this can be attributed to nomadic lifestyles and low voter education⁵⁶.

Most land in Turkana is owned communally, for all community members to use mostly for grazing their animals. It is only in the main town centres, such as Kajum, Lodwar and Lokichogio, that land is allocated to individuals⁵⁷.

⁵⁴ County Integrated Development Plan 2013-2017, Turkana County Government, 2013

⁵⁵ County Integrated Development Plan 2013-2017, Turkana County Government, 2013.

⁵⁶ County Integrated Development Plan 2013-2017, Turkana County Government, 2013.

⁵⁷ Mapping Report, United Nations Human Settlements Programme, 2016.

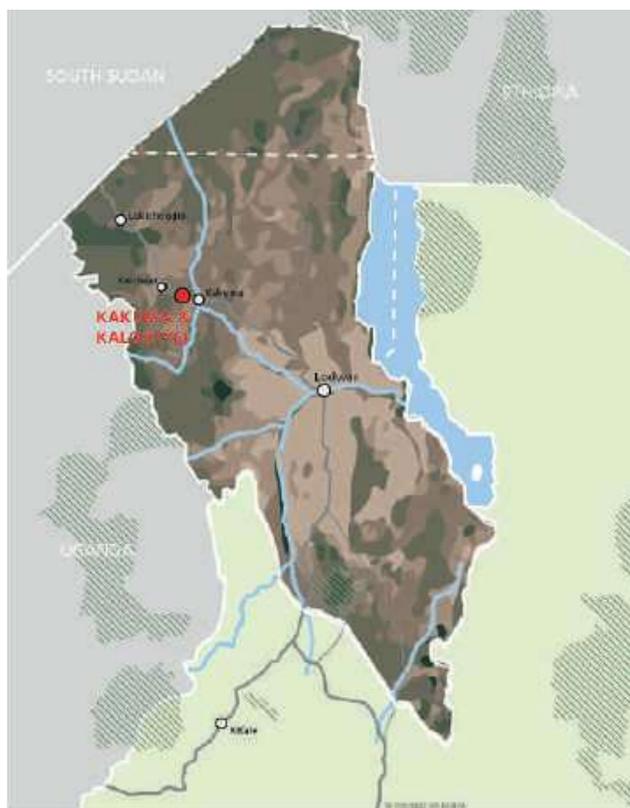
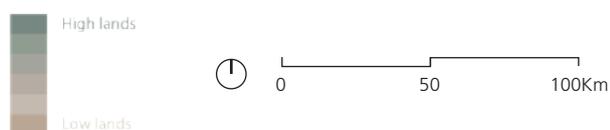


fig.15. Topographical features in Turkana County, Kenya

Source: Turkana County Integrated Development Plan (2013/2014 - 2017/2018)
 Source: IEBC Revised Turkana West Constituency Assembly Wards (February 2012)



Main Urban Centres

The average population density in the County is 12 persons per km². There is low population densities in rural areas and high population in towns and market centres. The county's main urban centres are Lodwar, Kakuma and Lokichoggio, which are the most populous. Comparatively, Lodwar is the most developed with more infrastructure and social amenities.

These main towns are located along one main artery, the Kitale-Lodwar-Lokichoggio-Juba Highway (A1) which connects the country from north to south, and links South Sudan with the interior of Kenya.

Geographical features

The main mountain ranges of the county are Loima, Lorengippi, Mogila, Songot, Kalapata, Loriu, Kailongol and Silale mountains. The mountain ranges, because of their high elevation, are normally green, covered with dense bushes and high woody cover. The ranges support important economic activities like honey production, grazing during the dry season, wood production, and charcoal production⁵⁸.

There are also water sources that support gum Arabica growing and small household shambas. The hills in the county consist of Tepes Hills in Kibish Division, Lokwanamor Hills and Lorionotom Hills in Kaikor Division, Pelekech Hills in Kakuma Division and Loima Hills in Loima Division which are characterized by large forests.

The open lying plains consist of the Kalapata and Lotikipi Plains. The plains form part of the arid area in the County and receive the lowest amount of rainfall of around 180 mm per annum. These plains are dominated by dwarf shrub and grassland, which provide forage for livestock during and shortly after the rainy season.

Rivers Tarach, Kerio, Kalapata, Malimalite and Turkwel are the major rivers in the county making them the most important with a potential of producing large amounts of food for the county, if properly utilized⁵⁹.

⁵⁸ County Integrated Development Plan 2013-2017, Turkana County Government, 2013

⁵⁹ County Integrated Development Plan 2013-2017, Turkana County Government, 2013

Turkana County Context

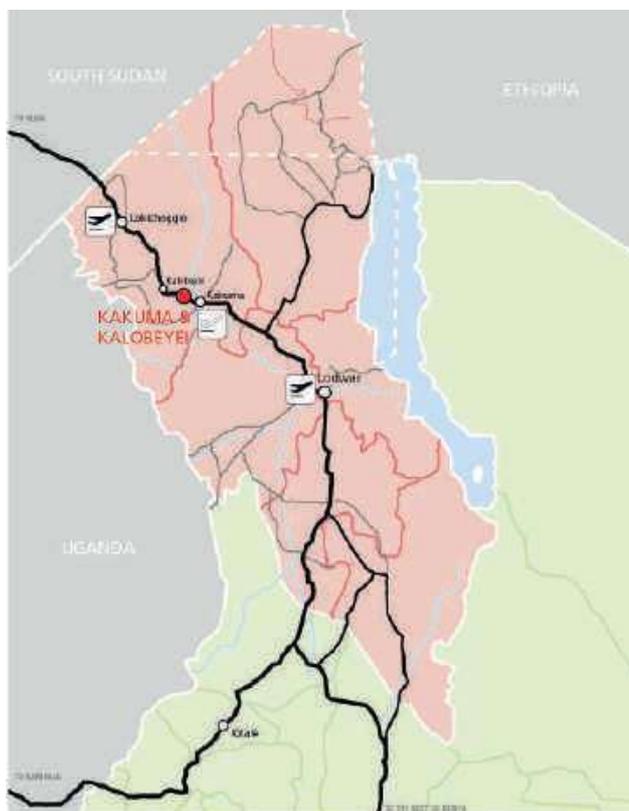
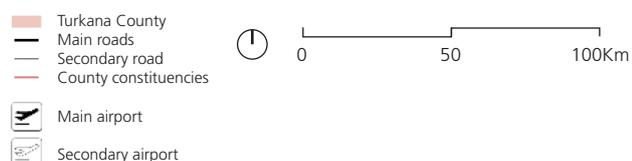


fig.16. Key transport infrastructure in Turkana County, Kenya

Source: Turkana County Integrated Development Plan (2013/2014 - 2017/2018)

Source: Demographic information: KPHC 2009



Moreover, in 2013 RTI / UNESCO announced the discovery of the Lotikipi aquifer, a vast underground lake the size of Lake Turkana. This adds to other four smaller aquifers to the east and south of Lotikipi (See fig.17). However, the potential for sustainable groundwater production may be much less than estimated to date as it is not clear on the actual supply capacity.

Soils in Turkana County are not well developed due to aridity and constant erosion by water and wind.

There has been a recent discovery of oil at Lokichar Basin by Tullow Oil, and there is a plan for an oil pipeline to the coast of Kenya from Turkana⁶⁰. The discovery of oil can benefit Turkana economically, bring new job opportunities into the area, and will likely trigger the associated increased/rapid urbanisation.

Key Built Infrastructure

The county has a total road network of 5,496.2 km of which 488.5 km are bitumen, and 5007.7 km earth surface. The challenges faced by this sub-sector include seasonal rivers that cut through roads and poor soils that increase the cost of road construction and maintenance⁶¹. Walk paths, permanent bridges and drainage infrastructure are basically non-existent⁶².

Air transport in the county is under developed with 22 air strips across the county, but only Lodwar receiving regular commercial flights.

Economic

The poverty index in Turkana County is of 94%t with a contribution of 1.3%to the national poverty⁶³. Local workers and refugees have the same proportion of skilled workers (15%). There is an economic benefit from the arrival of refugees in Turkana – the GRP increased by 3.4% after their arrival. There has been an increased in county migration towards Kakuma, due to perceived increase economic benefit in the area⁶⁴.

60 County Integrated Development Plan 2013-2017, Turkana County Government, 2013

61 County Integrated Development Plan 2013-2017, Turkana County Government, 2013

62 Mapping Report, United Nations Human Settlements Programme, 2016.

63 County Integrated Development Plan 2013-2017, Turkana County Government, 2013

64 The Economics of Hosting Refugees, The World Bank, 2016.

There are high transportation costs and delays in travel to and from Turkana – this widens the wedge between consumer prices in the area. The WFP estimates that every additional hour of transport the price increases by 1.3%. Prices increase by a further 1.8% once transport is needed off the main road. This affects the availability of resources from sea ports or Nairobi to Turkana, and this limits growth development capacity.

Well-developed roads in the area, such as in the Kakuma refugee camp area, makes the transport system significantly better than the county average⁶⁵.

The LAPSET Corridor is intended to be an economic corridor for the East Africa area. Construction is planned to soon begin on a road connecting Kenya and South Sudan passing through Turkana County.

Services

At Kakuma refugee camp, there are health services provided by the International Rescue Committee – most people within and outside the camp are able to access this service. Other facilities provided include nutrition centre, orthopaedic workshop, community rehabilitation and a mental health centre. There are numerous health facilities around Turkana, especially around main town centres but the quality of these facilities compared to that inside Kakuma is debatable⁶⁶.

Due to the rural nature of settlements in Turkana, there are sparse police postings. Kakuma area offers more police presence with 6 stations inside the camp alone⁶⁷.

In terms of education, there are several government initiatives to support the growth of universal education including free schooling⁶⁸. In Kakuma there are education facilities at all levels⁶⁹. As the population continues to grow there will be increased demand in facilities for quality education in the local area. Turkana currently has among the lowest literacy rates in Kenya.

The availability of education is extremely critical to development of the area; it affects the quality of the local labour force. It has been identified that a person's earning and employability level will increase by 10%⁷⁰ with improved education from the current status.

Employment

Job opportunities are more concentrated in town centres, due to the availability of infrastructure and social amenities⁷¹. Jobs in Turkana include agricultural and herding, other manual labour (firewood collection), small enterprises (such as running a bodaboda). There is very small percentage of people involved in wage work (15% of adults of working age in Kakuma are a part of wage working)⁷². Most jobs undertaken are low skill jobs, which are often taken up due to relatively low education levels – the less likely someone completes secondary school the less likely they are able have a wage earning job.

Information and Communication Technology

Generally, telecommunication masts are within and around towns, limiting coverage to urban areas. There is a limited Internet access in the area⁷³, this limits the account of ICT projects in the area but does allow for opportunity for infrastructure projects to increase the internet capacity.

Energy Access

The County has electricity network that spreads through only main towns and centres. Electricity coverage is very low with interior towns having no power. Kakuma town and Lokichar town are among those urban centres with no electricity. It is important to note that the Turkwel power gauge which produces power to feed in the national grid is located within this County⁷⁴. In terms of energy access 95 percent of households in Turkana use kerosene and firewood for lighting⁷⁵.

65 The Economics of Hosting Refugees, The World Bank, 2016.

66 Mapping Report, United Nations Human Settlements Programme, 2016.

67 Mapping Report, United Nations Human Settlements Programme, 2016.

68 Kalobeyei Integrated Socio-Economic Development Programme, United Nations Human Settlements Programme, 2016

69 Mapping Report, United Nations Human Settlements Programme, 2016.

70 Kalobeyei Integrated Socio-Economic Development Programme, United Nations Human Settlements Programme, 2016

71 County Integrated Development Plan 2013-2017, Turkana County Government, 2013

72 The Economics of Hosting Refugees, The World Bank, 2016.

73 County Integrated Development Plan 2013-2017, Turkana County Government, 2013

74 Idem.

75 The Economics of Hosting Refugees, The World Bank, 2016.

Turkana County Context

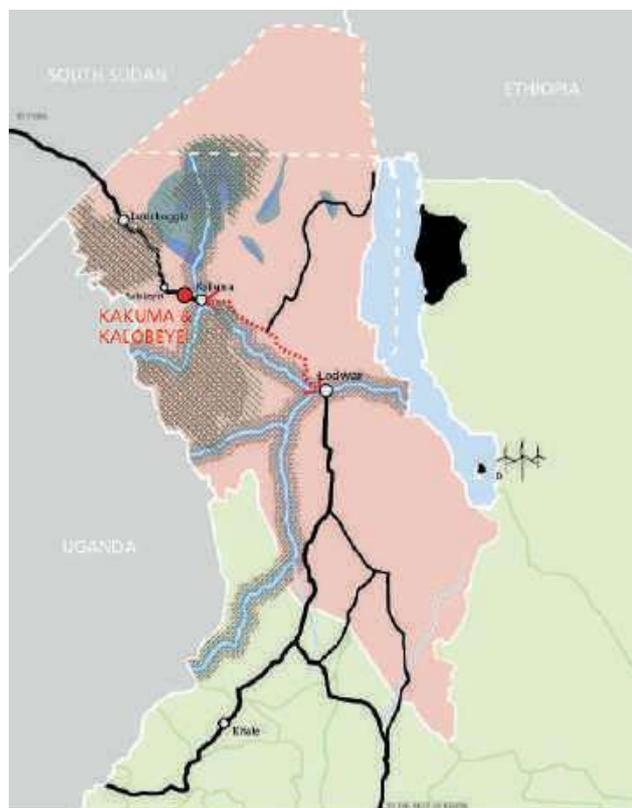


fig.17. Relevant projects in Turkana County, Kenya



Relevant county projects:

- Water development and utilization of underground water (aquifers)
- Soil and water conservation
- Greening Turkana Program
- Invest in green energy (wind)
- Improve road network within the County: Kainuk-Lokichar-Lodwar-Kakuma-Nadapal(403km), tarmac.
- Clearing, Grading, Gravelling and Drifting
- Turkana County Public Transport Service

Potential economic activities:

- Oil drilling areas
- Natural Protected Areas (Tourism)
- Agriculture (in high lands and river banks)

Source: Turkana County Integrated Development Plan (2013/2014 - 2017/2018)

Source: Radar Technologies International (RTI): Advanced Survey of Groundwater Resources of Northern and Central Turkana County, Kenya, Final Report, commissioned by UNESCO under the GRIDMAP Framework of the Government of Kenya, Ministry of Environment and Natural Resources, funded by the Government of Japan, August 2013.

Source: IUCN & UNEP (2009) The World Database and Protected Areas (WDPA) UNEP - WCMC. Cambridge, UK. Version 2010. Accessed February 2011

Examples of Current Energy Projects

- In August 2016, construction began on a diesel power station near Kakuma – to provide an off-grid solution⁷⁶.
- Solar energy – Project funded through Department of International development (UK) – purchase and install Solar PV Hybrid Mini-grid at Loupe, Nadwat and Katabol. Solar is a population source for pumping water and lightning, especially in schools (Turkana County Investment Plan).
- Wind power –A project in neighbouring Marsabit County – feeds 310 megawatts into their national grid from Lake Turkana Wind Project. This shows the benefit that a wind power project can have directly on Turkana, as it can even be drawn from the same lake⁷⁷.
- Geothermal –140 MW project in Turkana by Olsuswa Energy⁷⁸.

76 Mapping Report, United Nations Human Settlements Programme, 2016

77 Turkana County Investment Plan 2016-2020, Turkana County, 2015

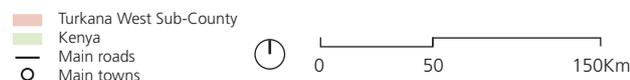
78 Geothermal power plant underway in Turkana, Kenya Engineer, <http://www.kenyaengineer.co.ke/2016-05-28-20-43-28/latest-news/item/90-geothermal-power-plant-underway-in-turkana>, 2016.

3.1.2. Turkana West Sub County Context

Settlements Context



fig.18. Settlement pattern, Turkana West, Kenya



Source: Turkana County Integrated Development Plan (2013/2014 - 2017/2018)
 Source: IEBC Revised Turkana West Constituency Assembly Wards (February 2012)

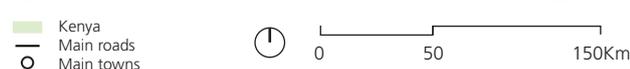
The Sub County of Turkana West has its local administrative centre in Kakuma, with its additional sub centre in Lokichoggio. This Sub County has the highest population due to the Kakuma refugee camp, at 245,327 people in 2009. The growth projection is at 409,490 for 2017⁷⁹.

Both of these towns have developed substantially as a result of the humanitarian refugee crisis over the last 30 years which have resulted in their regional importance within the sub county, and the county as a whole.

The nature of human settlements in the larger area have significantly changed over the last two decades, particularly since the establishment of the Kakuma camp. More settled patterns of human settlements can for example be seen along the A1 road. The small settlements have over the years slowly been expanding into minor towns serving the local populations, and which act as trading zones for various goods, including livestock. Kalobeyei town is one of these, and is centrally located between Kakuma town/camp and Lokichoggio.



fig.19. Road connection between Lodwar and Lokichoggio, Kenya



Source: Turkana County Integrated Development Plan (2013/2014 - 2017/2018)

⁷⁹ County Integrated Development Plan 2013-2017, Turkana County Government, 2013

3.1.3. Kalobeyei-Kakuma Area Context

Kalobeyei-Kakuma Area Context

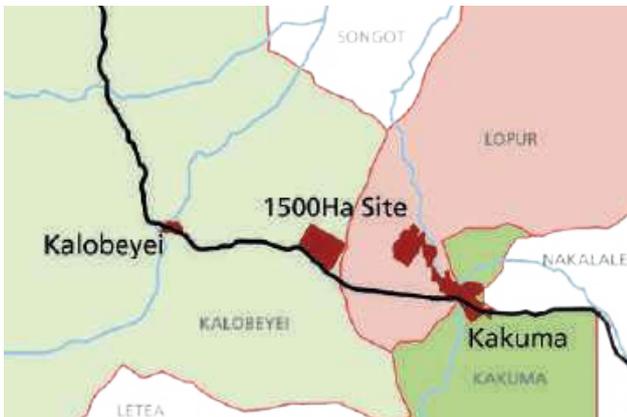
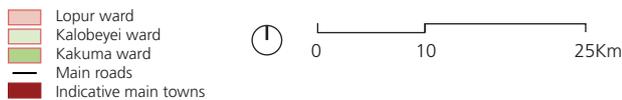


fig.20. Location of Kalobeyei New Site within the ward context

Source: Turkana County Integrated Development Plan (2013/2014 - 2017/2018)

Source: IEBC Revised Turkana West Constituency Assembly Wards (February 2012)



Kalobeyei Ward is located approximately 150 Km to the West of Lodwar town, and about 30 Km from Kakuma town and camp, along the Lodwar-Lokichogio road. The area today known as Kalobeyei was originally called Lopetereka, and was inhabited by the Lukumongo clan, who are still the official owners of the land to date. The name was changed during the surveying of the Lodwar-Lokichogio A1 road. Kalobeyei derives from "Abeyei", a Turkana word meaning eggs. According to elders, there is a small mountain near Kalobeyei town where egg shells of various small birds used to be found. When the word "abeyei" was combined with the small nature of the mountain where the egg shells used to be found, the name Kalobeyei was born. The area is a highly significant place to the Turkana people, since it was home to the paramount chief of the Turkanas.

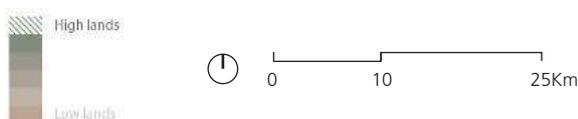
The larger Kalobeyei area, including the location of the Kalobeyei new site has historically been an important grazing area among the people of Turkana North, particularly because it has several largesse along which good grass grows, making it a highly significant area among the local community. Wildlife also used to be found in the area, including elephants, baboons, buffalos and other small animals like gazelles. Baboons can still be seen in the area to date. Other than the land's significance for grazing, and as an important migration path to the North, the area where the Kalobeyei new site is located has the same value for land that the Turkana people attach to land.



fig.21. Natural existing elements around Kalobeyei New Site

Source: Turkana County Integrated Development Plan (2013/2014 - 2017/2018)

Source: IEBC Revised Turkana West Constituency Assembly Wards (February 2012)

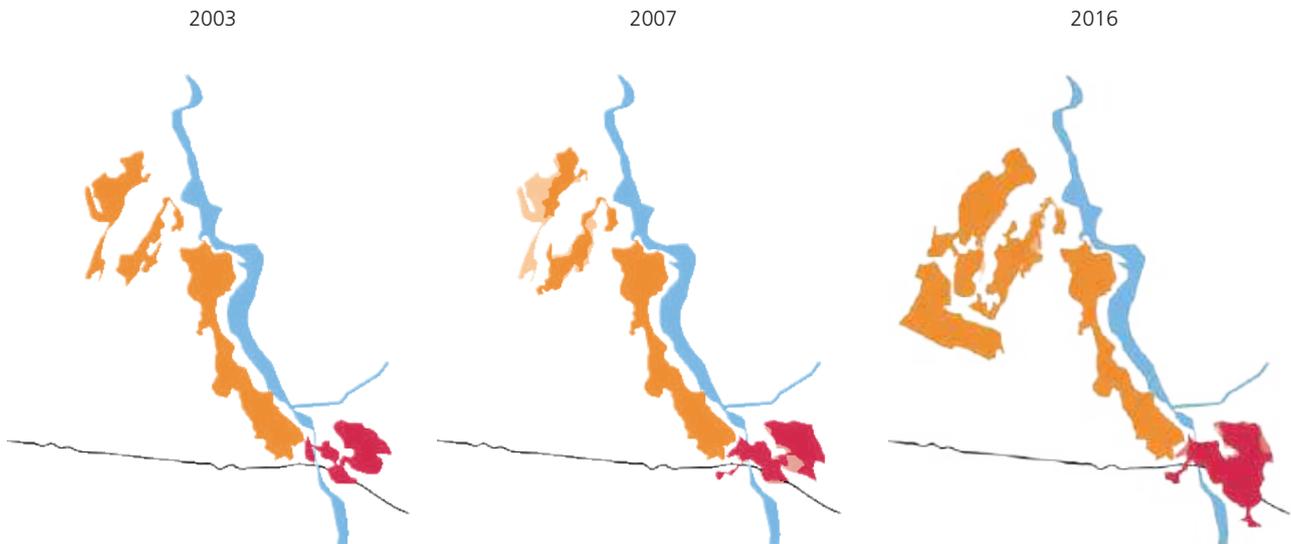


The extension of Kakuma refugee camp into the Kalobeyei area further creates massive opportunities for growth of Kalobeyei town, as well as other new towns and centres in the area. Experiences from Kakuma camp and Kakuma town point towards an informal kind of growth, unless adequate planning is done at the moment to anticipate such growth, and promote integration of the refugee and host communities as a way of achieving socio-economic prosperity.

3.2. Population and Land requirements

3.2.1. Growth patterns

Kakuma Spatial Growth Pattern



- Kakuma camp
- Kakuma town

fig.22. Kakuma growth pattern

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

Population Growth pattern

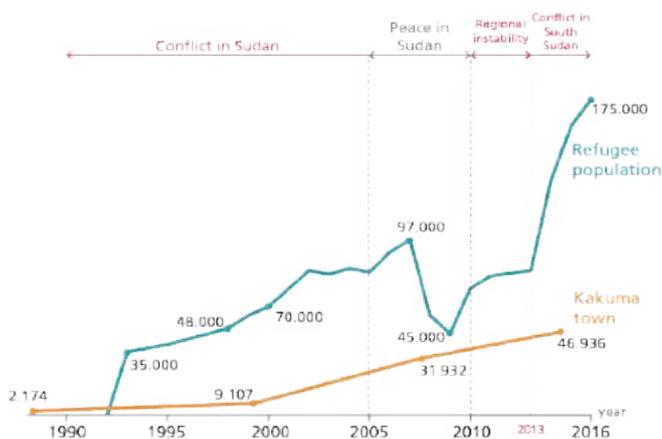


fig.23. Kakuma population growth graph (1992 - 2016)

Source: UNHCR, SO Kakuma, vKenya

The site is designed with an anticipated population of 60,000 on an area of 1500ha. It must be noted however that this figure is based on the agreement between UNHCR, the Kalobeyei local community and the County Government for the 1500ha of land, and the realities of an area in flux suggest that this figure is subject to significant potential growth. As such, it is for this reason that as outlined in “4.2. Planning and design principles” there is an advisory plan for the surrounding area which can cater for potential growth, with the main focus primarily provide for additional settlement from the host communities of Kalobeyei Ward and around. The availability of reliable water supply is another crucial determinant of the settlement capacity.

The spatial development concept of the site is underpinned by an awareness of the potential fluctuating level of refugee population as highlighted in fig.23. From examining the experience in Kakuma, it is anticipated growth that is somewhat dependent on externalities such as factors of peace and security in their home regions.

Kalobeyei Growth Forecast

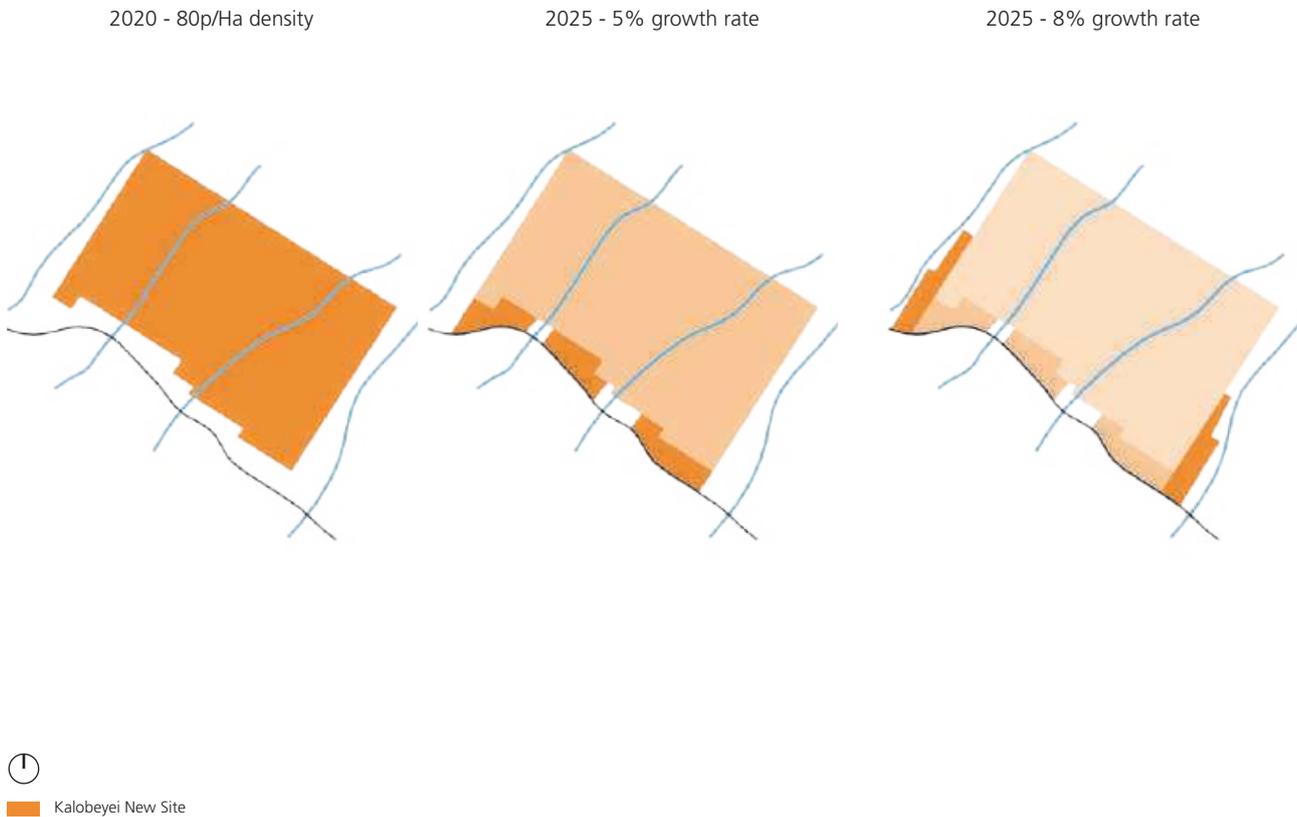


fig.24. Kalobeyei growth forecast

Taking into account these lessons learnt from Kakuma, the plan recognizes a potential unpredictability in growth, but growth nonetheless. At the time of writing, the refugee influx does not show many signs of abating, and there is the aim of integrating host community members who wish to settle in the new site.

As a result, the plan will almost certainly need to take into account growth in the foreseeable future which can be incorporated through both extension and densification. At current, the proposal for Kalobeyei new site has an area of 1500 Ha, with a low density of 40p/Ha giving substantial scope for densification to approximately 80p/Ha (which is similar to Kakuma 1), or if extension is required, an outline strategy is developed in "4.4. Land Use Framework".

could result in constraining growth to a sub-optimal basic level.

If no reliable water supply is identified in the area, it

3.2.2. Current Land Tenure status in the Kalobeyei settlement

Current Land Tenure status in the Kalobeyei settlement

The Kalobeyei settlement sits on a 15km² area of land held under communal tenure. The land, that has been surveyed⁸⁰, is in the availability of the Department of Refugees Affairs (DRA)⁸¹ and UNHCR to host the incoming refugee population. This right to use the land derives from the Terms of Engagement (ToE) that was stipulated on 19th June 2015 between the Kalobeyei Community and the Department of Refugees Affairs (DRA). The ToE was then signed by the Kalobeyei Community, the County Government, the Department of Refugees Affairs and UNHCR. The ToE contains the key principles that should inspire the actions of all parts, a number of commitments in several areas (education, environment, health, water and sanitation etc.) and calls for the establishment of a Community Dialogue and Implementation Committee (CDIC) that will follow up the implementation of the ToE. The ToE does not make reference to any change in the status of the land so we should assume that the land remains community land held in trust by the County Government on behalf of the Kalobeyei Community whose use has been given to the DRA/UNHCR for the establishment of a refugee camp.

The ToE, that is the only foundation for the establishment of the Kalobeyei settlement, is based purely on a political agreement between the unregistered Kalobeyei community and the Department of Refugee Affairs (DRA). The "Guiding document to Eliye proposed projects"⁸² clearly defines the ToE as "a gentleman's agreement subject to the county government policy or legislation enactment that shall define the relations between the Refugee and the Host Community".

Having considered the relevant provisions of the Kenyan Constitution, the Community Land Act, the Terms of Engagement and the fact that the land and the community of the Kalobeyei settlement are unregistered, we can conclude that at the moment the land of the Kalobeyei settlement is unregistered community land held in trust by the Turkana County Government on behalf of the Kalobeyei Community whose use has been given, based on a political agreement, to the Department of Refugee Affairs and UNHCR for the establishment of a refugee camp.

⁸⁰ We understand that this survey is purely technical and has no legal value since it does not adjudicate any right to the land in question.

⁸¹ The DRA has been discontinued and has been substituted by the Refugee Secretariat.

⁸² Kalobeyei proposed site for new refugee camp guiding document to Eliye proposed projects, Lodwar, 15th May 2015

3.3. Socio Economic analysis

Socio Economic Analysis

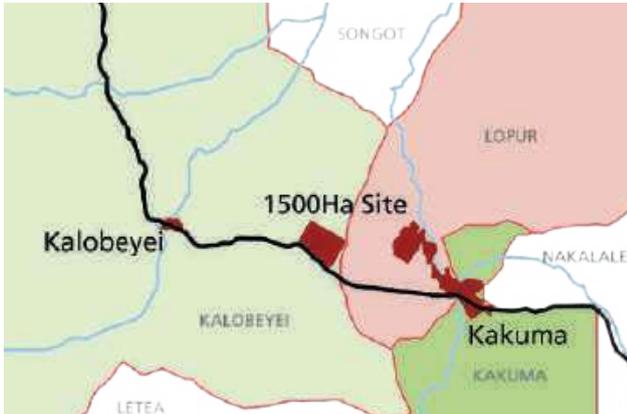
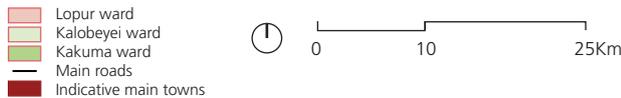


fig.25. Location of Kalobeyei New Site within the ward context

Source: Turkana County Integrated Development Plan (2013/2014 - 2017/2018)

Source: IEBC Revised Turkana West Constituency Assembly Wards (February 2012)



The Kalobeyei and Kakuma area is traditionally an unsettled area, as it is used for pastoral purposes. Although existing as a small trading centre, its importance as an area increased when the Kakuma refugee camp was built in the area, in 1992⁸³. Due to conflicts in the surrounding countries, Kakuma camp experienced a large influx of population. Also, the closure of the camps located in the coast of Kenya resulted in an increase of the population of the camp.

For these reasons, Kakuma camp has brought various social, economic and spatial changes⁸⁴. On one side, the arrival of refugees from different cultures generated situations of conflict with the host community. In fact, the humanitarian organizations would (and continue to) provide assistance to only the refugees, as a result nurturing structural inequalities between the refugees and the host community. On the other side, the population growth brought economic opportunities to the region, as trade relations were created within the communities.

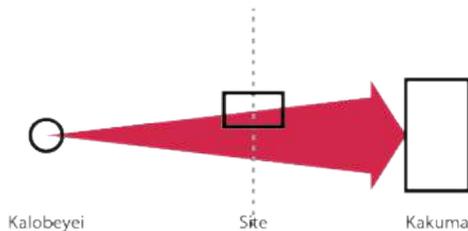


fig.26. Current economic flow

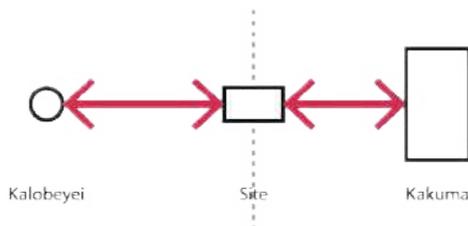


fig.27. Proposed economic rebalance required

The changing social and economic landscape related to the refugee settlement has also been translated spatially, with the development of the refugee camp largely associated with growth of Kakuma town, and other villages surrounding the camp. The town and villages rely heavily on the existence of the camp, since the camp has not only created threshold populations for goods and services, but also various employment opportunities. This includes employment for various members of the host community by the various humanitarian organizations working there, and also as casual labourers by the refugees. Kakuma is also spatially and socioeconomically linked with other neighbouring urban centres such as Lokichoggio, Lokitaung and Lodwar⁸⁵.

83 UN-Habitat/ Kalobeyei Socio- Economic Baseline Survey And Mapping Report (2017), p.58

84 UN-Habitat/ Kalobeyei Socio- Economic Baseline Survey And Mapping Report (2017) p.59

85 UN-Habitat/ Kalobeyei Socio- Economic Baseline Survey And Mapping Report (2017) p.59

Demographic Profile

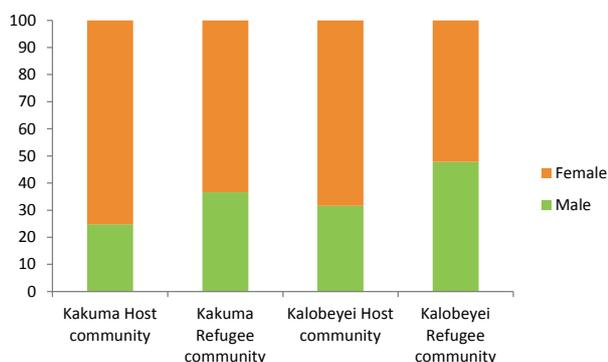


fig.28. Gender distribution by site (% population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

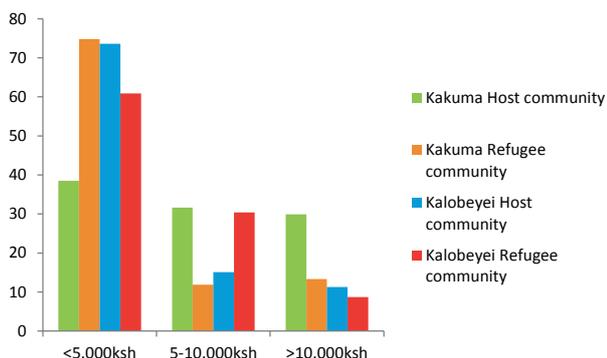


fig.29. Level of income (% of population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

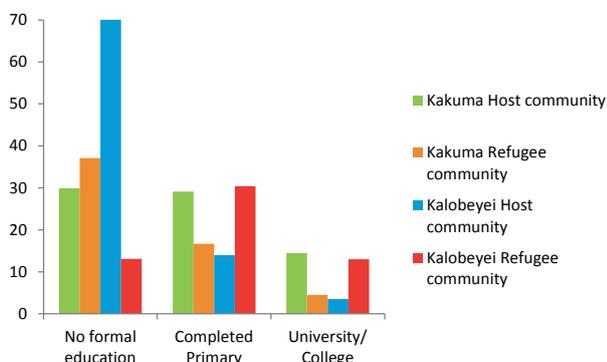


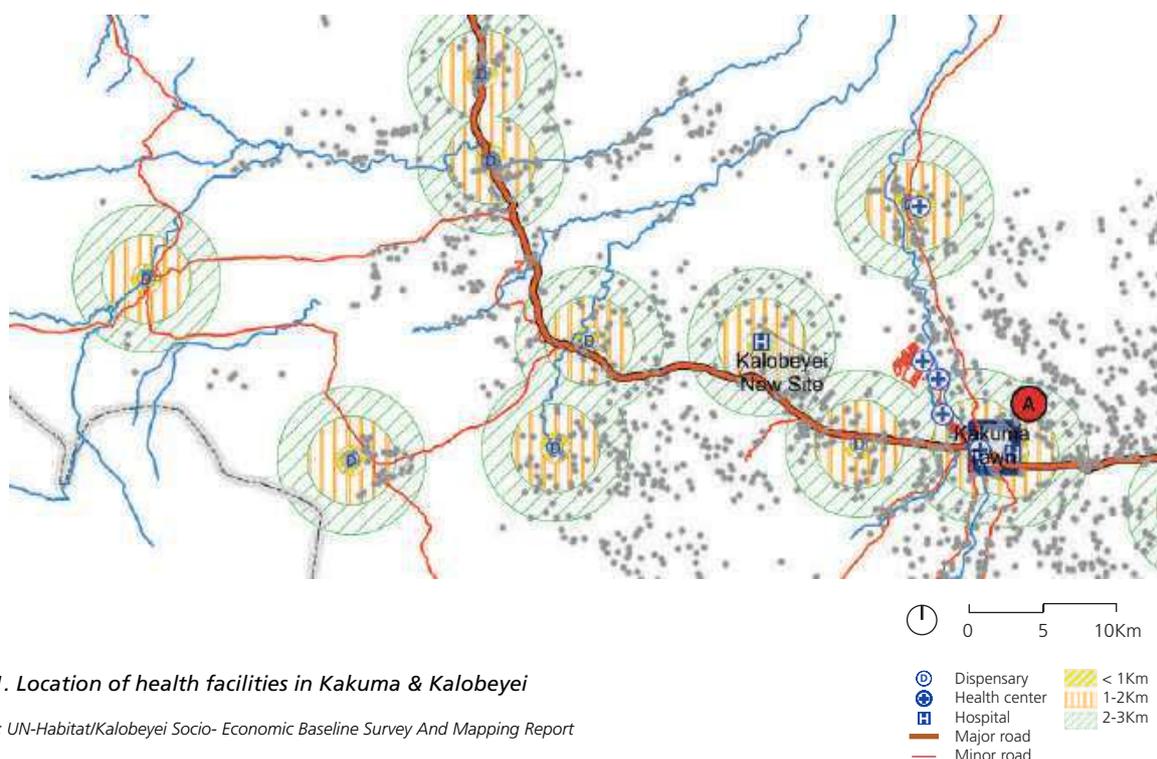
fig.30. Educational level (% of population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

It has been observed in the host community, as well as in the refugee community of Kakuma, there is a higher rate of female. This is attributed to the surveys being done during daytime, when male are usually at work. In terms of marital status, the figures change relatively from the host (77.8%) to the refugees (54.8%), being both engaged in polygamous marriage.

- The average household size for the host is 4.6 as compared to refugees at 5.9.
- In terms of education, 29.9% of the host community report to have no formal education as compared to 37.1% of refugees.
- The mean age of the host community is 31.7 as compared to refugees' mean age of 32.5 years.
- The income level varied from less than 5000Ksh to more than 10000Ksh, being in both cases more population in the lower range.
- 87.63% of the aggregate population is under 35, and a 61.88% is under 18.

Access to Services and Amenities



As it has been previously commented, refugees have access to a multiplicity of health and education facilities. The refugees not only access medical care and education centres from facilities within the camp, but also have access to those located in Kakuma town⁸⁶.

Health

Across Kalobeyei and Kakuma in the urban areas, most households access health services from the facility closest to them (within walking distance to their houses). There is a positive correlation between the location of the household and where they access lower order medical services (dispensaries), giving indication that some people tend to go for medical services near where they stay⁸⁷. Walking is the most utilized means of access to all levels of health facilities. 92.9% of respondents identified that they accessed lower order medical care (dispensaries) via walking.

86 UN-Habitat/ Kalobeyei Socio- Economic Baseline Survey And Mapping Report (2017) p.61

87 Idem.

People living in Kalobeyei sub-location (particularly those living within Kalobeyei town) however access dispensary services from multiple locations, including Oropoi, Nalapatui and Kakuma, a factor that could be associated with the town's central location within the ward. In general, first aid services are accessed from home or the nearest health facility as the need arises.

The movement of people between Kalobeyei and Kakuma (which towns are 30 km apart) along the Lodwar-Lokichogio road observed during the two weeks of data collection illustrates a high level of linkage between Kalobeyei and Kakuma in all sectors.

This greatly points to the role of service accessibility to medical services and should be used a lesson in the planning of Kalobeyei as the accessibility and usage relies greatly on ability of the populations to walk to them. Their locations in the integrated settlement should thus consider the existing settlement patterns, as well as the anticipated future patterns especially in the host community. This will greatly boost the

Access to Public Facilities

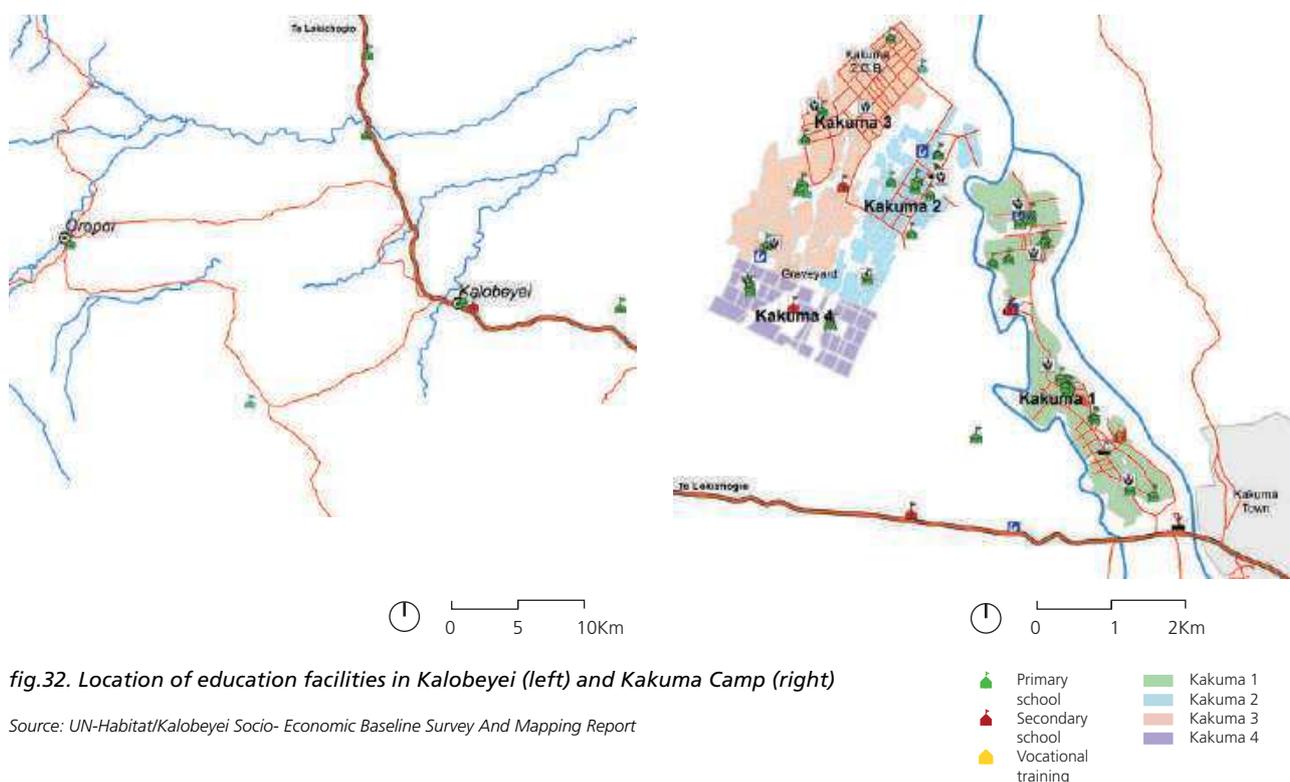


fig.32. Location of education facilities in Kalobeyei (left) and Kakuma Camp (right)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

integration process, and promote the standard of living in the community.

Education

Kakuma refugee camp has among the highest concentration of primary and secondary schools per square kilometre in Turkana County, as represented by a total of 48 primary schools and 3 secondary schools, as well as one primary and one secondary school located just outside the refugee camp. The camp also has 14 early childhood development centres and, in terms of secondary schools, there are three secondary schools located within the camp. These represent 33% of the total number of secondary schools located within the larger Kakuma area. In fact, there are a total of 9 secondary schools identified within the larger Kakuma area⁸⁸.

By contrast, Kalobeyei ward, though not very far from Kakuma and Lokichoggio only has 5 primary schools, one secondary school, and does not have any tertiary institution for mid-level or higher learning. The Don Bosco learning centre located in Kakuma refugee camp and the Masinde Muliro University (Kakuma town) are the only tertiary learning institutions within the larger Kalobeyei – Kakuma area offering training to both host community and refugees.

In a similar fashion to the health sector, education service accessibility and usage relies greatly on ability of the populations to walk to them. The increase in refugee influx and the long distance travelled by students to access educational services may contribute to low literacy level of 46% as reported in the Turkana CIDP, and therefore the new site proposal can be a starting point in improving accessibility.

88 UN-Habitat/ Kalobeyei Socio- Economic Baseline Survey And Mapping Report (2017) p.63

Access to Public Services

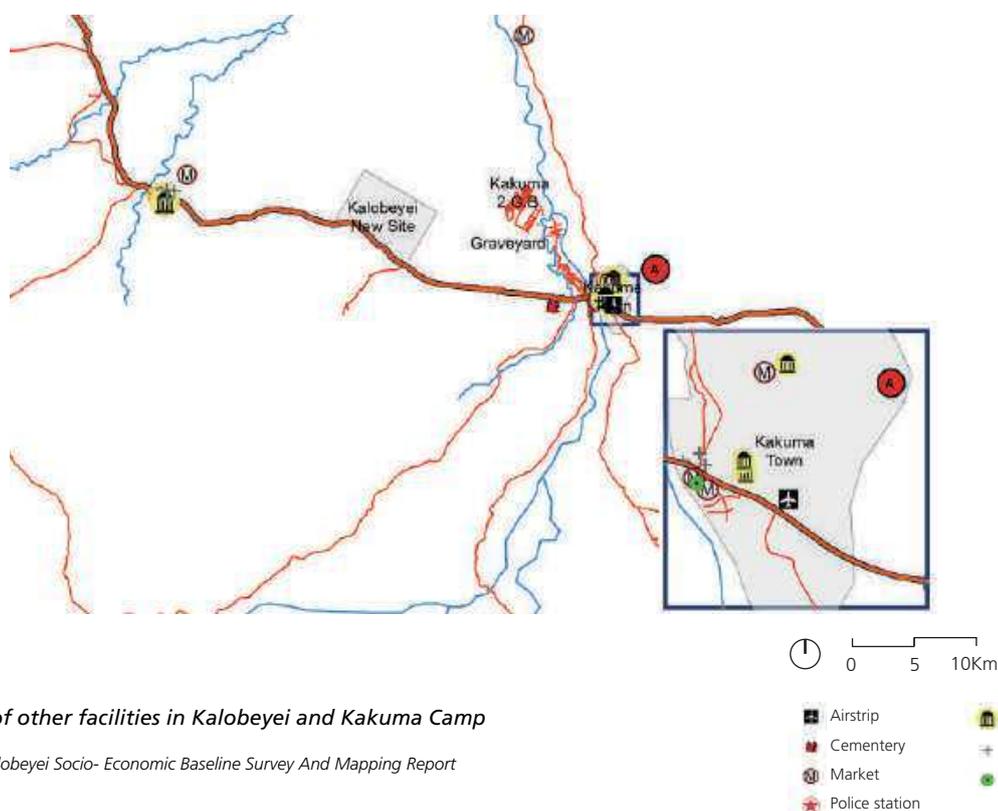


fig.33. Location of other facilities in Kalobeyei and Kakuma Camp

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

Other public facilities

In terms of public infrastructure facilities Kakuma refugee camp is the most well provided for with numerous facilities including; recreation/play grounds, cemeteries, religious centres, markets, police stations/posts, street lights, cultural resource centres, libraries among others.

The play grounds accessed by the households include several dedicated fields located in various sections of the camp, as well as open grounds in primary and secondary schools and other learning institutions. The conditions of some pitches are in a poor state and are not child friendly spaces.

There are three cemeteries in Kakuma, one located in Kakuma I, one in Kakuma II and another in Kakuma III. e police posts one located in each cluster, and two are patrol bases. The distribution of police facilities in the camp is fairly good, given the large population living

in the camp and the cultural diversity which can be a source of conflict, hence threatening law and order in the camp. There is also a number of police stations in Kakuma Town, with one in Kalobeyei Town and one in Kalobeyei New Site.

There is only one slaughter house in Kakuma, which is located in a densely populated area of Kakuma I. The location of this facility is a public health risk to the people living there.

Good practice doesn't permit slaughter houses to be located close to dwellings, social amenities and commercial buildings due to smells, noise and animal traffic. They require efficient effluent and solid waste management, and in the eventuality of poor handling there are significant health risks.

Livelihoods

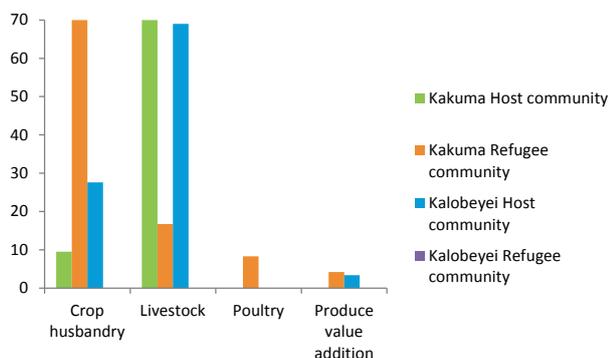


fig.34. Farming activities by site (% population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

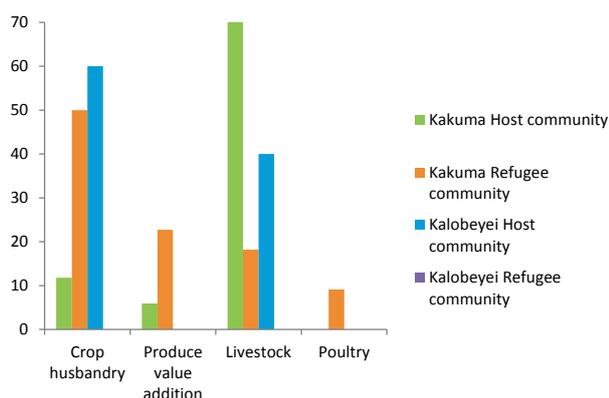


fig.35. Farming expansion areas of interest by site (% population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

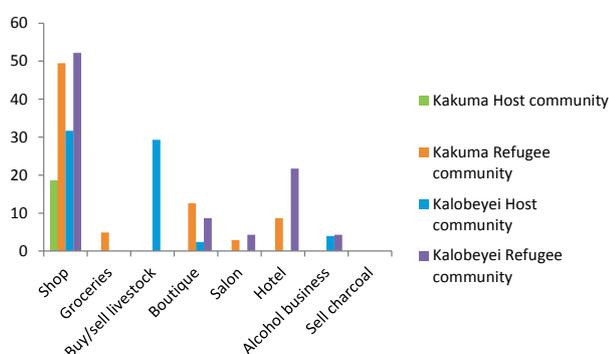


fig.36. Business interests by site (% of population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

The livelihood activities engaged by the host and refugee communities include farming or business as source of income.

Regarding farming activities, the host community mainly keep livestock (90.5%), as they have a pastoralist tradition. The refugee community, by contrast, take part in a variety of income generating activities related to farming. The majority (70.8%) practise crop husbandry, or maintain livestock, and 8.3% keep poultry or do agricultural produce value addition/processing (4.2%).

In general, those who are practicing farming activities are interested in expanding their ventures. The host community preferred area is livestock, and refugees' is crop husbandry. Those who are not interested in expanding, argue that there is a lack of resources for it (40%) and the harsh weather conditions are an issue for some (40%), as well as the lack of skills to support large scale farming (20%).

However, for non-practising farmers 49.6% indicated that they could be interested in such activities. The preferred practice was identified as crop husbandry (38.2%), followed by produce value addition (29.1%), livestock (25.55) and poultry farming (7.3%).

With regards to business, among Kakuma refugee camp inhabitants and Kakuma host community, this matter is a high interest area. The majority is interested in engaging in various business activities:

- Own a shop: 18.5%
- Trading in groceries: 14.1%
- Buy/sell livestock: 9.8%
- Boutique: 9.8%
- Salon: 8.7%
- Hotel: 6.5%
- Alcohol business: 7.6%
- Selling charcoal: 4.3%

The major reasons for the high interest in various businesses include improved income associated with the businesses, hence a need for improved standards of living, the desire to be self-employed, skills in specific aspects, lack of a competition on specific businesses, and availability of ready market for various products from both the host and refugee populations in Kakuma. This highlights the need for adequate allocation of land use for mixed use and commercial developments.

Housing Context



fig.37. Kakuma host community housing



fig.38. Kakuma 4 housing

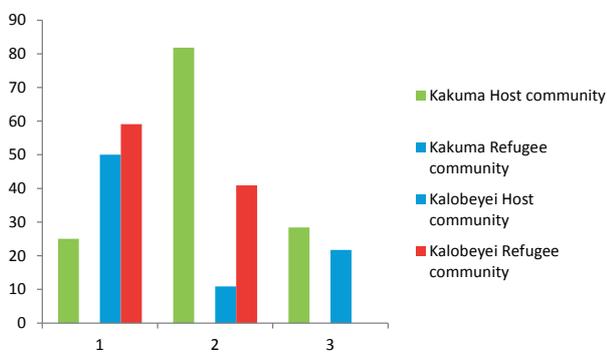


fig.39. Number of rooms per household by site (% of population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

Spatial characteristics

Kakuma Camp

Among refugees, a house is a show of security for the family, and often a solace from the many challenges they are faced with. A key indicator of a refugee family's comfort is the space standards within and outside the house, as well as the material used in constructing it, especially given that most refugee resettlements are in highly marginalized areas.

The housing unit standard has remained the same. Being addressed for a single family:

- Size: 10 by 15 feet
- 6 – 8 family members

Larger families get larger/multiple houses to meet the minimum UNHCR space standard per person. These units are usually provided as a single room, which over the years has been associated with major social and cultural challenges. The cultural practices of many of the refugees arriving in Kakuma do not permit adults to share a house with their teenage and adult children. This often calls for rapid modification to ensure privacy within the houses, translating to internal space subdivisions in the short term. In the long term, as refugees settle in, they devise ways to cope with the housing needs, which involve creating extra rooms (extensions) and new units next to the initially assigned housing unit.

Kakuma Host Community

The standard household for Kakuma host community has between 1 to 3 rooms:

- 1 – 3 rooms house (or separate rooms in their compound): 81.8%
- Single room: 25%
- 2 – 3 rooms house: 28.4%



fig.40. Kalobeyei host community housing

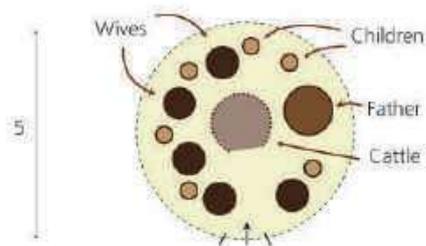


fig.41. Plan of traditional housing in South Sudan



fig.42. Kalobeyei refugee community housing

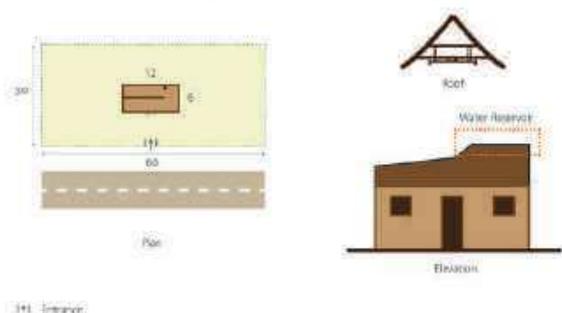


fig.43. Traditional housing in Congo

Kalobeyei Host Community

Kalobeyei host community housing presents a local, open space appropriation and construction using locally available material and in conformity to culture and emerging technologies. In terms of number of rooms, a diversity of options are found:

- Single room: 50%
- Two rooms: 10.9%
- Three rooms: 21.7%

It was however noted that the nature of housing construction in the host community is not based on the conventional housing unit standards in which, a single house can have multiple rooms. Instead, a household often has many separate rooms, each playing a particular role or hosting various ages. In the Turkana culture, children do not share houses with their parents, and hence always have their separate rooms or sleep outside. The identification thus by respondents that they have more than one room actually means that there are various single rooms within the compound.

Kalobeyei Refugee Community

The households in the camp have however devised means of partitioning the rooms into various sections, particularly sitting and sleeping spaces. As a result:

- Single room: 59.1%
- Two rooms: 40.9%

Unlike in the host community area where respondents almost exclusively have their cooking areas outside the houses, 50% of the refugees cook inside, greatly contributing to internal air pollution.

<p>NUMBER OF ROOMS</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>81.8% Host</p> </div> <div style="text-align: center;">  <p>59.1% Refugees</p> </div> </div>	<p>KITCHEN LOCATION</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>79.5% Host</p> </div> <div style="text-align: center;">  <p>50% Refugees</p> </div> </div>
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Housing Context



fig.44. Location of shared latrines in Kalobeyei New Site



fig.45. Location of kitchen in Kalobeyei New Site housing

Distribution of spaces

Kakuma Camp

The majority of the inhabitants have the kitchen located outside the main living area (77.8%), while around one quarter (22.2%) have it inside the main living area, meaning they are at a high risk of internal pollution.

24.8% of the respondents indicated that they had demarcated a living/sitting space within their houses. Allocation of space for sitting/living within the houses could largely be attributed to a need for privacy within the camp, which is also portrayed by high rates of fencing off plots using various materials. This can also be explained by the notion of “family space”, which is the space where families partake their meals and also hold family discussions.

- Meals taken inside: 69%
- Meals taken outside: 29.4
- Meetings held inside: 62.2%

Kakuma Host Community

The kitchen's location was also a very important space among respondent households:

- Separate unit: 82.5%
- Inside the house: 17.1% (this has positive impacts on indoor pollution as only less than a quarter of the respondents in Kakuma host community were exposed to high levels of indoor pollution from cooking fumes).

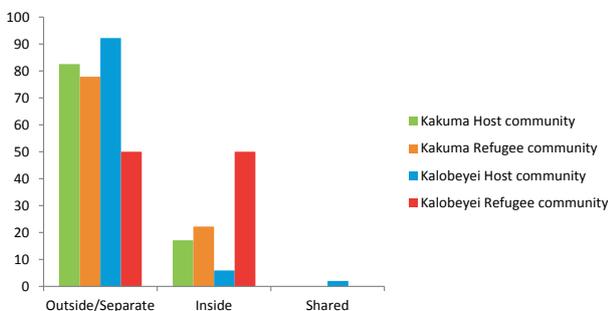


fig.46. Location of kitchen regarding the household per site (% of population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

Kalobeyei Host Community

The kitchen's location is in most of the cases, 92.2%, a standing alone unit within the compound. This plays a positive role in reducing indoor air pollution. Only 5.9% of the respondents have their kitchens within the living spaces, while 2% of the respondents shared kitchens with their neighbours. Those sharing kitchens are mostly in the town area of Kalobeyei, where the nature of communal urban lifestyle allows for sharing of the spaces.

The culture of the Turkana plays a very key role in internal and external space utilization among the residents of Kalobeyei host community.

- Living/sitting space within the house: 33.3%
- No living/sitting space demarcated: 12.1%
- A bedroom and kitchen demarcated: 24.2%
- A kitchen demarcated: 6.1%

Most family activities are conducted outside the house. This is evidenced by the 68.6% of respondents who take their meals and the 76% who hold family meetings/sittings/functions outside their houses. An additional 13.7% and 8% take their meals communally and hold family meetings in communal places respectively, while only 17.6% and 16% undertake the activities within the house respectively

Kalobeyei Refugee Community

Unlike in the host community area where respondents almost exclusively have their cooking areas outside the houses, 50% of the refugees cook inside, greatly contributing to internal air pollution.

Regarding the use of the common spaces:

- Take meals inside: 73.9%
- Take meals communally: 17.4%
- Take meals outside: 8.7%

Likewise, family meetings among the refugee families are commonly held inside the house (77.8%), and only 22.2% hold them outside their houses. This has serious integration implications, and the appropriation of space will be an interest area when designing communal spaces in the new site, as some cultures may promote sharing of space, while it may be restrictive to others (and hence requiring promotion of privacy/private spaces).

The housing conditions in both the host and refugee communities indicate that a flexible approach to design could best suit the socio-cultural realities related to housing. It also calls for a participatory design approach to housing in the new settlement



72%
Kakuma host



43%
Kalobeyei host



100%
Refugees

Housing Context



fig.47. Timber structure and iron sheet for Kalobeyei New Site housing



fig.48. Typical shop front in Kakuma 4

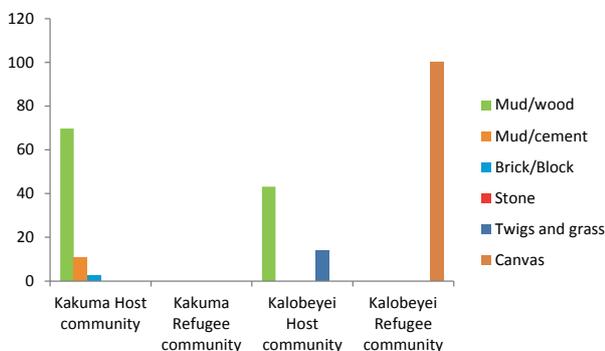


fig.49. Materials used for housing per site (% of population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

Materials

Kakuma Camp

The material used for housing in Kakuma camp varies within and between clusters, and also between living and business premises.

Walling material:

- Brick/block: 55.6%
- Mud/wood: 13.4%
- Corrugated iron sheets: 12.7%

One key observation on the mix of wall material at the household was that pit latrines were almost exclusively constructed of corrugated iron sheets.

Roofing material:

- Iron sheets: 91%
- Makuti: 6%
- Others: 3%

Floor material:

- Earth: 93.8%
- Wood: 3.9%
- Cement: 1.6%
- Tile: 0.8%

Kakuma Host Community

Walling material:

- Mud and wood: 69.7%
- Mud and cement: 10.9%
- Brick/block,: 2.5%
- Stone (particularly in Kakuma town where various commercial and rental developments are found.)

It was observed that the type of building material changed from more durable options (stone, brick, mud/cement) in Kakuma town and immediate surroundings to more temporary alternatives (twigs, grass/reeds, canvas) in the villages. There were also cases of houses made of mud/wood in all surveyed areas of Kakuma, indicating the prevalence of this kind of walling material. Where canvas was used, it was mostly old UNHCR tents, which might have been previously used in the refugee camp.

Roofing material:

- Corrugated iron sheets: 74.1%
- Grass and makuti: 20.7%
- Cartons: 4.3%
- Sisal: 0.9%

Floor material:

- Cement: 43.9%
- Earth: 56.1%

Majority of the households who have not used this standard wall and roofing material are those who have made extensions to their original housing, and often lacked adequate “extra” materials to complete the extensions, opting for cheaper and easily available material. Each of the nationalities in the camp however have their unique way of building, such that even with the same material, the architecture in the clusters vary, portraying unique characteristics of housing from their residents.

Kalobeyei Host Community

Among the host community, the construction materials are greatly based on locally available materials:

Walling material

- Mud or wood: 43.1%
- Twigs and grass/reeds: 13.8% each

Roofing material

- 26.8%:locally available (grass)
- Makuti: 19.6%
- Sisal: 16.1%
- Twigs: 10.7%
- Corrugated iron sheet: 19.6%

Several houses use a combination of materials, and also include old canvas inscribed with UNHCR, which is mostly common among the refugee camps. Within the households, earthen floors are the most common kind of flooring as identified by 87% of the respondents, followed by cement (11.1%).

Kalobeyei Refugee Community

The diversity noted on housing material in the host community area is not available within the Kalobeyei refugee camp, which is still under construction. Other than for the public facilities like the Red Cross hospital and the school which are under construction, majority of the refugee housing have the following materials:

- Canvas wall (with a light metal door and no window)
- Iron sheet roof
- Earthen floor

These are made as uniform structures by both NCKK and Peace Winds Japan as contracted by UNHCR. Newly and refugee constructed extensions however mostly have canvas as the wall and roof.

3.5. Infrastructure and Services

Energy Access

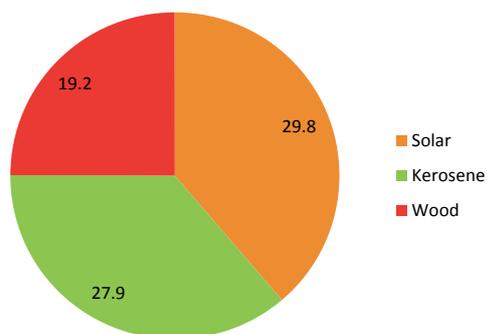


fig.50. Sources of lighting in Kakuma camp (% population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

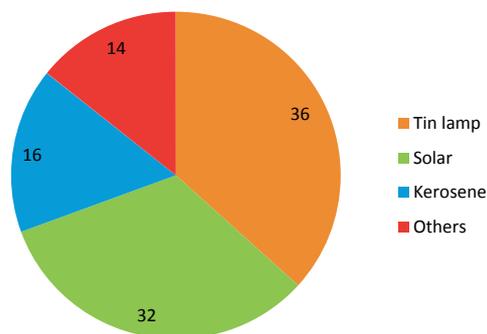


fig.51. Sources of cooking fuel in Kakuma camp (% population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

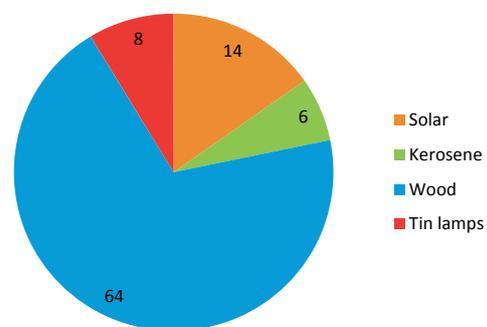


fig.52. Alternatives to electricity in Kakuma host community (% of population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

Current Situation

Kakuma Camp

There is no main grid electricity supply in the larger Kakuma area. Within Kakuma camp however, there are small scale independent power distributors, who generate power from large generators and distribute to various households and businesses at a price (Kshs. 500 to about Kshs. 5000).

With this in mind, only a 13.4% of respondents indicated they had electricity supply, against 86.6%, who did not. For the latter, the sources of lightning are diverse:

- Solar energy: 29.8%
- Kerosene tin lamps: 27.9%
- Wood fuel: 19.2%

And the sources of cooking fuel are

- Wood fuel: 62.7%
- Charcoal: 37.3%

The wood trade business is a major point of commodity between the refugees and host communities in Kakuma, whereby the host community supply the refugees with firewood, and either receive cash or food in exchange.

Kakuma Host Community

Kakuma town has several informal power connections similar to those observed in the refugee camp. This system works through informal generator providing energy to various “power clients” who pay on a monthly basis.

Among those who do not have electricity in their houses, the main lightning sources are:

- Tin lamps: 36%
- Solar: 32%
- Kerosene lanterns: 16%
- Others (candles, torches, wood fuel...): 14%



No main grid



21.5%
Solar energy



73.4%
Wood fuel



fig.53. Solar phone charging shop in Kakuma 4

Kalobeyei Host Community

The larger Kalobeyei area is not connected to the main national electricity grid, and thus residents rely on alternative energy sources, like wood fuel.

As sources of lightning the following are used among the host community:

- Solar: 14%
- Tin lamps: 8%
- Torches: 8%
- Kerosene lanterns: 6%

Moreover, 95.7% of the refugees use wood as their main cooking fuel. This is not surprising; especially given that wood is largely the most freely available type of fuel in the area.

The large scale consumption of firewood and charcoal has serious implications on the local and regional environment, and was largely mentioned as a source of conflict between the refugees and local community in several focus group discussions and key informant interviews conducted.

Nevertheless, the relatively high adoption of solar energy in Kalobeyei host community could be as a result of efforts by organizations such as GIZ and LOKADO to promote use of renewable energy sources. GIZ has for example assisted the county government in the installation of several solar powered lighting masts in the Kalobeyei town area, improving mobility at night and this can also increase businesses operation hours.

Planning and Design Implications

The installation of green energy sources in Turkana west is highly recommended as this is an area of medium to high winds, and also the solar radiance on the site is high, of about 12 hours per day.

In the same way, there is need to support initiative by LOKADO and GIZ in search for sustainable alternative sources of cooking energy. Though it was argued that the firewood used was dry firewood which had fallen from the trees, the growing demand of the commodity cannot be met by the supply of dry wood in medium and long-term basis⁸⁹.



WIND ENERGY



SOLAR POWER



BIOGAS

fig.54. Renewable energies suitable for the site

89 UN-Habitat/ Kalobeyei Socio- Economic Baseline Survey And Mapping Report (2017)



60L/
day/household



8.4Ksh
20L jerry can



The closer, the more
water is consumed

Water Supply/Services

DAILY USAGE	COST (20L JERRYCAN)	SOURCES
60 litres	no cost	tap within camp

fig.55. Water figures for Kakuma camp

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

Current Situation

Kakuma Camp

The amount of water used by households in Kakuma refugee camp varies widely, depending on size of household, and location of water point. Since water is free of charge among the refugees, household incomes do not influence the amount of water used by households.

- Daily household usage: 10 – 360 litres.
- Daily average use: 60 litres day (mode water usage)⁹⁰.

All respondents in Kakuma refugee camp identified that they get their water from a tap located within the camp. There were however major variations in the actual location of the taps:

- 79.2% got water from a tap(outside their house or within the compound).
- 19.2 got their water from a water point far from their houses (more than 500meters).
- 1.6% got water from a relatives tap (not within compound/outside house but within neighbourhood/block).

There was however a negative correlation between the amount of water a family consumed and where the water was acquired from, implying that households who access water from long distances generally consume less of the commodity⁹¹.

Kakuma Host Community

The amount of water consumed by Kakuma host community households also varies widely:

- Daily household usage: 10 – 500 litres.
- Daily average use: 60 litres day (mode water usage).

The high variations reported in water consumption amongst this group depend on two key aspects, the number of people living in the household and the household monthly income.

DAILY USAGE	COST (20L JERRYCAN)	SOURCES
60 litres	5 Ksh	water kiosk

fig.56. Water figures for Kakuma host community

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

90 UN-Habitat/ Kalobeyei Socio- Economic Baseline Survey And Mapping Report (2017), p.47

91 UN-Habitat/ Kalobeyei Socio- Economic Baseline Survey And Mapping Report (2017)



fig.57. Water point in Kalobeyei New site

DAILY USAGE	COST (20L JERRYCAN)	SOURCES
81 litres	8.33 Ksh	Boreholes, riverbank

fig.58. Water figures for Kalobeyei host community

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

The positive correlation with household monthly income is related to the fact that, 64.3% of the host community respondents paid for their water.

- Cost of 20 litres jerry can: Kshs 5 - Kshs. 20

These variations depend on where the water is fetched and whether it is transported to the household.

The major sources of water among the host community respondents include the following:

- River banks (11.6%)
- Boreholes (8%)
- Shallow wells (3.6%).

And the major modes of access:

- Water kiosks (38.4%)
- Piped water in taps (27.7%)

Kalobeyei Host Community

Availability of water is key to the survival of both the people and various agricultural practises in Turkana county. In Kalobeyei, just like in many other arid places in Kenya, availability of water, and the distance to various water facilities determines how much water a family is able to acquire and use in a given day.

Kalobeyei sub-location has the highest number of water points among Kalobeyei ward sub-locations.

Water in Kalobeyei is accessed from boreholes and wells, water pans/dams, river banks, piped water and water kiosks and other dedicated water points. While some sources of water do not have cost implications on households, others have associated costs, determined by the water service operator, and whether the water is delivered at home or fetched from source.

In the same way, the daily water usage varied depending on the household size and income:

- Water daily usage per household: 20 litres – over 200 litres

Mean water usage per household: 81 litres

- <40 litres/day: 7.8%
- 40 litres/day: 23.5%
- 60 litres/day: 23.5%
- 80 litres/day: 13.5%
- 100 litres/day: 13.5%
- >100 litres/day: 17%

Water Supply/Services



fig.59. Latrine situation in Kalobeyei New site

A majority of respondents accessed their water from boreholes. Interestingly, respondents who accessed water from river banks used between 20-80 litres per day. This could be associated with the amount of time it takes to fetch water from the river banks, since the process itself is slow and tedious.

The cost of water in Kalobeyei ward:

- 20 litres jerry can: Ksh.5 - Ksh 20

While Kalobeyei sublocation has the highest number of water points as compared to the rest of the sub-locations within the ward, respondents interviewed in the sub-location also identified that they pay higher tariffs for water.

The key point regarding water is the accessibility to it. In the case of Kakuma, a negative correlation between the amount of water a family consumed and where the water was acquired from was regarded, implying that households who access water from long distances generally consume less of the commodity⁹².

In the case of Kalobeyei, however, the water points are unevenly spread, and are only concentrated within a radius of one 1 Km from the Kalobeyei market. These facilities are also located within a radius of about 12 km from the Kalobeyei refugee site. This service distribution pattern could be influenced by the nature of settlements in the area, where temporary settlements could be noted as influenced by the pastoral nature of the people living there.

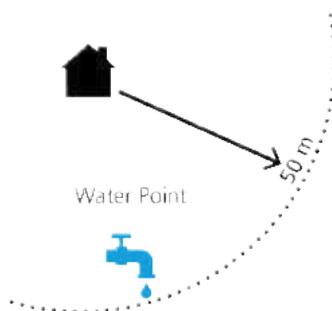


fig.60. Average walkable distance to water sources

Planning and Design Implications

Accessibility and proximity to the water sources are a priority. Without a reliable water supply, the development of the New Kalobeyei Settlement will escalate the existing water and environmental problems facing the area. Therefore, the plan recommends that the implementing agencies identify and develop a reliable water supply source for the new settlement and the wider area.

92 UN-Habitat/ Kalobeyei Socio- Economic Baseline Survey And Mapping Report (2017)

AGGREGATE FIGURES



60.83%
Pit latrine



19.45%
Open defecation



75.95%
Waste burning

Sanitation

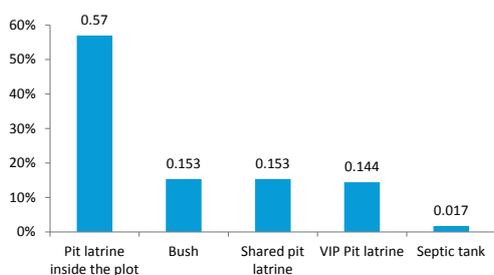


fig.61. Kakuma refugee sanitation facilities

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

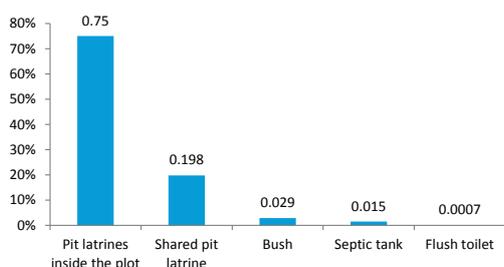


fig.62. Kakuma host community sanitation facilities

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

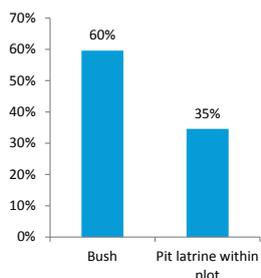


fig.63. Kalobeyei refugee community sanitation facilities

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report



fig.64. Average walkable distance to sanitation facilities

Current Situation

Kakuma Camp

Pit latrines are the main facilities used for human waste disposal in Kakuma refugee camp.

- Non-shared pit latrine: 75%
- Shared pit latrines: 19.8% (shared)

Kakuma Host Community

Within Kakuma host community, minor differences can be observed:

- Non-shared pit latrine: 51.7%
- Shared pit latrines: 15.3% (shared)
- Open defecation: 15.3%
- VIP latrine within the plot: 14.4%
- Septic tank: 1.7%

Kalobeyei Host Community

Among Kalobeyei host community households:

- Bush: 59.6%
- Pit latrines within the plot: 34.6%

These statistics are highly consistent with findings from the 2009 Kenya population census in which 79.6% of households in Turkana North (95.3% in rural areas and 31.6% in urban areas) used open defecation as their main mode of human waste disposal, followed by pit latrines.

Planning and Design Implications

More formalised sanitation systems, like VIP pit latrines, are promoted, in order to reduce the environmental impact of open defecation. Also, family level solutions are highly recommended. As it has previously been outlined, there is a notable lack of water, therefore a system that does not require water is highly recommended.

Overall, the use of pit latrines within the plot is the main sanitation system. This has environmental and health implications, as the alternative most extended system is using the bush. In the same way, the usage of sanitation systems outside the plot carries some issues. On one side, safety risks taken by women when using shared latrines, and on the other, the low maintenance of these (as they are shared), which mean low levels of cleanliness, forcing people to open defecation.

Waste management

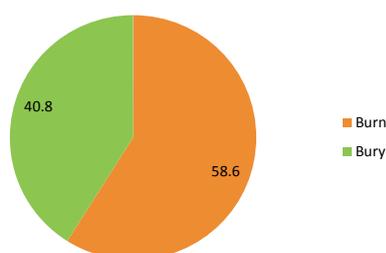


fig.65. Solid waste disposal method in Kakuma camp (% population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

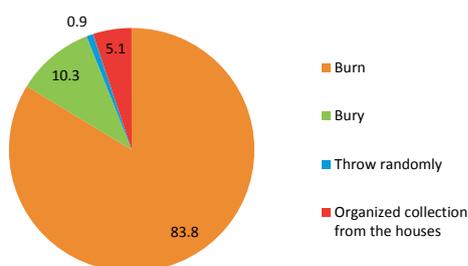


fig.66. Solid waste disposal method in Kakuma host community (% population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

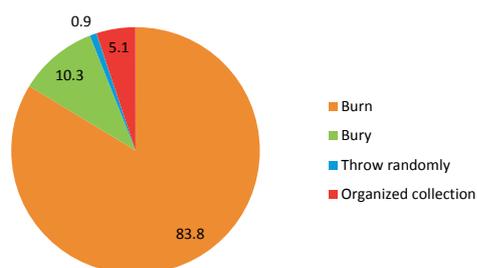


fig.67. Solid waste disposal method in Kalobeyei host community (% population)

Source: UN-Habitat/Kalobeyei Socio- Economic Baseline Survey And Mapping Report

Current Situation

Kakuma Camp

Burning and burying/composting are the two main types of solid waste disposal in Kakuma.

- Burning: 58.6%
- Burying: 40.8%

The lack of waste disposal methods can largely be attributed to the many waste burning piles spread throughout the camp. The burying of waste also easily explains the many waste pits spread throughout the camp, as well as a lot of litter that can be seen in the neighbourhoods⁹³.

Kakuma Host Community

Like in the Kakuma refugee camp, burning is the most popular method of solid waste disposal among Kakuma host community members:

- Burning: 83.8%
- Burying: 10.3%
- Throwing randomly: 0.9%
- Organized collection from the houses: 5.1%

Kalobeyei Host Community

Burning is the major solid waste disposal method among Kalobeyei host and refugee households.

- Burning: 96.2%
- Burying or collected from their houses: 2%

The way waste is being managed in the Kakuma area is not sustainable on the long-term, as the most used waste disposal methods have a great impact on the air quality and the pollution of the land. This reality combined with the fact that there is a low awareness regarding this issue imply bigger amounts of waste and an increment of dispersed waste has been observed.

Planning and Design Implications

There is an urgent need to use the existing landfill site in order to mitigate the negative environmental impact. In the same way, a waste management system could contribute to help sensitize Kalobeyei and Kakuma inhabitants, while resources are maximized (upcycling and recycling) and waste is decreased.

⁹³ UN-Habitat/ Kalobeyei Socio- Economic Baseline Survey And Mapping Report (2017)

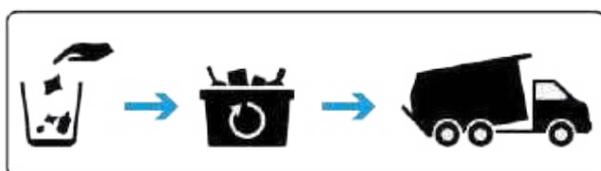


fig.68. Waste management system required

3.4. Climate

Rainfall and Temperature

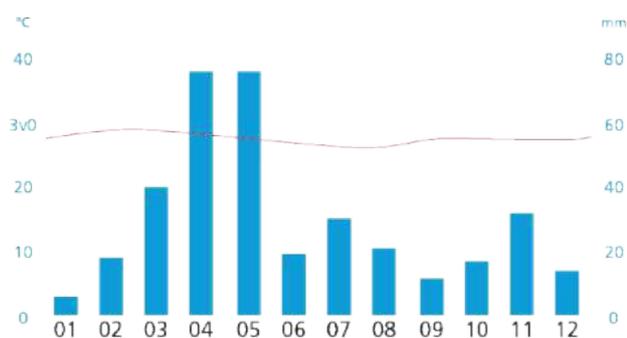


fig.69. Climate and rainfall chart

Source: <http://en.climate-data.org/location/11156/>

Current Situation

Kakuma is located in a semi arid area, with very little rain and high temperatures:

Average temperature: 40°C.

Two rainfall seasons: 52 mm - 480 mm annually

Long rains: April and July (akiporo)

Short rains: October and November

As a consequence of these weather conditions, the air and the land are very dry exacerbated by significant ground water scarcity and therefore crop husbandry has limitations, further aggravated by the high rate of evaporation making a high proportion of the land non-arable. It is believed that only about 30 percent of the county's soil is suitable for agricultural production. If there is no significant investment in water management and infrastructure Turkana, the land will continue to be unsuitable for agricultural purposes. One major consequence of this context is the significant over-reliance on imports, leading to high costs for goods which doesn't support the development of the local economy.

Planning and Design Implications

Considerations regarding agriculture should be taken in order to mitigate the soil limitations. Similarly, vegetation species that can withstand high temperatures and scarce rains should be proposed, to allow for the development of an agricultural economy. This is inextricably linked to water supply which requires innovative low-tech harvesting systems and the promotion of low water use facilities for sanitation etc. There is also a need for a county wide water masterplan for this plan to integrate with, identifying potential resources and key infrastructural gaps.

Currently, there are some existing technologies in place, but they are not sufficient. Improving the systems, making them effective, improving the uptake and spread of use is a key priority.

Further to this, a key design implication relates to housing building technologies and materials which can improve the thermal comfort generate shade and cool spaces should be encouraged. It is envisaged that an approach which is based or takes into consideration, traditional local techniques and locally found materials would be most appropriate.



fig.70. Sand dam



27.6°C
Average daily



300 - 400
mm per year



35%
Site flood risk

Flooding

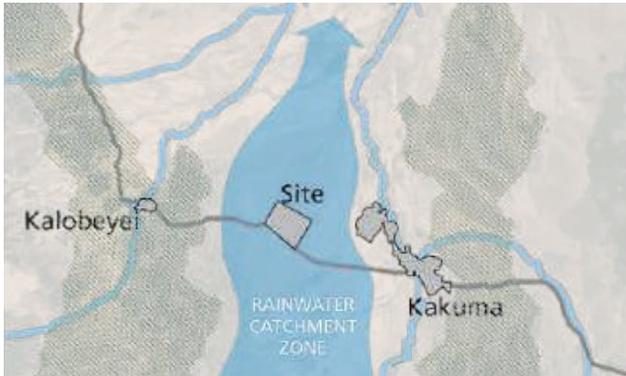


fig.71. Natural constraints in the area

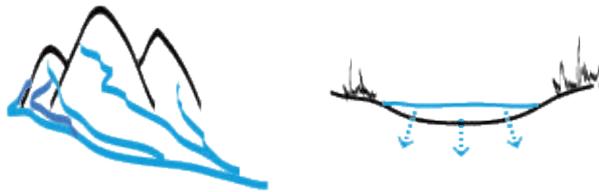


fig.72. Run-off from nearby high land and low soil infiltration

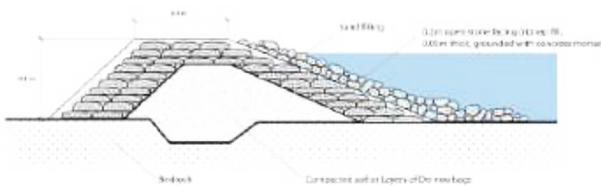


fig.73. Earth berm water pan typical section

Current situation

Flash flooding is very common in the event of heavy rain as a consequence of the flat nature of the site, its surrounds and the generally low infiltration rates of the soil. This is further aggravated by the fact that the site lies on a natural flood risk area from the water run-off from the high land on the border with Uganda. This often causes significant short term flooding on roads, and occasionally in settled areas affecting the accessibility and livability of certain areas.

This also has the impact of making it difficult for local inhabitants to develop sustainable agricultural practices, as the sudden waters are unpredictable meaning that often the crops and soil are at risk of getting not enough or too much water.

Planning and Design Implications

To mitigate the flood risk, attention should be given to the design of storm water management systems, as well as how this can be leveraged to regulate the water supply for agriculture.

There are a number of strategies that this can take, and the plan will elaborate on the various options. This includes protecting the existing watersheds and avoiding locating key public service infrastructure or residential units in close proximity. By placing green, open and leisure spaces such as football pitches which can tolerate being flooded on a rare basis it still allows for land to be used on a productive basis with little impact on day-to-day life. Further to this, flood water harvesting techniques such as sand dams and earth berm water pans could be utilized to capture water for use and protect against flooding.

Solar Incidence



fig.74. Use of limited shade space

Current Situation

The site is located very close to the equator. For this reason, the solar incidence is somewhat vertical, and lasts almost 12 hours a day.

Winter angle: 63°
Summer angle: 70°

The sun is strong and the temperatures are high, and thus creating shade is essential to moderate the harsh environment as well as support the creation of quality living conditions for the inhabitants of the site.

In the context of Kalobeyei, creating shaded space can result in reducing the temperature 10°C , however due to the location of the site and therefore the high solar incidence, there needs to be a key design focus on the development of large shaded areas, especially in close proximity to public gathering areas.



fig.75. Typical street section emphasizing shaded spaces

Planning and Design Implications

As mentioned, in public facilities and residential designs, there needs to be a proactive approach to creating shading – such as through the use of large roof overhangs. Further to this, in order to lessen the impact of Urban Heat Island effect, the public space and road designs must incorporate elements which give shade, such as roofed waiting/gathering areas and trees, as well as surface paving that creates a relatively high absorption capacity and visual comfort.

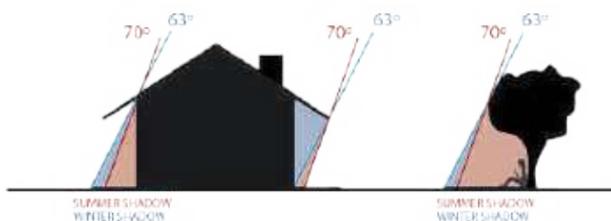


fig.76. Sun incidence angle in summer (70°) and winter (63°)

3.6. Site Analysis

3.6.1. Site Constraints

Resolving the Boundary Condition

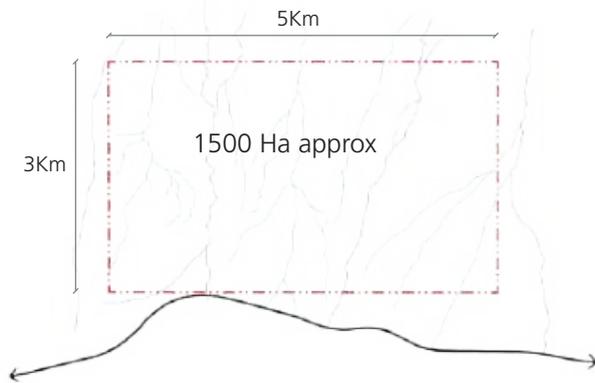


fig.77. Original boundary

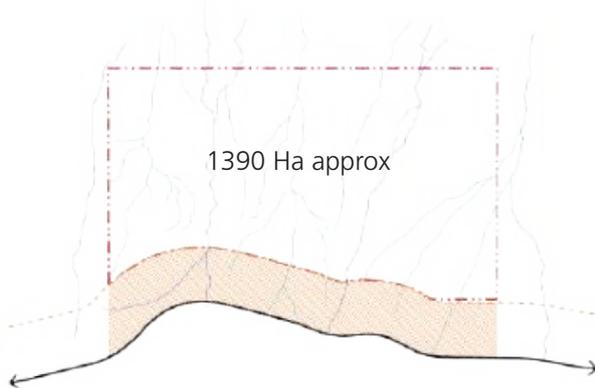


fig.78. 700m buffer boundary

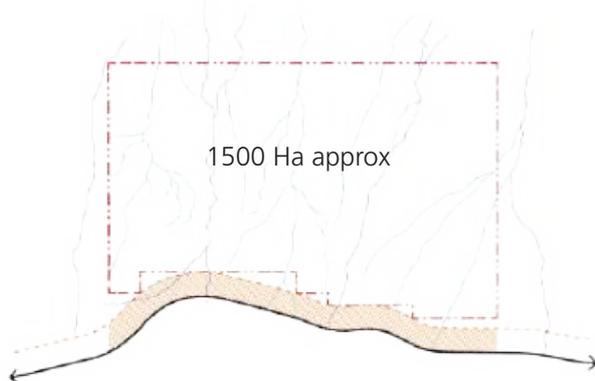


fig.79. 300m buffer boundary

Original Boundary

The site under proposal is a 1500Ha area located approximately 15km from Kakuma Town and 15km from Kalobeyi Town along the A1 highway. This highway connects Kalobeyi (and the interior of Kenya) with Lokichogio and the border with South Sudan and runs adjacent (to the south) to the site.

700m Buffer Boundary

The original site boundary was subject to an 700m buffer zone from the A1 highway which was implemented to take into account any potential impact of the LAPSSET corridor. Resultantly, factoring the buffer upon the settlement boundary reduced the total available land to 1390Ha which was not sufficient for the proposed capacity of 60000 people.

300m Buffer Boundary

As a result, a compromise solution was proposed, taking into account the potential future infrastructure development of the LAPSSET corridor with the provision of a 300m "buffer zone" between the settlement and the existing A1.

Following the aim for the new development to facilitate integration of both the host and refugee communities, This area is reserved for future development for the host community and potential investors. This area benefits from outline planning in "4.4. Land Use Framework" to allow controlled development and prevent informal extensions.

Site Constraints

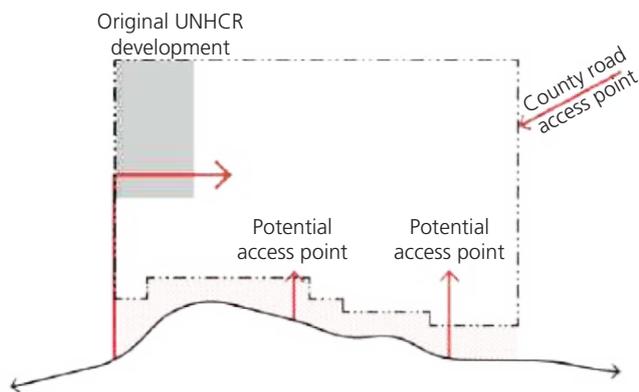


fig.80. Potential accesibility roads

Accessibility

The A1 highway connecting Kakuma (and the interior of Kenya) with Lokkichogio and the border with South Sudan runs adjacent to the site. This provides access to the site of the first phase, and will allow access into the adjacent areas of the site. Further to this, the LAPSSET corridor will also run alongside the site, however the alignment is not yet confirmed.

Access to the first neighbourhood currently under construction is through the A1 road, located 300 m away from the settlement, other access points along the settlement are to be confirmed.

The national government is planing to construct the Lamu Port-South Sudan-Ethiopia- Transport (LAPSSET) corridor, involving highway and pipelines running through the actual A1 route, detailed plans are not yet available. This corridor will influence greatly the settlement in terms of potential socio-economic growth

Topogaphy

The site is relatively flat, gradually falling away from the south edge toward of the site bounding the A1 highway towards the west. With an approximate level change of 30m across the site the average slope factor of 0.5%. This suggests substantial buildable area without obstacles. However due to the relatively flat area and large number of waterways this also creates a site liable to flooding.

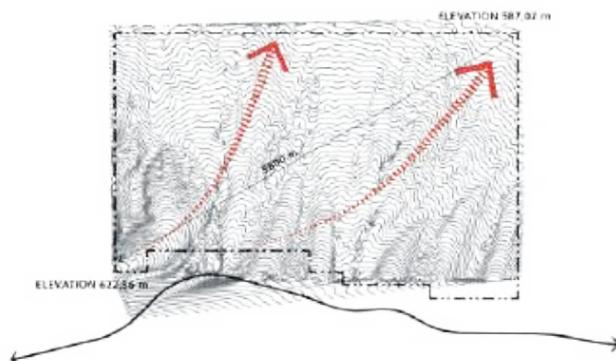


fig.81. Topographical situation

Site Constraints

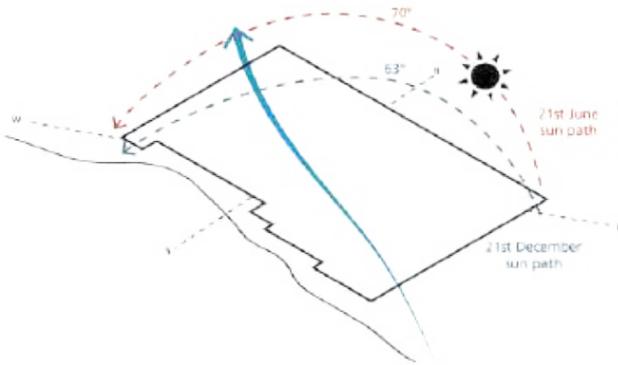


fig.82. Sun path and wind direction

Source: <http://solar.dat.uoregon.edu/SunChartProgram.html>

Sun Path and Wind Direction

Situated in Northern Kenya, approximately 400km north of the equator, the sun has a typically high angle, at 70° in the June solstice and 63° in the December solstice. Given the average annual temperatures of 27° celcius

In order to get an adequate design of the dwellings, taking the solar incidence into account is fundamental.

Sun impacts vertically (shadows)
Promoting tall vegetation (better environment and better life quality for the inhabitants)

The prevailing wind comes typically from the East and South East, channelled through the "Turkana-Marsabit Corridor" created by the Indian Ocean monsoon and sites geographical location between the Ethiopian and Kenyan highlands. The plan as such should be oriented in such a way to take advantage of the wind flow in order to facilitate passive cooling where possible.

Watershed & Flood Risk

There are four main river beds running through/adjacent to the site. Although they are seasonal, and run for just a few days per year, they should be respected as existing ecological corridors. Further to this, there are a large number of small tributaries which drain the site across into each of the larger river beds.

Although the watersheds are predominantly dry, short heavy rain storms which occur in April and October often create flash floods which are exacerbated by the relatively flat topography and shallow waterways. As a consequence, the natural patterns of watershed, i.e. the rivers and tributaries are important elements to be considered as part of a resilience strategy to prevent against flash flooding.

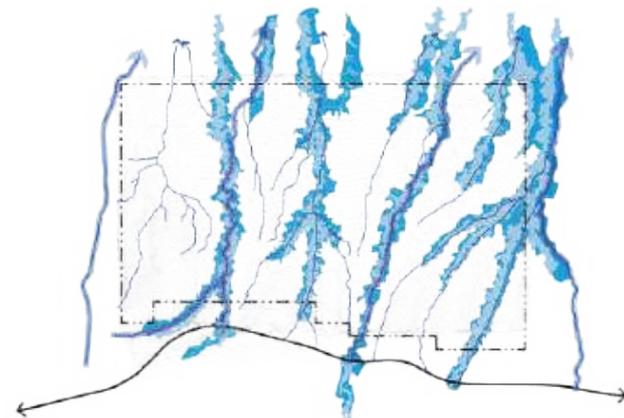


fig.83. Watershed and flood risk

Source: UNOSAT, Elevation Map Of New Kalobeyei Settlement, Turkana County, Kenya

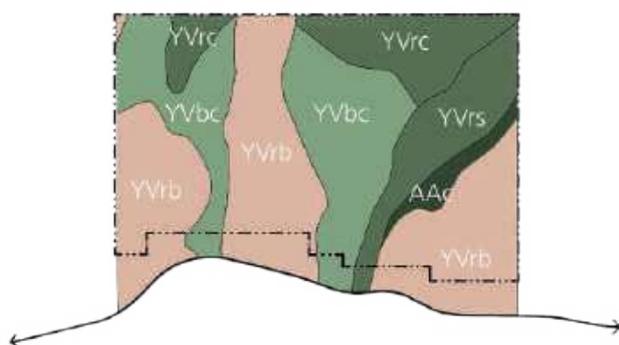


fig.84. Soil agricultural suitability

Source: UNHCR Soil Investigations Report (2015)

Highly suitable	YVbc - Highly suitable for growing legumes, vegetables and fruits
Moderately suitable	YVrc - Moderately suitable for growing legumes, vegetables and fruits
Low to moderately suitable	AAc - Low to moderately suitable for growing legumes and vegetables
Marginally suitable	YVrb - Marginally suitable for growing legumes, vegetables and fruits

Geology and Soils

The Kalobeyei site overlays Tertiary Volcanic rock comprising colluvium derived from Basalts, ignimbrites and trachytes on the surrounding hills⁹⁴.

A major soil survey was commissioned by UNHCR in December 2015. The area sits under Agro-Climatic Zone VI⁹⁵, which means that the potential for plant growth under natural rainfed conditions is low. The annual reference evaporation is estimated to be between 1900-2400mm⁹⁶.

Specifically on the site, the various types of soil range include :

- Yvrb – Marginally suitable for growing legumes, vegetables and fruits
- Yvrc - Moderately suitable for growing legumes, vegetables and fruits
- Yvrs - Moderately suitable for growing legumes, vegetables and fruits
- Yvbc – Highly suitable for growing legumes, vegetables and fruits
- AAc – Moderately suitable for growing legumes and vegetables

All soils have a generally low infiltration rate which also contributes to the common occurrence of flash flooding.

⁹⁴ UNHCR Soil Investigations Report (2015)

⁹⁵ Ibid

⁹⁶ Ibid

Site Constraints

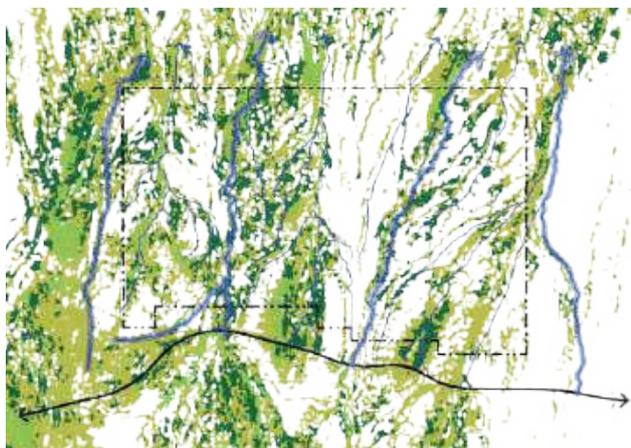
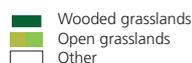


fig.85. Vegetation in Kalobeyei New site

Source: UN-Habitat (2016), Kalobeyei New Site Mapping Report



Vegetation and Wildlife

The land cover classification for the Kalobeyei new site was processed from high resolution satellite image (0.5m) and features three main land cover types namely; wooded grasslands, open grasslands and other. The “Wooded Grassland” which consists of scattered trees with grasslands are mostly found on the North-western part of the site forming a linear pattern, an indication that most of these are riverine trees and grass that grow along the rivers which accounts for 7% of the site land cover. The “Open Grasslands” are evenly distributed across the site and account for approximately 23% of the land cover. This provides for pasture during the wet season due to their fast sprouting ability when it rains and it dries up when rainfall disappears. The “Other” land cover refers to the bare land with very little or no land cover at all and this is distributed across the site accounting for approximately 70% of the land cover⁹⁷.

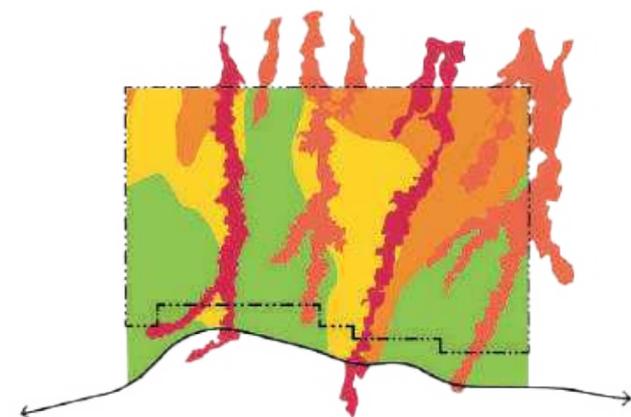
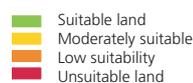


fig.86. Land development suitability in Kalobeyei New site

Source: UNHCR Soil Investigations Report (2015)



Land Suitability Analysis

As the site is generally flat, the topography offers no major constraint to general suitability for development. However taking into account the combination of soil quality (vis-à-vis agricultural potential), the depth and scale of water ways as well as the risk of flooding. fig.86 represents the synthesis of this information and therefore the anticipated suitability. It can be noted that the areas closest to the highway are most appropriate to be considered for development whilst the areas further to the North West edge of the site have better agricultural potential.

97 UN-Habitat (2016), Kalobeyei New Site Mapping Report

Situational Analysis Conclusion

As an overall conclusion to the situational analysis, the following key aspects are of particular pertinence for the Kalobeyei New Site planning proposal.

From the regional scale, there is a significant imbalance in economic growth, with a major overreliance on Kakuma camp for income and services. This indirectly affects development potential due to the un-sustainable nature of the camps development, and requires the new proposal to strategically look at the interconnectivity and potential long-term economic potential of the area.

The harsh climate of Turkana West Sub-County plays a significant role in influencing decisions for the new settlements plan. Designing the facilities to take advantage of prevailing wind flows, and shading can have a significant impact on improving internal thermal comfort. Further to this, the major issue of water scarcity makes crop husbandry and water harvesting a challenge, however due to the nature of the rains seasonality, there is a risk of flooding. This can offer the opportunity for flood water harvesting as a strategy for flood mitigation and to potentially help support the agricultural ambitions.

With regard to access to public services such as healthcare and education, the importance of accessibility should be emphasised, both in terms of progressive policies to support open access to both communities as well as physical proximity/connectivity to allow both hosts and refugees to use the facilities. Providing a strategy to develop transport links between the new site and Kalobeyei town should also be prioritised to support in facilitating this.

The creation of livelihoods is crucial to the long-term sustainability of the site. Whilst the main farming activity and expanding interests among the host community is livestock, the majority of refugees practice crop husbandry. Linking these two potential producers and facilitating market development can help support the expansion of these businesses.

Whilst it is clear that housing is a particularly important aspect in creating a sense of security for refugees, it is also equally important for the host community. As a particular example to demonstrate this, space for kitchens is extremely important to refugees as more than 50% of refugees cook inside, whilst the majority of host community cook outside. Creating an incremental housing typology to support specific cultural appropriation and family needs will help to allow inhabitants within the site to develop a sense of ownership and value of their "space".

The infrastructure issues focusing on energy, water and sanitation access highlighted a number of key areas for the plan to address. There is a need for decentralised renewable energy generation, given the lack of centralised grid and power generation as well as the prime location to leverage wind and solar energy production. The use of wood and charcoal for cooking fuel is also putting significant strain on the environment although the industry around this provides significant income for host community members. A future strategy addressing energy production and livelihood creation needs to take this interconnectivity into account.

Water scarcity is a major concern in the region. The existing supply provision through boreholes is not a sustainable strategy and can serve to ignite conflict further. The plan needs to include an approach to harvest rain and flood water where possible, however there is a need to address this more broadly than in just this plan as is recommended in "5. IMPLEMENTATION FRAMEWORK".

Reducing the reliance on open-defecation and shared pit latrines is a major priority. The plan proposes an alternative strategy to this, specifically system which uses as little water as possible due to water scarcity in the area. It has been observed that family level solutions are better maintained and culturally accepted, as well as improving security issues which suggest this needs to be taken into account. Further to this, considering sanitation as an economic opportunity is important as transforming human waste into useful and positive outcomes, such as bio charcoal or compost, can bring business opportunities and contribute to the economic and environmental development of the inhabitants.

Situational Analysis Conclusion

The typical solid waste disposal strategy is burning, which has obvious negative environmental impacts. As such the implementation of a waste management system could contribute to improving the health and environmental conditions, as well as serving as a catalyst for business opportunities. There is also the potential to transform waste into biogas which can generate a positive environmental, economic and social impact.

The site constraints for the specific 1500 ha relate to access, topography, watersheds and soil conditions. Accessible by the existing county road, the site also can easily connect to the A1 highway, integrating itself in the area and offering the potential to develop a socio-economic growth node. The site itself is very flat, allowing development in most of the area other than the watershed paths. However, due to this and the large number of waterways that run through the site, there is a significant risk of flooding which should be considered as part of a resilience strategy. The prevailing wind comes from the East and South-East, and the plan should be oriented in order to take advantage of the wind flow to facilitate passive cooling.

The plan proposals in the following chapter are based heavily on these main considerations in order to develop a resilient and appropriate and functional development.

4. PLANNING PROPOSALS

THE ADVISORY PLAN FOR KALOBEYEI



Participatory Design Activity in Kalobeyi New Site, Kenya © UN-Habitat/Julius Mwelu

4.1. Planning Proposals

Overview

The planning proposal for Kalobeyei New Settlement sits within the context of Turkana County, Turkana West Sub County and Kalobeyei Ward. It is also substantially influenced by the proximity to Kakuma Town and Refugee Camp, which has a combined population of more than 200,000 people. The aim is to create a sustainable and integrated human settlement where both refugees and host community can live, work and access services for the foreseeable future.

It is therefore noted that the establishment of the new settlement is aimed at its integration within the human settlement pattern in Turkana West County, which is a combination of refugee settlements, host community rural (scattered) villages/manyattas and small centres. Integrating these human settlement pattern is a priority for policy makers, moving forward.

The plan in part adopts the UN Habitat “three-pronged approach” to ensure integrated planning by formulating good planning and design proposals alongside sound economic considerations and regulatory frameworks.

Vision and plan objectives

Informed by National and County Policy as well as the local community input, SDG 11, The New Urban Agenda, the project focuses on changing the “Business as Usual”

As such, an urban strategy is being developed to mitigate and address many of the challenges outlined in “*Chapters 2 & 3*”, as well as empowering the refugee and host communities to take advantage of the emerging economic opportunities, and creating equitable access to public services.

The vision is for an urban settlement that is accessible, integrative, resilient and vibrant.

What does this mean for Kalobeyei?

For Kalobeyei new site, the vision is for a new approach to emergency planning, combining sustainable planning and design principles that can create the basic structure for long term sustainable infrastructural investment.

This is fundamentally based upon responding to the needs of the local host community and sets a framework for them to be permanent stakeholders in the development of the new site. Also linked to this is an understanding of the humanitarian context which aims to ensure that refugees are given durable shelter, access to services and protection from harm.

Combining these two interlinked aspects requires significant policy led actions and a strategy to build capacity as well as a supportive urban planning and governance framework.

The plan primarily addresses the urban planning and design component which advocates for promoting integration by creating a well connected settlement, that links to the neighbouring settlements. This is in turn supported by good neighbourhood planning principles such as:

- 1. Promoting appropriate density and compact development to maximise land efficiency and avoid urban sprawl, protecting the community owned pasture lands.
- 2. Supporting the development of diversified, socially equal and economically thriving communities, providing areas for refugees and host community to live together if they so wish.
- 3. Promoting walkability as a key measure to bring people into the public realm, reduce congestion and boost local economy and interactions, especially in this context where private (and public) transport at this stage is extremely limited.
- 4. Optimising the use of land to provide an interconnected network of vibrant streets which facilitate safe, efficient and pleasant connectivity. This is particularly pertinent in the context of Kalobeyei where the aim is to create a place for displaced peoples, as well as trying to mitigate conflict between various mixes of cultures. It allows the street to become places of interaction and exchange and facilitate a path towards integration.
- 5. Fostering local employment, production and consumption between Kalobeyei Town, New Site Kakuma and the surrounding region, to support regional development which benefits the ward community as a whole.

4.2. Planning and design principles

UN-Habitat Fives Principles for Neighbourhood Planning/Design⁹⁸



fig.87. Commercial road in Kakuma1 © UN-Habitat/Julius Mwelu

The Five Principles are highly interrelated and underpin each other. High density provides the population and activity basis for a sustainable neighbourhood; adequate street density is the material basis; mixed land-use and social mix shape the land use and social life in the neighbourhood; and limited land use specialization is the first step towards mixed neighbourhoods.

The Five Principles balance population growth, economic growth, rapid urbanization, sustainable urban development and other factors, and try to establish a new urban system. In this system, population and urban infrastructure accomplish economies of scale; diversified social networks and the diversity of land-uses support each other and develop together; and urban space and urban dwellers live and develop in harmony.

In order to facilitate the baseline for good planning and design decisions, the application of these principles also require supporting legal frameworks, an analysis of the local society and economy, appropriate infrastructure technology and capacity, and the institutional capacity to enforce decisions.

Adequate space for streets and public space in an efficient street network

- 0-35% to the street, 15-20% public space / 50% plots
- At least 18km of street length per km²
- At least 80 crossings per km²

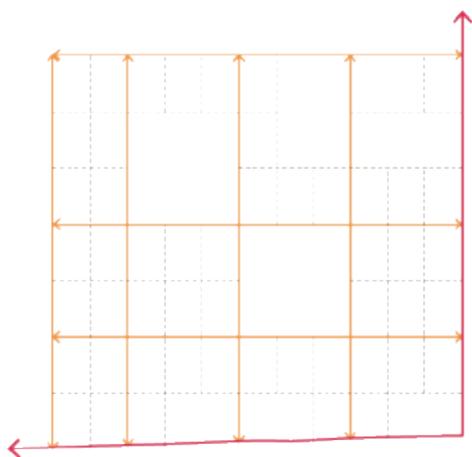


fig.88. Adequate space for streets and public space in an efficient street network

A major problem with existing urban settlements in Turkana County and many other settlements across Kenya relates to an efficient street network. As such, for this proposal, 30% of land use is allocated to streets, providing more than 19.5km of average street length per km² as well as 85-90 street crossings per km². This allows equitable urban value for all plots to be created; future traffic capacity is also substantial but this is mitigated in terms of pedestrian safety through the high level of provision of crossing points to act as a natural traffic calming measure.

⁹⁸ UN-Habitat (2016), A New Strategy of Sustainable Neighbourhood Planning: Five principles – Urban Planning Discussion Note 3

Principles of Good Planning Practice

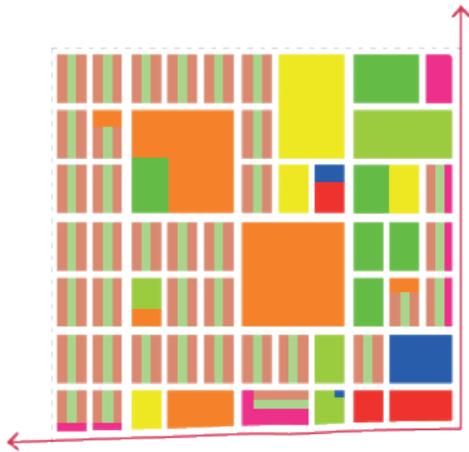


fig.89. Mixed land use

Mixed Land Use

- At least 40% of floor space allocated to economic use
- Limited land-use specialization; single use blocks should cover less than 10% of any neighbourhood

In the proposal, approximately 1/3 of site is used for agriculture (which is essentially a form of economic activity), with the potential for every street front plot to have a zone for commercial activity – which allows anyone to open a business regardless of their location. Over time, as the natural effects of the market will develop, and the businesses that succeed will move to the spaces where more demand is naturally created. A flexible commercial land use strategy facilitates this.

Furthermore, the mixed use strategy is spread across the settlement through “units of mixed use” which respond to areas containing approximately 5000 inhabitants. Each of these areas or “mega blocks” puts residential, commercial, educational and public amenity together to provide a walkable community with limited land use specialisation.

Social Mix

- 20-50% of residential area should be low cost housing
- Each tenure type should not be more than 50% of the total

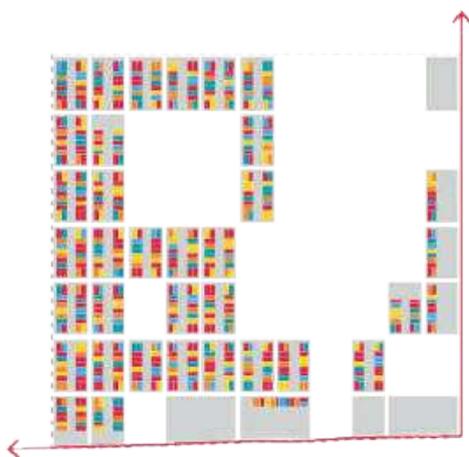


fig.90. Social mix

In Kalobeyei, given the context of the site focusing on housing refugees for the short-medium term it is difficult from the outset to fully support social mix within the residential areas. However for Kalobeyei, as integrating refugees and host communities is a key component of the proposal, it is recommended that host community members gradually are given opportunities to live within the settlement in order to promote the social mix and diversity.

It is recommended that a long term land tenure strategy is put in place to facilitate equitable access to plots and housing, and ensure that the public interest in the land is maintained.

UN-Habitat Fives Principles for Neighbourhood Planning/Design

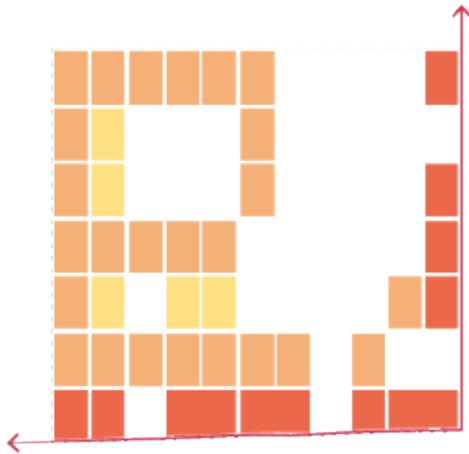


fig.91. Adequate density

Adequate density

- At least 15.000 people per km², that is 150 people/Ha

It should be noted that in the case of Kalobeyei this principle is not fully reached in the short-medium term given the emergency and semi-rural/semi-urban context. As a result, combining a compact urban form with the required space for agriculture at various scales and in various areas mean that a compromise to this is required. However, the distinctly urban areas within the site are designed in manner to reach this ideal density when population growth as well as the economic and support infrastructure is in place to support the density.

Connectivity

- Emphasis on walking distances and public transport

The plan recommends a walkable block scale of 60 x 100m, with schools, market places, commercial streets and community/public amenities all placed within a 500m radius to support strong connectivity.

This is also supported by a green pedestrian network following the natural ecological corridors. This supports a secondary walkable set of corridors.

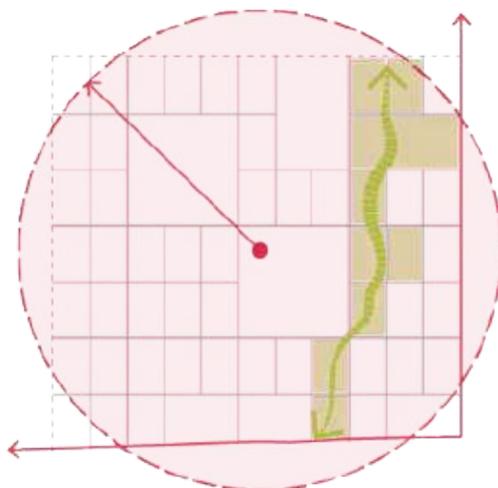


fig.92. Connectivity

4.3. Spatial Development Concept

4.3.1. District Scale Development Concept

Ensuring a positive impact upon the district

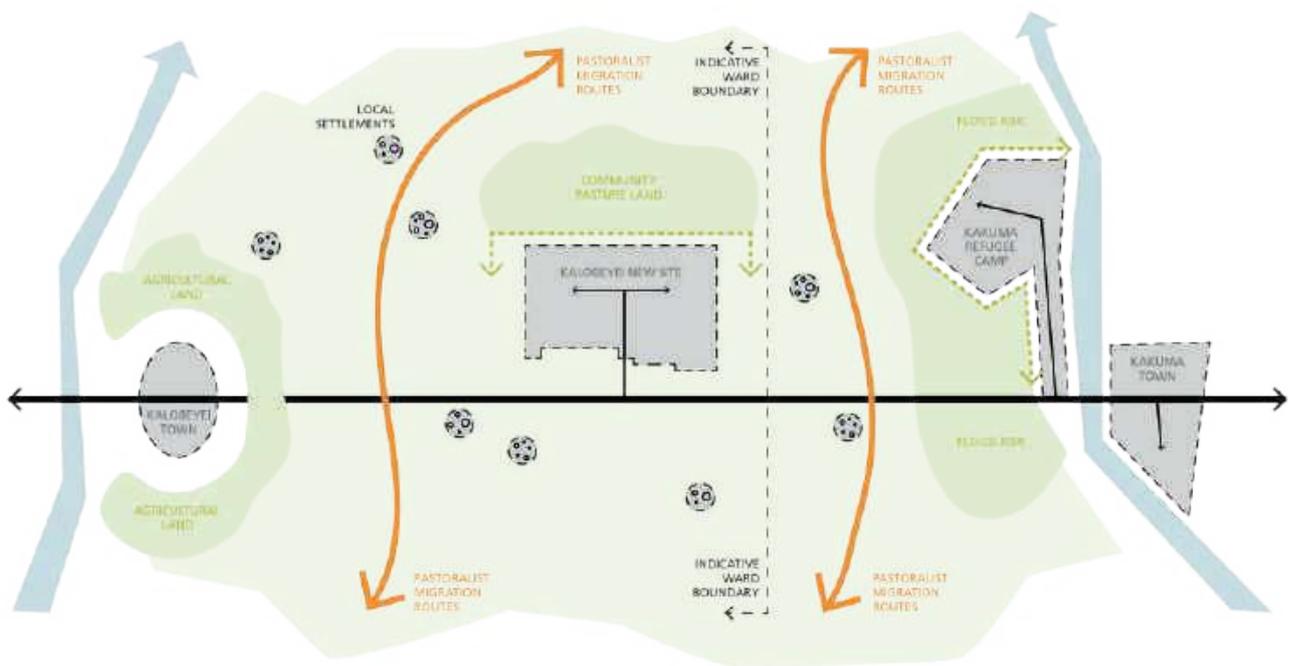


fig.93. Ensuring development responds to environmental and economic constraints

Kalobeyei new site is mid-way between Kalobeyei Town and Kakuma Town & Camp. This presents a challenge in terms of ensuring a balanced set of developments. In terms of the physical constraints of the site, Kakuma town is prevented from significant growth to the west as the area comprises of a flood plain and Kalobeyei town is limited in growth to the east due to the existing location of community pasture lands and undulating territory. The proposal therefore aims to develop a concept that retains compact development for each human settlement and in tandem protecting the existing natural fragile environments.

However, in order to ensure that the district supports a balanced collection of settlements a concept to develop interconnectivity, based on the flow of economic activities is proposed. At the outset, both Kalobeyei town and Kalobeyei New site are strongly dependent on Kakuma. If the Kalobeyei community (both hosts and refugees) are empowered to develop their own economic activities on an equal basis, and the source of all goods and services is spread from beyond only Kakuma, Kalobeyei town and new site can reduce their high dependency, if the human settlement approach is accompanied by the creation of supporting economic initiatives.

Creating a system of inter-related settlements

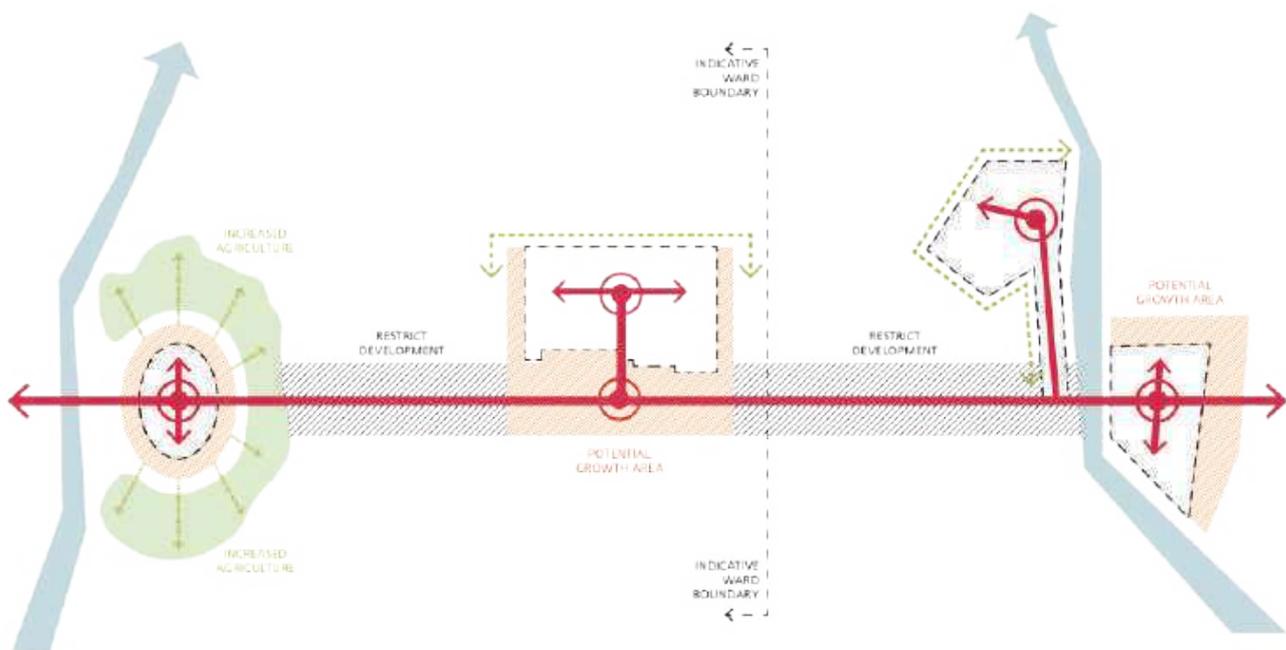


fig.94. Ensuring balanced, integrated and compact development

As such, the economic positioning of Kalobeyei site and town, intends to avoid a Pareto Optimal situation. A Pareto Optimal situation is that one in which no one can improve without degrading someone else. For the region, this means that livelihoods in Kalobeyei should be improved without affecting negatively Kakuma and the rest of the region.

Most likely, the creation of a more autonomous and economically active Kalobeyei will benefit the region as a whole. It is worth highlighting that the economic activity suggested for Kalobeyei is complementary to the already existing economic activities that are taking place in Kakuma. Therefore, an improvement in private sector involvement in Kalobeyei is expected add further dynamism to the economy of Kakuma, benefiting the area as a whole.

A project to identify, build capacity and implement economic activities in Kalobeyei town and site could serve as a pilot for the whole region. This concept is developed further in "Chapter 5.3. Capital Feasibility Statement".

4.3.2. Spatial Development Concept

Reserving ecologically sensitive land

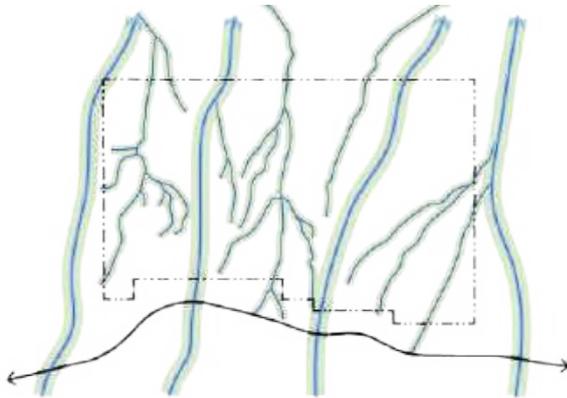


fig.95. Riparian reserve along the main watersheds

In line with recommendations from the EIA conducted in March 2016, the project takes into account the key requirements of environmental protection. Although no specifically “fragile environments”⁹⁹ are to be found on the site – the ASAL context of the site suggests a number of strategies should be taken to ensure no undue damage is inflicted upon the site.

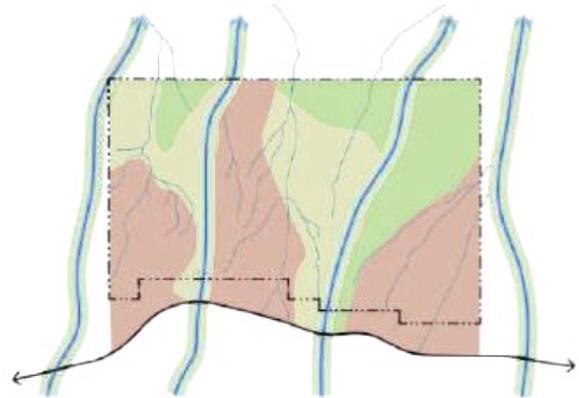


fig.97. Soil suitability & riparian reserves

In terms of planning principles – the plan reserves potentially sensitive areas by maintaining 100m riparian buffer zones bounding the major watersheds, and proposes to utilise the surrounding additional land for agriculture. Further to this, areas of lower agricultural potential (in terms of soil suitability) were identified and prioritised for potential development.

Creating an Accessible Settlement

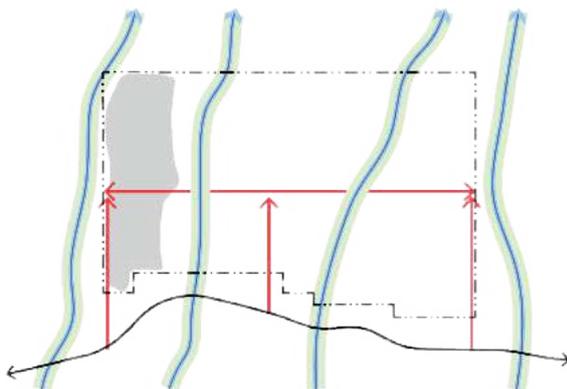


fig.96. Creating access from highway

Taking into account the emergency context, the long term plan proposes to build upon the emergency implementation structure of Neighbourhood 1 and create a new link by which to structure of Neighbourhood 2 and 3.

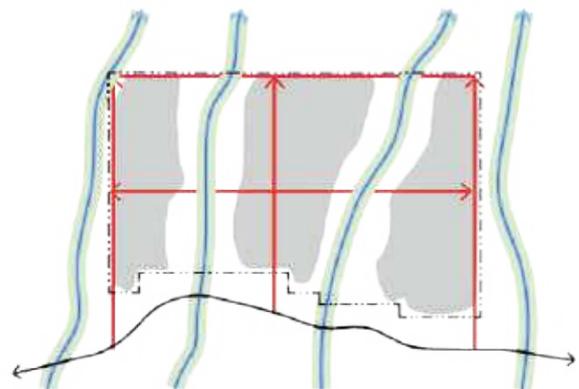


fig.98. Proposed main road axis

This new network will link each neighbourhood to each other, the A1 highway and the new LAPSSET Corridor, as well as creating a simple structure for integration of potential growth areas in the future.

Integrating the landscape as a key spatial component with green and blue infrastructure

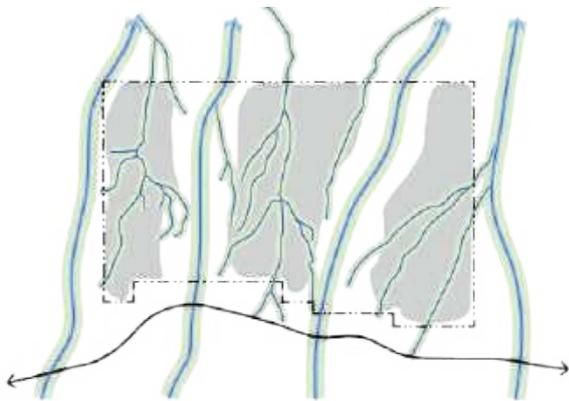


fig.99. Integration of watershed corridors

Building upon the identified ecologically sensitive areas, the plan aims to integrate this as a way of preserving and providing use to the land. The waterways act as natural watershed drainage channels that can be used as part of the flood mitigation and water harvesting system.

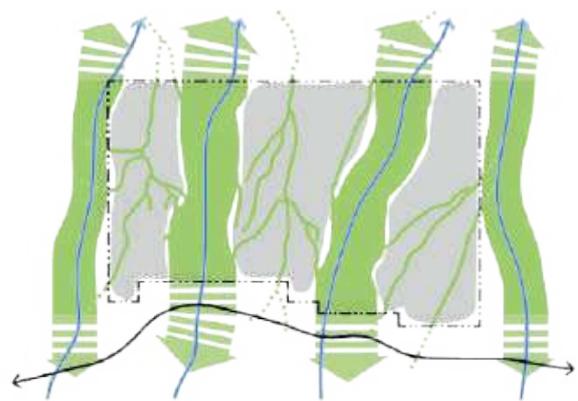


fig.101. Creation of green corridors along the streams

Further to this, the spaces can act as zones for leisure activities, as well as pedestrian routes connecting the neighbourhoods to the surrounding areas.

Developing walkable blocks and integrating public facilities on the green network

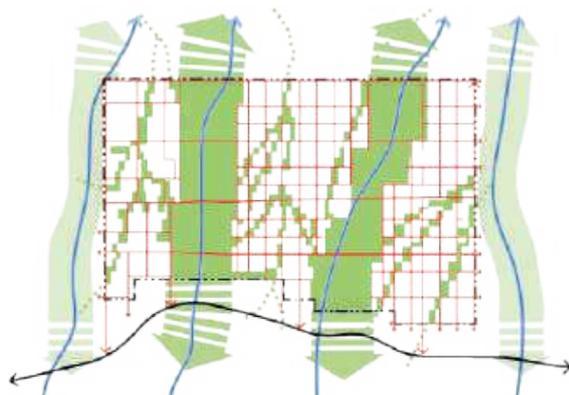


fig.100. Formalization of green corridors according to the grid

By overlaying a simple grid network, a rational layout for organising the settlement can be developed. The scale of the blocks relate to a system of 60x100m blocks, divided by a street hierarchy of human scale and which promote interaction and activity.

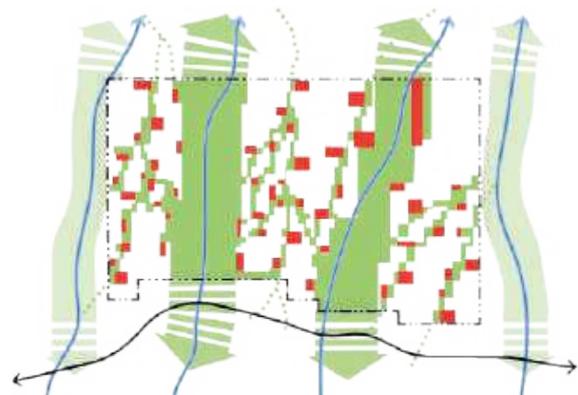


fig.102. Public facilities along the green corridors

This block structure allows the landscape to be further integrated as part of the urban system and enlivened by the adjacent placement of public facilities offering an amenity for the public facility and enlivening the adjacent landscape space.

Providing various scales of agriculture

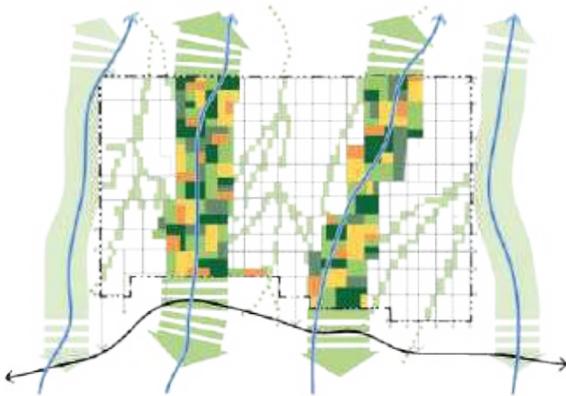


fig.103. Large scale agriculture in main green corridors

Responding to the varying soil suitability as well as the potential growth and densification of the settlement, various scales of agriculture are proposed to achieve the recommended 600HA of agriculture within the site. As opposed to merely setting aside a 600HA section of the site, integrating agriculture as a key component of the settlement allows the development of urban agriculture at the local household community level, the enlivening

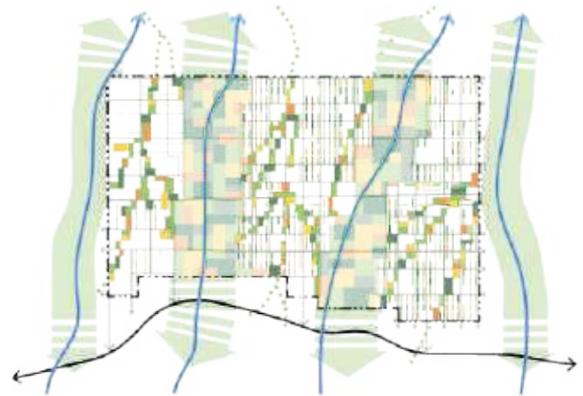


fig.105. Small scale agriculture

and enhanced functionality of the green infrastructure corridors as well as space for larger tracts of land.

It should be noted however that without a detailed regional and local strategy for sustainable water provision, the agricultural potential may not be realised. As such, the plan recommends further investigation into potential water supply possibilities.

Creating a network of economic centres and mixed use areas

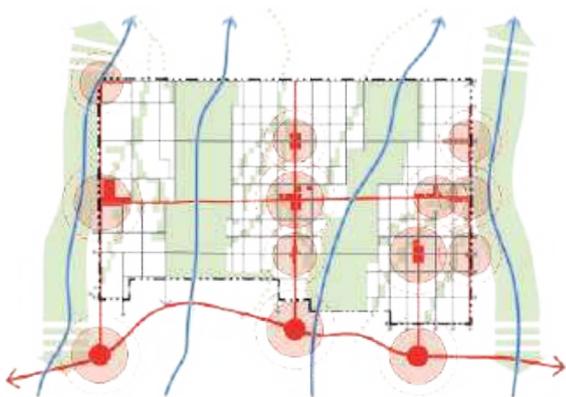


fig.104. Economic nodes

A major constituent part of the plan is the incorporation of space for economic activity. In order for the economic potential to be realised, areas where this is likely to flourish are identified and linked with the major transport infrastructure. This in turn allows for movement of goods and people between various areas of the settlement and the adjacent towns of Kakuma and Kalobeyi.

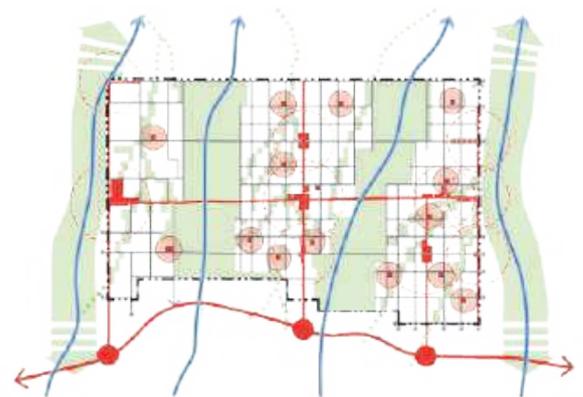


fig.106. Markets at neighbourhood level linked to main nodes

The major areas of economic activity—where commercial and mixed uses can be focused are linked to smaller neighbourhood areas where day-to-day markets and smaller shops and businesses can be located.

Potential growth pattern and future growth areas

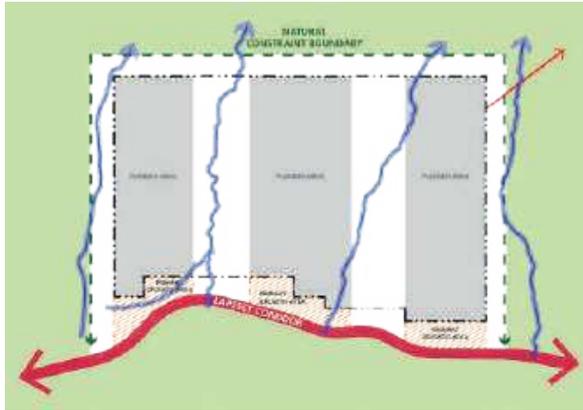


fig.107. Initial expansion areas along the main roads

Given the rapid influx of refugees to the site, estimated to be approximately 60000 in total, there is a likelihood of growth around the settlement due to host community migration. This assumption is supported by the identified similar reciprocal growth pattern of Kakuma¹⁰⁰.

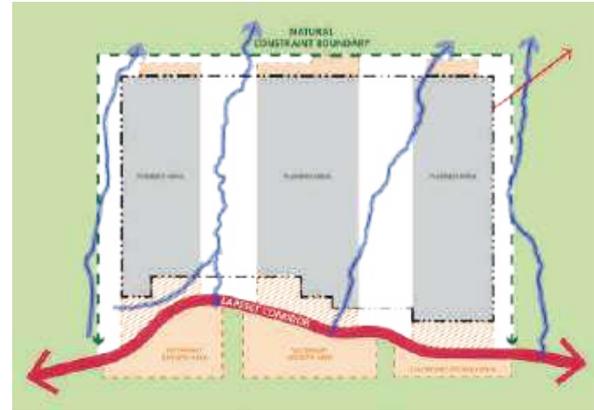


fig.108. Following expansion around the site for the host

As such, the plan takes account of this, creating road arteries that can be extended into the surrounding area of the site. The plan however recommends that a sensitive approach to growth is taken encouraging compact development extending toward the highway where accessibility is strong and economic vitality can be promoted. The natural growth barriers of the existing waterways should be respected to avoid inefficient sprawl and therefore growth outside these areas is not recommended.

100 UN-Habitat/ Kalobeyei Socio- Economic Baseline Survey And Mapping Report (2017)

4.4. Land Use Framework

4.4.1. Overview

Land Use Framework

The plan for Kalobeyi New Settlement is not one that can simply follow the basic guidelines for planning a refugee camp. There is a requirement to set out the framework for long term development that is in alignment with the priorities of Kenya and Turkana County. However, given the actual context, there is a need to also take into account that the site is required to respond to an emergency of refugee influx in the short term.

As such, a landuse framework has been developed that is based on a hybrid approach that aims to meet the per-requisites associated with the National and County Planning legal processes whilst supporting the short term humanitarian needs for basic infrastructure, housing and amenity provision.

The plan refers to a combination of planning and design guidelines; including the guidelines provided by the draft Physical Planning Handbook of Kenya, Sphere standards and UNHCR guidelines.

Land Use Plan

The three neighbourhoods, distinguished by the interconnecting agricultural space and waterways each comprise a mixed use programme, providing a level of “self-sufficiency” for each neighbourhood with uses to support living, working and leisure. In order to facilitate inter-neighbourhood connections, a number of primary use facilities such as major hospital create nexus points to encourage interaction between the neighbourhoods. A network of road and green pedestrian infrastructure is designed to connect the public amenities and ensure that the neighbourhoods are able to operate together and form a coherent settlement.

At a smaller scale, the plan uses a “mega-block” or “community” unit to break down the distribution of uses equitably, ensure walkability, active streets and accessibility.

Furthermore, the mixed use strategy is spread across the settlement through “units of mixed use” which respond to areas containing approximately 5000 inhabitants.

Each of these areas or “mega blocks” puts residential, commercial, educational and public amenity together to provide a walkable community with limited land use specialisation.

Combination of Sphere and Kenyan Guidance

KALOBYEI LAND USE PLANNING

Kalobeyei Assumptions	
Approximate Population	60000
Average Density	180/Ha

Family: 6 Persons Approx
Sector: 5000 Persons

* Sphere guidance notes have been tal

** NRC guidance notes have been take

KENYA PHYSICAL PLANNING GUIDANCE		
KEY GUIDANCE		IMPLICATIONS FOR KALOBYEI
RESIDENTIAL AREAS		
Urban Plot Sizes	High Density: 0.03 HA	High Density: 0.03 HA
Maximum Plot Coverage	High Density: 70%	High Density: 70%
Recommended Density	Semi-detached & Row housing at high density	70 Dwellings/HA
Minimum Plot Frontage	Low cost housing/Semi detached	75m per plot
Plot Sizes	Low cost housing/Semi detached	148.8-223.3 m2
Minimum Setbacks	Low cost housing	Front: 3m, Side: 1.5m, Rear: 4.5m
Minimum Street Width	1-20 plots	9m
EDUCATION		
Kindergarten	1 per every 2500 population	24 Required
Nursery Schools	Attached to every primary school	
Primary Schools	1 per every 5000 population within 0.5-2km radius Area: 3.9 Ha	12 Required
Secondary Schools	1 3 stream school per every 75000 population within 0.5 - 3km radius Area: 4.5 Ha	1 Required
HEALTH & SANITATION		
Hospital (District Standard)	No clear requirements	As per stakeholder discussion
Maternity Health Centre	No clear requirements	As per stakeholder discussion
Dispensary	No clear requirements	As per stakeholder discussion
Public Toilets	No clear requirements	As per stakeholder discussion
SOCIAL RECREATIONAL AREAS		
Parks	1-2 Ha per 10000 population	12 Ha approximate "park space"
Social Halls	1 per 20000 population, Area 0.25 Ha	3 Required
Community Centres	1 Ha (no ratio to population given)	As per stakeholder discussion
Religious Institutions	0.1 Ha per insitution (no ratio to population given)	As per stakeholder discussion
ADMINISTRATIVE /SERVICE AREAS		
Public building/offices	No clear requirements	As per stakeholder discussion
Town Hall	1.2 Ha	1 Required
Police Station	2 Ha	As per stakeholder discussion
Police Post	0.2 Ha	As per stakeholder discussion
Patrol Base	0.1 Ha	As per stakeholder discussion
Fire station	1 per population of 50000-10000, Area 0.4Ha	1 Required
Post Office	1 per population of 10000, Area 0.04Ha	6 Required
Library	0.4 Ha (no ratio to population given)	As per stakeholder discussion
Telephone	0.4 Ha per exchange (no ratio to population given)	As per stakeholder discussion
COMMERCIAL		
Town Centre Plot Sizes	Minimum plots	0.45 Ha, Length/Width not more than 1:3
Intermediate Centre	1 per 15-50000 population * See notes for breakdown	1-2 Required
Market Category A	1 per 2000 population in residential area, Area 0.1 -0.2 Ha	30 Required
Market Category B	Area 0.2 - 0.25 Ha * See physical planning handbook notes for breakdown	As per stakeholder discussion
Market Category C	Area 0.2 - 0.28 Ha * See physical planning handbook notes for breakdown	As per stakeholder discussion
Market Category D	Area 0.2 - 0.28 Ha * See physical planning handbook notes for breakdown	As per stakeholder discussion
Parking	In commercial/business district 1.5 space/100m2	As per stakeholder discussion
Corner shops	1 per 50 houses	As per stakeholder discussion

Minimum area for covered shelter

EDUCATION

Schools

HEALTH & SANITATION

Hospital (Referral)

Central Health Centre

Peripheral Health Centre**

Individual Toilets

Shower

Water Supply

Water Stand

Water Supply Distribution

SOCIAL RECREATIONAL AREAS

ADMINISTRATIVE /SERVICE AREAS

Distribution Centre

Storage Area

COMMERCIAL

Market Place

Feeding Centre

Combination of Sphere and Kenyan Guidance

KENYA PHYSICAL PLANNING GUIDANCE			
KEY GUIDANCE		IMPLICATIONS FOR KALOBYEI	
INDUSTRIAL			INDUSTRIAL
Light Industrial Zones	One estate per 30000 population	2 Light Industrial Zones	
Light Industrial Area	10-50HA per estate	60 HA total	
Workshop Zones	Total area for industry should form 8% of total area Workshops - 50-55% Organised open space - 10-15% Utilities, services - 20-25% Roads, parking lots - 15-20% Other - 5-10	As per stakeholder discussion	
ENVIRONMENTAL			ENVIRONMENTAL
Water Supply - Borehole Protection	Direct protection 10m radius, Indirect protection 50m radius	As per stakeholder discussion	
Water Supply - Well Protection	Direct protection 10m radius, Indirect protection 50m radius	As per stakeholder discussion	
Water Supply - River Protection	Direct protection 10 - 50m radius, Indirect protection 50m radius	As per stakeholder discussion	
Commercial Water Points	Even distribution at 500m radius	As per stakeholder discussion	
Service reservoir	0.1 Ha (no ratio to population given)	As per stakeholder discussion	
Garbage collection	1 per 50000 population, Area: 0.1Ha	As per stakeholder discussion	Garbage collection
Garbage disposal	1 per 50000 population, Area: 2Ha for dumping	As per stakeholder discussion	Garbage disposal
Sewage System	Recommended for all urban settlements over 3000 inhabitants	As per stakeholder discussion	
URBAN ROAD SYSTEMS			URBAN ROAD SYSTEMS
Primary Distributor Reserve	Major 60m, Important through routes 30-36m	As per stakeholder discussion	
District Distributor Reserve	Spine roads & Bus routes 25m	As per stakeholder discussion	
Local Distributor Reserve	With no direct individual plot access 18m	As per stakeholder discussion	
Residential Street Reserve	Exceeding 150m in length - 15m Under 150m in length - 12m	As per stakeholder discussion	
Major road carriageway	7.5m+	As per stakeholder discussion	
Commercial road carriageway	7.0m+	As per stakeholder discussion	
Spine roads & Bus routes	7.0m	As per stakeholder discussion	
Access roads	5.5m	As per stakeholder discussion	
URBAN & PERI-URBAN AGRICULTURE			URBAN & PERI-URBAN AGRICUL
Urban Agriculture	In a residential area, 5% of the land may be covered by agriculture	As per stakeholder discussion	
Peri-Urban Agriculture	Minimum plot size 0.05Ha * See notes for detailed guidance	As per stakeholder discussion	
Land use Allocation For High Density Resi Neighbourhood			
Dwelling Plots	40-60%		
Recreation	21-29%		
Community Facilities	5-20%		
Roads	4-15%		
Streets	1-7%		

not both workshop zone and industrial zone

fig.109. Planning requirements, comparison between Kenyan and Sphere guidelines; and Kalobeyi implications

UNHCR EMERGENCY HANDBOOK GUIDANCE *		ACTUAL PROVISION	
KEY GUIDANCE	IMPLICATIONS FOR KALOBYEI		
		INDUSTRIAL	
			Total Area
		Light Industrial Area	9.26Ha
		ENVIRONMENTAL	
		Environmental management centre	1
		Water Supply - Well Protection	Direct protection 10m radius, Indirect protection 50m radius
		Water Supply - River Protection	Direct protection 10 - 50m radius, Indirect protection 50m radius
100 litre collection point per 10 families	1000 required	Garbage collection	1 per 50000 population, Area: 0.1Ha
2x5x2m refuse pit per 100 families	100 required	Waste management centre	18
		URBAN ROAD SYSTEMS	
		Primary Distributor Reserve	40m
		District Distributor Reserve	25m
		Local Distributor Reserve	20m
		Residential Street Reserve	15m
		Major road carriageway	40m
		Commercial road carriageway	20m
		Spine roads & Bus routes	25m
		Access roads	40m
TURE		URBAN & PERI-URBAN AGRICULTURE	
		Urban Agriculture	160.39Ha
		Peri-Urban Agriculture	439.64Ha

Kalobeyei New Site Land Use Plan (Draft Plan)

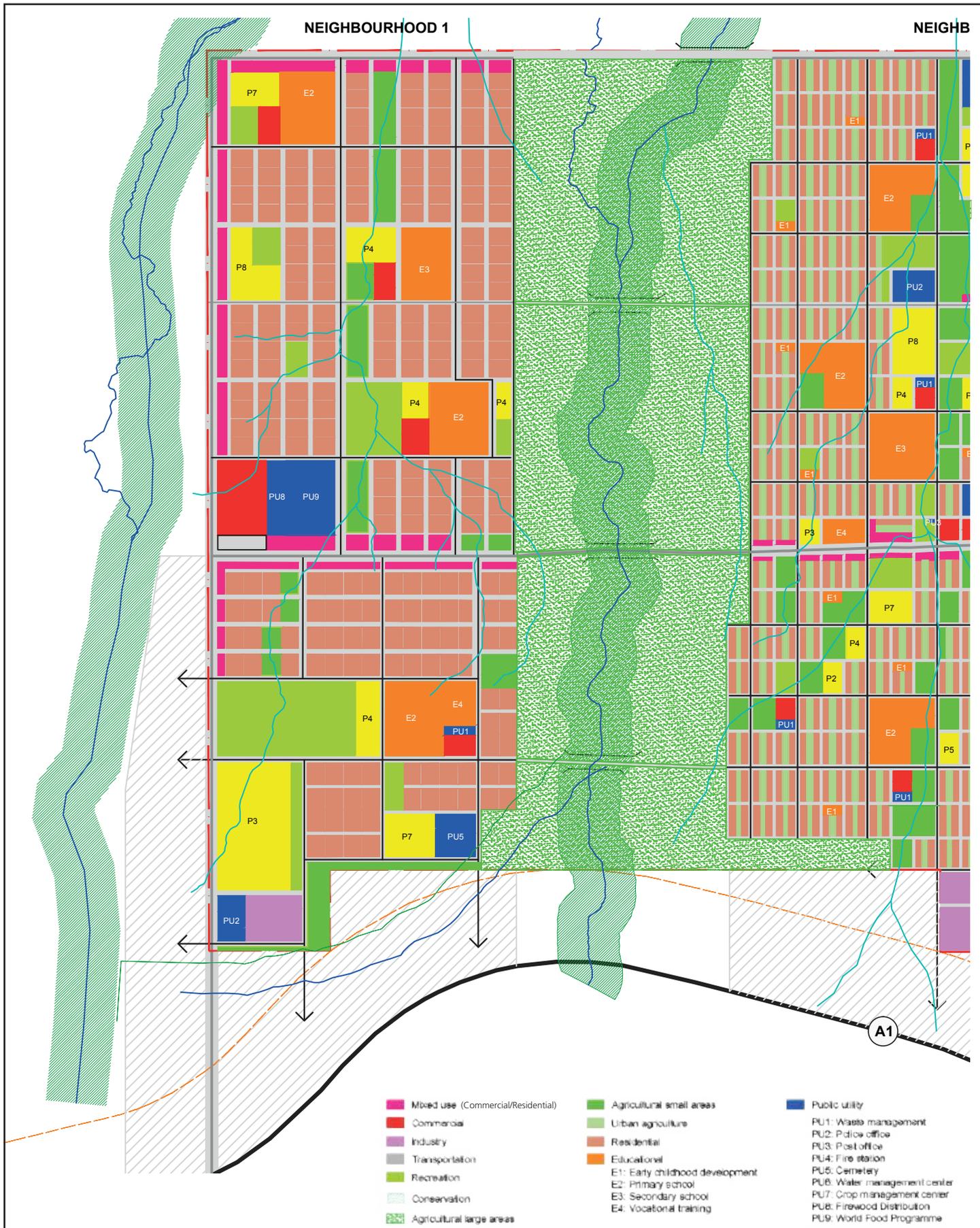
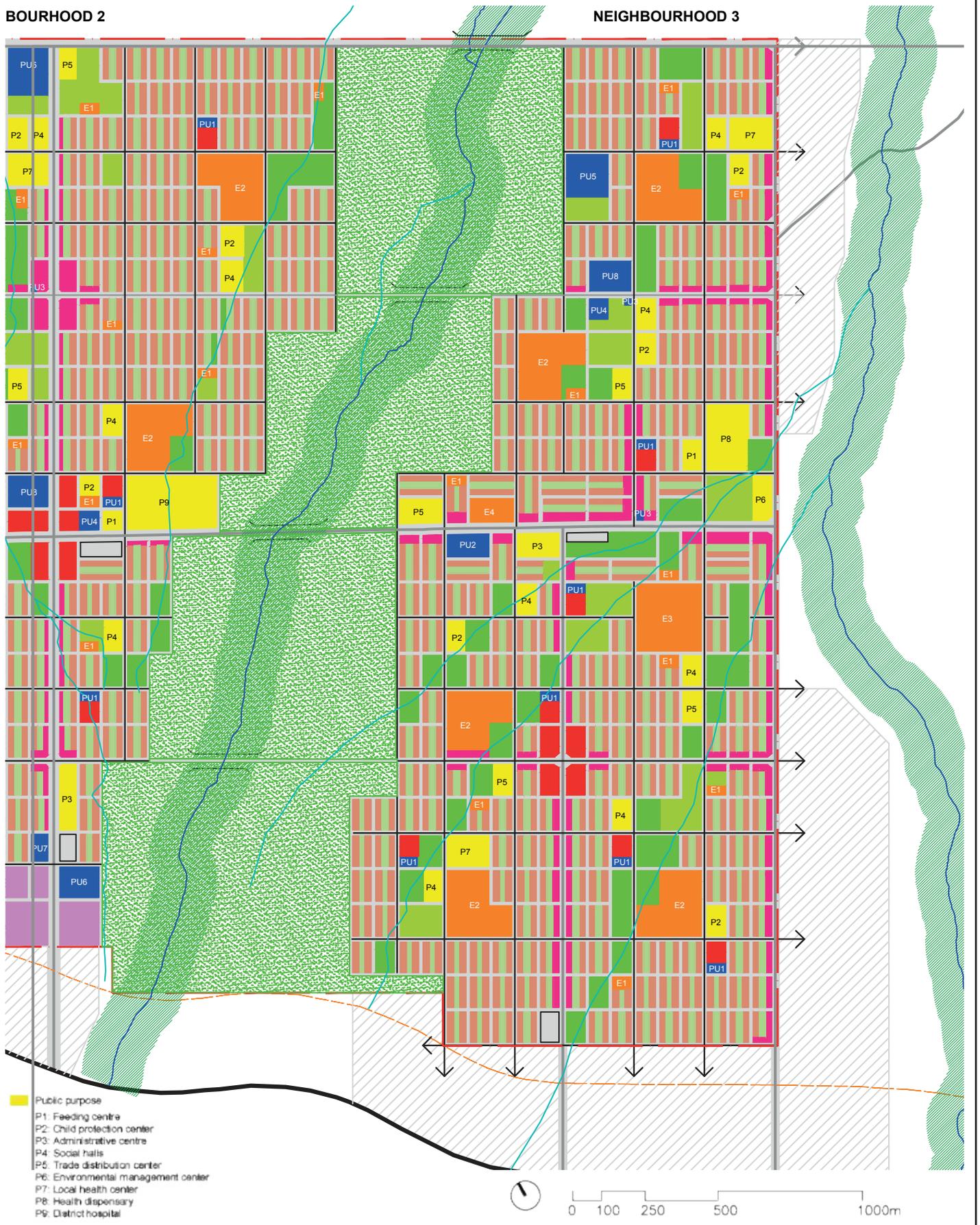


fig.110. Kalobeyei New Settlement Land Use Plan (Draft Plan) (See Large Format Supplied as Addendum to the Report)

BOURHOOD 2

NEIGHBOURHOOD 3



Potential Future Growth Area Planning (Draft Plan)

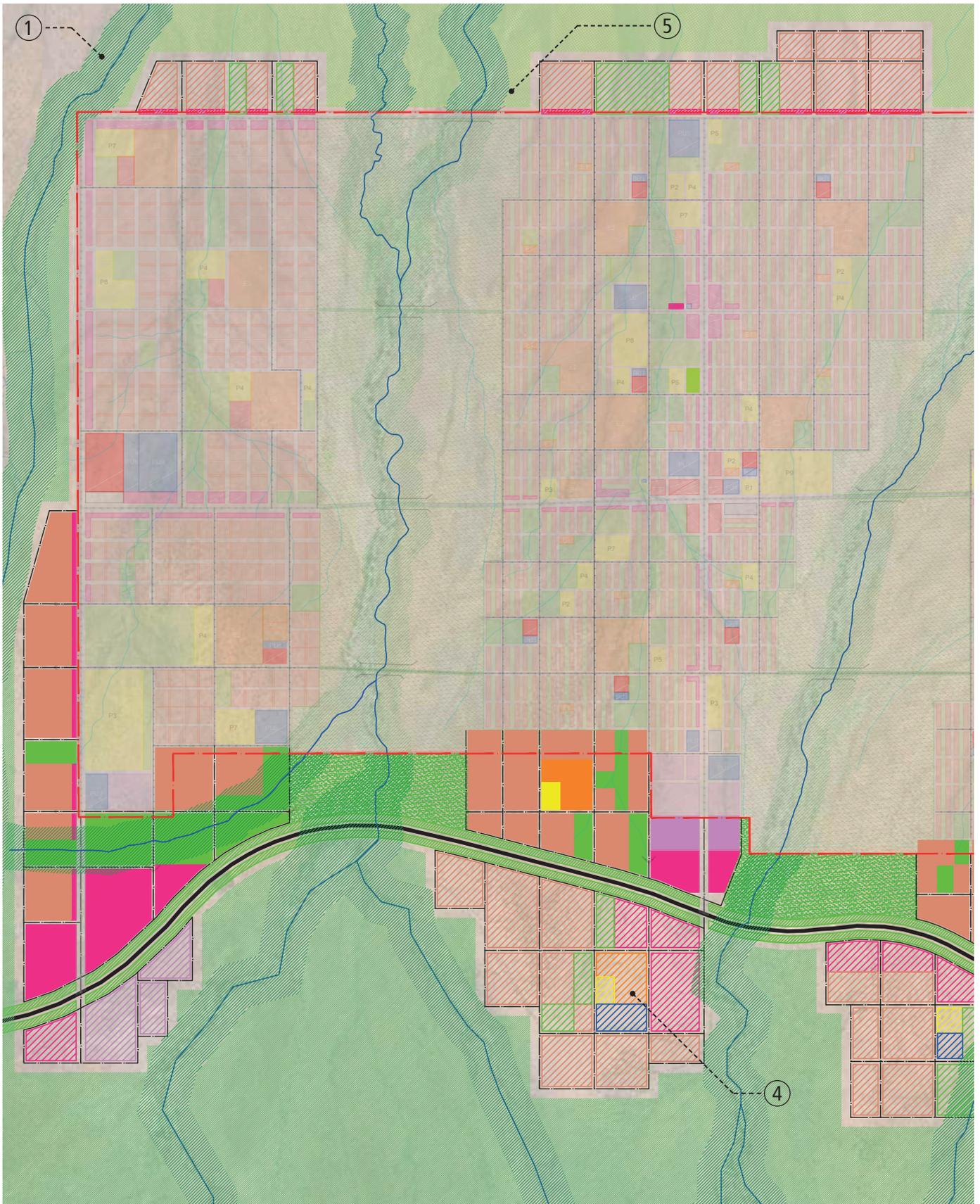
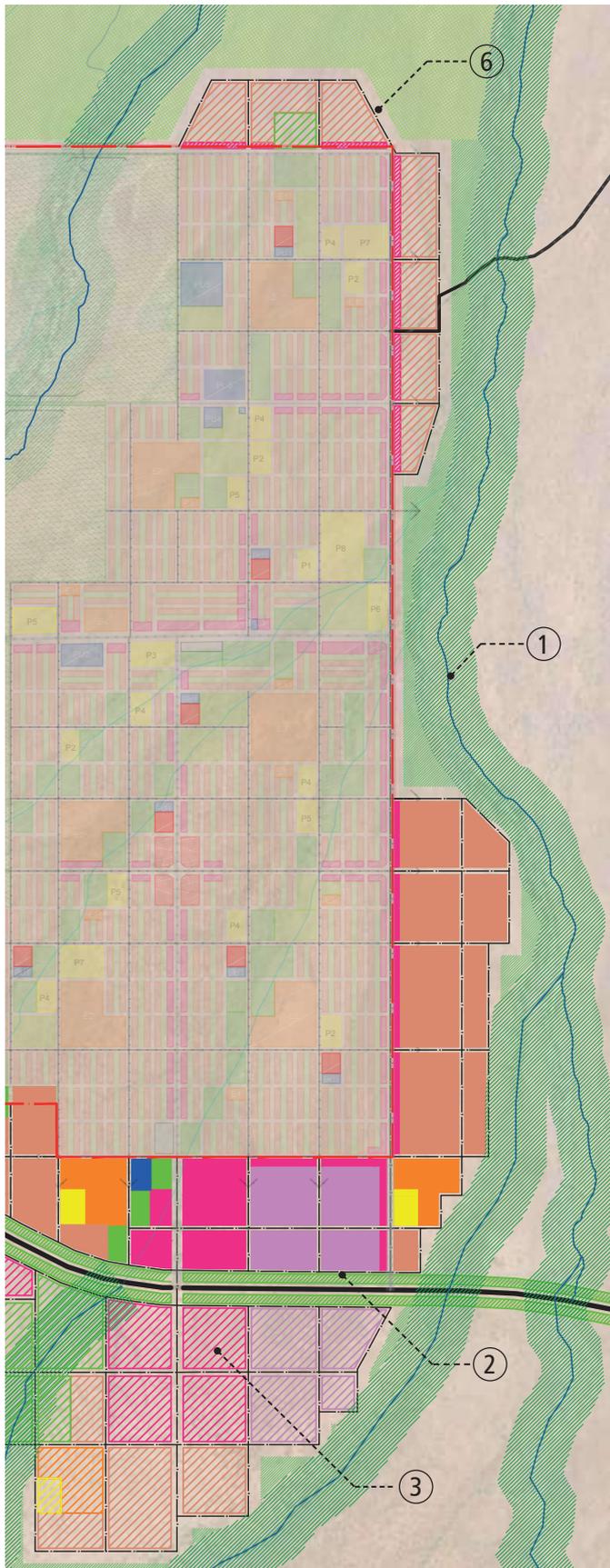
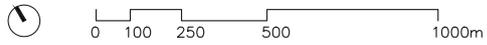


fig.111. Potential future growth of Kalobeyi New site (Draft Plan)



Legend

- | | |
|--|--------------------------|
| Mixed use 1st phase (Commercial/Residential) | Public purpose 1st phase |
| Mixed use 2nd phase (Commercial/Residential) | Public purpose 2nd phase |
| Industrial 1st phase | Educational 1st phase |
| Industrial 2nd phase | Educational 2nd phase |
| Residential 1st phase | Public utility 1st phase |
| Residential 2nd phase | Public utility 2nd phase |
| Agricultural small areas 1st phase | |
| Agricultural small areas 2nd phase | |
| Conservation | |
| Pasture land | |
| Green belt | |



- ① Respect existing laggas as natural boundary to growth - avoids sprawl
- ② Green buffer along highway
- ③ Potential mixed use/industrial area
- ④ Mixed use residential extension
- ⑤ Avoid development to protect pastoral land
- ⑥ Indicative growth boundary

Although the site of 1500ha is initially planned to provide capacity for 60000 inhabitants, the plan takes a broad view into the future, also learning from the experience of nearby Kakuma with the assumption that there may be a need to facilitate substantially more than 60000 people from both the refugee and host communities. As such, key areas have been identified, between the A1 highway and the settlement, as well as to the east and west of the site where the natural constraints of the existing laggas form an “edge” to development.

Taking these natural “edges” into account, space to the south of the highway could be set aside for further growth areas as this will consolidate the new site as a local centre and build upon the existing infrastructure and service provision. Moreover, with the incoming LAPSSSET corridor, but maintaining compact growth, a potential central point of interchange will enhance the economic importance and thus value of the area.

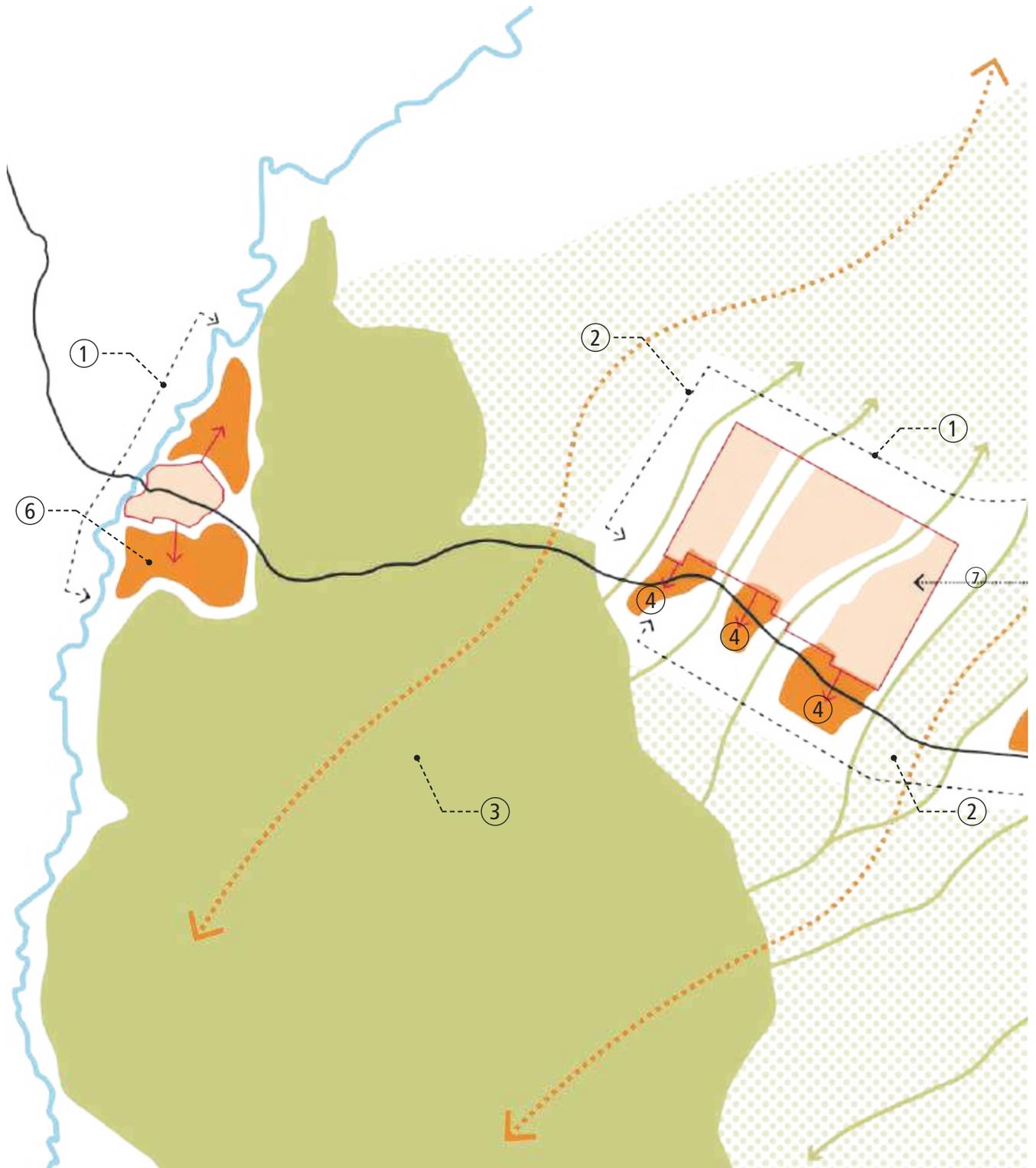
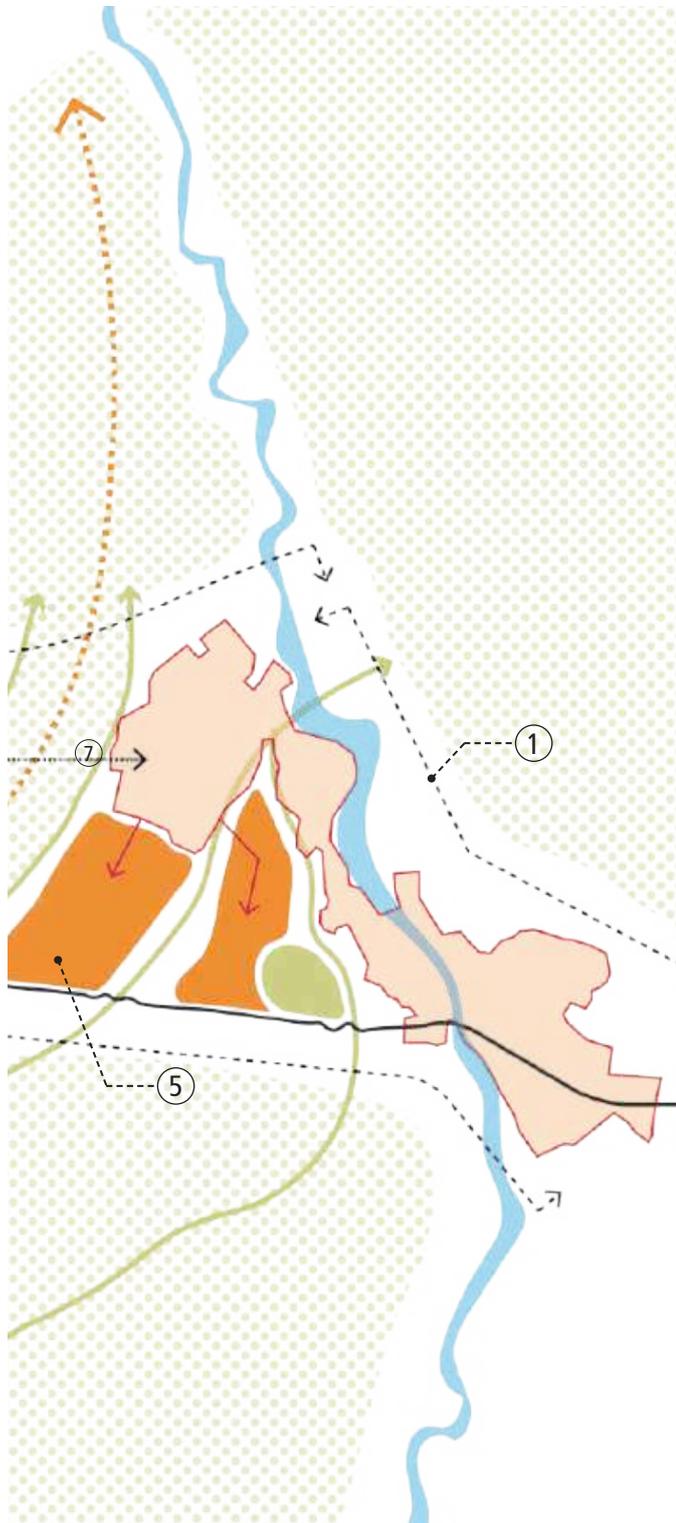


fig.112. Recommended District Scale Growth Plan



- Existing urban areas
 - Recommended urban growth areas
 - Major waterways
 - Existing productive agricultural & community pasture land (protect from development)
 - Recommended area for additional productive agricultural & community pasture land
 - Typical pastoralist migration routes
 - Indicative urban growth containment
 - Ecological corridors along existing watersheds
- ① Restrict sprawl type growth to protect existing pasture and agricultural land
 - ② Restrict growth to allow for migration routes and avoid flood risk areas
 - ③ Existing high land with vegetation and agricultural potential
 - ④ Potential Kalobeyei settlement growth areas, adjacent to future LAPSSSET corridor
 - ⑤ Potential Kakuma urban growth area to build upon future LAPSSSET corridor (coordinate with proposal as per Kakuma ISUDP)
 - ⑥ Kalobeyei Town potential growth area
 - ⑦ Retain & upgrade existing link between Kalobeyei Settlement and & Kakuma but linear type development along this route should be discouraged



Further to the aforementioned growth plan for Kalobeyei Settlement, this proposal looks to the district scale linking both Kakuma and Kalobeyei Town. It is recommended initially that growth is contained within the existing settlement areas through a combination of infill development and densification. This would add value to the existing and planned investments in infrastructure.

If however in the future, further growth does occur, this plan suggests that development is focused around the A1 highway, coordinated with the LAPSSSET project and aims to consolidate the existing urban settlements around this connection. Moreover, community pasture land and agricultural land should be protected from development and retained for community usage. This implies the urban consolidation should be in the form of a poly-centric human settlement system. This is especially relevant in the areas to the south of the A1 Highway, around Kalobeyei Town and to the North and East of Kalobeyei Settlement and Kakuma.

It is worth noting that a green belt should be retained between Kalobeyei Settlement and Kakuma to protect ecological corridors, avoid development on flood risk areas and retain access for pastoralist migration routes.

4.4.3. Residential

Kalobeyei New Site Residential Strategy



fig.114. Residential land use

The Residential land use, a primary use within the settlement has been spread across the site and placed in close proximity to supporting uses such as commercial, education and agriculture. This ensures that walking distances are shortened and all the facilities that support day-to-day activities in relation to spaces where people live can be found within a 15 minute walk or 1000m distance.

It should be noted that the plan recommends that host community are also supported by being given access to plots and shelter in these residential areas. This would support a social mix which is an important aspect in supporting diverse communities.

As a starting point for the integration of host and refugee communities, the host community that are living on or in close proximity to the site should be given priority access to residential space resettlement within or outside the site from the early stages of the settlements development. This will set a precedent for host community to settle within the site and help in demonstrating the potential for residential integration.

4.4.4. Commercial and Mixed Use

Kalobeyi New Site Commercial and Mixed Use



fig.115. Commercial and mixed use land use

The dedicated Commercial and Mixed land uses are focused on the key arteries running through each and between the three neighbourhoods.

This allows each neighbourhood and mega-block within the settlement to have a dedicated commercial and mixed use area, ensuring that the key active areas are located on the routes that link each neighbourhood which also supports movement and interaction between them, and avoiding isolation. The commercial areas are used to facilitate interaction at natural "mixing points" between each mega-block and neighbourhood.

In terms of social integration, the commercial and mixed land use strategy is fundamental in supporting this. As commerce is seen to be a key point of interaction between the host and refugee community, the mixed use and commercial areas are placed predominantly along the major arteries that provide access to the site from Kalobeyi town and the surrounding areas. This allows a perceived "safety" of the settlement by essentially placing the space for interface leading from the edge into the central points of the settlement. This avoids just creating an "edge" where the concept of host outside and refugee inside would be emphasised as opposed to blurred.



fig.116. Market stall in Kalobeyei New Site © Jonathan Weaver

It is worth noting that the plan proposes a number of specifically commercial areas around the key junctions (this is linked to the mobility strategy) where transit stops should be focused. This builds upon the Transit Oriented Development (TOD) principle placing activity and intensive development close to where people will get on and off public transport. This in turn will help to support the commercial activity by providing the necessary footfall or “demand”. There is also a neighbourhood market placed adjacent to other significant public uses such as school/social halls etc within every mega-block.

Further away from the major junctions, but still on major road arteries is where the Mixed Use areas are placed. This allows a mixture of residential and commercial activity along the key routes, which can support in the future higher density and multi-story buildings such as the “shophouse” typology and increase the value of public realm.

4.4.5. Education

Kalobeyi New Site Education Strategy



fig.117. Education land use

The educational uses also follow the mega-block principle for distribution, with one primary school, and three kindergartens set out for units of 5000 people. There is also one large secondary school for each neighbourhood of 2000 people.

Kindergartens are located on small residential streets within predominantly residential land use areas, to allow for safety of the young children and close proximity to homes.

Primary schools are located centrally within each mega-block on a secondary road to provide access, yet remain at a safe distance away from major transport arteries. In order to provide additional space for sport/leisure and agricultural training, all primary schools are situated adjacent to the green corridors.

Educational facilities are used in many contexts globally as a place for the mixing of communities. For Kalobeyi New Site this is no different and the plan encourages a policy to ensure these facilities are open to both host and refugee communities. Further to this, the siting of the facilities are always adjacent to public spaces which function as informal pedestrian networks open to all and are also no more than 200 -300m from a major arteries which act as conduits for host community accessibility.



fig.118. Primary School in Kakuma Camp © UNHCR/Anthony Karumba

This is turn is further supported by placing complimentary uses such as social halls/child protection centres and local markets in close proximity to the schools.

The secondary schools are place centrally within each neighbourhood, adjacent to green space and easily accessible from major transit points.

LAND USE FUNCTION		N1	N2	N3	Total
Education	E1 Early childhood development	0	16	9	25
	E2 Primary school	3	5	5	13
	E3 Secondary school	1	1	1	3
	E4 Vocational training	1	1	1	3

fig.119. Educational facility provision

4.4.6. Public Purpose

Kalobeyei New Site Public Purpose Strategy

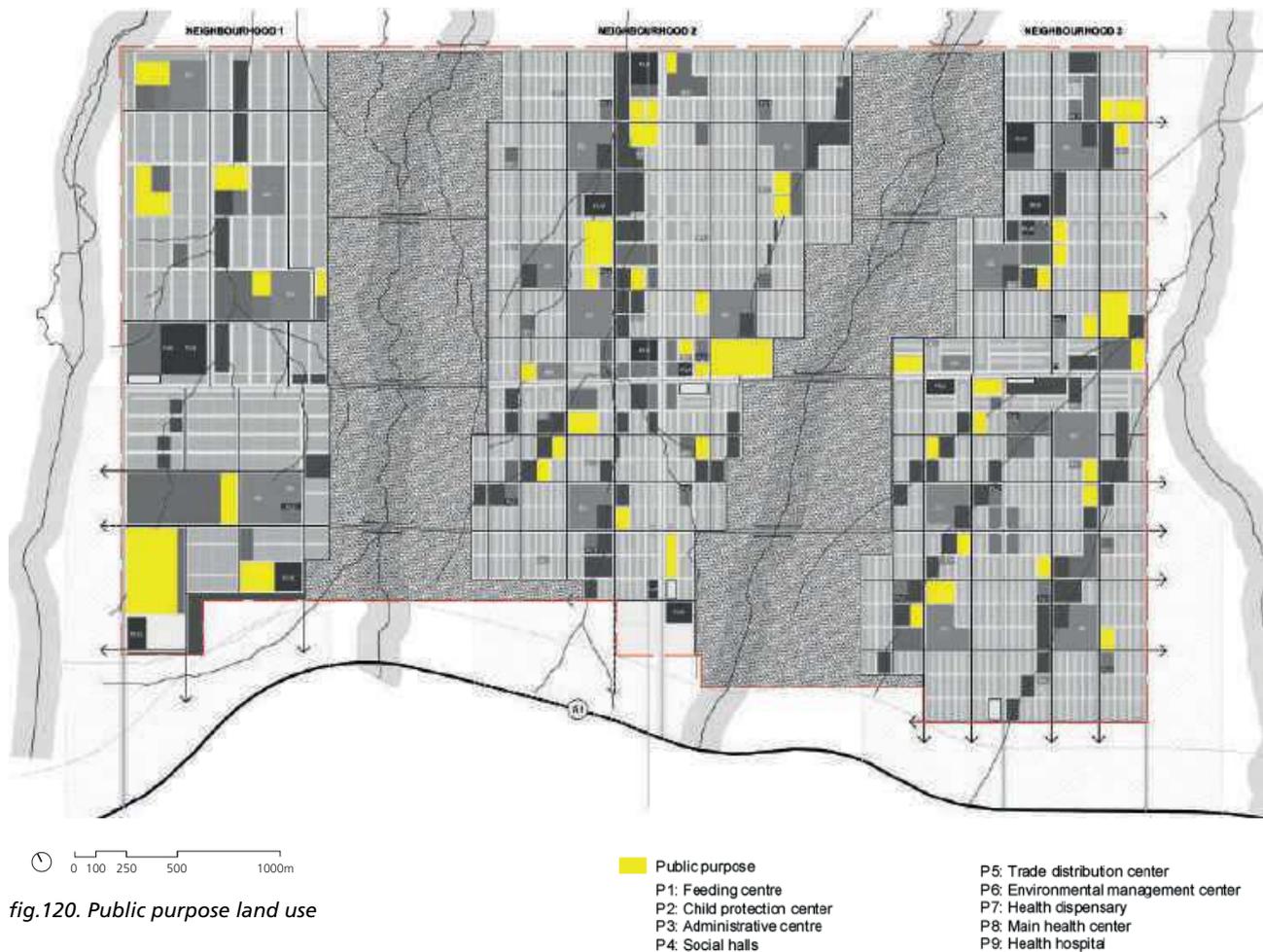


fig.120. Public purpose land use

In terms of Public Purpose land uses, these are distributed across the settlement to ensure there is equidistant access for the various amenities such as health centres, hospitals, social halls and religious facilities. As also outlined in the planning principles – these public facilities are placed adjacent to the green corridors and significant roads to ensure accessibility and promote vibrancy of the public green spaces.

In terms of health centres, the following three levels are catered for:

After Community Units (Level 1), Dispensaries (Level 2) are the second lowest level of health care provision and are usually run and managed by enrolled and registered nurses supervised by a nursing officer at a (nearby) higher level health centre. They provide outpatient services for simple ailments, and refer more serious cases to the health centres.

The Public Purpose land use strategy is similar to the educational land use where it is suggested that progressive policies to allow both host and refugee communities are implemented. Additionally, the facilities tend to be clustered in close proximity to main road arteries as well as other public access spaces such as commercial and educational facilities where both communities may regularly frequent. This can support a sense of openness and joint community "ownership".



fig.121. Temporary health centre in Kalobeyei New site © UN-Habitat/Julius Mwelu

Health Centres (Level 3) are the second order government operated health facilities and are run by a clinical officer. They cater for a population of about 20000 people and focus on addressing minor issues, and also providing preventive care services. The typical centre comprises of outpatient and inpatient services, laboratory services, a minor theatre, a pharmacy and a maternity and maternal and child health section.

District Hospitals (Level 4) are the coordinating and referral centres for the smaller units. They provide comprehensive medical and surgical services and managed by medical superintendents.

With regard to Social Hall functions, this can include, community centres, women's centres, youth halls, churches and mosques. The plan also contains a number of Emergency Phase functions including trade

distribution, environmental management, feeding centres and child protection centres

LAND USE FUNCTION		N1	N2	N3	Total
P1	Feeding centre	0	1	1	2
P2	Child protection centre	0	4	4	8
P3	Administrative centre	1	2	1	4
P4	Social halls	4	6	6	16
P5	Trade distribution centre	0	3	4	7
P6	Environmental management centre	0	0	1	1
P7	Health Dispensary	2	2	2	6
P8	Health Centre	1	1	1	3
P9	District Hospital	0	1	0	1

fig.122. Public purpose facility provision

4.4.7. Public Utility

Kalobeyei New Site Public Utility Strategy

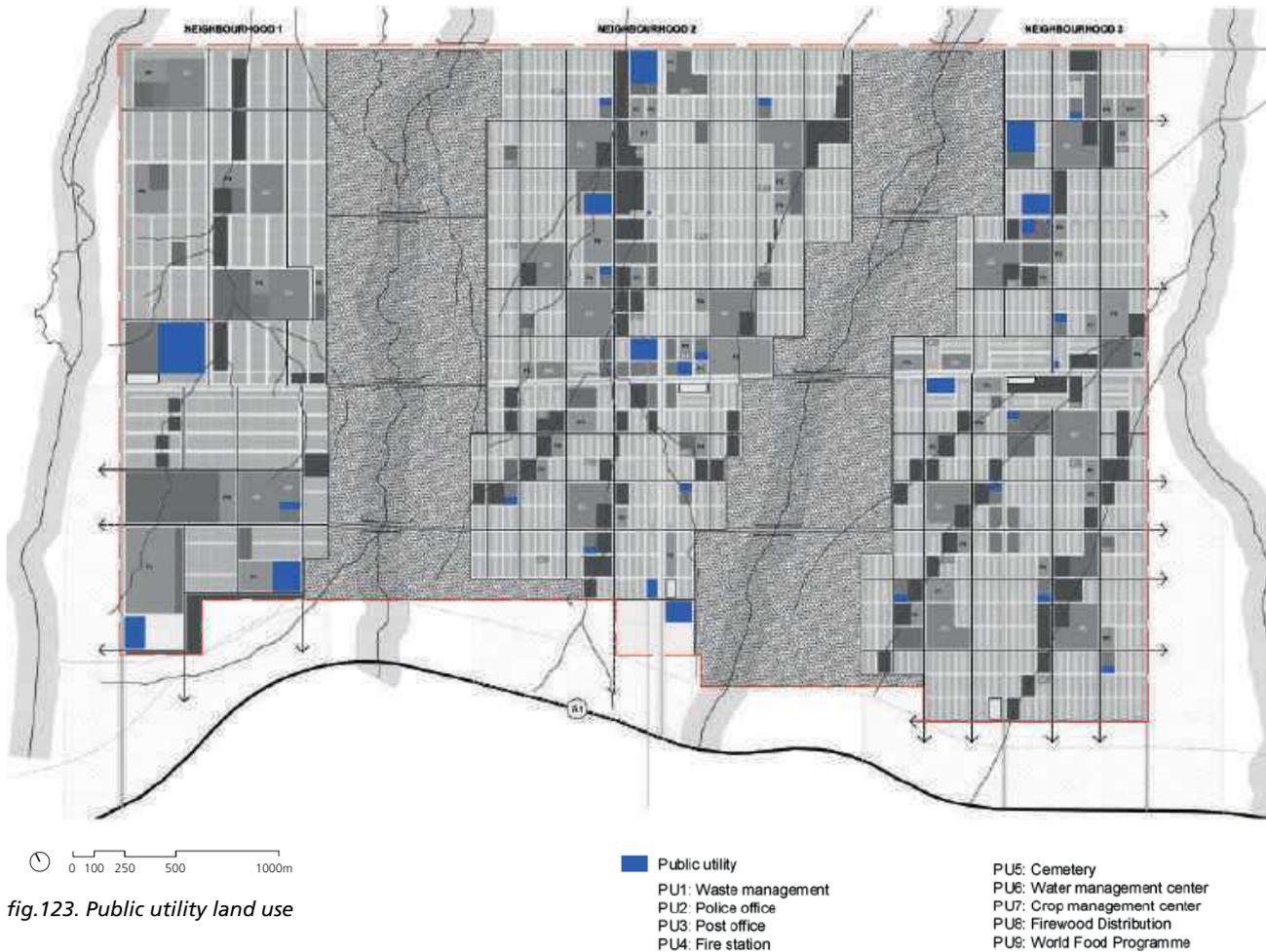


fig.123. Public utility land use

With regard to the Public Utility land uses, these are also distributed equally across the settlement. Key strategies include placing waste management collection/sorting centres adjacent to neighbourhood markets, linking sites of potential high waste generation as well as areas frequented by inhabitants on a regular basis to simplify waste management. Further to this, the location of humanitarian facilities such as Firewood Distribution & World Food programme sites are located centrally in each neighbourhood to allow for future use as civic amenity in the long term.

LAND USE FUNCTION		N1	N2	N3	Total
PU1	Waste management	1	7	7	15
PU2	Police office	1	1	1	3
PU3	Post office	0	2	2	4
PU4	Fire station	0	1	1	2
PU5	Cemetery	1	1	1	3
PU6	Water management center	0	1	0	1
PU7	Crop management center	0	1	0	1
PU8	Firewood distribution	1	1	1	3
PU9	World Food Programme	1	0	0	1

fig.124. Public utility facility provision

4.4.8. Agriculture

Kalobeyei New Site Agricultural Strategy

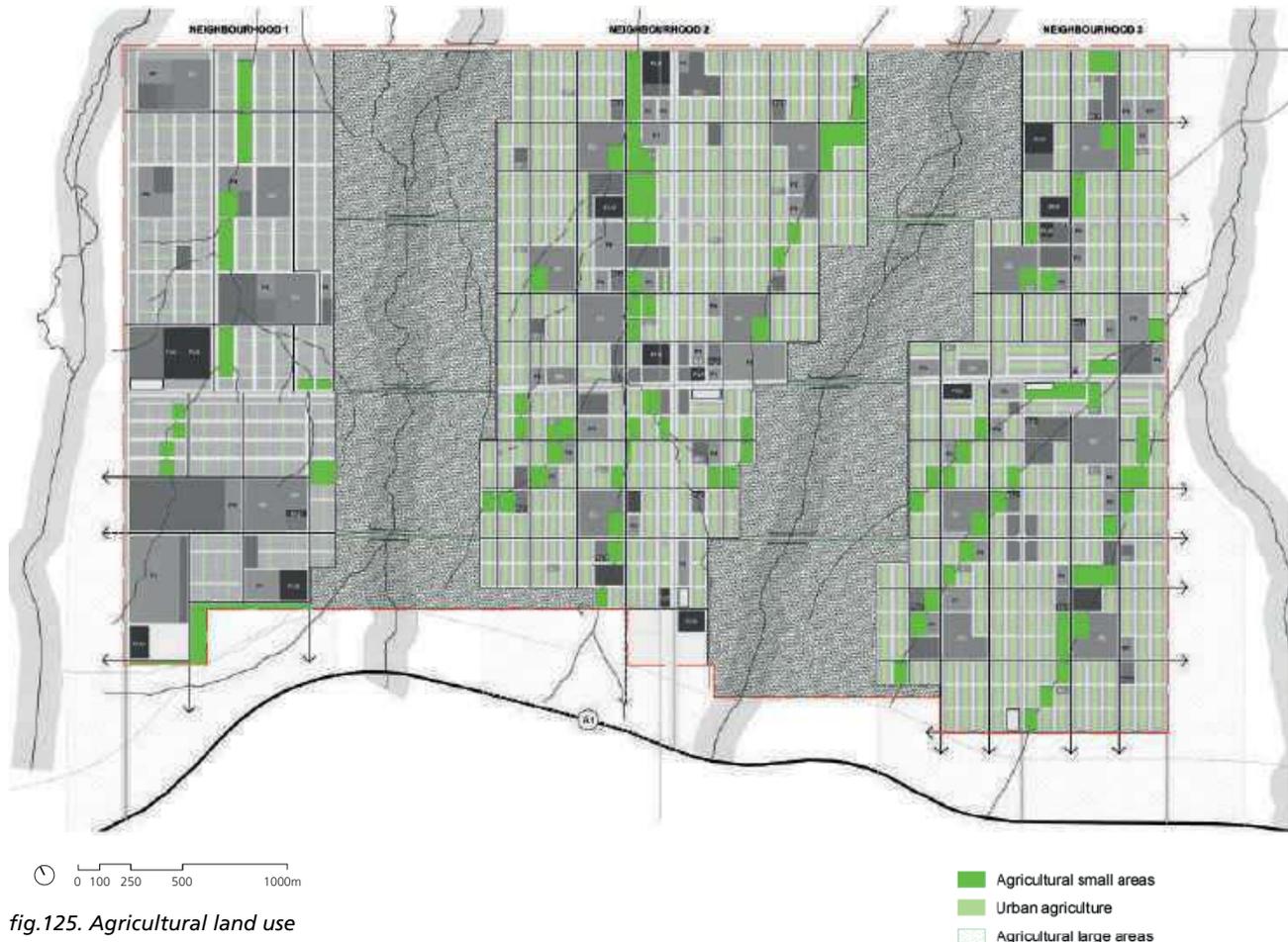


fig.125. Agricultural land use

A key component of the project – food security in the Turkana region as a whole is fragile. As mentioned in the situational analysis in “Chapter 03”, food security was indicated as an area of concern family food situations. When asked to describe their food situation for the last four weeks, 35.2% of the respondents indicated that they sometimes did not eat enough, which was about three times the respondents who indicated that they always ate enough of what they wanted (13%).

Accordingly the project aimed to take this issue into account as an integrated constituent of the proposal, as opposed to just leaving space for agriculture. In order to do this, a hybrid strategy was developed to utilise good quality soil areas for agriculture where possible, avoid development on flood risk areas and still maintain the required 600HA (approx.) of agricultural space. As such, three scales of agricultural space has been proposed.

Although the agricultural area of the settlement dwarfs in comparison to the wider region of Kalobeyei Ward, it can still function as a useful place for fostering integration. By placing watering points for Host community farmers on the periphery of the agricultural areas and promoting pedestrian routes through these spaces that link to the green corridor spaces in the settlement, a sense of additional accessibility for host community can be created. The community pasture lands to the north of the site can also potentially be used as a space for the host community to interact with the refugees.

Kalobeyei New Site Agricultural Strategy



fig.126. Small scale agriculture in Kakuma 2 © UN-Habitat/Julius Mwelu

Large Scale Agriculture: 439.64HA

These areas are adjacent to the main riverbeds (laggas) and where the largest risk of flooding exists. Although the soil suitability adjacent to the riverbeds is variable, this can be improved through the use of natural manures etc. The most pressing issue in Kalobeyei however is access to water. As such the potential for agriculture is the best in these areas due to the proximity to potential water harvesting points (such as sand dams and water pans). If the water provision can be developed to fully support this area – these areas will act as a vibrant activity and food supply source for the settlement.

Medium Scale Agriculture: 63.4HA

The medium scale spaces for agriculture are located adjacent to the secondary riverbeds and where substantial flooding risk exists.

The agriculture space should be interspersed with areas for flood mitigation & water harvesting as well as leisure spaces such as football and basketball pitches. This still maintains area for agricultural activities whilst linking it to the green public space and keeping it within close distance to potential water points.

Urban Agriculture: 96.95HA

Acknowledging that in the future the settlement will become increasingly urban and pressures on access to nutritional resources will correlate – the proposal includes space for block level agriculture across the whole settlement. This has a two-fold benefit, as it can offer opportunities for community interaction as well as acting as a resource to supplement incomes and nutrition for every block of 100 (approx.) inhabitants.

4.4.9. Industrial

Kalobeyei New Site Industrial Strategy



fig.127. Industrial land use

The Industrial land uses are located away from the major residential and public amenity areas for reasons of liveability, but are still located on the major arteries linking the settlement to the A1 highway. They are also placed on the edge of the settlement allowing further growth towards the highway if the relevant private sector investment is in place to support this.

Placing the Industrial land use adjacent to the main route between Kakuma and Kalobeyei, also can support easy access for host community to take advantage of potential employment opportunities that may develop. This, it should be noted, is linked to the mobility strategy in "4.8.2. Mobility Strategy" on page 172 in page 172 which emphasises the need for a progressive public/cooperative transport system to underpin any aspect of inter-settlement linkages and allow people to conveniently move between Kalobeyei town, Kakuma and the site.

4.5. Land Allocation Schedule

Kalobeyei New Site Area Breakdown

Land Use Area Breakdown

LAND USE AREA BREAKDOWN	TOTAL	
	Ha	%
Residential	269.22	18.01%
Commercial	32.01	2.14%
Mixed use (Residential/Commercial)	18.80	1.26%
Education	63.71	4.26%
Industrial	9.26	0.62%
Urban Agriculture - block	99.38	6.65%
Urban Agriculture - green infra	77.20	5.17%
Public utility	50.42	1.48%
Public purpose	59.86	4.00%
Transportation	350.24	23.43%
Recreation	49.42	3.31%
Riparian	443.39	29.67%
Agriculture total	619.97	41.48%
TOTAL AREA	1494.60	100.00%
TOTAL NO AGRIC	1051.21	70.33%
Road area	347.336	23.24%
Road density	0.23	

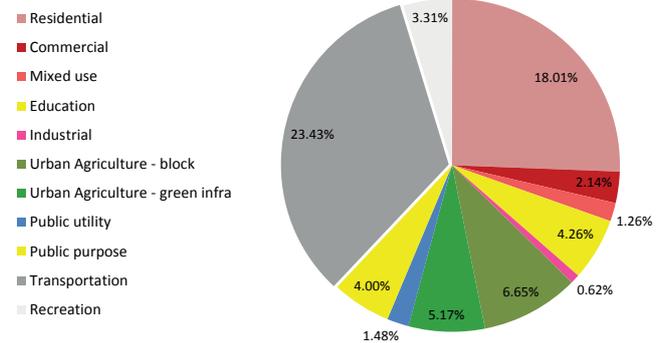


fig.128. Area breakdown including agriculture

Land Use Area Breakdown (Excluding Agriculture)

LAND USE AREA BREAKDOWN	TOTAL	
	Ha	%
Residential	269.22	26%
Commercial	32.01	3%
Mixed use (Residential/Commercial)	18.80	2%
Education	63.71	6%
Industrial	9.26	1%
Urban Agriculture - block	99.38	9%
Urban Agriculture - green infra	77.20	7%
Public utility	22.11	2%
Public purpose	59.86	6%
Transportation	350.24	33%
Recreation	49.42	5%
TOTAL AREA	1051.21	100.00%
Road area	347.34	33%
Road density	0.33	

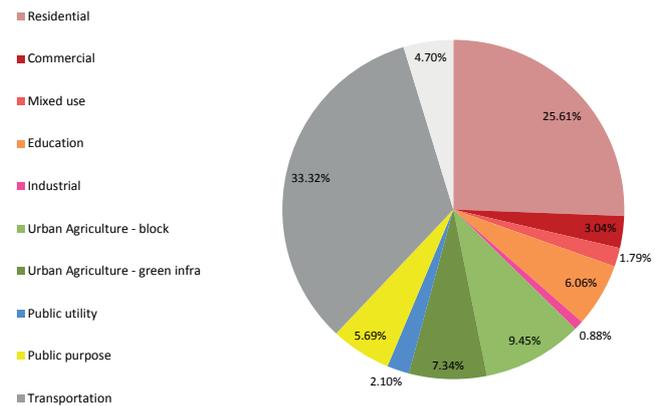


fig.129. Area breakdown excluding agriculture

Neighborhood 1

LAND USE AREA BREAKDOWN	TOTAL	
	Ha	%
Residential	88.05	32.41%
Commercial	11.41	4.20%
Mixed use (Residential/Commercial)	7.41	2.73%
Education	18.94	6.97%
Industrial	2.74	1.01%
Urban Agriculture - block	4.81	1.77%
Urban Agriculture - green infra	15.27	5.62%
Public utility	7.72	2.84%
Public purpose	22.63	8.33%
Transportation	71.33	26.26%
Recreation	21.35	7.86%
TOTAL AREA	271.67	100.00%
Road area	70.56	26%
Road density	0.26	

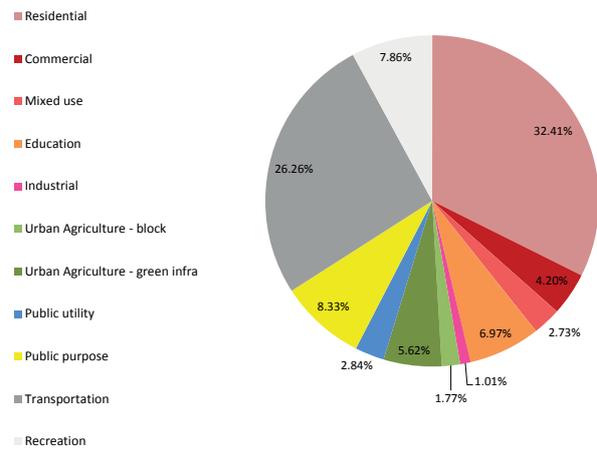


fig.130. Area breakdown of Neighbourhood 2

Neighborhood 2

LAND USE AREA BREAKDOWN	TOTAL	
	Ha	%
Residential	97.80	24.13%
Commercial	7.08	1.75%
Mixed use (Residential/Commercial)	6.22	1.53%
Education	18.94	4.67%
Industrial	6.52	1.61%
Urban Agriculture - block	52.81	13.03%
Urban Agriculture - green infra	32.00	7.89%
Public utility	8.22	2.03%
Public purpose	20.23	4.99%
Transportation	141.02	34.79%
Recreation	14.53	3.59%
TOTAL AREA	405.36	100.00%
Road area	139.90	34.51%
Road density	0.35	

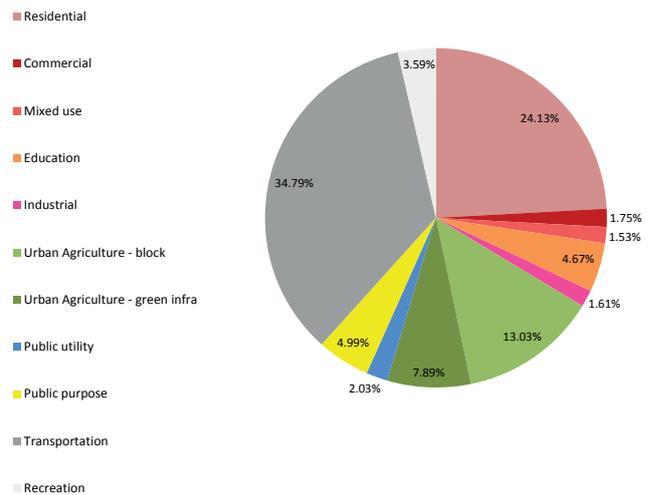


fig.131. Area breakdown of Neighbourhood 2

Kalobeyi New Site Area Breakdown

Neighborhood 3

LAND USE AREA BREAKDOWN	TOTAL	
	Ha	%
Residential	83.37	22.28%
Commercial	13.52	3.61%
Mixed use (Residential/Commercial)	5.18	1.38%
Education	25.84	6.91%
Industrial	0.00	0.00%
Urban Agriculture - block	41.75	11.16%
Urban Agriculture - green infra	29.93	8.00%
Public utility	6.17	1.65%
Public purpose	16.99	4.54%
Transportation	137.89	36.85%
Recreation	13.54	3.62%
TOTAL AREA	374.19	100.00%
Road area	136.88	36.58%
Road density	0.37	

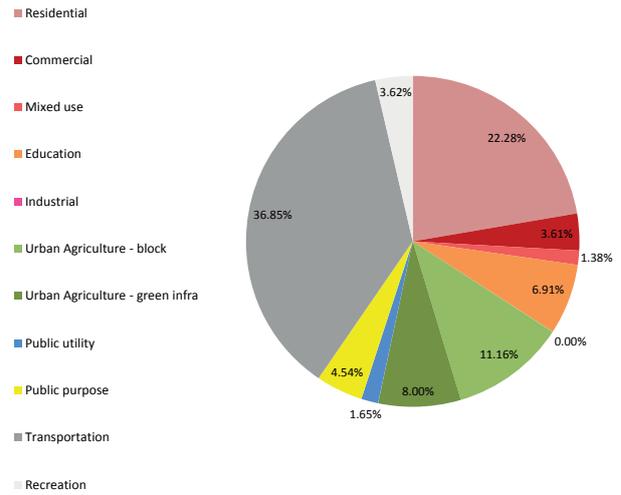


fig.132. Area breakdown of Neighbourhood 3

4.6. Urban Design Framework

4.6.1. Overview

Urban Design Concept

The Urban Design framework for Kalobeyei New Site takes the Land Use Framework and builds upon it a new layer of detail and structure that is informed by the UN Habitat 5 principles of Neighbourhood Planning. In order for the town to develop places for people that encourage safety and activity, it has to respond to the needs of people, and accordingly the proposal breaks down the plan into a series of scales.

Although the basic framework for distributing services and laying out a road system is a grid – by incorporating considerations for the various scales of interaction, it permits an understandable and identifiable system by which inhabitants – refugees in the short term and host community in the long term - can orient themselves, and develop a sense of place.

This break-down is as follows:

- Local Scale – Block, 100 People
- Community Scale – Mega Block, 5000 People
- Neighbourhood – Mixed Use Settlement Area, 20000 people
- Settlement – Town/City, 60000 people

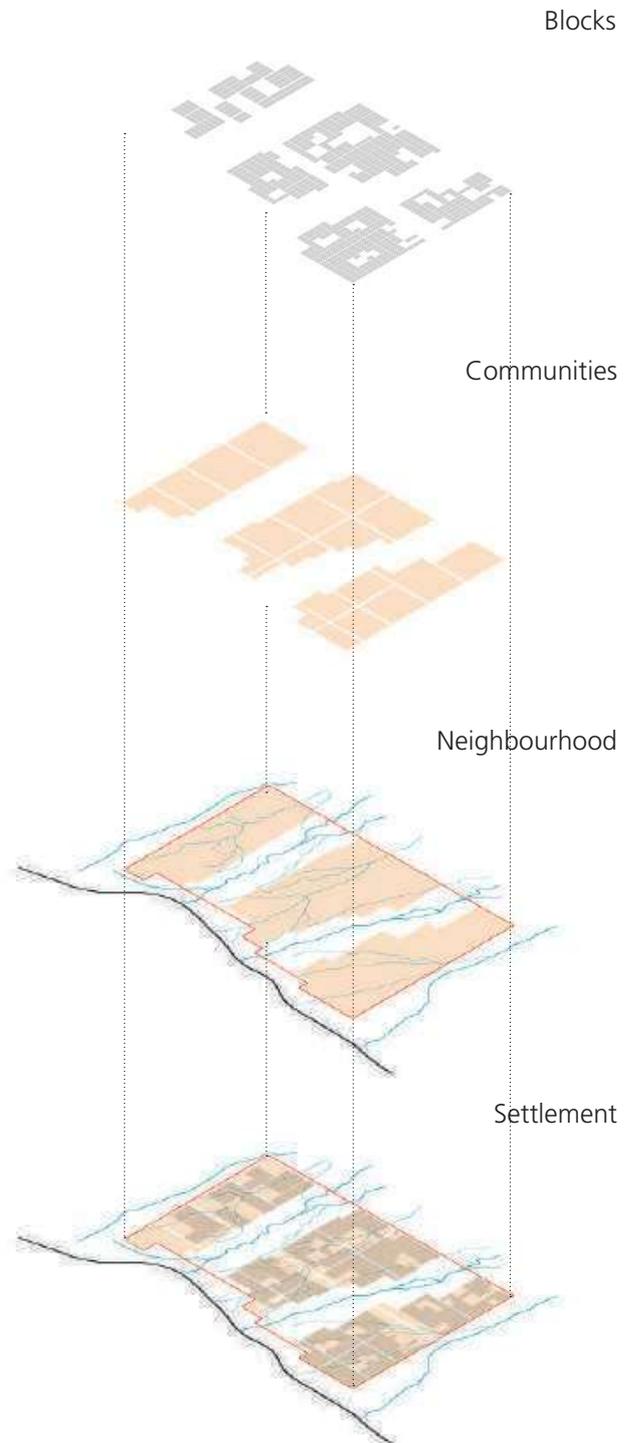


fig.133. Interconnected scales of urban structure

Kalobeyei New Site Illustrative Plan

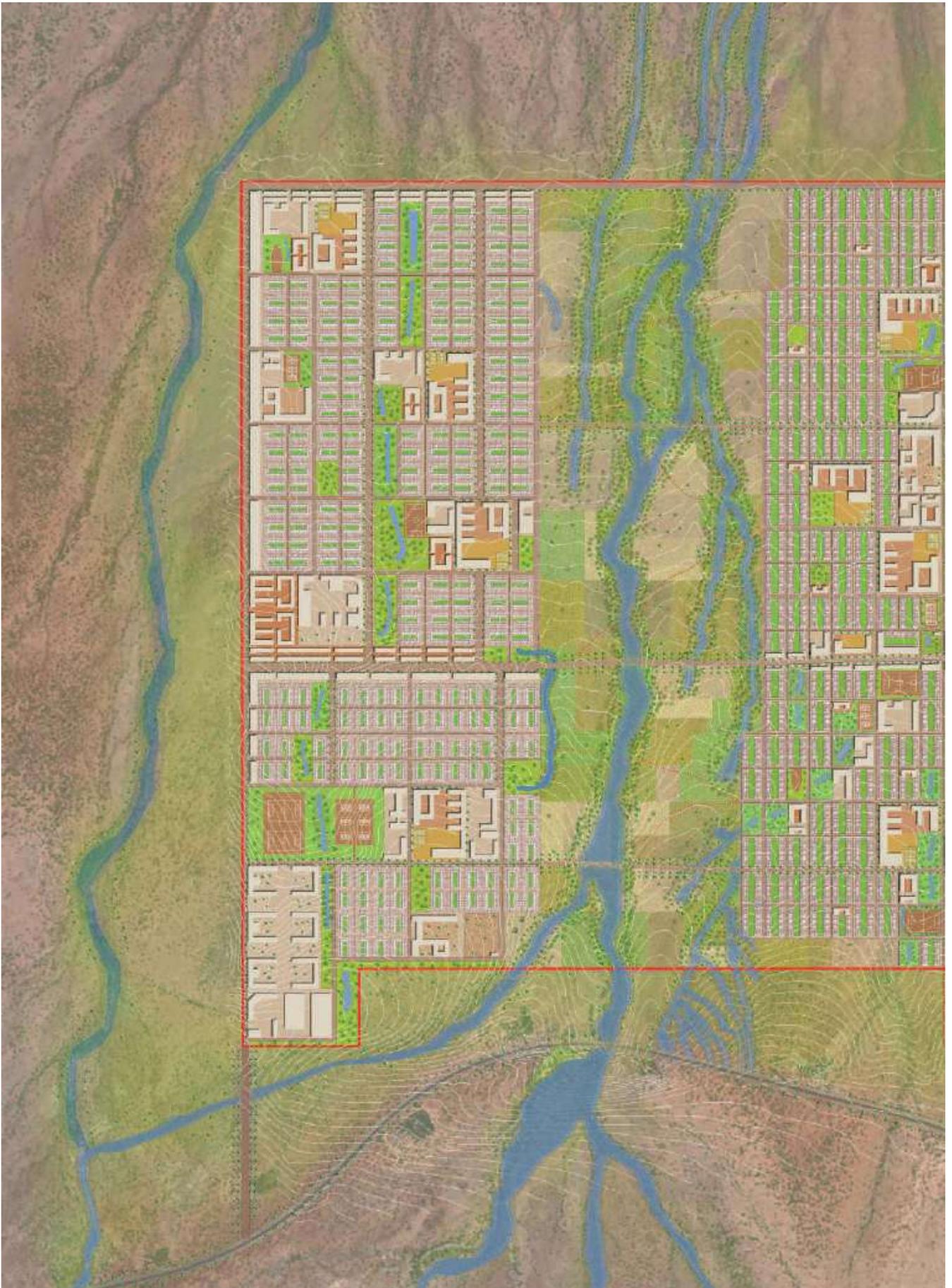
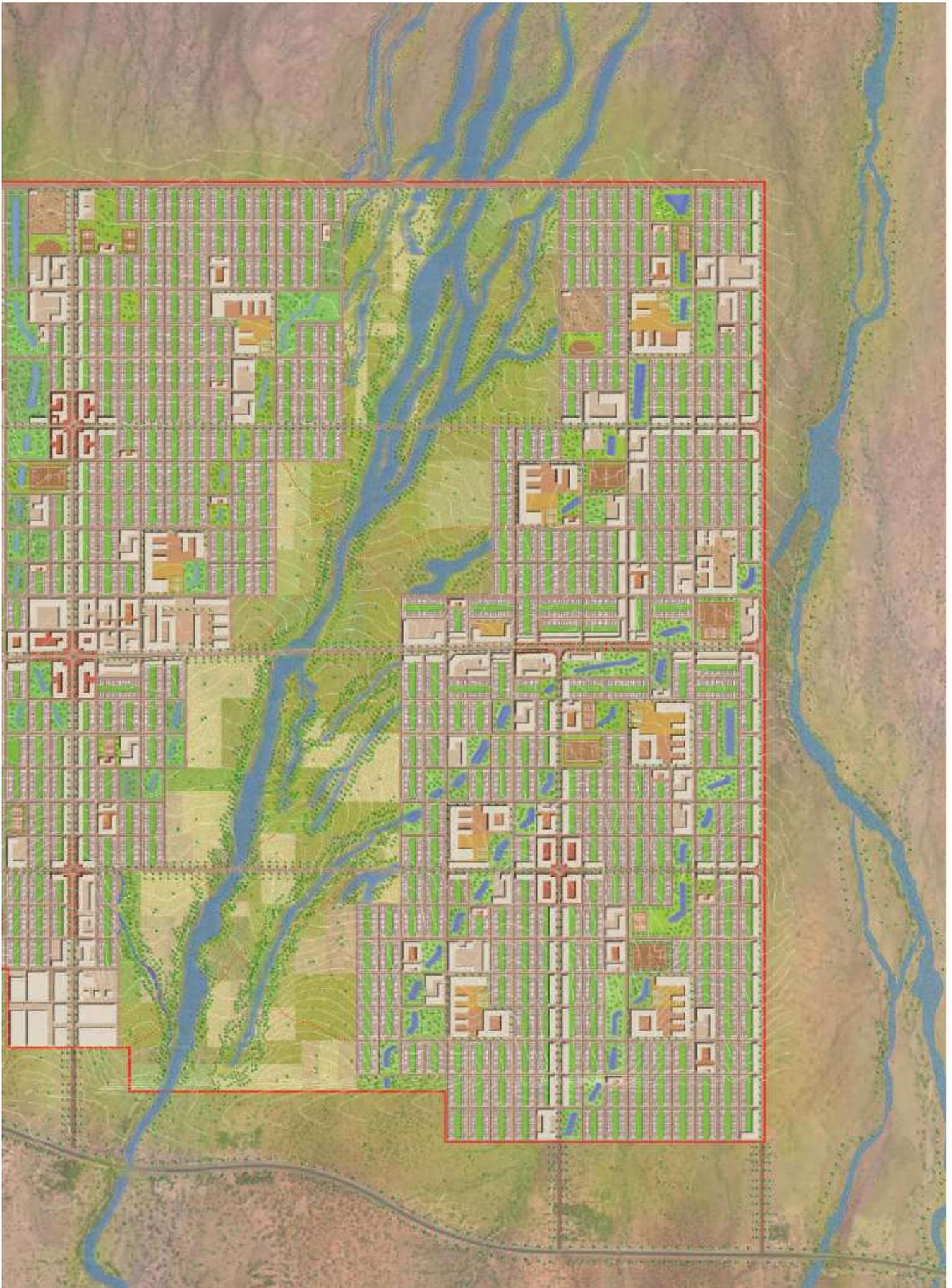


fig.134. Kalobeyei New Site Illustrative Plan



4.6.2. Incorporating Integration into the Urban Design Framework

Promoting Inclusion, Gender and Youth Sensitive Approaches



fig.135. Participatory workshop with refugees Kalobeyi New Site, Kenya © UN-Habitat/Jonathan Weaver

Further to the land use framework, the layout of the streets, public spaces, facilities and residential blocks are designed to facilitate strong and positive integration between host and refugee communities, as well as ensuring that women, girls and youth are fully represented and their needs addressed. The focus is to promote accessibility, inclusivity and create a safer settlement.

Key urban design strategies to promote this are:

- Placing small scale markets in each neighbourhood to facilitate accessible day-to-day trading to take place.
- Providing space for informal livelihoods that can be incrementally formalised, in designated market spaces, as well as in every plot facing the street
- Active street frontages to ensure there are no dead spaces without passive observation.
- Encouraging well-lit streets and public spaces to promote safer streets
- Placing water collection points situated in publically visible areas, whilst being located in close proximity to the private spaces (50m max distance).
- Recommending that willing host community are given shelter in areas together with refugee community.
- Promoting minimum of two rooms per shelter to allow for gender separation if necessary.
- Linking the educational facilities to public spaces and access routes to encourage youth involvement.

4.6.3. Public Space Network

Public Space Network

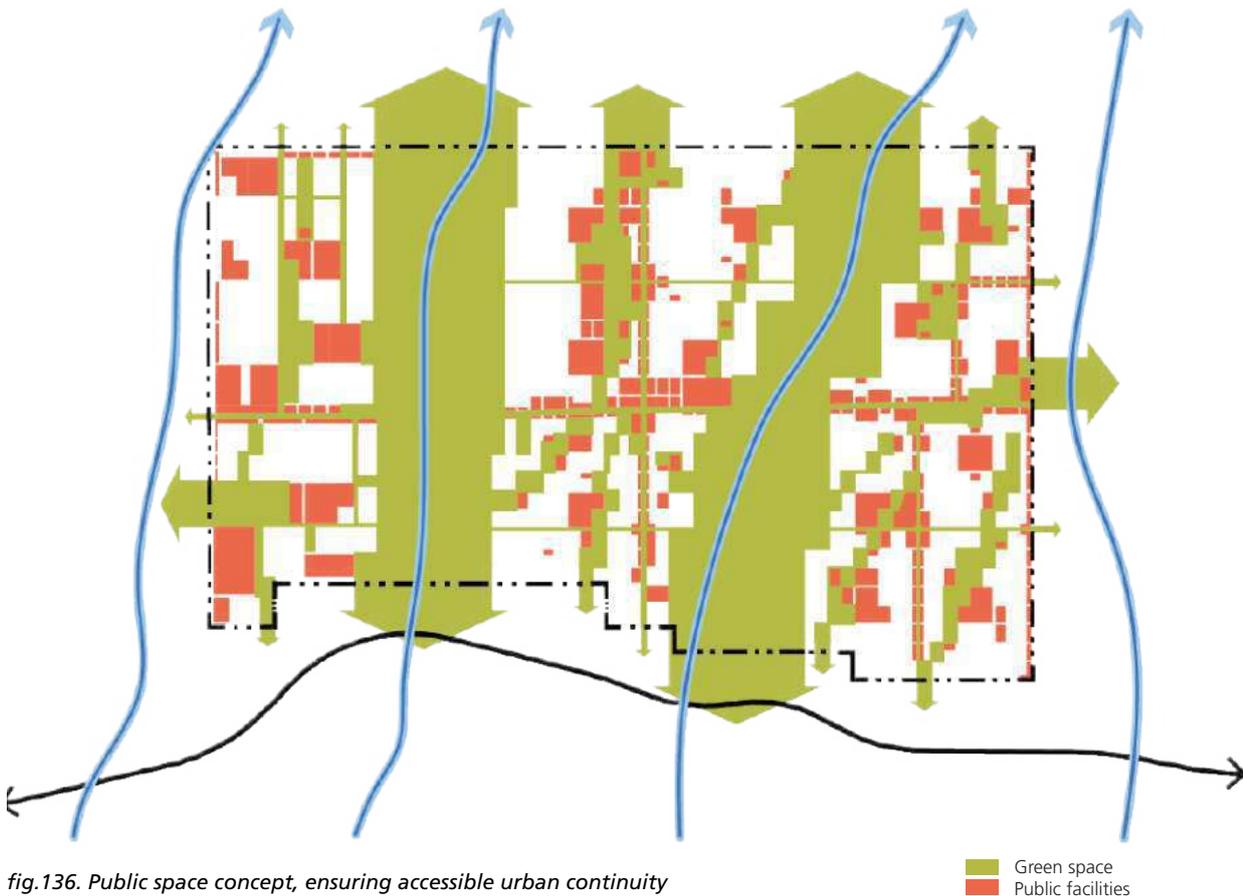


fig.136. Public space concept, ensuring accessible urban continuity

Creating high quality public space is a primary requirement in order to support Kalobeyi to become a vibrant, safe and economically viable place. Pedestrian and Non-Motorised Transport (NMT) systems are of paramount importance given the extremely low levels of vehicle ownership and as yet, a non-existent public transport system.

The Public Space and facility network is a crucial urban tool that ensures an additional layer of movement and interconnectivity is enabled to link the landscape and agriculture with the key attracting facilities in the settlement. As such, it gives a vital use to the space which might otherwise be considered “backlands” and enables the walkability and improves liveability of the public realm of the settlement.

Furthermore, public spaces are directly linked to daily work and household economy patterns. For example, by carefully placing sites of daily activity such as water collection and the use of latrines in areas approximate to housing and prone to passive observation can mitigate the exposure of risks to women and children.

4.6.4. Street Hierarchy System

Street Network



fig.137. Street hierarchy

The street section a major element that supports the public space network in determining the living quality of a neighbourhood at the local scale and the functionality of a settlement at the larger scale. In the sections proposed for Kalobeyei, it is recommended to avoid making the street sections too wide – whilst still aligning to the regulatory framework.

Furthermore, special attention has been paid to the placement of drainage channels, provision for parking and tree planting to prioritise high quality shaded pedestrian space. The street hierarchy system outlines 4 types, relating to the landuse function, type of connection and location.

National Road Network

As noted previously, the A1 highway is anticipated to remain the main access road to Kalobeyei. As per the Kakuma ISUDP, it is proposed that the 60 meter corridor be reserved for the A1¹⁰¹; however this should be correlated with the LAPSET proposal which takes the A1 road improvement into consideration. It should be noted however that serious attention into the pedestrian and non-motorised transport infrastructure be taken into account as at present this is very limited, yet the necessity of use is very high.

101 Republic of Kenya, Turkana County Government, Integrated Strategic Urban Development Plan for Kakuma Town 2015-2035

Tertiary Streets - 15M Road Reserve



fig.138. 15m road section

The primary roads provide access to residence almost exclusively residential units, with the traffic carried either originating or terminating along the local streets. With pocket parking on one side, the priority is given to providing shaded pedestrian areas.

Secondary Streets - 20m Road Reserve



fig.139. 20m road section

The secondary streets connect the smaller residential communities with the various social functions such as schools, health facilities and communal halls as well as the smaller neighbourhood markets. In a similar manner to the other street types, a tree planting strategy is recommended to encourage walkability.

Primary Streets - 25m Road Reserve



fig.140. 25m road section

The primary streets provide key linkages between the neighbourhoods and provide secondary links to the main A1 highway, as well as access to the main commercial, mixed use and public facilities. The streets provide a dual carriageway for traffic, although the side lanes are proposed to be shared bicycle lanes with access to on street parking.

The generous pedestrian space is separated from vehicular traffic by the drainage channel as well as tree planting encouraging walkability. Adjacent to the pedestrian zone on the 25m streets are where a majority of commercial, mixed use and public facilities are located.

Arterial Streets - 40m Road Reserve

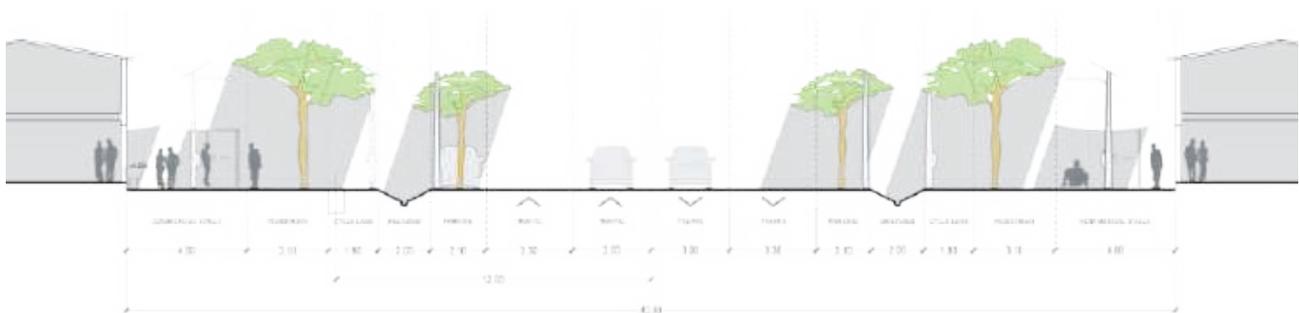


fig.141. 40m road section

A 40m road reserve is proposed for key access and linking roads across the settlement. Whilst this adheres to the recommended widths for major roads, the plan responds to this extremely large space and proposes significant development of the large areas either side of the main carriageway.

This space can be used for informal market stall spaces, additional bicycle lanes as well as a generous pedestrian precinct shaded by trees. In terms of vehicular traffic, the road widths would support a public bus transit line as well as normal vehicular traffic with dedicated parking on either side of the road.

4.6.5. Commercial Nodes

Creating a Centre at Commercial Nodes

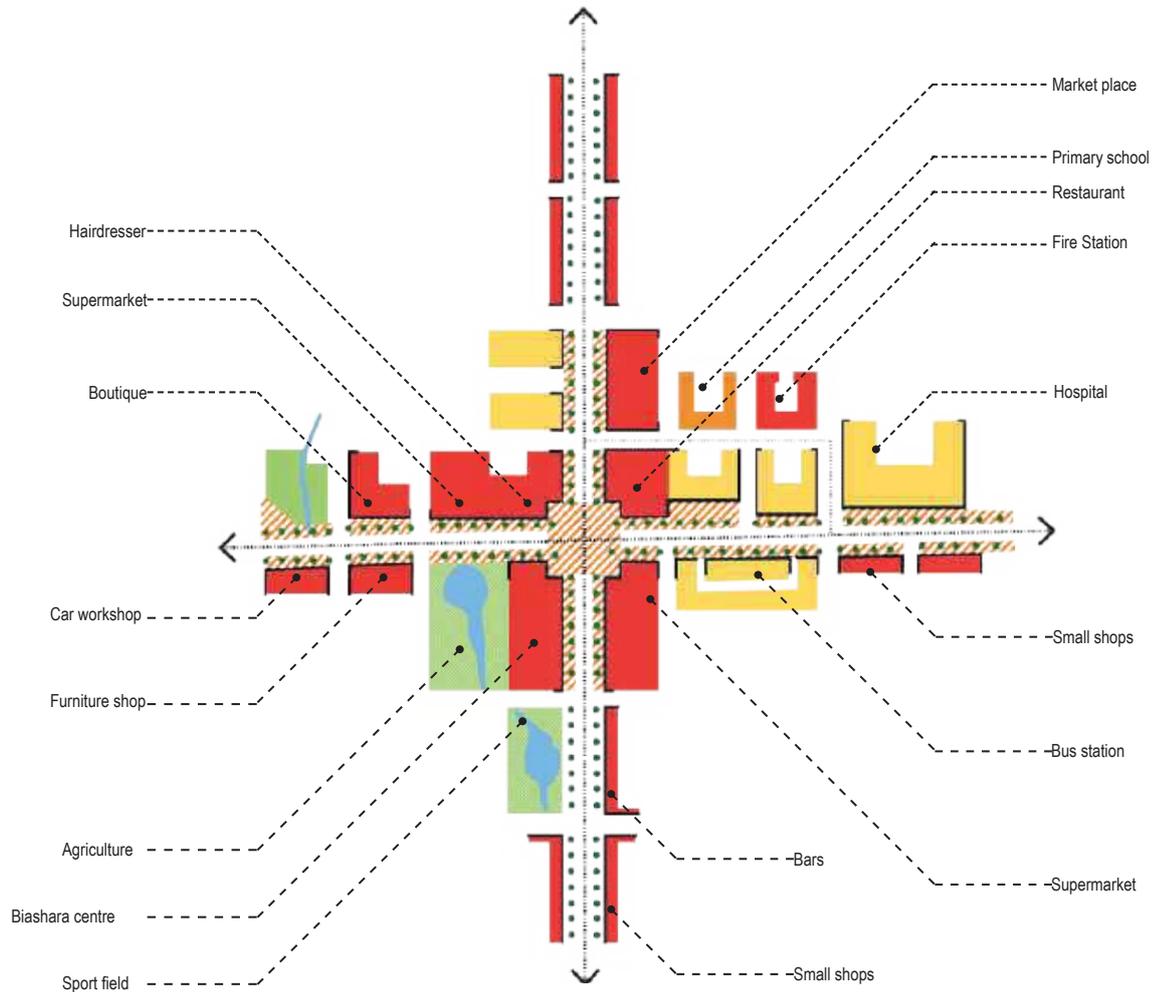


fig.142. Commercial node concept

The commercial nodes are focused as discussed in the land use planning 4.5.4. *Commercial and Mixed Use* on key junctions and areas where potential future densification can be focused. The plan proposes to link these areas with a generous public realm, incorporating space for transit nodes and various scales of commercial activity, both formal and informal.

The reality of an emerging settlement suggests that an incremental approach to commercial activity is appropriate. As such, whilst there is dedicated commercial land use allocated, there needs to be a system which supports individuals within the settlement to start businesses from a very low baseline.

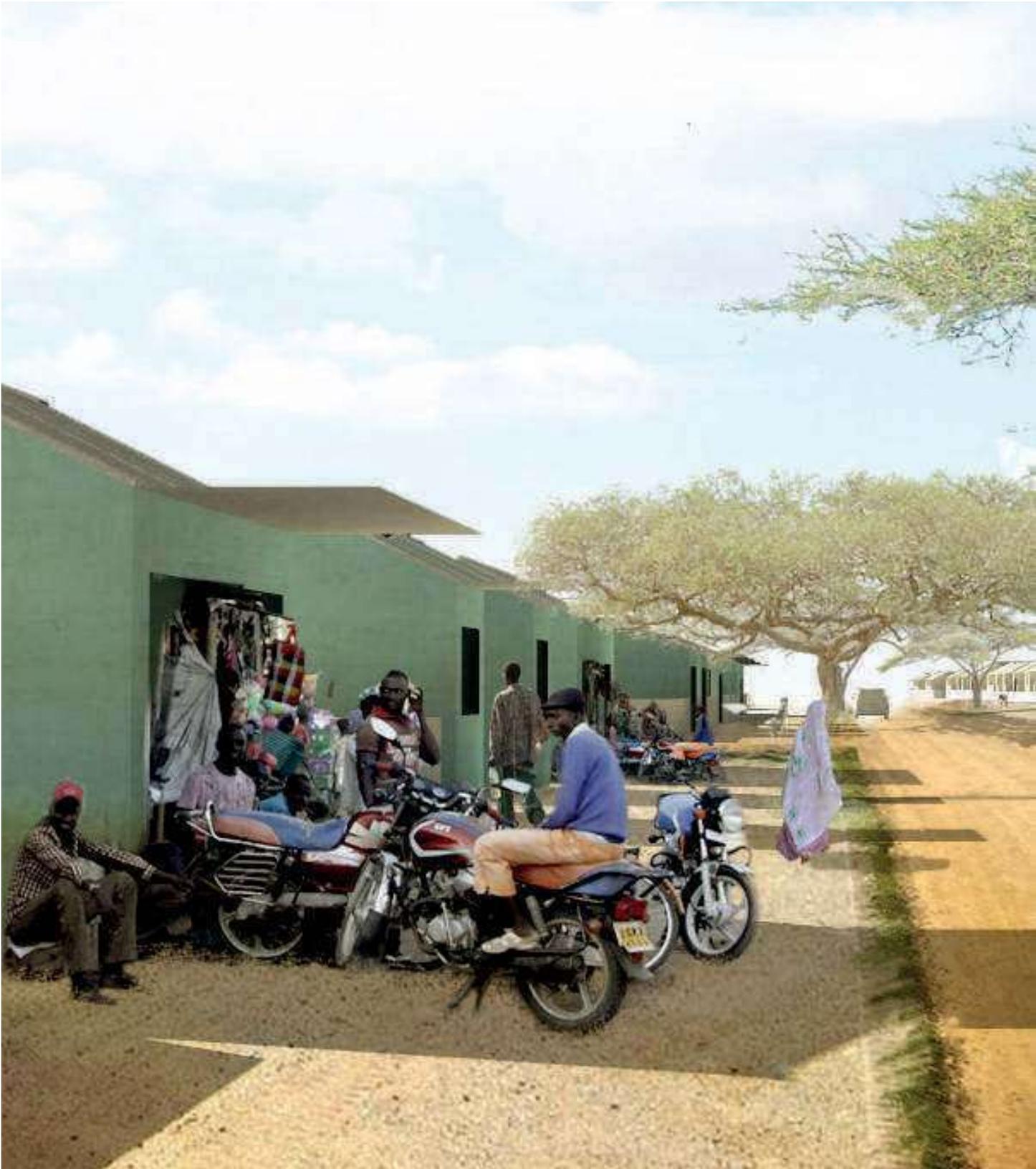
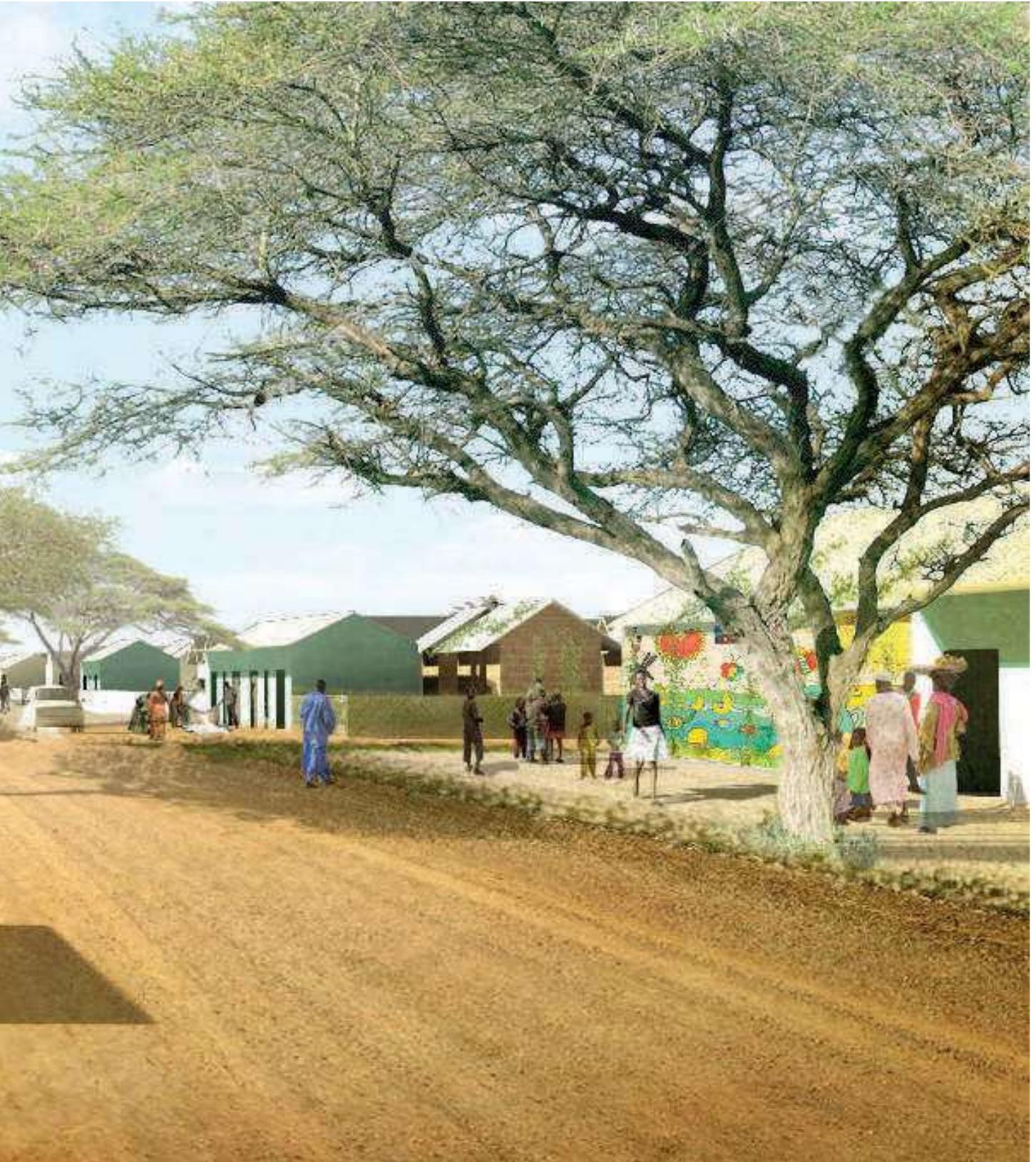


fig.143. Vision of neighbourhood road in Kalobeyei New site



4.6.6. Community Nodes

Developing Localised Neighbourhood Sub-Centres

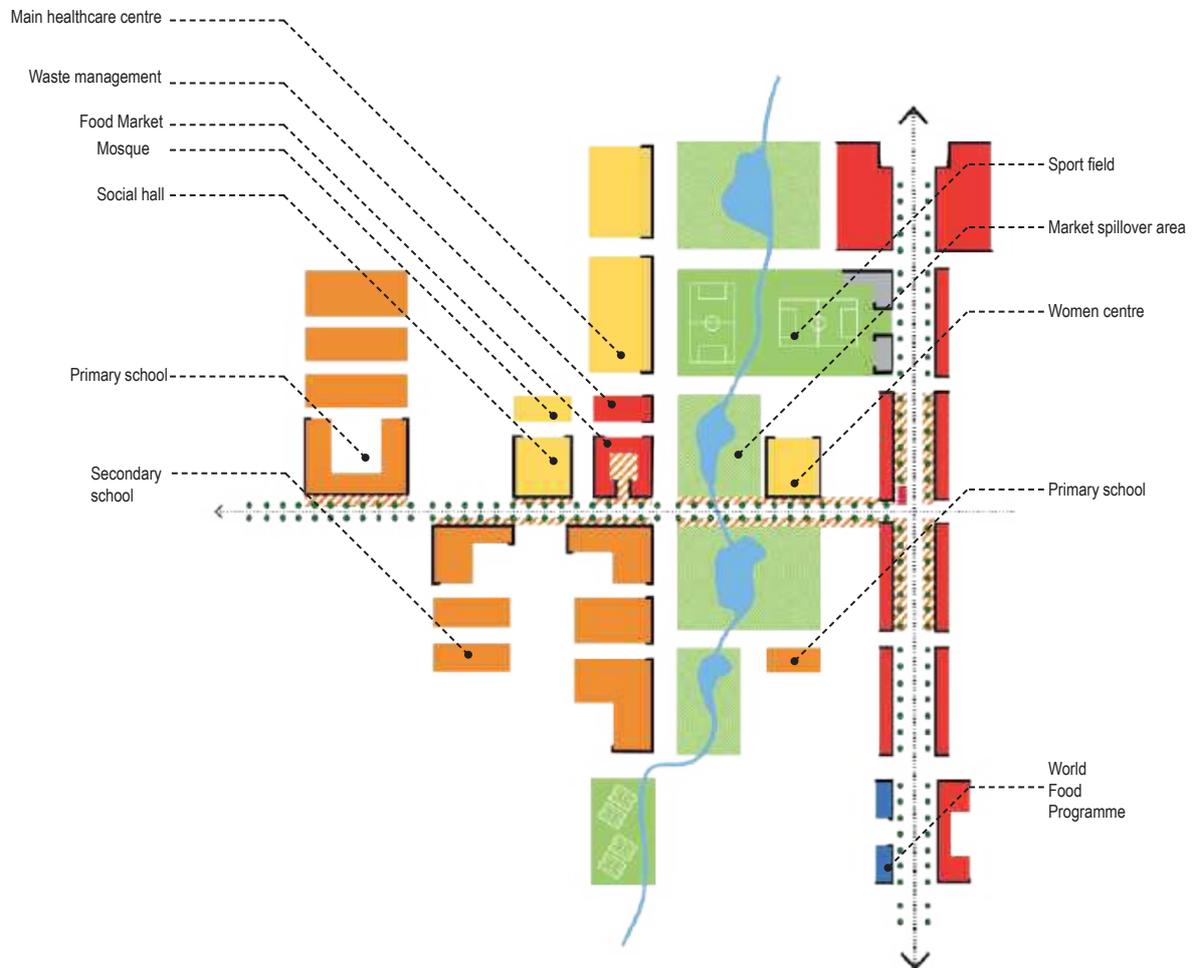


fig.144. Dynamic neighbourhood concept

The residential plots have therefore been designed to allow a 3m zone at the front of each plot where an inhabitant can affront the street and develop a small cottage industry.

The reality of the markets will mean that on the 20 and 25m streets, which provide more connectivity and support larger footfall will be the areas which are more conducive to supporting commercial activity.

The community nodes are focused on secondary roads linked to the more active commercial and mixed use arteries, but have a smaller diversity and scale of function. These areas support the day to day activities and needs of a local community – where primary schools and secondary schools form sub-centres close to the local market, religious or social hall etc. This then is also integrated with the green corridor which provides leisure spaces as well as areas for agriculture, facilitating activity within the community area.

4.6.7. Residential Areas

Residential Block Design

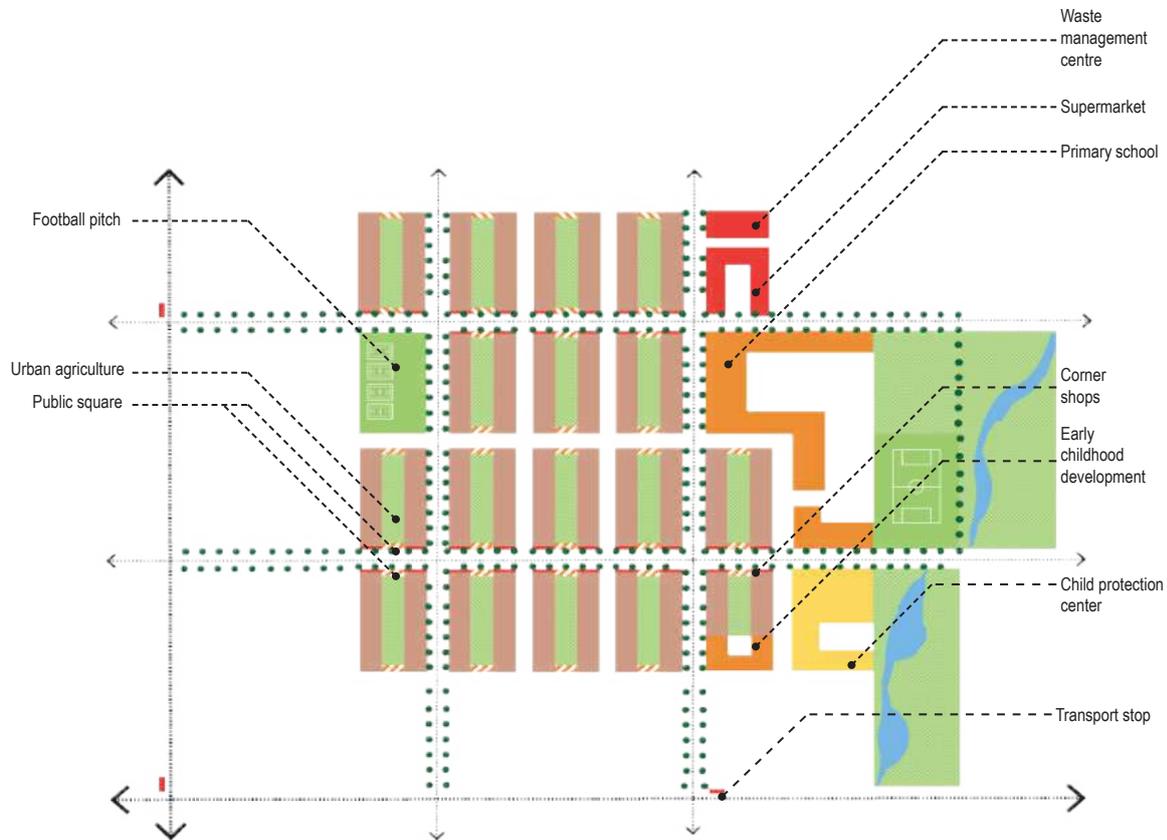


fig.145. Residential concept

The residential blocks are designed to play a key role within the settlement, especially from the early phases of the settlements development where people will spend a substantial amount of their time. Following the walkable grid structure, the 100 x 60m blocks each have 20 plots of 10mx20m plots laid out taking into account the road hierarchy, public facility location and proximity to educational facilities.

Each block has been designed to promote passive observation of the street; with each house oriented having an active edge facing the street, as well as small public spaces on each end of the block where natural points of interaction such as water points are situated and potential local kiosks/shops can be developed. Further to this, in the centre of every block is a community garden where urban agriculture is encouraged. This allows the blocks to avoid dead spaces and “backlands”, and at the same time promote active streets and public space.

By supporting a strategy for tree-planting this will further develop the desirability of the public spaces and streets adjacent to the residential areas as gathering space.

As outlined in the land use framework, a substantial area of the plan is given over to agricultural purposes and a key component of the urban design strategy is the incorporation of Urban Agriculture within the block.

As identified in the socio-economic survey as well as the planning workshops with the refugee and host communities – the “usual” housing typology varies substantially depending on income levels, location of inhabitation (e.g. rural vs urban) as well as cultural norms. In order to respond to this, an incremental housing strategy as per in fig.156 has been proposed to allow the basic housing unit that will be developed in the early phases of the plan to be adapted and optimised to the various inhabitants changing needs and cultural requirements.

Residential Block Design

Sustainable Urban Drainage

Urban Agriculture

Decentralised Renewable Energy

Individual Plot Water Provision

Incremental Housing

Active Streets & Public Space

Walkable Block Scale

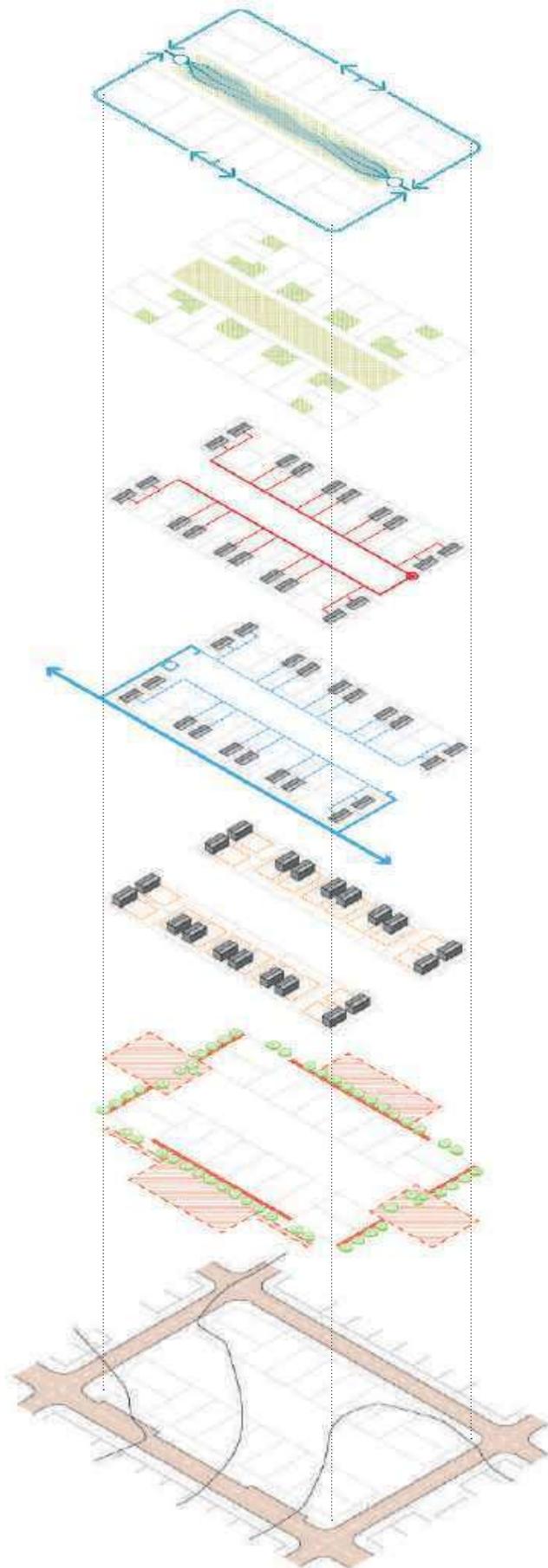
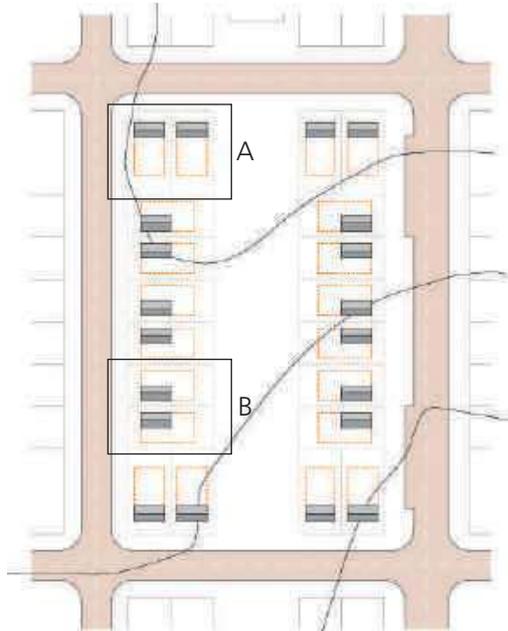


fig.146. Residential block design

Plot Designs



Plot A - Corner plot
Plot B - Typical plot

fig.147. Plot layouts

Plot Guidelines

Using the 200m² plot parameter, two typologies for plots have been outlined to ensure active street frontages. As outlined in the “4.7. Development Control Guidelines” this also allows incremental development within the two spatial variations. Each plot is 10m x 20m, with the 10m frontage to the street, a 3m setback from the edge of the road reserve, 1.5m setback from each edge and 4m from the rear of the plot.

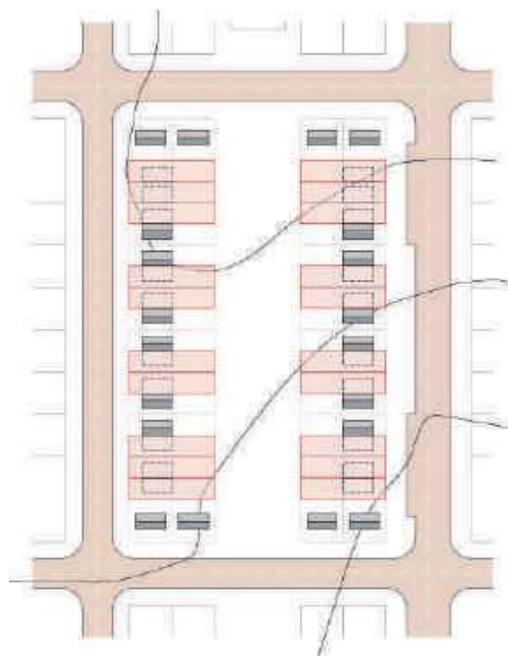


fig.148. Future densification strategy

Potential Densification

As the block size of 200m² somewhat large for an urban context, the layouts of the plots have been structured in such a manner to allow for potential densification in the future. This would allow for the plots to half in size to become 20 x 5m, and still retaining full street frontage. However it should be noted that if the residential plots are densified in this manner, a full review of the public service infrastructure would need to be done in tandem to ensure adequate provision.

Agriculture and Sustainable Drainage



fig.149. Urban agriculture within the block

Urban Agriculture

As aforementioned in "4.4.8. Agriculture", "Urban Agriculture" is proposed at a block level. Providing a space of approximately 15m x 80m (1200m²) per block in addition to the capacity for kitchen gardens in each plot, this community asset can support incomes and address local nutritional needs. In order for this to become as efficient as possible, it is recommended for the space to be managed by a community group and utilised as one space as opposed to being sub-divided.

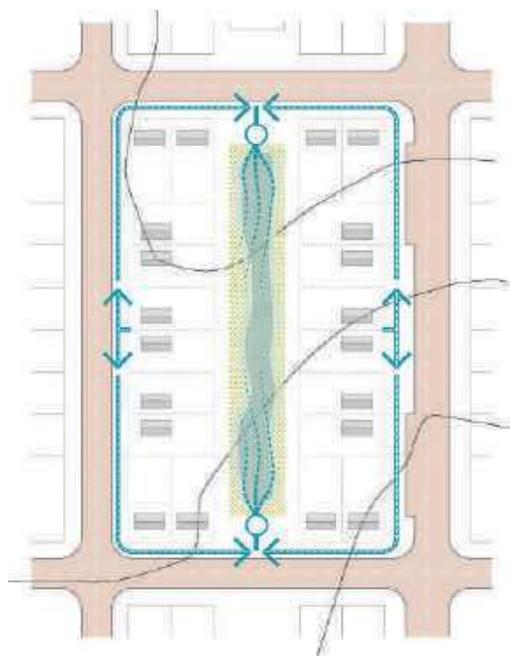


fig.150. Sustainable drainage design

Sustainable Urban Drainage

As the site's terrain is generally flat with an average slope of less than 1% and the soil typically has low infiltration rates, a localised drainage strategy is proposed. For further detail refer to "4.9.1. Water", "Sustainable Urban Drainage". By localising the drainage and harvesting water at a block level, this can help to support the urban agriculture.

Water and Sanitation:

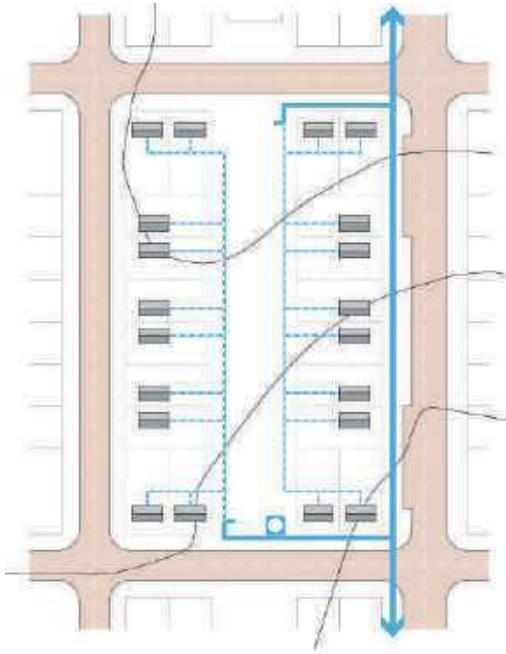


fig.151. Water supply provision

Water Supply Provision

Based on UNHCR standards and WHO guidelines, the Kenyan MWI Water Supply Design Manual, and discussions with stakeholders, a rate of 40l/person/day water consumption was adopted for the design. The consumption rate is based on people with individual connections, rural areas with low potential as indicated in fig.150. The proposal supports a scheme that can transition from communal water points to individual connections (tap stand for every house) for the settlement progressively.



fig.152. Sanitation facilities location

Sanitation

The project proposes a more sustainable solution to household sanitation needs. As a medium term proposal, the twin pit latrine system is recommended using the pits as a source of fertiliser for urban block agriculture. It is recommended that this strategy should be reviewed within the first five years of the development, to address a more long term strategy.

Energy and Thermal Comfort

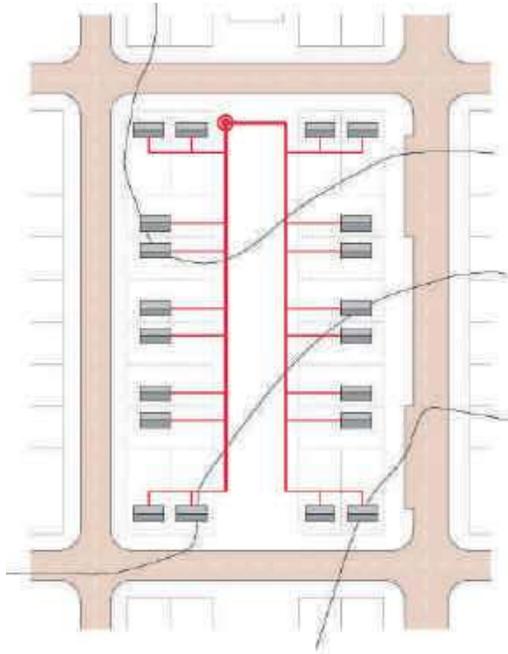


fig.153. Energy provision

Decentralised Energy Provider

Given the lack of a power grid in the region, the most realistic strategy in the context is for decentralised / micro energy generation which would allow for energy provision from the short to medium term. Ideally this system would be developed with the potential to link this to district scale power generation in the future. This would allow for scaling up incrementally to match need and investment potential.

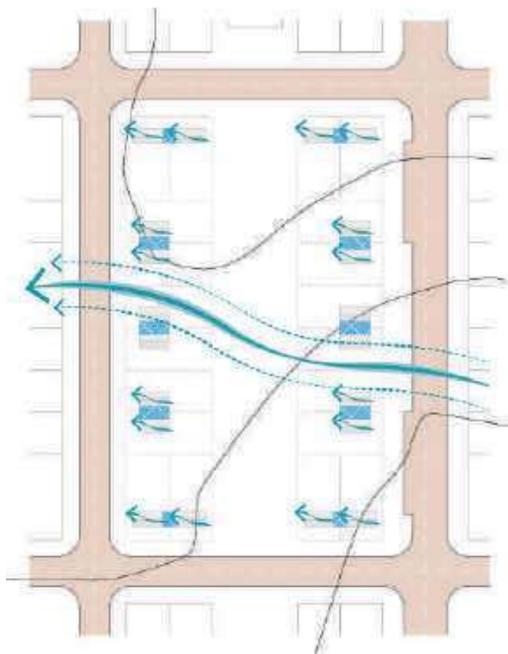


fig.154. Prevailing wind advantage for cooling

Climatic Response

From a planning scale, the residential blocks are aligned to take advantage of the prevailing wind, to facilitate cross ventilation of the housing. As part of the shelter typology it is recommended that it includes high level ventilation to utilise the natural airflows. In hot and dry climates such as Turkana, a courtyard typology would be the most appropriate, however in discussions with stakeholders - this is not seen culturally appropriate (courtyard not seen as acceptable). As such, the incremental strategy allows a hybrid approach to this, allowing inhabitants to develop as they see fit.

Public Space Design

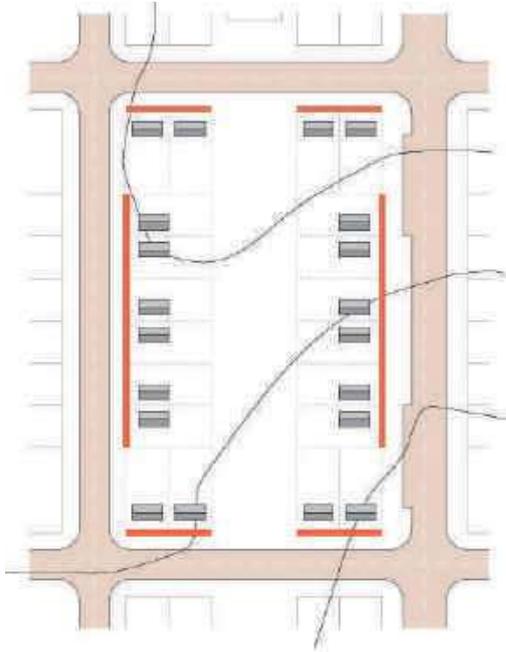


fig.155. Activation of road frontage

Active Street Frontages

A key strategy in promoting safer streets and neighbourhoods lies in activating the street edge. As opposed to creating internalised courts, the plots and shelter units are aligned to encourage housing entrances that permit passive surveillance of the road. This ensures that no street has dead facades which can create unsafe spaces. This is also supported by the potential for the informal development of small scale commercial activity in the front of plots.

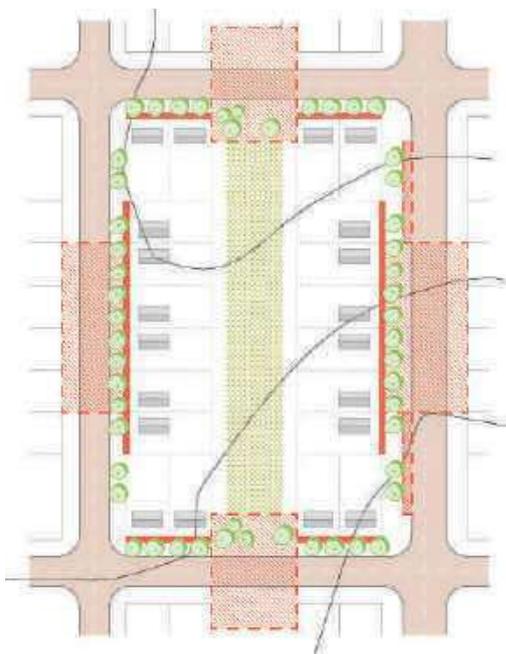


fig.156. Public space within block

Human Scale Public Space

Further to the active street frontages, on the short ends of each residential block, small 10 x 8m public spaces are proposed at points of natural interaction – such as water collection points. These are also adjacent to the street and the community agriculture spaces. If trees are planted to create shaded space – this will also support the frequent usage of these potential community amenity areas.

Incremental Housing Design

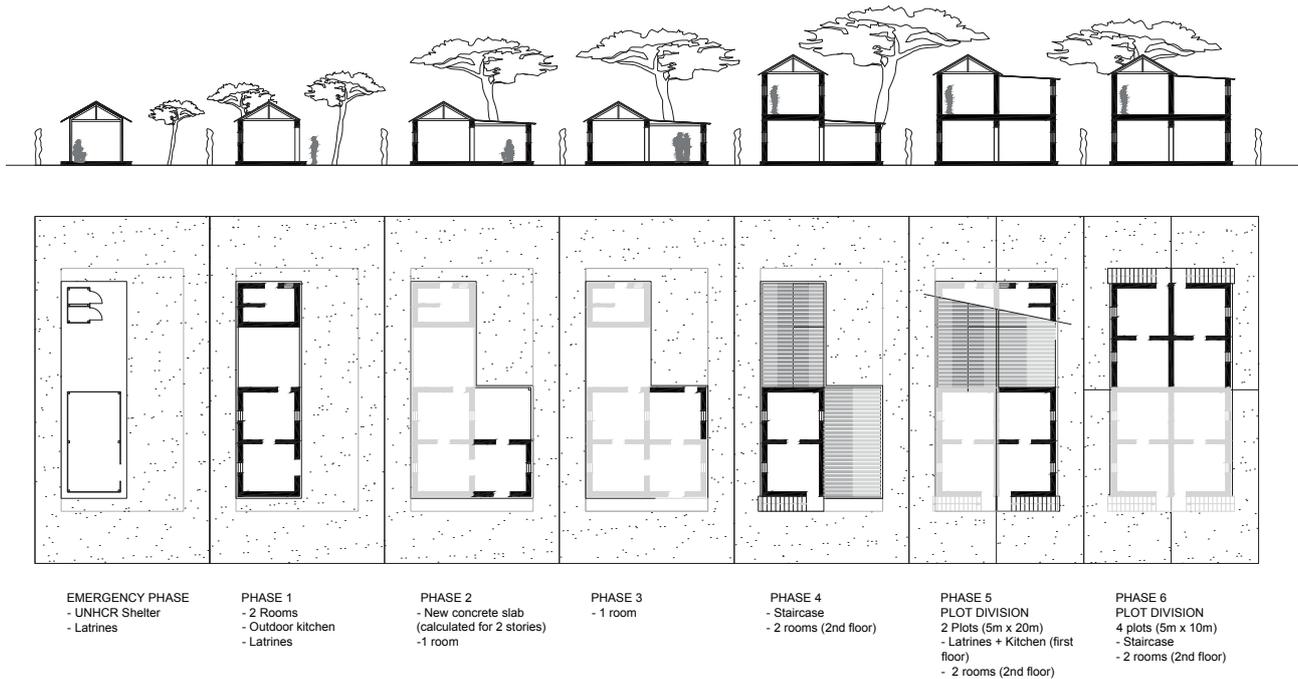


fig.157. Incremental housing design

As identified in the socio-economic survey as well as the planning workshops with the refugee and host communities – the “usual” housing typology varies substantially depending on income levels, location of inhabitation (e.g. rural vs urban) as well as cultural norms.

In order to respond to this, an incremental housing strategy has been proposed to allow the basic housing unit that will be developed in the early phases of the plan to be adapted and optimised to the various inhabitants changing needs and cultural requirements.

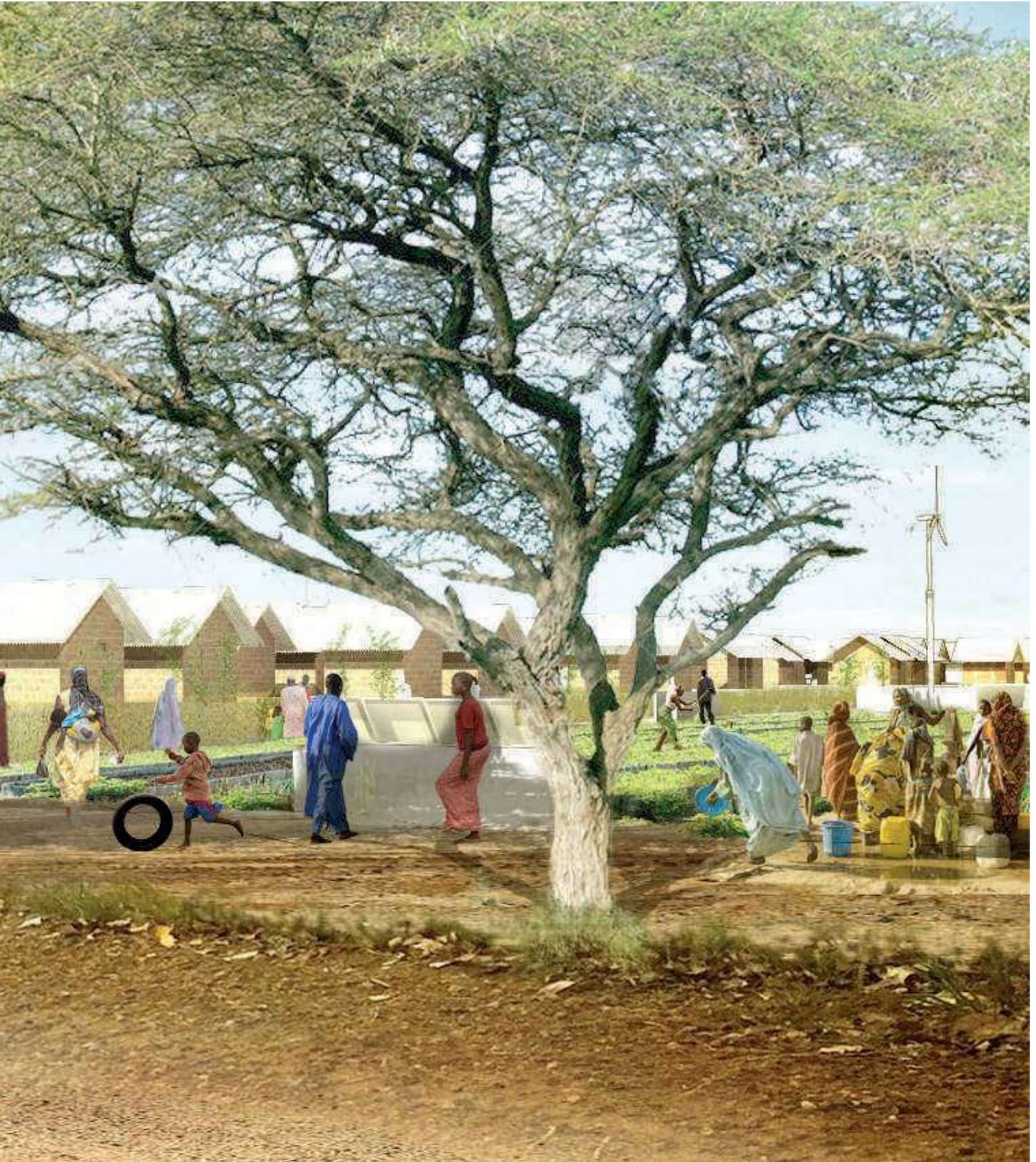
The plan recommends that in addition to the incremental approach to housing development, there is a need to provide a variety of housing options for the inhabitants. This should also be realised through a participatory housing design process.



fig.158. Illustrative incremental housing 3D model



fig.159. Vision of a public space in Kalobeyi New Site



4.6.8. Green Infrastructure and Leisure Space

Utilising the Ecological Corridors as an Asset

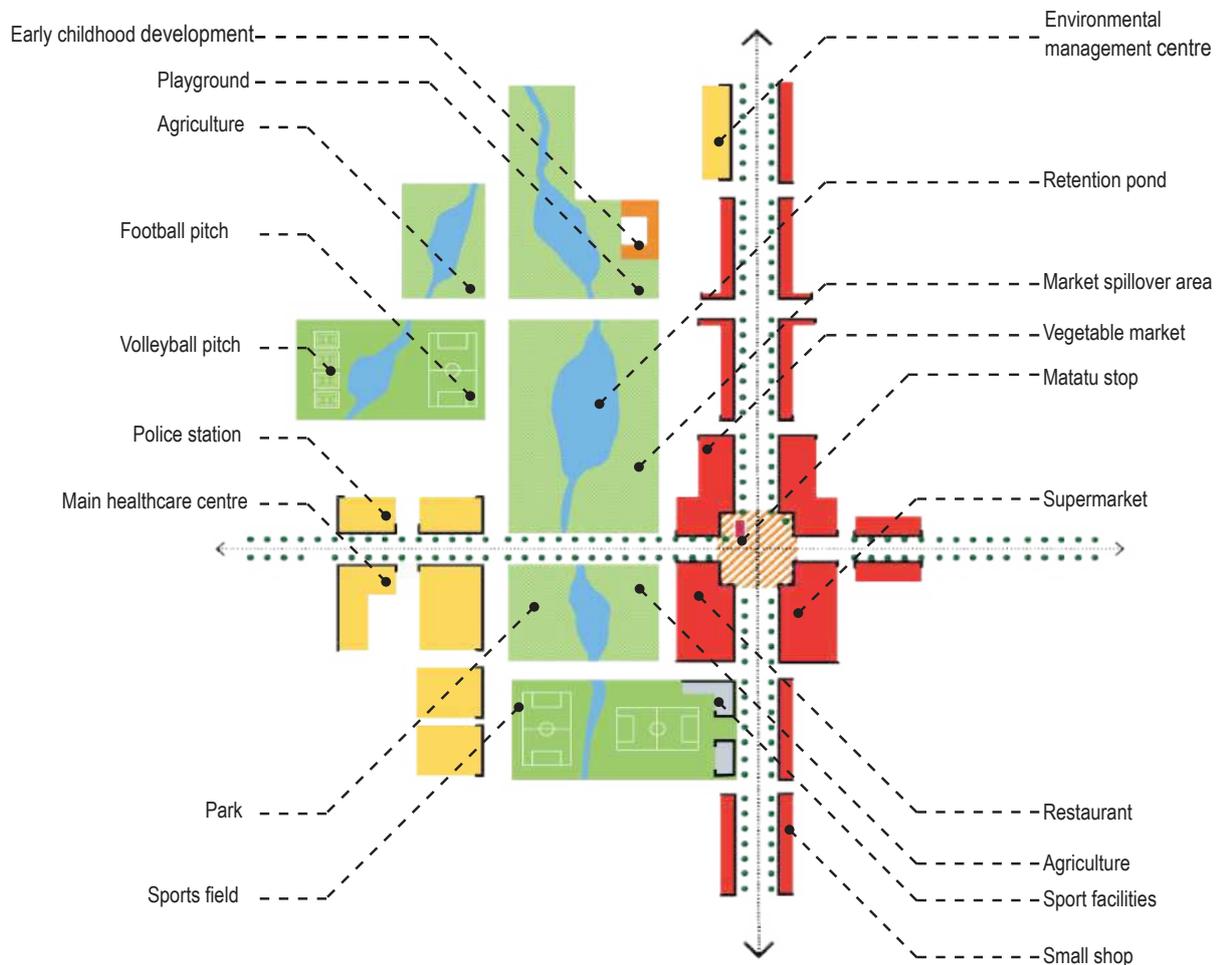


fig.160. Ecological corridor concept

Rather than seeing the dry river beds and flood plains as a challenge to development, the plan aims to incorporate these natural watershed patterns and existing areas of vegetation as a major ecological asset.

As mentioned in the site analysis in 3.4. *Climate*, there is limited rainfall in the region, however when it does rain, it often inundates the site. By retaining the natural patterns of watershed as part of the urban flood resilience strategy, this limits the risk of flooding and - if invested upon - can offer ripe areas for quality public space and further agriculture.

Furthermore, this green network allows an alternative pedestrian transit route and will also integrate the main sport pitches and leisure spaces for the settlement. This on the one hand ensures that the spaces become activated with a function whilst permitting them to flood during the short rainy season as little significant damage can be inflicted to this type of land use. The aim is also to populate the green infrastructure corridors with trees where not already existing in order to provide shaded space. As outlined in the agricultural strategy, this will also be supplemented by area for agricultural purposes.

Utilising the Ecological Corridors as an Asset

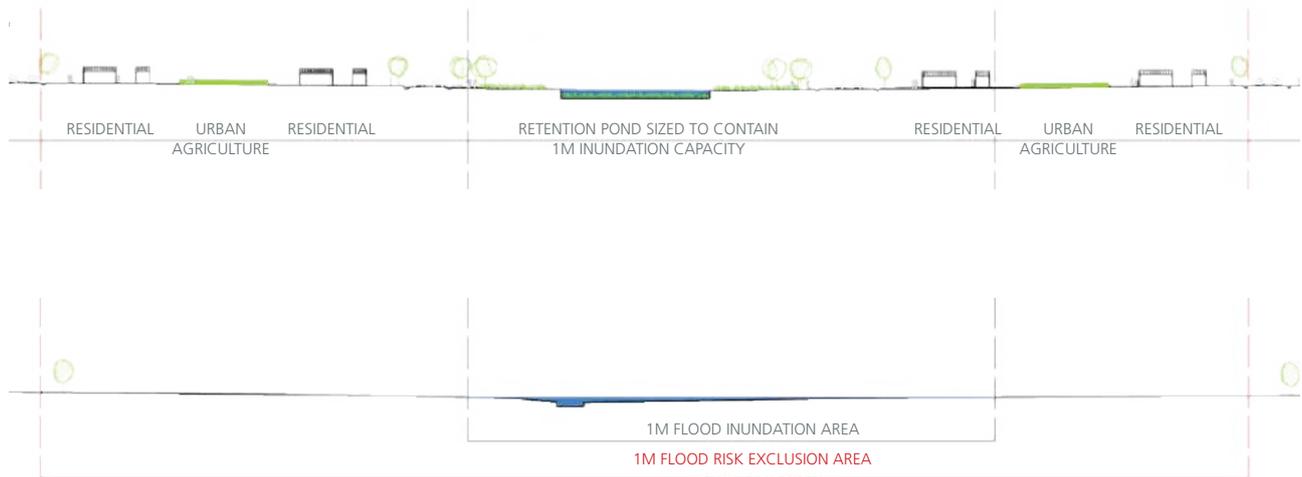


fig.161. Indicative comparison of flood risk area vs retention pond required for 1m flood inundation



fig.162. Kalobeyei flood risk indicative plan

4.7. Development Control Guidelines

4.7.1. General Framework

Development Control Policies

Legal Framework

The Development Control Policies (hereinafter DCPs) for the Kalobeyi New Settlement Advisory Spatial Development Plan is generated in line with the legal framework provided by Kenyan laws, and transferred to the site specific conditions of the project. The Kenyan legal framework is described in "2.3. Legal Framework".

Development Phases

The KISED P will be developed following three different main temporary phases that have been marked in the time log frame having in mind the unsustainability of the business as usual referring to refugees' management and so proposing a new alternative strategy in three phases (See "1.1. Project Inception").

- Emergency Response Phase 2016-2020: Foundations for the long-term response, development and approval of the Advisory Spatial Development Plan and emergency response to South Sudan civil-strife.
- Transitional Phase 2021-2025: building sustainable services and economic opportunities, preparing refugees for return and building host community resilience.
- Self-sufficient Settlement Phase 2026-2030: return of refugees in South Sudan and maintenance of the settlement as an economic and social asset in the regional context.

The following Development Control Policies have been elaborated according to these development phases, and are mostly referring to and guiding the Emergency Response Phase.

It is already envisaged and recommended that amendments and update of the DCPs should be prepared prior to entering into the Transitional Phase, in order to respond to and guide the development toward the full self-sufficiency through the transitional phase.

Validity

The Development Control Policies come into immediate effect upon approval of the Advisory Spatial Development Plan, and are valid until modified or substituted with an equivalent or more detailed regulation as outlined in (See: "1.1. Project Inception").

Obligatory Nature of the Development Control Policies

The contents of the DCPs are binding for private and public developers, for Public Administrations and Organizations, and in general for any actor involved in land development, transformation, and construction within the area of KS.

4.7.2. Project Execution and Management

Project Execution and Management

In its Emergency Response Phase, UNHCR and its current and future implementation partners under UNHCR leadership will undertake the plan execution and daily management.

In the Transitional and Self-sufficient Settlement Phases the role and responsibilities of UNHCR can be reduced and mandates transferred to the Government of Kenya and the Turkana County Government.

In its Emergency Response Phase UNHCR will therefore be responsible of:

- Allocating temporary and permanent shelters to specific and identified beneficiaries.
- Project monitoring and control.
- Plotting and plot division.
- Infrastructures, utilities and public facilities works.
- Construction works of new buildings, refurbishment and/or upgrade of existing building.
- Change of building use.
- Demolitions, changes and alterations of the natural and built environment.
- Allocation or transformation of commercial or productive uses.
- Construction works for agriculture land or infrastructure related to that use.
- In general, every work related to improve KS population quality of life, overall benefit and security.
- Relocation/ Resettlement of existing families on site

Through agreements with the Government of Kenya and the Turkana County, UNHCR will decide and review role and responsibilities project execution and management.

Definitions

Alignment

Alignment is the line that defines the limit of a building or a plot along a street.

Block

A block is a group of houses bounded by streets on all sides.

Parcel and Plot

A parcel is a buildable piece of land. The plot is a parcel ready to be built. To be considered a plot, a parcel must be serviced by basic infrastructure and have direct access (adjacency) to a street that is built and taken into use according to the specifications of this regulation. Construction permits cannot be given for parcels that are not plots.

Gross Floor Area

The Gross Floor Area is the total floor area inside the building envelope including the internal walls, vertical structural elements, service ducts and external walls, of which 50% will be counted if they are shared with another building or 100% if they stand alone.

Building depth

The building depth is the distance perpendicular to the line of main façade that limits the rear side of the building. The main façade is the front of a building facing a street.

Building heights

The building height is the maximum number of floors above the level of the ground that a building can have.

Plot coverage

The plot coverage is the percentage of land area of the plot covered by the building. The covered area is the area that results from the orthogonal projection of the building volume of the plot onto the ground plane.

Net Floor Area

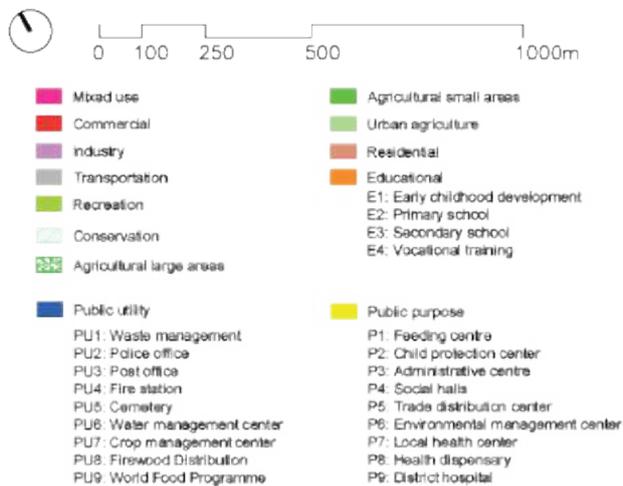
The Net Floor Area is the usable area inside a building envelope, excluding walls, vertical structural elements, service ducts with an area of more than 100cm² and spaces less than 1,5m high, and including 50% of the floor area of privately used exterior spaces, such as terraces, balconies, porches or other spaces of similar nature.

4.7.3. Land Use

Land Use



fig.163. Kalobeyei New Settlement Land Use Plan



Residential Use

Land designated for Residential Use is the main reserve of residential land of the Advisory Spatial Development Plan. Other uses that are compatible with the residential use can be permitted, but always maintaining the main residential use of the plot.

The uses permitted in the Residential plot areas are:

- Residential (main use)
- Commercial (with restrictions, see scheme attached below)
- Offices (with restrictions, see scheme attached below)
- Hotels or room rentals (partially)
- Cultural activities (with restrictions, see scheme attached below)

Commercial Use

Land designated for Commercial Use is the main commercial land of the KSP, located strategically along main arteries and intersections. Uses permitted are:

- Commercial
- Light industry & jua kali
- Warehouses
- Offices
- Hotels
- Cultural activities

Plots designated for Commercial Use may contain in the same plot combinations of the uses described above.

Mixed-Use

Land designated for Mixed-Use is mainly designated to commercial uses, with the possible inclusion of some residential space. Uses permitted are:

- Commercial, offices, hotels, cultural activities, light industry, warehouses, jua kali (main use)
- Residential (partially)

Public Space

The public open space of the Advisory Spatial Development Plan, composed by the connection system and the green spaces represents the 38.14% of the total land area. The Advisory Spatial Development Plan organizes and defines these spaces, so that besides being congruous in per cent amount in relation to the neighbourhood total land area, also compose a coherent system of interconnected spaces of different nature and function.

Connection system and parking

Each plot must be accessed from streets that fulfil the following functions:

- Access and manoeuvre of emergency and fire vehicles
- Loading and unloading for tertiary use
- Waste management
- Drop off of persons or objects
- Accessibility for physical disabled.

The road system of the Advisory Spatial Development Plan will be composed of streets of different nature and importance resulting in a hierarchical network.

Additional parking plots can be realized, only if needed, in small areas of public squares (See "4.7.3. Land Use", "Public Space", "Public Squares" and fig.133)

Access roads are connecting the settlement with the actual A1 Highway, future LAPSSSET Corridor. These will have a 40 meters section in order to accommodate the biggest amount of two-way traffic.

The general cross section of the access road will be four lanes for vehicular traffic, parking plots, drainage system, cycle lanes, sidewalks and space for commercial stalls on both sides (See fig.140).

Primary roads will connect different neighbourhoods of the settlement together, mainly but not only in the NW-SW direction. These will have a 25 meter section that may vary in terms of land allocated to vehicles, parking plots and sidewalks depending on the nature of the settlement area that are crossing (urban, agricultural, commercial intersections,...).

The general cross section of a primary road will be four lanes for vehicular traffic (two ways), parking plots, drainage system and sidewalks on both sides(See fig.139).

Secondary roads will connect different parts within a neighbourhood of the settlement. These will have a 20 meters section, with two lanes for vehicular traffic (one or two ways), parking plots, drainage system and sidewalks on both sides (See fig.138).

Local roads will be the lowest component of the overall street hierarchy, facilitating the access to every plot in the settlement. These will have a 15 meters section, with two lanes for vehicular traffic (one or two ways), parking plots on one side, drainage system and sidewalks closer to the plots on both sides (See fig.137).

Connectivity will be also complemented by a system of full pedestrian paths, crossing the residential blocks close to urban agriculture areas.

It is envisaged, in future transformations of the settlement, the introduction of separate bicycle and pedestrian lanes.

Trees and vegetation

All streets will have two lines of trees of an adequate size that will reduce the urban temperature, mitigate heat load on buildings, decrease air pollution and create a more agreeable living environment.

The use of local tree species is encouraged, and species chosen should be adapted to local climatic conditions and urban environments.

Land Use

Ecological Corridors

Ecological corridors are a series of connected public green and open areas, located strategically along the secondary streams that are crossing the settlement following the topography.

Taking advantage of these tributaries, the ecological corridors are characterized by a continuous open space leading to the river and the greater productive agricultural lands.

Their strategic location serves as a risk prevention area for floods and a catchment area for floodwater harvesting.

The Ecological Corridors are composed by public space of different nature and use, depending on topography, flood risk, location and linkages with the urban context. They may be dedicated to agriculture, sport fields, public squares, playgrounds and other recreational uses.

It is only permitted the inclusion of small built structures related to the mentioned public activities (tools barracks, small kiosks,...), and in any case this land could be allocated to residential, commercial and activities related to continuous human presence.

Public Squares

Located strategically close to specific key public facilities such schools, markets or health facilities, the public squares represent the main public space for the community. They may be dedicated to classic recreational activities and partially, only if needed, to parking facilities.

Local Squares

The smallest scale of public space is represented by the Local Squares, located within the residential blocks, close to the Urban Agriculture land. These are spaces that will be dedicated to community gathering, small recreational activities, and to locate infrastructure and utilities serving the residential plots and the Urban Agriculture (small water tanks, solid waste containers, wind-solar mills for electricity, agriculture tools barracks, among others).

Agriculture

Agriculture land in the Advisory Spatial Development Plan represents the 41% of the total land area. It is composed by the main agriculture corridors along main streams (400 HA), the potential agriculture land in the Ecological Corridors (77.2HA), the urban agriculture fields within the residential blocks (96.95HA), and the private kitchen gardens within the residential plots.

Main Agriculture Corridors

The Main Agriculture Corridors, located along the two main seasonal rivers crossing the settlement will represent the main area dedicated to food production. This agriculture land, close to the main seasonal rivers and the quality of the soil, will be structured and organized following a specific Agriculture Feasibility Plan that will complement in the future the Advisory Spatial Development Plan.

The possibility of water harvesting through sand dams or berm ponding located in the area will be explored in the Feasibility Plan order to increase the agriculture production.

Allocating exclusively agriculture in these areas will also reduce the risk of the seasonal flash flooding of the rivers.

Infrastructures or small structures related to water harvesting and/or agriculture are the only structures permitted in the area.

Urban Agriculture

In order to promote local food production, the Main Agriculture Corridors will be supported by a network of small Urban Agriculture fields, located in each of the residential blocks of the settlement.

These fields will have a dimension of 20x80 meters, and will be managed by the same community composed by the families (20 in total, in a typical block) that will occupy the residential plots surrounding the crop fields. The Urban Agriculture land will be managed exclusively in a cooperative way, sharing the benefits (in crop or cash) that the land will produce. In order to increase efficiency of food production and water consumption, the Urban Agriculture land will not be divided or segregated into private plots.

In order to correctly integrate urban agriculture in public open spaces the following aspects must be observed:

- The limits of the lots must be treated in a uniform manner. Eventual fences around the entire cropping area should allow visibility and should have an easy maintenance. Fences made with natural elements (bushes, climbers) are recommended.
- There should be a series of small support buildings, for storage of tools and materials, for the accumulation of organic residue and the production of compost or for the production of seeds and saplings (greenhouses).
- The irrigation network must be adapted to the natural terrain and must be efficient and sustainable. The storage of rainwater (in underground tanks) is recommended.
- The quality of the soil is important in order to guarantee productive yields. Compost should be produced on site from vegetal materials, from the residues of previous crop and from organic household residue and should be used periodically for soil improvement.

Kitchen Gardens

Located within the residential plots, the Kitchen Gardens represent the smallest agriculture dedicated land within the settlement. While the implementation of Kitchen Gardens will be encouraged and supported with technical trainings targeted to the families, the development, management and food collection of each Kitchen Garden will be responsibility of each family.

Public Facilities

Public facilities included in the Advisory Spatial Development Plan are following standards and provisions as outlined in both the Kenya Physical Planning Guidance and the UNHCR Emergency Handbook Guidance.

According to these standards, the KSP will have land allocated at least to the following facilities:

Public Utility

- 15 Waste Management Points
- 3 Police Stations
- 4 Post Offices
- 2 Fire Stations
- 3 Cemetery
- 1 Water Management Centre
- 3 Firewood Distribution Points
- 1 World Food Programme Centre

Public Purpose

- 2 Feeding Centres
- 8 Child Protection Centres
- 4 Administrative Centres
- 16 Social Halls
- 7 Trade Distribution Centres
- 1 Environmental Management Centre
- 6 Main Health Centres
- 3 Health Dispensaries
- 1 Health Hospital

Education

- 25 Early Childhood Development Centres
- 13 Primary Schools
- 3 Secondary schools
- 3 Vocational Training Centres

4.7.4. Regulations

Plot Regulations

Plot Dimensions

Plot dimension is generally 20 x 10 (200 m²). Some corner plots in Neighbourhood 1 have 250 m².

Division and grouping of plots

In the Emergency Response Phase of the development, plot grouping and plot division will not be permitted. It is envisaged that in the future, towards the Self-sufficient Settlement Phase, plot grouping and plot division could be regulated and after that, allowed.

Access

The access to the plot will always be from an exterior public space.

Residential Use. Housing Regulations

Typologies

The housing typology in the Emergency Response Phase of the development will be the detached housing for single family.

It is envisaged that in the future, towards the Self-sufficient Settlement Phase, other typologies (semidetached multi family, multi family blocks) could be regulated and after that allowed.

Maximum Building Height

In the Emergency Response Phase only ground floor housing will be allowed. It is envisaged that towards the Transitional Phase and the Self-sufficient Settlement Phase, after the introduction of improved building technologies and after the introduction of specific building regulations, upgrading of the housing will be permitted and encouraged, both vertically and horizontally (extensions).

Minimum Conditions of Habitability

- All housing units must have at least one façade to exterior public or private open space (kitchen garden within the plot and other plot open areas) to ensure sufficient ventilation and natural light is provided to at least one of the common spaces of the house.
- All housing units must ensure sufficient ventilation and natural light to the kitchen area, whether within or outside the housing unit.
- The minimum net floor area of a housing unit is 18m².
- A housing unit is composed to a minimum of two (2) rooms.
- The minimum floor to ceiling height (clear height) for housing is 2,50m.
- The access to housing unit must have the following minimum widths:
 - Entrance door of housing unit: 90 cm
 - Internal doors: 70 cm.
- The minimum height of all doors must be 2 meters.
- All rooms, kitchens and common spaces must have an opening (window or door) to the exterior space for ventilation and lighting.

Residential Use. Housing Regulations

Mitigation of energy consumption

- Given the climate of Turkana County and the semi-arid weather, it is recommended that materials with high mass are used for exterior walls (e.g. stone, concrete, masonry ISSB blocks).
- The roofs must have a layer of thermal insulation. In its absence, the housing design will have to ensure good cross ventilation under the roof in order to catch the prominent wind direction and so reduce thermal effect.
- All housing units must install systems for rainwater collection from the roofs, possibly with filtration filters to allow its reuse.

fig.164. Example of homemade water filtration system

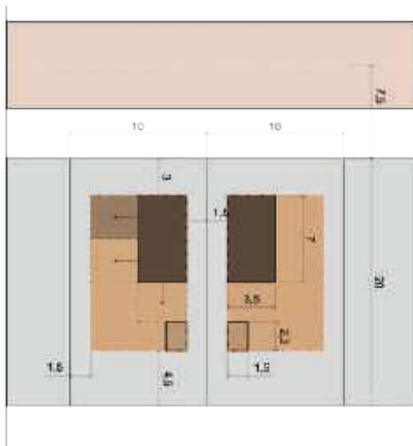


fig.165. Maximum plot coverage typical plot

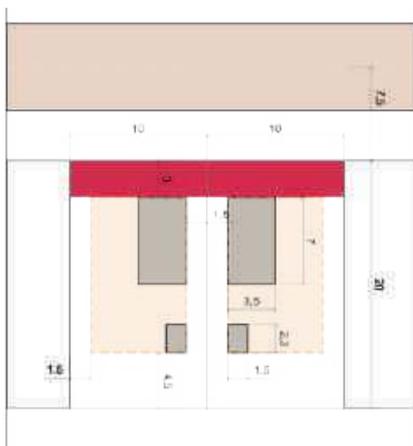


fig.166. Commercial use potential, typical plot

Maximum Plot Coverage in Residential Use Plots

The housing units in Residential Use plot can be upgraded and horizontally extended according to the family needs and growths.

This possible extension must follow these minimum setbacks:

- 1.5 meters setback from the other plots
- 3 meters setback from the plot limit toward the road and the block interior

Commercial Uses Allowances in Residential Use Plots

The 3 meters setback facing the road (3 x 10 meters), could be allocated to commercial uses.

Mixed Use. Regulations

Plot Dimensions

There is no plot subdivision for Mixed Use land in the KSP. More specific regulations will be introduced after the drafting of a specific Local Economic Development Strategy.

In the Emergency Response Phase, waiting for this specific document, a minimum plot size of 5 x 20 (5 meters facing the streets) is established.

Maximum Plot Coverage in Mixed Use Plots

There is no specific limit to plot coverage or setback in Mixed Use plots.

Alignments

Ground floor must be aligned to the street. Setbacks from the street are not allowed.

Maximum Building Height

There is no specific maximum building height in Mixed Use land .

Residential Use Integration in Mixed Use Plots

Residential Use can be partially allowed in Mixed Use plots. Residential Use must be in the rear of the plot or above the ground floor.

Commercial use must be located facing the street.

Housing regulations for Residential Use referring to "*Minimum Conditions of Habitability*" must also be applied to residential uses integrated in Mixed Use plots.

Commercial Use. Regulations

Plot Dimensions

There is no plot subdivision for Commercial Use land in the KSP. More specific regulations will be introduced after the drafting of a specific Local Economic Development Strategy.

In the Emergency Response Phase, waiting for this specific document, a minimum plot size of 5 x 20 (5 meters facing the streets) is established.

Maximum Plot Coverage in Commercial Use Plots

There is no specific limit to plot coverage or setback in Commercial Use plots.

But it is recommended that a set-back that expands the public space is reserved.

Alignments

Ground floor must be aligned to the street. Setbacks from the street are not allowed.

Maximum Building Height

There is no specific maximum building height in Mixed Use land.

4.8. Sector Development Strategies

4.8.1. Environmental Management Strategy

Environmental Management Strategy

The proposed Environmental Management Strategy has a goal to protect, conserve, manage and regulate the environment and natural resources, for the attainment of maximum socio-economic benefits for both refugees and local communities during the development of the Kalobeyei new site.

This strategy outlines the logical framework within which the negative impacts identified during the environmental impact assessment (EIA) and planning processes will be addressed. In particular, it identifies the key environmental concerns, defines the actions to mitigate negative impacts in the short, medium and long terms, identifies actors and provides a timeframe within which mitigation and monitoring will be done.

However, given the scale of the development a Strategic Environmental Assessment (SEA) is recommended as part of the implementation activities.

The proposed strategy considers various components of the Kalobeyei new settlement, and addresses three broad issues;

- Management of natural resources and the related environment infrastructure and services for enhanced efficiency in natural resource utilization, and reduction of negative impacts such as pollution
- Conservation and development of the natural features with a view to enhancing their environmental value
- Utilization of modern technologies to conserve and preserve the existing natural resources, improve the environment, and enhance efficiency of natural resource utilization to ensure sustainable growth

Environmental Management Recommendations

Environmental Concern	Scale of impact	Mitigation	Actors (Turkana County +)	Means of Monitoring	Impacts & Action Period
Waste generation	Localized Larger area	<ul style="list-style-type: none"> - Develop a strategy for waste reduction, re-use and recycling; and community sensitization on proper waste management (e.g. biodegradable wastes can be used to make manure for use in agricultural plots) - Identify and locate a solid waste disposal site in a suitable area away from environmentally sensitive location - Develop a system of waste collection and separation at the domestic and commercial levels; and an efficient system of transporting wastes to disposal site - Ensure availability of incinerators for medical waste disposal 	UNHCR & Partners	<p>Waste generation and disposal record</p> <p>Presence of haphazardly thrown solid wastes</p> <p>Overflowing liquid waste disposal sites</p>	Long term
Increased demand for Fuel and Energy	Larger area	<ul style="list-style-type: none"> - Promote energy efficiency by all users (domestic, institutional, business, agency) by promoting energy saving techniques e.g energy saving stoves, bio-gas plants, solar lighting etc - Promote use of LPG to reduce over-reliance on wood and charcoal - Promote growing of more trees for sustained energy options 	UNHCR & Partners	<p>Fire wood & fuel records</p> <p>Solar installation statistics</p>	Long term
Increased demand for water supply	Larger area	<ul style="list-style-type: none"> - Promote creation of alternative sources of water for various uses, particularly construction of water pans and dams - Continuously raise awareness on proper water utilization and create water user's associations to manage and ensure equitable distribution of the resource to avoid conflicts - Encourage recycling of water, particularly from domestic uses to agricultural use - Regularly monitor water usage by season and make water management plan - Reduce water usage, particularly in the agricultural land use by planting drought resistant crop varieties and practicing agriculture in areas with tree cover to reduce evaporation - Identify points of ground water re-charge targeting utilization of great run-off that is usually experienced at any rain interval in the project area - Provide well-constructed livestock watering points in strategic locations of the host community settlements 	UNHCR & Partners	Water meter reading records	Long term
Increased demand for Sanitation and hygiene facilities	Localized	<ul style="list-style-type: none"> - Incorporate green design and construction approaches to reduce the need for un-necessarily many facilities (including providing options for recycling waste water) - Ensure availability of adequate latrines at the new settlement, and sensitize local community on the benefits of using the same - Adopt modern toilet technologies to promote long term usage of available toilets (e.g...<i>base on technologies defined in plan</i>) - Promote development of hygienic spaces, particularly in commercial areas and places where food is made 	UNHCR & Partners	<p>Waste generation and disposal records</p> <p>No. of latrines constructed</p> <p>Presence of hand washing facilities</p> <p>Level of cleanliness in public places</p>	Long term
Impacts on Fragile ecosystems	Larger area	<ul style="list-style-type: none"> - Map out, demarcate and protect fragile ecosystems through joint community initiatives - Enhance knowledge on importance of such ecosystems by incorporated other important communal activities e.g free access recreation - Encourage the use local cultural values to protect such ecosystems, such as by promoting such spaces as traditionally protected areas and encouraging elders to use them for cultural activities 	UNHCR & Partners Kenya Forest Service	Protected ecosystems	Short and long term

Environmental Concern	Scale of impact	Mitigation	Actors (Turkana County +)	Means of Monitoring	Impacts & Action Period
Deforestation	Localized Larger area	<ul style="list-style-type: none"> - Ensure minimal disturbance of vegetation cover during - Identify and promote adoption of alternative livelihood means among refugees and local communities which do not involve trade in firewood and charcoal - Identify forestation zones in the area, and encourage their multiple use to protect them - Sensitize people on the importance of trees and encourage them to plant trees within their compounds and around public institutions - Introduce exotic drought resistant, and fast growing-non-invasive tree species to the area 	UNHCR & KFS	<ul style="list-style-type: none"> No. of trees planted Amount of land cleared of trees per time 	Short to term
Impacts on agriculture and soil conservation	Localized Larger area	<ul style="list-style-type: none"> - Promote conservation agriculture practices such as mixed farming - Protect riverine areas from agricultural activities which weaken the soil and cause erosion - Enhance organic farming practices by encouraging composting to avoid overuse of chemicals and pesticides - Promote planting of drought resistant and fast growing grass species in multiple locations to reduce over-grazing - Sensitize host community on the value of alternative agricultural practices, and demonstrating economic viability of such practices e.g zero grazing, fish farming, etc 	UNHCR & Partners Ministry of Agriculture KFS	<ul style="list-style-type: none"> Amount of land under agriculture No. of conservation campaigns undertaken 	Short to long term
Impacts on Land Use, Population and Settlement	Localized	<ul style="list-style-type: none"> - Sensitize the population Family planning /Control measures and provide appropriate birth control / contraceptive approaches - Encourage settled lifestyles as a means for achieving continuous local development and environmental protection/conservation - Undertake surveys to establish the carrying capacity for various environmental resources in the area, and developing guidelines to safeguard such 	UNHCR & Partners Ministry of Health	<ul style="list-style-type: none"> Family planning records Rate of urban growth in non-camp areas Number of households practicing permanent settlement 	Short term
		<ul style="list-style-type: none"> - Mixed land-use and social mix will be used as a design principle to shape the land use and social life in the neighbourhood 			
Reduced land available to host community and effects on grazing patterns	Larger area	<ul style="list-style-type: none"> - A strategy should be developed for equitable distribution of development (infrastructure and socio-economic opportunities) for peaceful co-existence of the two communities 	Project manager & contractor	<ul style="list-style-type: none"> Grazing patterns in new site Emergence of new grazing routes 	Short to long term
Impacts on soil from mud-brick production	Localized to construction sites and surroundings	<ul style="list-style-type: none"> - Location of soil harvesting pits should be carefully selected, in accordance with the EIA and the spatial plan, so as to ensure that they are located in areas not susceptible to storm water and far from settled areas - Considerations should be made to convert the pits into dams, or retention and oxidation ponds - Reclamation of pits should be a priority – by exhausting and rehabilitating one pit before opening another; top soil and soil from other excavations (eg settlement areas) should be used to backfill pits - Areas where soil is harvested should be properly fenced and entry restricted to people and livestock 	UNHCR & Partners Project Engineer Contractor	<ul style="list-style-type: none"> Soil harvesting records No. of mud bricks produced per unit time 	Short term

The implementation of the environmental management strategy will be included in various contracts for the project implementation, and shall be supported by independent environmental enhancement projects over the project cycle.

4.8.2. Mobility Strategy

Transport System & Transit Nodes

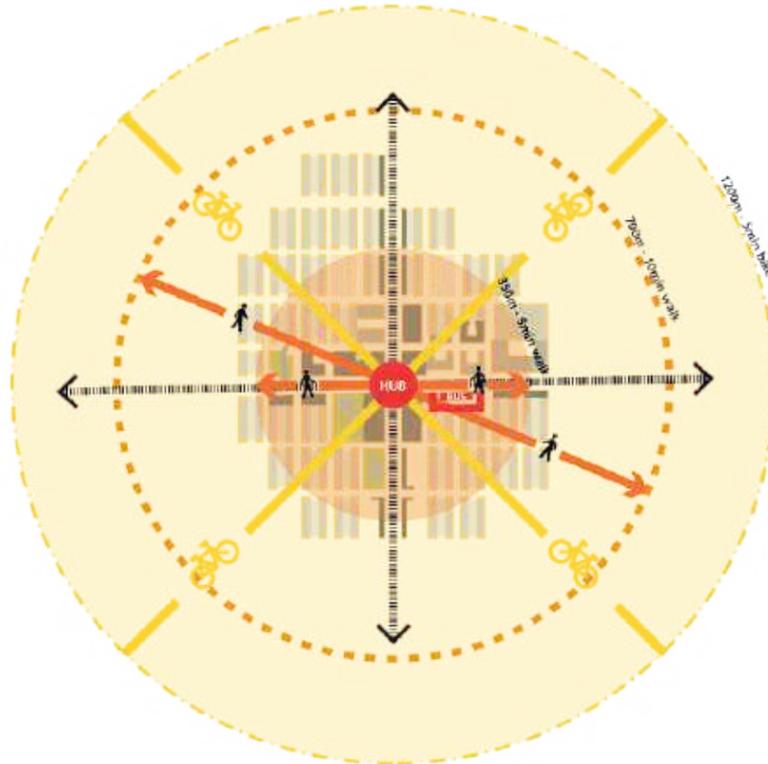


fig.167. TOD concept

At present there is no formal public transport in Turkana West Sub County. As such the plan proposes an outline strategy for transit, where stops and routes are suggested for potential use by private service providers. The general strategy follows the Transit Oriented Development (TOD) principles which that aim to create vibrant, liveable, sustainable communities. At its essence, it is the creation of compact, walkable, pedestrian-oriented, mixed-use communities centred around transport nodes¹⁰².

Non Motorised Transport (NMT):

As non-motorised-transport is the predominant method of movement for people moving within the settlements in the sub-county, the proposal proposes generous pedestrian spaces, as identified in *fig.133*. Further to this, the wide streets including the major cross-settlement arteries all support space for bicycle lanes.

102 <http://www.tod.org/>

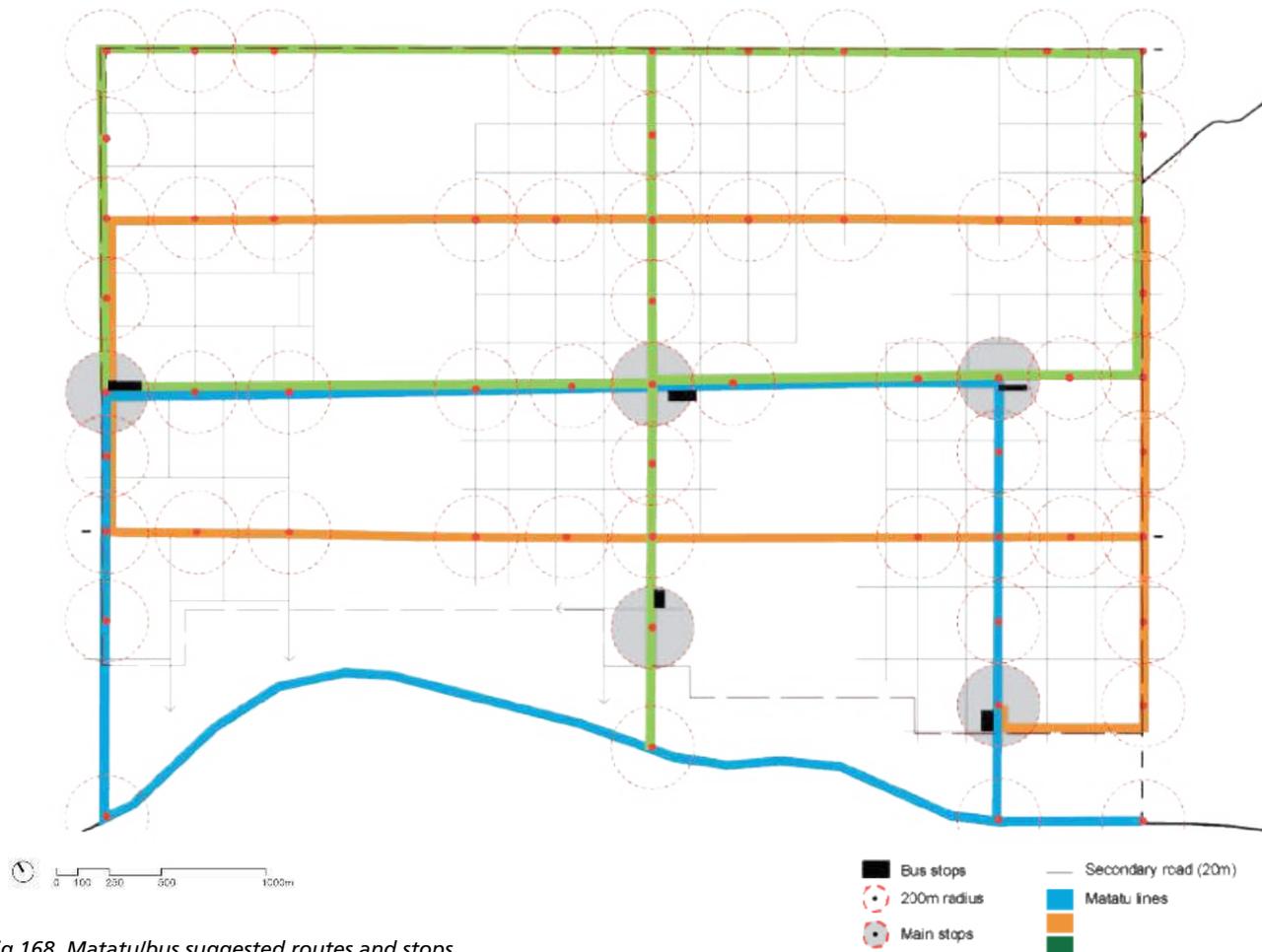


fig.168. Matatu/bus suggested routes and stops

Public/Semi Public Transport:

The plan envisages that a public bus or “matatu” system would be appropriate for the context of Kalobeyei. The plan recommends that a strategy for this be developed in conjunction with the private sector as this would significantly support in integrating Kalobeyei New Site with the existing town as well as Kakuma, promoting accessibility and interconnectivity.

Although a detailed feasibility would need to be carried out, it is suggested that transit stops along main arteries are proposed for every 300-500m, close to intersections where secondary roads meet the main arteries. Transit nodes/bus stations are placed close to the A1 highway on the periphery of the site as well as in the centre of each neighbourhood.

As such, a primary route leading from Kakuma and Kalobeyei leading into the settlement itself could be supported by secondary routes which traverse the main roads throughout the interior of the settlement.

4.9. Basic Services Strategy

Incorporating Integration



fig.169. Shared water tap, Kalobeyi New site © UN-Habitat/Julius Mwelu

The basic services strategy for the Kalobeyi New Site settlement is based upon framework for the emergency context and offers recommendations of how to incrementally shift into a more long term sustainable strategy. It should be noted that all of the following strategies require a detailed feasibility study prior to implementation.

The recommendations related to basic services are also fundamentally linked to the outcomes from workshops with the host and refugee communities including women, girls and youth. As a result, all of the following strategies take into account key outcomes from workshops with host and refugee community groups including:

- Mitigating water scarcity by recommending water harvesting techniques to allow for additional support for agriculture.
- Mitigating localised flooding which has been an identified risk due to rainfall patterns, topography and soil types.
- Promoting renewable to avoid having to go and collect firewood which has been a source of conflict between host and refugee communities especially affecting women.
- Providing individual family latrines and locating them close to households.
- Developing latrines where waste can be utilised for agricultural/energy purposes to further support agriculture and food security.
- Incorporating community led solid waste management strategies allowing for potential livelihood creation for both host and refugee communities.

4.9.1. Water

Water demand

Land use		Number of units/ Population/Area			Total Units	Total Area	Total Population	Typical Water Demand (L/Day)	Total Demand (L/Day)
		CL1	CL2	CL3					
Industrial	Industry	9.26				9.26		20000	20000
Commercial/Mixed use	Shops/Markets etc	50.81			50	50.81	50	100	5000
Residential	Housing	60000			60000		60000	40	2,400,000
Public utility	PU1 Waste management	1	7	7	15		300	25	112,500
	PU2 Police office	1	1	1	3		60	40	7,200
	PU3 Post office	0	2	2	4		16	25	1,600
	PU4 Fire station	0	1	1	2		20	25	1,000
	PU5 Cemetery	1	1	1	3		5	25	375
	PU6 Water management center	0	1	0	1		5	25	125
	PU7 Crop management center	0	1	0	1		5	25	125
	PU8 Firewood distribution	1	1	1	3		15	25	1,125
	PU9 World Food Programme	1	0	0	1		5	25	125
Public purpose	P1 Feeding center	0	1	1	2		1000	5	10,000
	P2 Child protection centre	0	4	4	8		50	5	2,000
	P3 Administrative centre	1	2	1	4		200	25	20,000
	P4 Social halls	4	6	6	16		2400	5	192,000
	P5 Trade distribution centre	0	3	4	7		350	25	61,250
	P6 Environmental management centre	0	0	1	1		5	25	125
	P7 Health Dispensary	2	2	2	6		300	5000	30,000
	P8 Health Centre	1	1	1	3		450	5000	15,000
	P9 Health hospital	0	1	0	1		450	120	54,000
Education	E1 Early childhood development	0	16	9	25		3750	5	18,750
	E2 Primary school	3	5	5	13		26000	5	130,000
	E3 Secondary school	1	1	1	3		12000	5	180,000
	E4 Vocational training	1	1	1	3		600	5	9,000
								3,271,300	

fig.170. Water demand table

Given the extreme scarcity of water resources in the Turkana region the proposal suggests a strategy that links to the Ministry of Water Design Manual category Rural Low Level Development. (the Kenyan MWI Water Supply Design Manual) Although this is at odds with the urban structure of the settlement – the site context and water constraints suggest this is a realistic proposal.

Further to this, taking into account UNHCR standards, WHO guidelines, and participatory discussions with key stakeholders, the threshold of 40l/person/day water consumption rate was proposed. As such the water demand resulted from the assessment is 3,271,300/day.

It should be noted that the forecasts only include water for human consumption and household use, and that agricultural activities are excluded from these forecasts .

The current water strategy to meet this demand for human consumption relies on pumping from three boreholes adjacent to the Tarach River to elevated tanks distributed across the settlement. The water is then gravity fed to each block. Whilst this solution is proposed for the emergency phase, the water reticulation infrastructure focuses on a long term strategy, sizing pipework to meet the long term forecasted demand where that each household will have individual connection points.

Water Harvesting & Drainage

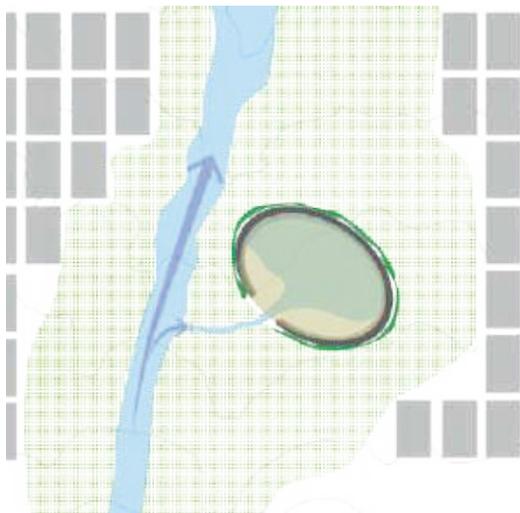


fig.171. Retention pond along main stream

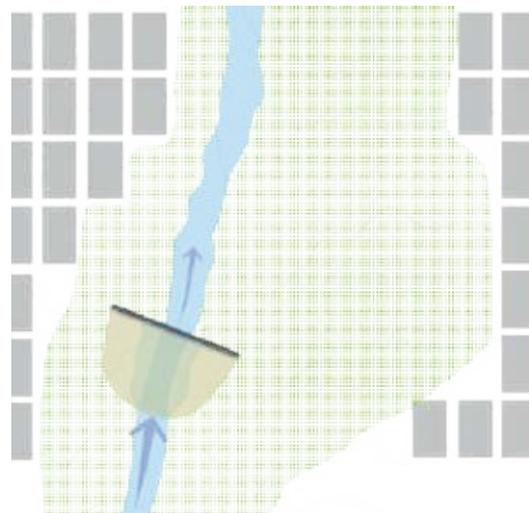


fig.173. Sand dam along main stream

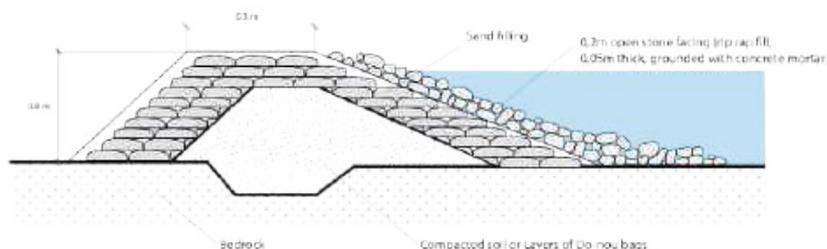


fig.172. Earth berm section

Taking the fact that agricultural water supplies will at current not be provided for in the main water provision strategy, a solution has been developed that responds to the natural constraints, and also mitigates flood risk. Along the preserved tributaries in the main agricultural areas, a series of water pans and sand dams are proposed. These harvest the run-off before entering the site, and along the streams, reducing the impact of any potential deluge and offers the opportunity for the water to be used for agriculture.

Within the smaller tributaries inside the main settlement areas, the plan proposes that the existing waterways be 'engineered' to mitigate flooding during the rainy season with a network of formalised swales and waterways linked to retention/detention ponds. As the site topography is relatively flat, the spread of flood water is large during the rainy season. If as fig.170 and

fig.172 show, there is a set of potential flood retention/detention ponds constructed – this will mitigate the issue and allow for the water to be collected used productively.

Following the same logic, the main roads incorporate a drainage system which meets similar objectives: flood mitigation and water harvesting. We can find 3 types of roads: the main arteries which possess a formalised drainage, and a grid of North – South and East – West streets, that use a low cost open drainage located at both sides of the road, following the existing slope, in order to reduce the required water engineering. The N-S system is the primary, consisting in a continuous open ditch, whereas the E-W, secondary, connects to the N-S in every intersection, using a smart and simple technological solution.

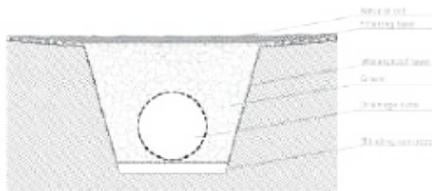


fig.174. Main formalised drainage (40m and 25m roads)



fig.176. Secondary drainage - open ditch (20m and 15m roads)

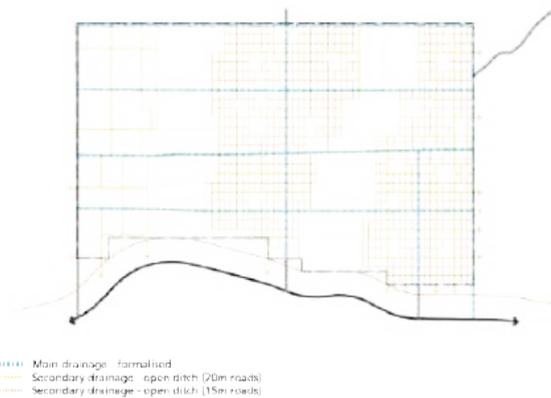


fig.175. Main formalised drainage

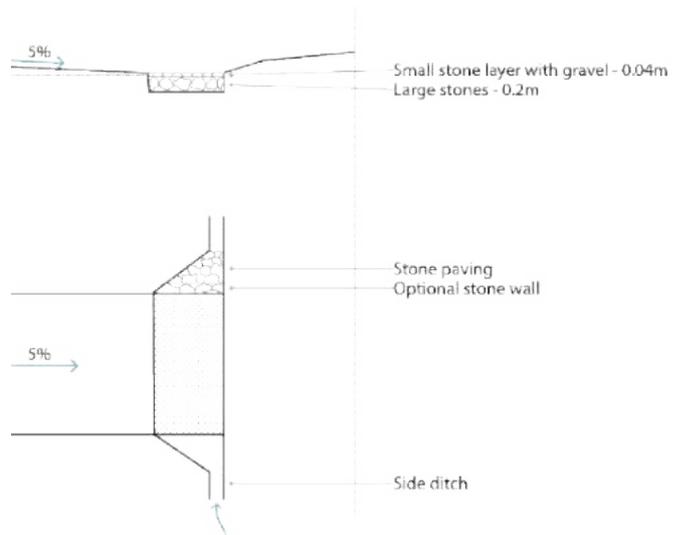


fig.177. Secondary drainage - crossings

This consists in a wider ditch filled with big stones and covered in gravel, permitting the runoff infiltration that joins the primary flow of water.

Nevertheless, the possible quantity of water it can be harvested for agricultural purposes seems not to be sustainable for the long-term. As such, the proposal supports the KISED project's wider scope to carry out a water supply feasibility study and emphasises the need for a sustainable water source to be located, and that a detailed county-wide water masterplan is developed to assess potential

4.9.2. Sanitation

Sanitation

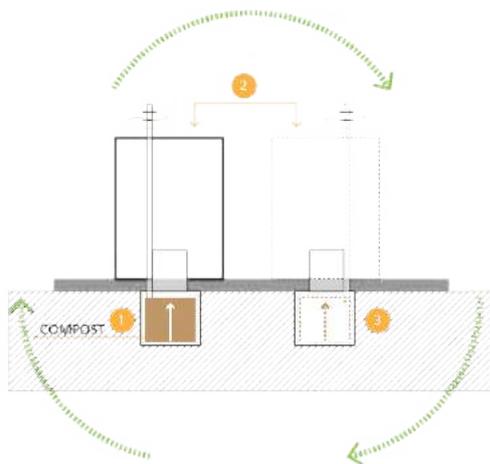


fig.178. VIP Double pit latrine system

Household Level Provision

As there is no scope to integrate into an existing sewerage system, alternative solutions are proposed for the various phases of the project.

Firstly, for the emergency phase, a series of shared pit latrines have been implemented, at a block level. This system has many advantages: it is dry; it only takes a limited space, as the pits are used in turns, so that additional pits are not needed; and the sludge is composted while in the pit, so that when it is full the material can be used for agricultural purposes, generating a useful outcome.

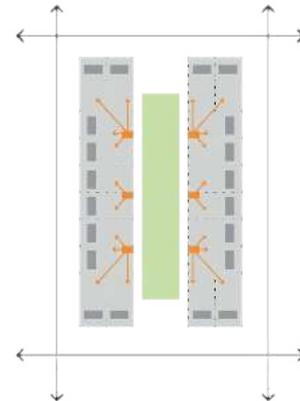


fig.179. Shared latrines for the emergency phase

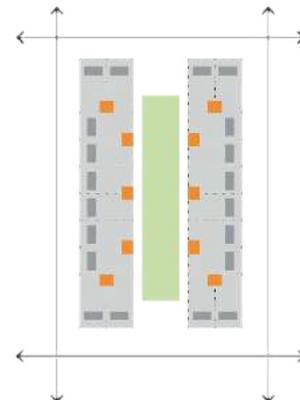


fig.180. Double pit latrine per household for the long-term

By ensuring they are implemented at individual family level, security and cleanliness can be assured. For the long-term, it is recommended to review this strategy and depending on its feasibility, a formalised system should be implemented.

4.9.3. Solid Waste

Developing a Participatory Solid Waste Strategy

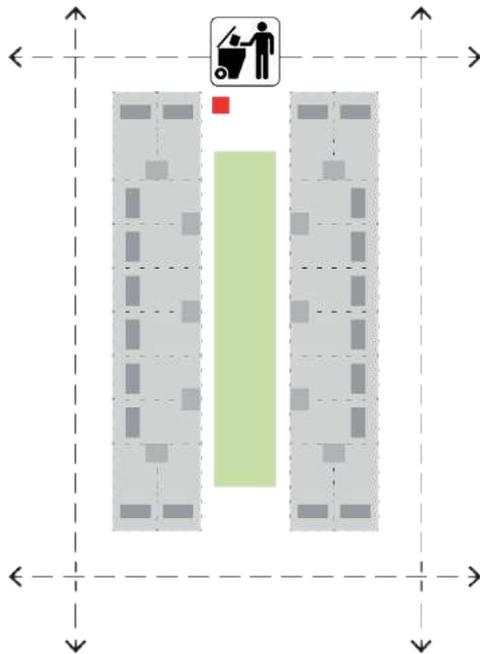


fig.181. Waste management point at a Mega Block level. Recycling and biogas production

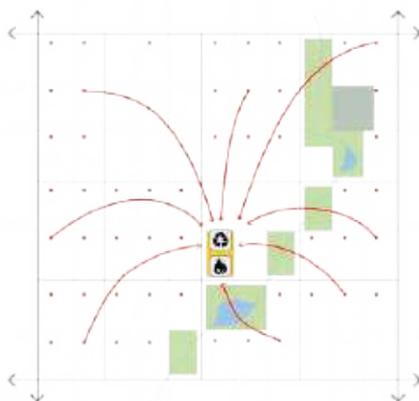


fig.182. Recycling point at a block level

Current status

At the time of writing, there is no formalised waste management system in the area and the current methods for dealing with waste is predominantly open dumping and burning. The Turkana County Government used to provide financial resources to youth groups of host community to collect solid waste, in Kalobeyei Town but this is not currently happening. Uncollected and mismanaged solid waste is thus scattered in both host community settlements and refugee camps. Kakuma one area, the oldest area of refugee camp with 20 years of history since its construction, has several dumping sites mismanaged.

Collection strategy

Since there are not many resources for basic living available in the area, solid waste should be looked at as a resource and should be recycled as much as possible. In order for recycling to be possible, first the separation at source should be promoted. For the purpose of this, recycling containers for the separation at source are proposed at a individual block level. These provide service to the surrounding households and can be managed by locally employed workers that collect and transport waste to a neighbourhood waste management point where this can be sorted. These points are located near the markets to benefit from the additional localised waste input, and can potentially support localised biogas production. In a similar strategy, biogas production facilities can be implemented in schools and hospitals.

Organic waste recycling strategy

Although the composition of waste in the refugee camp and host community should be studied, it is proposed that the organic fraction of waste generated in the community could be recycled. The first possible option is the introduction of biogas generation facilities. Collected organic solid waste can be mixed with faecal sludge from latrines for the biological fermentation process to gain methane, which can be used for cooking fuel. Considering the pressing issue of the energy resources, and the high use of non-renewable fuels such as charcoal, this could be a good solution.

Disposal Strategy

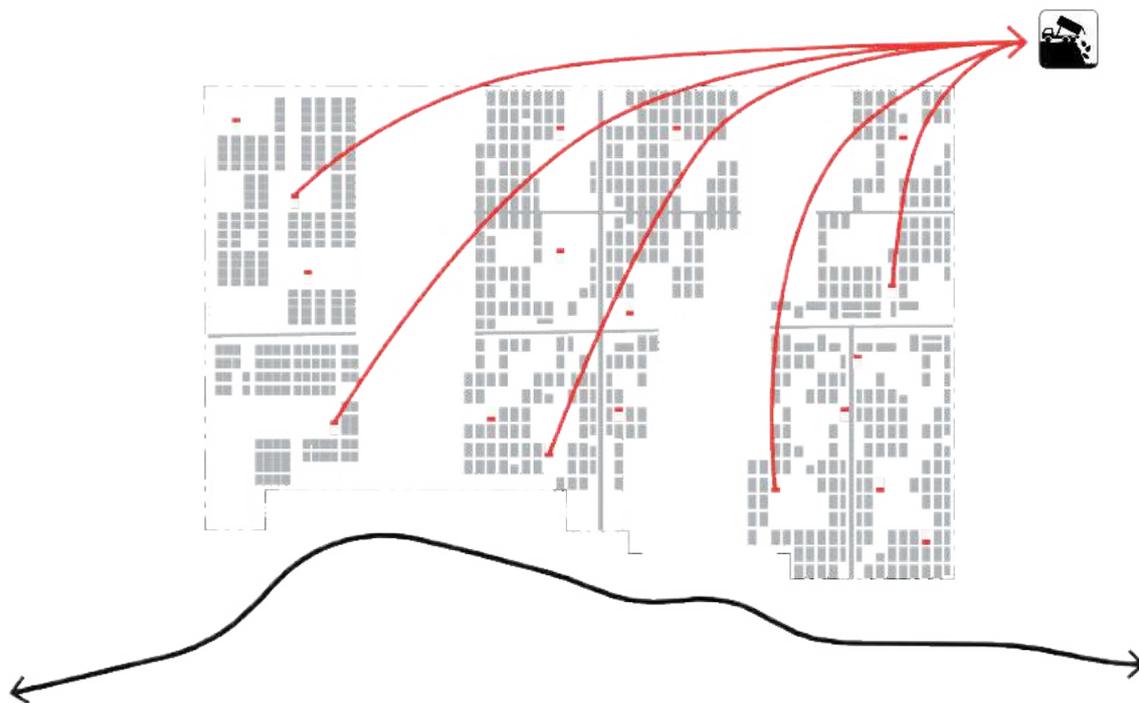


fig.183. Site level landfill

The second possible option is composting, however it should be noted that the very dry climate in the area would not provide the optimum conditions for the composting process to take place. Inorganic waste recycling strategy Although the composition of waste should be studied, it is considered that the most of the inorganic waste generated in the area contains a small fraction of metal and large portion of plastic waste. The plastic wastes can be recycled in small scale plastic recycling workshops to convert them to products as highlighted shown below. The recycling process is not complicated and inexpensive. This could also bring income and jobs for both host community and refugees.

Disposal strategy

For the waste that cannot be recycled on site, proper landfill site will be needed. The existing County Government landfill site between Kakuma and Kalobeyei New Site could be used, if the access and management of the facility is improved.

Furthermore, as aforementioned, the refugee camp site is in a climatically dry region where evaporation is higher than percolation and as a result, it is not foreseen that there there will be a need to establish a complicated leachate treatment facility. Small scale landfill site with controlled operation with three C's (Confine, Compact, Cover) is considered to be the best option.

4.9.4. Energy & Telecommunication

Localised Renewable Energy Production

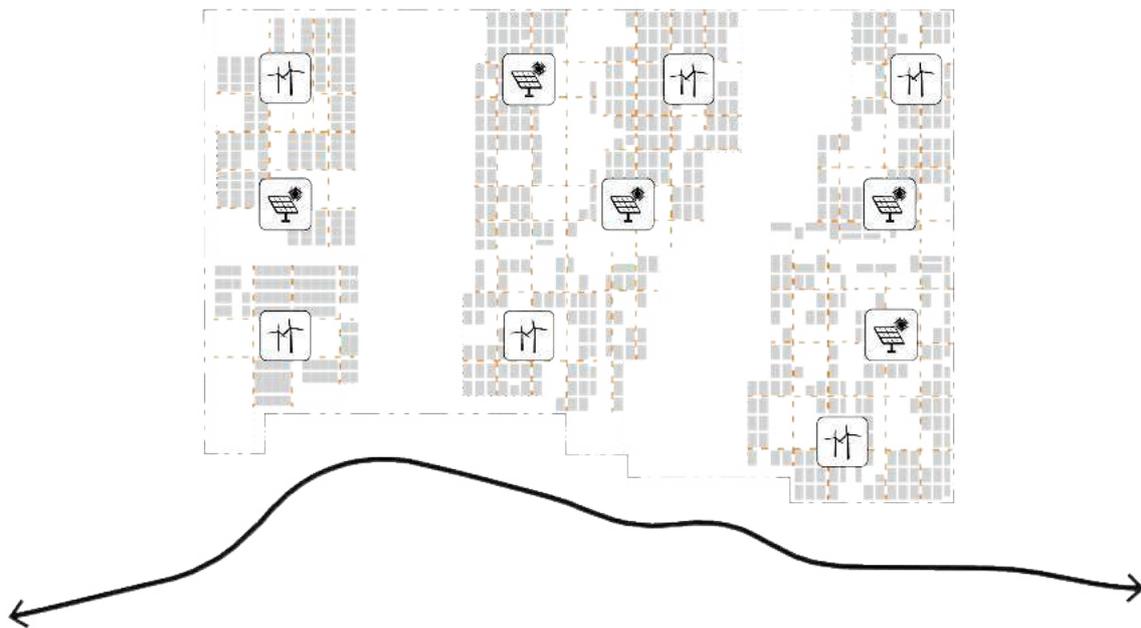


fig.184. Micro grid to provide renewable energy at a community level

The area is not connected to the power grid, therefore, a system relying on renewable energy is proposed. Taking into account that the region is ripe for investment in solar and wind power the strategy aims to take advantage of this context. At the settlement scale, a micro grid generation system is recommended, providing green energy at a community level (around 5000 people). Further feasibility studies are needed to assess the potential implementation of this.

Regarding cooking fuel, a system that reduces the environmental impact is proposed. On one side, sustainable biogas and charcoal production systems will be implemented, and the work supported by LOKADO to promote sustainable charcoal production is supported.

Telecommunications

There is a Safaricom mobile service provider on site. The penetration ratio of mobile connection is estimated at 70%. Furthermore, along the LAPSET corridor, a fibre optic line is planned.



fig.185. Telecommunication frame: fibre optic along LAPSET and mobile connection

4.10. Local Economic Development Concept

Area Economic Development Concept:

As the proposal aims to ensure that Kalobeyei town and site remain economically autonomous and active, the focus of the economic activity in this area should be guided by the comparative advantage principle. It means that Kalobeyei and its surroundings areas should concentrate on activities that by “nature”, result in higher productivity as compared to Kakuma. A key element to be considered, when comparative advantageous activities are identified, is how Kakuma is better placed in terms of proximity to bigger markets (airport and road to bigger cities), and how the prices of goods and services can be significantly lower in Kakuma than in Kalobeyei.

Kakuma, has a connectivity advantage. Therefore, all the economic activities related with commercialization will be more competitive in Kakuma. Kalobeyei town, on the other hand, has had a strong historic linkage with pastoralism. The scenario is especially ideal since Kalobeyei is endowed with livestock, even in comparison to Kakuma. Consequently, economic activities that could be ideal in the area, include milk production, milk storage, milk processing, production of milk derivatives, butcheries, meat storage, meat commercialization, leather processing (basic) etc.

Other possible economic activities could be related to agriculture, due to the relatively better proximity of Kalobeyei to water sources, in comparison to Kakuma as well as the good conditions of the soil. Electricity generation from solar panels can also be considered. This leaves the door opened for innovation and allows for the diversification of economic activities.

Keeping in mind the comparative advantage principle, Kalobeyei offers another very unique scenario, in which the small human settlement living in marginalized conditions, are willing to share their land with refugees escaping from conflicts zones. This context can be used to add value to the production done in this area. “Origin Denomination” or “Fairtrade” can be used as guiding case studies for Kalobeyei. Through certifications of this type, it might be feasible to undertake other economic activities, including the export of handicrafts to developed countries under the “Kalobeyei Stamp”.

To increase the likelihood of success of the economic activities suggested for Kalobeyei, a set of complementary factors need to be considered. The one that need to be highlighted are: integration between host and refugee community, availability and affordability of various means of transportation, capital availability to start a business and capacity building activities.

The successful implementation of economic activity from both, host and refugee communities, will be translated into employment generation, less dependency on aid, sustainability, autonomy, and the improvement in livelihood. These are necessary conditions to achieve the goal of transforming Kalobeyei into a human settlement, and move from the traditional refugee camp approach of the past.

5. IMPLEMENTATION FRAMEWORK

FACILITATING THE NEXT STEPS



Emergency Construction Works, Kalobeyi New Site, Kenya © UN-Habitat/Julius Mwelu

5.1. Project Prioritisation

Project Prioritisation for Implementation

Thematic Group	Key Sub Sector	Planned Activity	2017 - 2021	Institutional Responsibility
Spatial Planning and Infrastructure	Develop models for resilient road infrastructure	Promotion of Sustainable Technologies for Road Construction		UN-Habitat, UNHCR, Turkana County
		Capacity development at the local level (technical skills)		
		Establishment of local registered groups/ businesses		
		Liaison with Min of Enterprise Development for enduring access to funding for public works		
		Demonstration of resilient road infrastructure models		
	Develop social facilities supporting integration of refugee and host communities	Social centers developed in participatory manner.		UN-Habitat, UNICEF, UN-HCR, Turkana County
		Establishment of specialized education and training centres		
		Survey on the usage for Public space and recreational facilities		
		Design & Implement public space for community in participatory manner.		
	Shelter	Promote sustainable models based on local materials for incremental housing		UN-Habitat, IOM, UNHCR, Turkana County
		Increase local capacity for construction		
		Pilot model shelter design		
		Implement piloted shelter design		
		Develop guidelines for shelter		
	Institutional capacity building	Support increasing institutional capacity at the county level in:		UN-Habitat, Turkana County
		Urban planning		
		Urban renewal		
		Urban governance		
		Preparedness to plan for and respond to dynamic influx of refugees		
		Stablish Asset Management Framework within first year		
Spatial Planning	Spatial planning and urban design models at neighborhood levels		UN-Habitat, UNHCR, Turkana County	
	Spatial Planning for potential expansion of the settlement			
	Land-use strategy for corridor development plan			
	Monitoring and Evaluation of the Plan implementation			
	Undertake a review of the settlement plan (Mid term - after 3 years or at the end of the 5 Year period)			
Support establishment of adequate urban basic services	Support transport and mobility strategy development		UN-Habitat	
	Develop and implement models for feasible sustainable energy production with support to activation of youth groups in production and commercialization			
	Develop and implement waste management models with support to increasing the local capacity to manage and administrate such models			
	Develop and implement a sanitary engineered land-fill site			

Project Prioritisation for Implementation

Thematic Group	Key Sub Sector	Planned Activity	2017 - 2021	Institutional Responsibility
Spatial Planning and Infrastructure	Urban strategies for resilience and self-sustainability	Develop strategies for climate resilience through adequate green and blue infrastructure		UN-Habitat, UNEP, ICRAF, Turkana County
		Pilot models for resilient green and blue infrastructure (water pan, urban farming)		
		Develop and pilot models for Solid Waste management		
		Develop and pilot Waste to energy models		
	Urban Legislation and Land	Review the legal status and land tenure situation of the settlement and propose customized land tenure and land use models.		UN-Habitat, Turkana County
		Support the legal compliance for implementation of the plans. Including environmental assessments, public space and land use, development control options, planning applications and change of use.		
		Advise on the management structure for future of settlement		
		Increase the local capacity to contribute to and manage land tools		
	Urban Economy	Develop socio-economic strategy supporting the integration of refugees and host community		UN-Habitat, Turkana County
		Support enterprise development of trained and capacitated groups		
		Increase the capacity of youth and women in business development, management and administration		
		Facilitate access to public and private funds		
		Support integration of private sector in implementation of the spatial plan		
	Environment Management	Develop Capital Investment Plan		
Strategic Environmental Assessment			UNHCR, Turkana County	
Service Delivery	Health Care	Implementation of key strategies emerging from the SEA Report		
		Construction and rehabilitation of health care facilities to improve the availability of health infrastructure		UN Agencies & Turkana County
		Improve the supply of quality drugs, consumables and supplies		
		Improving the availability of skilled human resources		
		Developing the institutional capacity		
	Enhancing community engagement in healthcare service delivery			
	Education	Increasing educational infrastructure and facilities.		UN Agencies & Turkana County
		Addressing the human resources gap.		
		Increasing the quality of education by improving school supplies and pedagogy-teaching methods		
		Increasing community participation in school management.		
Developing the institutional capacity.				

Thematic Group	Key Sub Sector	Planned Activity	2017 - 2021	Institutional Responsibility
Water Access and Sanitation	Water supply provision	Support on water management strategy development		
		New hydrological survey to establish the feasibility of water extraction from aquifer: para on failed attempts and the current three BHs by the river.		
		Hire/redeploy and train service providers		
		Strengthen community operation and maintenance of infrastructures.		
	WASH	Construction and rehabilitating WASH infrastructure.		
		Construction of shared sanitation facilities in public areas such as markets, health posts, and schools		
		Piloting of Community-Led Total Sanitation		
		Building the County Government capacity on planning and managing WASH services		
Agriculture & Livestock	Agriculture	Increased livestock production and productivity by both host and refugee communities. Within the Kalobeyei site, focus will be on poultry and rabbit to mitigate conflict with the host community who raise larger livestock		FAO, WFP, Turkana County
		Increased crop production and productivity by both host and refugee communities, promote climate smart irrigation technologies for production, promoting production of drought tolerant crops and high value crops, agro forestry and fruit tree production		
		Improve access to markets for livestock, crop and fish products for improved household incomes, for host and refugee communities in close collaboration with the private sector working group and spatial componental to ensure vibrant markets in the settlement.		
		Financing physical investments in the form of community micro-projects that increase agricultural productivity, improve livelihoods, reduce vulnerability and include a strong nutrition focus.		
		Building the capacity of producer organizations, by focusing on: (i) organization and capacity building; and (ii) financing for enterprise development tailored to the needs of producer organizations.		
		Improve natural resources management for sustainable livestock and agriculture development & livelihoods:1) Development of well-conserved natural resources including water resources for crops and livestock;2) Adoption and safe use of energy saving technologies; 3) Capacities of local institutions strengthened to manage conflicts and disasters sustainably through an enabling legal and social culturally acceptable environment.		
	Livestock	Natural Resource Management: development of well-planned water resources; building management capacities of local communities and creating an enabling legal environment		FAO, WFP, Turkana County
		Supporting market access and trade by supporting marketing infrastructure, with a focus on those that support regional trade and export.		
		Pastoralist livelihoods support.		

Project Prioitisation for Implementation

Thematic Group	Key Sub Sector	Planned Activity	2017 - 2021	Institutional Responsibility
Private Sector & Entrepreneurship	Facilitate economic growth through enhanced market development	Develop markets for the poor-(M4P).		UNHCR, Turkana County
	Improve infrastructure provision and development.	Grading of existing roads and open new ones to ensure access to resources;		
		Ensure access to electricity and modern lighting from the current estimated 1% to 30% of the population;		
	Support enterprise development and entrepreneurship	Improve access to capital		
		Provide lending guarantees to financial institutions		
		Strengthen entrepreneurship in primary, secondary and high education;		
		Development of services for ensuring the acquisition of knowledge and skills necessary for start-ups;		
		Stimulate and support women entrepreneurship in Kalobeyei;		
Enhance SMEs competitiveness in Kalobeyei and the rest of the County				

5.1.1. Preparation of Precinct Plans and Detailed Designs

Site plans and architectural design for public facilities

Engineering Service Plans

Promoting Integration & Livelihoods

- Encourage the use of labour intensive construction technologies that encourage participation, and the creation of jobs.

Encouraging Ecological Sensitivity

- Promote the appropriate usage of local materials.
- The distribution of constructed and non-constructed areas should follow the flood mitigation strategy, avoiding buildings in areas prone to flooding.

Promoting Sustainable Design Principles

- Ensure passive climatic responsiveness to all architectural designs, including cross ventilation, shading through overhangs, use of courtyards etc.
- Encourage building alignment to plot edges on all streets, especially in the commercial areas, to promote an urban structure.
- Promote an adequate footprint/plot coverage that aims to create maximum street frontage whilst leaving sufficient open space.
- Ensure the design of public facilities is flexible, so that it has the potential to adapting to future growth/usage demands.

Promoting Appropriate Service Design Principles

- Promote the implementation of smart, low-cost and appropriate technologies that are easily built and maintained in the context of Turkana.
- Promote affordable basic services that respond to the families' level of income.
- Encourage the implementation of family level solutions to promote self-reliance.
- Promote renewable energies or, sustainable resource consumption systems, such as a controlled forestry system (such as the County's sustainable charcoal programme).
- Maximise the resources regarding sanitation by adopting solutions which conserve or reduce water usage and limited area; giving special attention to those that produce a useful bi-products, such as, compost, bio-charcoal or bio-gas.
- Maximise the basic service potential by looking at the multi-dimensional capacity, for example, the drainage system which not only mitigates flooding can also harvest water for agriculture.

Precinct Plans

Promoting Integration & Livelihoods

- Activation of street fronts, especially where sites are located on the economic/commercial axis and roads to promote lively and dynamic cities.
- Promote systems to support formality and informality, given the emerging settlement status and the need to support low-level business from both host and refugee communities, therefore transitioning strategies should be encouraged.

Environmental

- Promote localised waste management systems to take advantage of potential capacity for biogas generation and renewable energy provision.

Urban design

- Promote accessible and walkable safe routes to and from services, promoting safer cities.
- Ensure that the proximity of public facilities to the green corridors is enhanced to support accessibility and activate the public space.
- Limit single function facilities to promote flexibility in functions and duration of usage.
- Ensure the linkage to transport nodes to maximise mobility and accessibility within the settlement as well as externally.
- Generate green/free spaces related to the green corridors or the smaller streets, contributing to create community level green spaces.

5.2. Capital Feasibility Statement

Capital Investment Plan Concept

For the Kalobeyei refugee site will need a uses and sources identification. This will allow implementing organizations the establishment of priorities, considering the needs of the community. The methodology that will take place will be the Rapid Financial Feasibility Assessment (RFFA) or what can be interpret as a Capital Investment Plan. The rapid RFFA is composed by 3 main elements:

1. Cost (uses) side: Cost estimates will be based the spatial concept plan showing the approximate quantities and locations of infrastructure, land uses and amenities. The cost of planned infrastructure, services and amenities can be roughly calculated using the concept plan and with cost surveys. The cost estimates from this back-of-the-envelope exercise will initially have a high margin of error; however, they should be updated as the plan start getting implemented, the level of detail increases, and comprehensive project information becomes available when implementing agencies undertake their own studies.
2. Funding (sources) side: An examination of the local government's budget or financing agencies (such as UNHCR), financing options and the budgeting process for other implementing agencies will help assign costs. The funding and financing options available may not cover the full array of initially planned costs, requiring adjustment of the physical and spatial plan. Taking immediate steps toward improved local revenues, use of land value sharing, Public-Private Partnerships (PPPs) and other financial instruments can improve the financing capacity with the goal of implementing the next phases of the plan.
3. Achieving a Balance between Sources and Uses: Many planning exercises begin as aspirations. Once there is some idea of the amount of funding available from local and outside sources, the plan should be adjusted to be financially realistic under given constraints. There are several things to consider during this adjustment process:
 - Phasing: The buildout of infrastructure and services can be spread over time to reduce the initial financial burden and make revenues from the initial phases available for reinvestment in later phases. Some Plan-wide investments will be necessary early on (for example, connector roads or a solid waste facility) while others may be built out at a pace to match population growth and avoid unplanned development spillover. Typically, delineating road and public space reserves for the entire extension is a shrewd tactic to ensure that if unplanned development does occur, public spaces will be protected. It can be legally, financially and socially difficult to reclaim this space later if it becomes occupied.
 - Prioritization: It may be necessary to forego or change some planned improvements due to their cost. This prioritization process must consider economic, social and environmental goals. Importantly, less than ideal services should be planned in a way to allow for upgrading at a later stage of development.
 - Negotiation: Nearly all human settlements will require some external funding to implement a plan, from central governments, national agencies, donors or the private sector. A critical part of the financial planning process will be the negotiation with these funders. It is important for local plan advocates to develop their pitch about why the proposed plan is beneficial so that they can convince the external funders to allocate funding for the project and contribute towards implementation.

5.3. Institutional Framework and Urban Governance

Land

As described in “3.2.2. *Current Land Tenure status in the Kalobeyei settlement*” the land of the Kalobeyei settlement is unregistered community land held in trust by the Turkana County Government on behalf of the Kalobeyei Community whose use has been given, based on a political agreement, to the Department of Refugee Affairs and UNHCR for the establishment of a refugee camp. The ToE, that is the only foundation for the establishment of the Kalobeyei settlement, is based purely on a political agreement between the unregistered Kalobeyei community and the Department of Refugee Affairs (DRA). The Guiding document to Eliye proposed projects¹⁰³ clearly defines the ToE as “a gentleman’s agreement subject to the county government policy or legislation enactment that shall define the relations between the Refugee and the Host Community”. The agreement has no legal basis but only a political foundation and should be guided by the recently enacted Community Land Law as recommended by the Guiding document to Eliye proposed projects¹⁰⁴.

The current land tenure scenario whereby the use of the unregistered community land is granted to the Department of Refugee Affairs and UNHCR for the development of the refugee without changing the land legal status site is not compatible with the long-term sustainability that a human settlement should have. Furthermore, it does not provide any security of tenure for the refugee population and for the host community and the long-term predictability that the investment community requires. In the current scenario only the commitment of UNHCR and the political will of the Kenyan National and County Governments will ensure that the Kalobeyei settlement is planned, built and managed.

According to the Kenyan Constitution¹⁰⁵ before the enactment of the Community Land Act County governments should have refrained from disposing of communal rights and only the Community Land Act should have regulated the nature and extent of those rights. Pursuant to the Community Land Act¹⁰⁶ community land as well as the community holding it should be registered. The rationale behind registering the community is to make sure that only legitimate individuals can represent the community interests. According to the provisions of the CLA, unregistered community land cannot be sold, disposed, transferred or converted¹⁰⁷.

KISEDIP intend to create a sustainable human settlement that could thrive even after the current emergency situation, it aims at ensuring the security of tenure for both refugees and host community so as to avoid arbitrary evictions. For the purposes of the project, security of tenure refers to mechanisms to provide protection against the threat of eviction or forced eviction¹⁰⁸. It is important to note that tenure security describes not only the situation relating to property or ownership rights, but also a range of relationships including renting, squatting or other similar situations. Lastly, KISEDIP intends to lay the ground for a physical, economic and governance structure that could evolve overtime and ensure the long-term sustainability of the Kalobeyei settlement and provide predictability and confidence for the investment community.

103 Kalobeyei proposed site for new refugee camp guiding document to Eliye proposed projects, Lodwar, 15th May 2015

104 S3.1.3, Kalobeyei proposed site for new refugee camp guiding document to Eliye proposed projects, Lodwar, 15th May 2015.

105 Art.63.4 of the Kenyan constitution: “Community land shall not be disposed of or otherwise used except in terms of legislation specifying the nature and extent of the rights of members of each community individually and collectively”

106 The Community Land Act No. 27 of 2016, transitional provisions: “if any step has been taken to create, acquire, assign, transfer, or otherwise execute a disposition in community land, any such transaction shall be continued in accordance with the provisions of this Act”.

107 S.6.8

108 See also Committee on Economic, Social and Cultural Rights (CESCR) General comment No. 4 of 1991 on the Right to Adequate Housing (‘...all persons should possess a degree of security of tenure which guarantees legal protection against forced eviction, harassment and other threats’)

Institutional framework

In order to give application to both the Kenyan constitution and the Community Land Act and achieve the objectives of KISED, we propose a two-step process:

- Apply the provisions of the CLA and register the land as well as the community holding it. This would have the advantage of bringing the process to its legal path and it would give legitimacy to the community and institutionalize its role. This step would also provide the legal foundation for any subsequent actions.
- Once the land and the community have been registered, the community itself with the support of County, National Government and UN organizations can identify the best mechanism to recognize the existing situation and achieve the project objectives.

The benefits of the proposed approach are several: (1) it will reinforce the rule of law and make sure that all project activities reinforce the rule of law and respect the laws of Kenya; (2) Registering the community will ensure that only legitimate individuals will represent the community interests; (3) registering the community land will protect the interests of the community on the land and prevent land grabbing and illegal dispossessions; it will give confidence to current refugee population on their tenure and encourage them to invest in the settlement; and finally (4) It will give confidence and security to the investor community, while the current situation does not create an adequate investment environment and the security and predictability investors require.

KISED intends to lay the ground for a physical, economic and governance structure that could evolve overtime and ensure the long-term sustainability of the Kalobeyei settlement and provide predictability and confidence for the investment community.

Currently the settlement is managed primarily by UNCHR. However for the longer term, an incremental approach towards creating a formal legal structure needs to be taken to allow for the site to be administered and managed by UNHCR in collaboration with Turkana County Government during the initial 5 year period of “emergency” and then shifted gradually to be under the full control of the County.

As mentioned in “1. Introduction”, and in *fig.12*, the plan for the settlement exists as a component under the Kalobeyei Integrated Social and Economic Development Program where the Government of Kenya and Turkana County Government are engaging with UNHCR, UN-Habitat and other agencies as well as the Community and various localized Civil Society. This grouping can set the initial phase outline management structure for the administration of the Kalobeyei New Site during the emergency and potentially the transition phase of the sites development.

In order for this to be facilitated, it is recommended that a team comprising of the above be put together that can replicate the functions of an “Urban Board” as mandated by the Urban Areas and Cities Act Section 13.

It is proposed that UNHCR and Turkana County Government together with representatives from the community and other implementation partners that are already formed under the KISED project create a version of this Urban Board for the duration of the first 5 years of the settlement. It would therefore fall under the responsibility of this Urban Board to monitor and advise upon the implementation of the plan, operationalizing it and ensuring a good level of development control.

An outline process for this could be to provide bi-annual reports on the status of the plan’s development with an annual evaluation of the progress. This 6 monthly report and yearly evaluation would feed into a full review of the plan at the end of every second year to assess if there are significant amendments that

Institutional framework

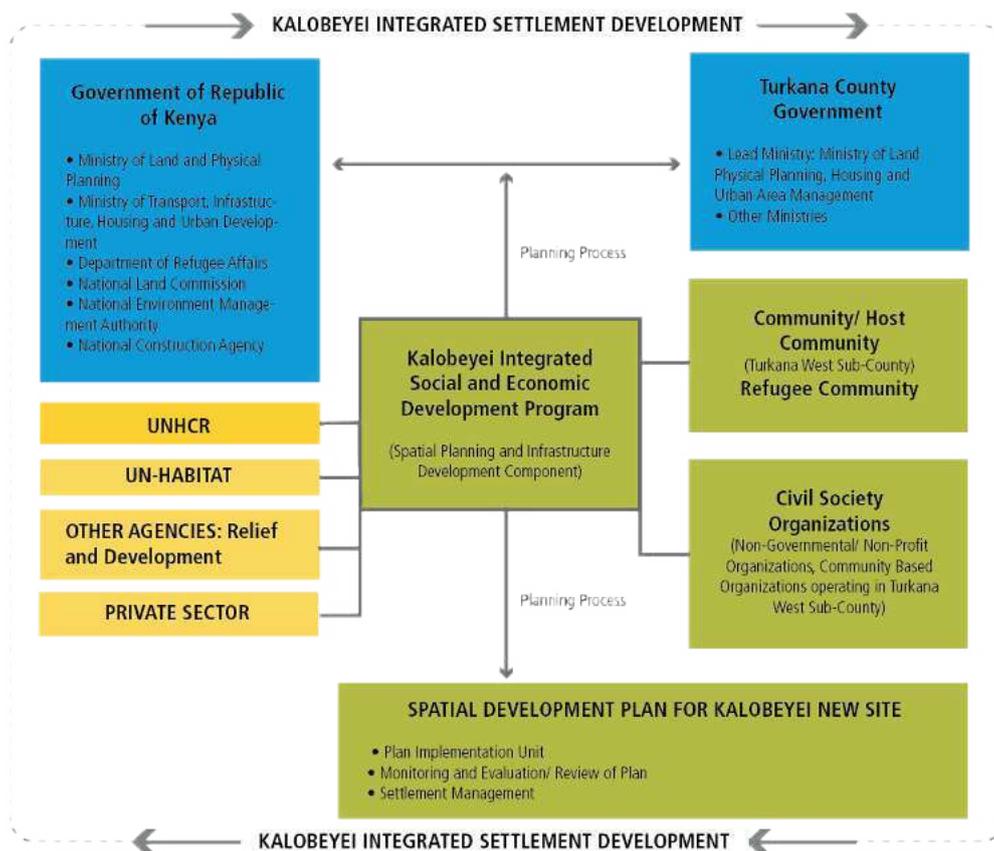


fig.186. KISEDP flowchart

can or should be made. This proposal allows a degree of responsiveness to the highly changeable context of the region, given the potential change in the rate of influx of refugees from neighbouring South Sudan, the level of contributions from donors/private investors and other socio-economic factors that bear influence.

The Kalobeyei Settlement is also subject to the broader institutional framework set out in fig.185, where the relevant institutions at both levels of government, National and County should be considered in all major implementation decisions for the site.

For example, at the National Level, in the Kenya National Spatial Plan there are specific references to the Kakuma urban growth region with potential focus on energy generation and livestock production which bear an influence on the future implementation plans.

Further to this, the site is adjacent to the future LAPSET corridor. Once this plan is adopted, it can be used by the County, its relevant ministries and the UN agencies to assist in integrating the infrastructure corridor to the proposal and negotiating the best possible benefit to the site.

Other additional considerations should be the coordination with the National Land Commission who would need to be consulted in any future amendment to the land status which may take place in order for the site to be conferred town status.

This list is by no means exhaustive, but is used to emphasise the importance thereof the multiplicity of institutions that must be integrated as part of any implementation process.

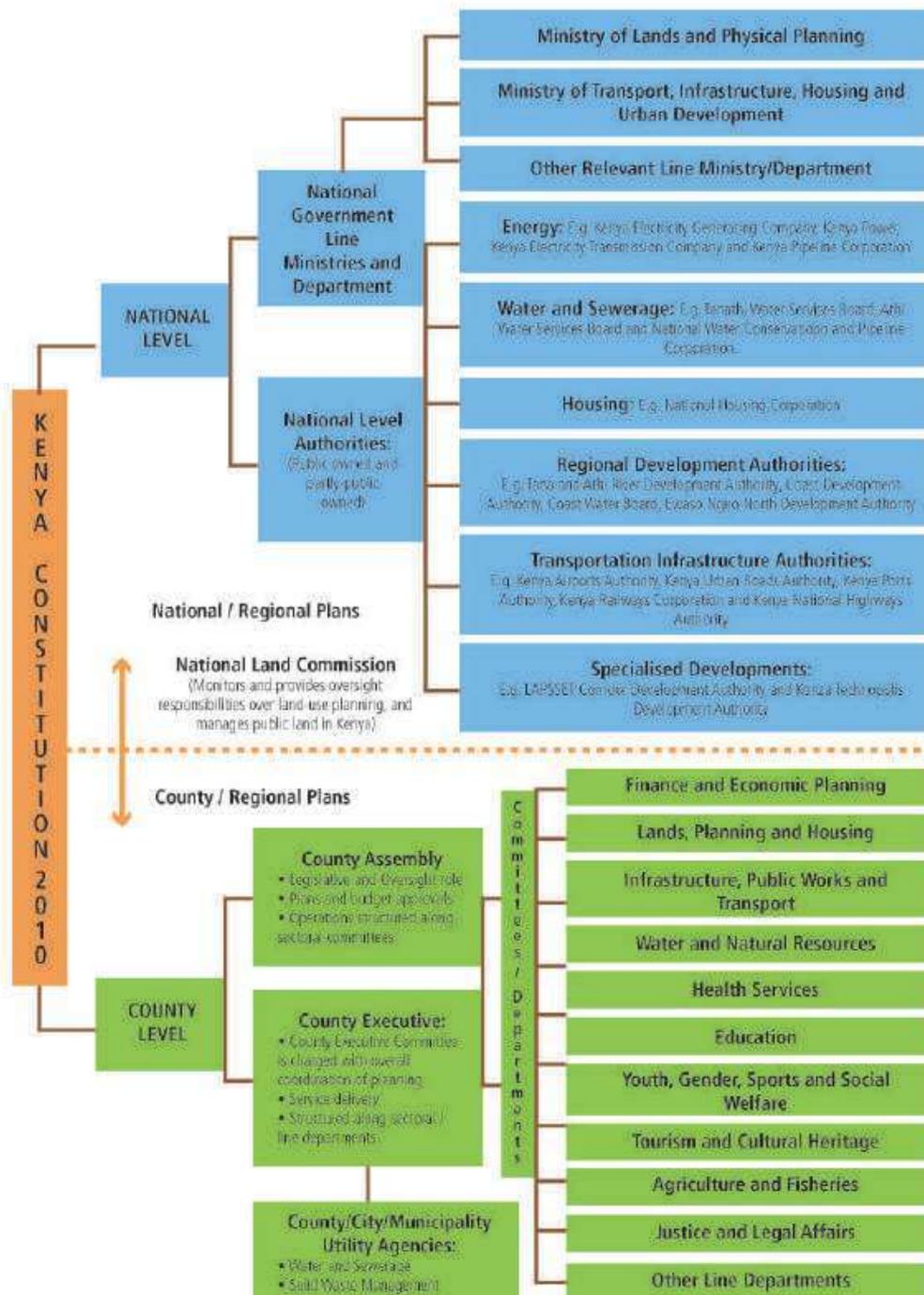


fig.187. Typical Institutional Framework for Urban and Regional Planning in Kenya

Plan Implementation Unit

To facilitate effective implementation of the plan, a technical unit will be required. This unit, a Plan Implementation Unit (PIU), will drive the technical aspects of the plan implementation as well as coordinating and guiding spatial development; including aspects of land use management, urban design and development control, and buildings and infrastructure delivery.

The PIU will be composed of an interdisciplinary team of human settlements expertise. It will include: Urban Planners, Land Surveyors, Quantity Surveyors, Architects, Engineers, Environmentalists, Risk and Disaster Managers, Local Economic Development Specialists and Community Development Specialists, etc. To enable effective and efficient delivery of its activities, a functional office facility will have to be set-up for the Unit in Kalobeyei New Settlement. This office facility will need to be equipped with the necessary equipment, facilities and support staff.

Key Recommended Duties and Activities for PIU:

- Facilitating a participative environment for stakeholders' participation in the plan implementation.
- Prepare and execute annual operational plans for implementation.
- Coordinate and guide land use management, infrastructure development and housing delivery, including facilitating good site planning, promoting quality and principles of sustainability, and ensuring fit-for-purpose delivery of various developments.
- Coordinate and institutionalize development control, in collaboration with the responsible County institution.
- Monitoring and evaluation of the plan implementation, and to steer the plan review processes.
- To work closely with the other teams/partners implementing the various components and sub-components of KISED. Indeed, this Unit will be the link between spatial development and other development processes of the Kalobeyei New Settlement.

It is recommended that several sub-units are created, key among them being an Infrastructure Delivery/Asset Management sub-unit, and a Plan Monitoring and Evaluation sub-unit. This will depend on work-breakdown and distribution of responsibilities.

During the establishment of the Unit, it is recommended that existing capacity is fully utilized. Thus, considering that both the County and UNHCR, and other KISED partners have human resources already deployed to support the Kalobeyei New Settlement, it is recommended that an assessment is conducted to establish the available (existing) capacity, its adequacy in relation to the activities of the PIU, if there are capacity gaps and if so, the strategy required to fill such gaps. Overall, the technical capacity needed, in terms of skill levels and number of officers should be determined at the on-set of establishing the unit. For instance, it will be important to define the number of architects needed; their levels of experience, as well as number of draftspersons needed to support the architectural service of the Unit.

Once the Unit is constituted, it's recommended that a detailed briefing on the content of the Advisory Plan is undertaken. It is also recommended that UN-Habitat offers advisory support to the Unit and overall implementation of the plan, given its instrumental role in drafting the plan. It should also be clarified on the financial implications and responsibilities related to the PIU. Essentially, the PIU will play an instrumental role in guiding spatial development as per the plan guidelines. An effective PIU or its equivalent, will thus be needed to guide spatial development and overall plan implementation towards realization of the plan vision, in a context characterized by physical and socio-political environments that present significant challenges (e.g. water scarcity, 'sudden' population changes etc.) to sustainable human settlement development.

PIU should report to the institution established to govern and manage the Kalobeyei New Settlement. In the eventuality that there are delays in establishing such institution for overall settlement management (i.e. before rolling out this plan implementation), it is recommended that the PIU is coordinated by the Turkana County department in charge of land, urban development and physical planning, in partnership with UNHCR. Indeed, PIU should be among the priority institutions established to drive the process of implementing this plan. In addition, given the complex nature of developing Kalobeyei New Settlement, this plan recommends that Turkana County and UNHCR, within the KISED framework, identifies the organizational and institutional modifications that are necessary for effective implementation of this plan.

Settlement Asset Management Framework

This plan recommends that within the first year of implementation, an Asset Management Framework needs to be established. Among the strategic objectives of this plan implementation is to ensure that quality living is achieved at the most cost-effective and sustainable approach attainable. To deliver and sustain the infrastructure and services as recommended in this plan, as well as to contribute to better preparedness to likely shrinking and rapid increase (due to refugees influx) of population, the implementing partners and settlement management should invest in an efficient Asset Management system. Therefore, it will important to establish an Asset Management Strategy; the respective Asset Management Plans for the various infrastructure and facilities, as well as identifying the actors responsible in managing the assets.

The Asset Management Strategy should cover among other things, the following:

- Levels of and Standards of Services to be delivered for the settlement-with focus on long-term sustainability i.e. linked to the new approach towards refugee assistance programming and self-sustenance of Kalobeyei in the long-term.
- Inventory of existing infrastructure (developed during the emergency response period and before commencement of implementing this plan).
- How infrastructure will be developed to attain the level and standard of services envisioned.
- The key Infrastructure management procedures.
- How settlement infrastructure plans will be integrated in regular development expenditures of the settlement.
- Funding Strategy for delivering and maintaining the infrastructure e.g. how will supply and maintenance be financed, will utility services be charged; tariff regimes for the same etc.
- The institutions and processes to be followed in asset management (allocate responsibilities)

From the Asset Management Strategy, each responsible institution will develop an Asset Management Plan, which will specify the services, levels and standards of the services, and the funding to be required. It's from this Asset Management Plan that specific Operational Plans will be delivered. Operational Plans will be inform the annual budgetary needs for delivering the specific services, at the required level of service. In the context of Kalobeyei, the Operational Plans should among other measures, ensure that contingency measures are put in place to manage rapid demand surge (in the eventuality of an influx), and failure management (especially during emergency phase where reliable services have not been established e.g. water supply).

For sustainability and ensuring that Assets are effectively managed, this plan recommends for the settlement management to ensure that the Asset Management Component is run by a good Asset Data and Information Systems for Asset Management.

Priorities for Infrastructure Investments to Enhance Integration of the New Settlement and Adjacent Area

The driving principle of this plan is integration. In order to achieve that, it will be important for the plan implementation to prioritize delivering the shared infrastructure services and facilities, within the settlement but also for the host community leaving within the wider Kalobeyei-Kakuma area.

The priority focus should be in the following areas:

Water and Sanitation

The provision of water, for both domestic and livestock, should be executed in a manner that shared water access points are available within the planning settlement area, and for the host community in the wider Kalobeyei-Kakuma area. It should be noted that in order to promote peaceful co-existence between the host and refugee community, water access has to be equitable and accessible to all without any form of discrimination or water supply services that will reinforce the already existing inequalities between host and refugee communities, as seen in Kakuma.

The implementing partners should immediately engage the host community to identify areas where water access points are needed, in addition to offering the unlimited access to the water services within the new settlement. However, to sustainably meet the current and projected water needs, that will highly depend on the approach used to source and supply water, and how efficient water resources are governed in Turkana West region. It should be noted that the accommodation of refugees in this area has since compounded the pre-existing water scarcity challenges. To address this, it will be critical for Turkana County and UNHCR, and partners to invest in a sustainable water resources management programme for the area that recognizes the indigenous rights of the host community.

Indeed, this plan strongly recommends that a reliable water supply, not only for the Kalobeyei New Settlement, but for the wider Kakuma-Kalobeyei area must be developed immediately. Without a reliable water supply, the New Kalobeyei Settlement, as outlined in this plan report, is not viable and that absence will risk the new site escalating the environmental constraints in the area (a return to the 'business-as-usual approach').

The plan also recommends that the improved sanitation facilities and services to be provided for both host and refugee communities. This will significantly contribute to the overall environmental sustainability of the human settlements in Kakuma-Kalobeyei area. This entails prioritizing the development of a sanitary engineered land-fill that will serve the wider Kakuma-Kalobeyei Area.

Health Care Facilities

A system of health care provision and availability of the respective facilities for both refugee and host communities should be a priority project for strengthening integration. While the plan has recommended and adequate space for shared health facilities within the new settlement, there is still need for developing facilities that provide services to the host community, at the lowest level-linked to the overall hierarchy/system of health care provision for Kakuma-Kalobeyei area. Locations for setting-up such facilities need to be identified through a participatory process. Likewise, there will be need to engage both host and refugee communities on developing an effective access system for integrated services.

Education Facilities

A similar approach, as with the provision of integrated health care facilities, is proposed for education facilities. For both education and health care facilities, it implies the whole set of delivering the services-the infrastructure, personnel and financing plan.

Market Facility

Among the priority interventions for enhancing economic integration is the construction of the main market, which will provide trading spaces for both refugee and host communities. This implies the implementation should immediately commission a participatory design and development process of the facility.

Participatory Implementation Framework

To attain a high level of success in implementing this plan, UNHCR and Turkana County needs to involve all key partners involved in the formulation of this plan, and the targeted beneficiaries' i.e. the refugees and host communities. In doing so, each key stakeholder ought to be represented in key decision making concerning the implementation of the various projects and activities. In line with that, it's also recommended that the responsible institution conducts regular progress review workshops with the stakeholders-this can be aligned to the durations proposed for monitoring and evaluation reporting.

In undertaking construction works, the plan recommends that local labour (sourced from host and refugee communities) is utilised accordingly. In that case given the socio-economic concerns reveals on income levels in the area, it's recommended to adopt labour intensive delivery methods for all construction works. This will increase employment and income generation activities, especially for the host community, and will contribute towards honouring the Terms of Engagement agreed between the County, UNHCR and the host community. Such construction activities should also be integrated with a training component where artisan skills are nurtured for long-term use in the settlement.

5.4. Monitoring, Evaluation and Review Framework

Monitoring

It will be of critical importance to regularly monitor and evaluate the performance of the plan implementation, their impacts and outcomes, and thereafter undertake evaluations. The evaluation outcomes will be instrumental in informing the decisions of the implementing partners and their scheduled reviews of the plans.

This report recommends for the establishment of a monitoring and evaluation unit. The monitoring should be reported on quarterly bases and evaluations undertaken on annual bases. Given that emergency construction and resettlement activities have been happening during the process of this plan, it's advised that the implementing partners should undertake a full Evaluation of the settlement development upon the adoption/approval of this plan. Among other things, this should focus on the following aspects:

- The level at which the construction works have aligned to block and street layout of this plan.
- The level at which the facilities developed have aligned to the land-use allocation, according to this plan.
- The level of services provided under the emergency response and the possibilities of upgrading to the levels recommended by this plan.
- The type of shelters/housing provided and how that will be modified/upgrading to the standards recommended by this plan.

A full review of the plan should be done after every 2 years after commencement of the implementation of this long-term plan.

The Important Aspects of the Monitoring Process are outlined as follows:

1) Spatial Monitoring

Spatial monitoring is critical tool for measuring the impact of the plan; the success of the plan implementation. In undertaking spatial monitoring, the following indicators will be considered:

Land use conformity- This will focus on assessing how the allocated land-use proportions have been utilised-Is it according to the plan?

If there are variations, it will be important to identify the forces pushing the changes and what respective actions are needed towards ensuring that the implementation remains on the path of delivering a sustainable settlement.

Development Control Conformity- Are residential buildings/houses developed according to the plan's guidelines?

Efficient Development-This will be dealing with the quality of development with regards to design, delivery and resource use, and how the residents access various places, services and functions with ease. The main objective of this plan is to enhance design and resource efficiency for developments in Kalobeyei.

A Geo-referenced Buildings Database should be kept, with the following key attributes: location of the building, type of building (e.g. commercial or residential), floor area, owner/occupant, and date developed.

All applications for new developments including modifications, alterations, change of use etc. should be mapped and a database kept. The analysis of this data should be used to report on compliance levels, and thus evaluate the effectiveness of the plan guidelines for land use and development control, which will later inform the review of the plan, depending on the evaluation outcomes.

Quality Street Network-This will entail examining to what level is the road and paths construction aligned to the network recommended by the plan; the quality of the design and paving; as well as the amenities needed to accompany the network.

Quality Green Public Space and Open Space-This is concerned with assessing the level and quality of provision of recreational parks, green open spaces like the riparian corridors and other forms of open spaces as provided by the plan.

Efficient Utility Services- This relates to water and sanitation, and energy infrastructure and services for the settlement. This monitoring will entail assessing the level at which the development of the major infrastructure lines and points is aligned to the plan.

Monitoring

2) Environmental Monitoring

Environmental management is imperative for the sustainability of Kalobeyei. Previous approaches to resettle refugees have resulted to environmental degradation not only within the settlements and also in areas outside the settlements. It's thus critical to regularly monitor the performance of the plan implementation against environmental imperatives for sustainability. A Strategic Environmental Assessment (SEA) should be formulated, which will become the basis for assessing environmental performance.

Monitoring environmental performance of the development will need to focus on, among other indicators: solid waste generated; disposal methods of solid waste; water supplied and waste water generated; cost of water and sanitation services, recycling rate, energy sources and demand; food and fodder consumption; green space; etc.

Environmental Audit should be undertaken after every 2 years; aligned to the plan review process.

3) Population Change Monitoring

The new settlement will undergo population and demographic changes. The changes in the population will mainly be driven by influx of refugees, and natural net increase from within the settled population. It's also envisioned that the host community, will find it ideal to resettle in the new planned settlement, or to develop the areas adjacent to the settlement. At the same time, the likelihood of out migration, owing to repatriations or other circumstances is a critical aspect of population monitoring. Both the increase and decrease dynamics have significant implications to the settlement development. The population growth should be monitored closely to ensure that the densities and accompanying infrastructures are sustainable.

A population decrease will also entail significant implications for asset management and local economic development in the settlement. In that case, part of the settlement management activities should be to develop a strategy for dealing with shrinkage, in the eventuality that happens. This will be addressed by a 'Growth and Shrinkage Management Strategy', which should address the following key implications for: land use, asset management, local economic development, social development and environmental management.

These are likely scenarios that cannot be ignored in implementing this plan, and thus in developing the settlement. Also, it's important to pay attention to the demographic composition of the population at different periods of the plan, including age and diversity, and average family sizes.

In line with the plan provisions, it will be critical to assess how the population is being distributed across the settlement, with focus on whether the distribution is as expected or is it distorted, and the what could be the respective factors leading to that.

In summary, the following are important aspects to include in defining monitoring indicators for the settlement population monitoring: population size, births and mortality rates, demographic composition, land use and population density, population and environmental quality, and population and service delivery.

4) Socio-Economic Monitoring

This plan aims to contribute towards the social and economic sustainability of the New Settlement, Kalobeyei. The land-use framework and recommendations for social integration are aimed at ensuring long-term socio-economic development of the settlement. It's thus important to monitor and evaluate the performance of the settlement with regards to various socio-economic indicators.

Some of the key indicators for socio-economic monitoring will entail analysing: gender distribution patterns with regards to household heads; residential mix (between refugees and host communities) income distribution-within and between refugee and host communities; household incomes and expenditure; affordability of services offered; average household size; safety (perception and crime rates); enrolment in school; access to social services; employment levels/unemployment levels (informal and formal employment); cases of child labour; food security and nutrition quality in households etc.

Over a long term period (i.e. 10 years), a combination of the monitoring components, an evaluation and review of the plan should be able to define areas of the settlement that are exhibiting characters of: core areas, established areas and developing areas.

Plan Implementation Evaluation

An annual evaluation of the settlement development process is recommended. This evaluation will be aimed at measuring the level of impact; how the implementation has addressed the planned targets and indicators (see indicators proposed above-monitoring). This data and information will be used to inform project reviews, introduce management measures etc.

The evaluation should be participatory, and thus among other things it will be used to measure satisfactory levels, and ascertain the impacts of the implementation of the settlement plan. Overall the evaluation should report on the alignment or contradiction between the plan guidelines and implementation. The following are important questions for the evaluation to address:

- What is the spatial/physical level of the plan implementation-what are been developed and what is pending; how effective is the development?
- What is the satisfaction level among the direct beneficiaries (the host and refugee community)
- What positive/negative social, economic and environmental impacts have been achieved? And what measures needs to be undertaken to address any likely negative impact?
- Overall, what is the degree of institutionalisation and sustainability of the settlement development?
- What new opportunities and challenges are emerging?

Plan Review

The data and information from monitoring and evaluation constitutes a critical basis for the review of this plan. In addition, the review will have to consider any changes or simply the prevailing policy and legal framework at the time of review-at international, national and county levels. Other important change aspects to consider in the plan review will be: climate change and environment; population and demography; financial situation; integration and socio-economic conditions.

Some of the aspects to be considered in formulating the review methodology will include: stakeholder participation; technical capacity for planning; institutional framework; and how to integrate monitoring and evaluation outcomes of the plan implementation. In addition to the revised plan, the other key outputs of the review will be strategic interventions, and capital investment projects, which entail all key sectoral investments.

The management of the settlement will have to constitute a plan review team to coordinate the revision process. This team could be formed out of the various teams/units tasked with specific areas of plan implementation. The process of revision should be highly participatory.

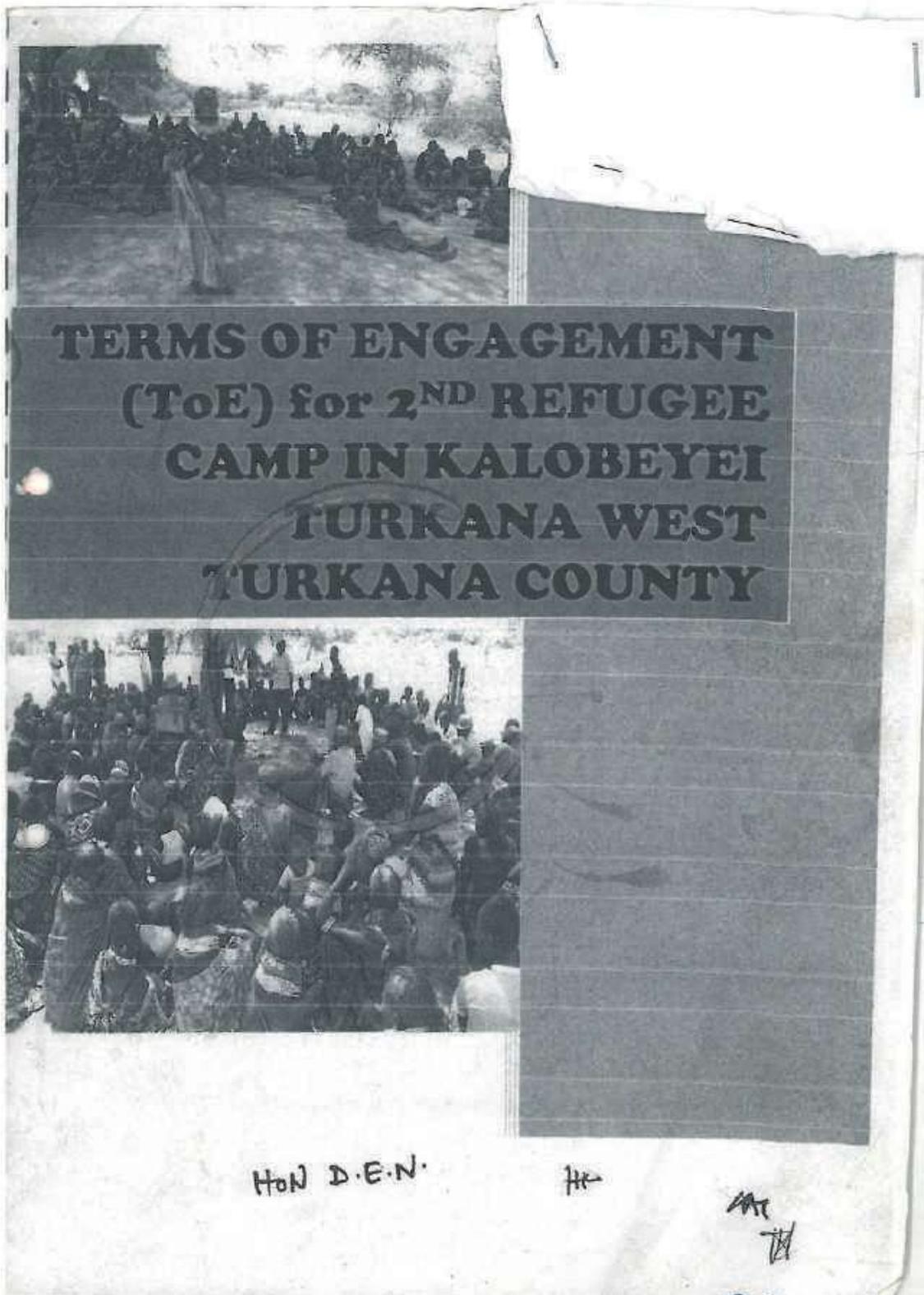
Conclusion

Overall, the success of implementing this plan will largely depend on the level of commitment by each key stakeholder, political goodwill, reliable water supply, policy and legal support, financing and the institutional capacity deployed.

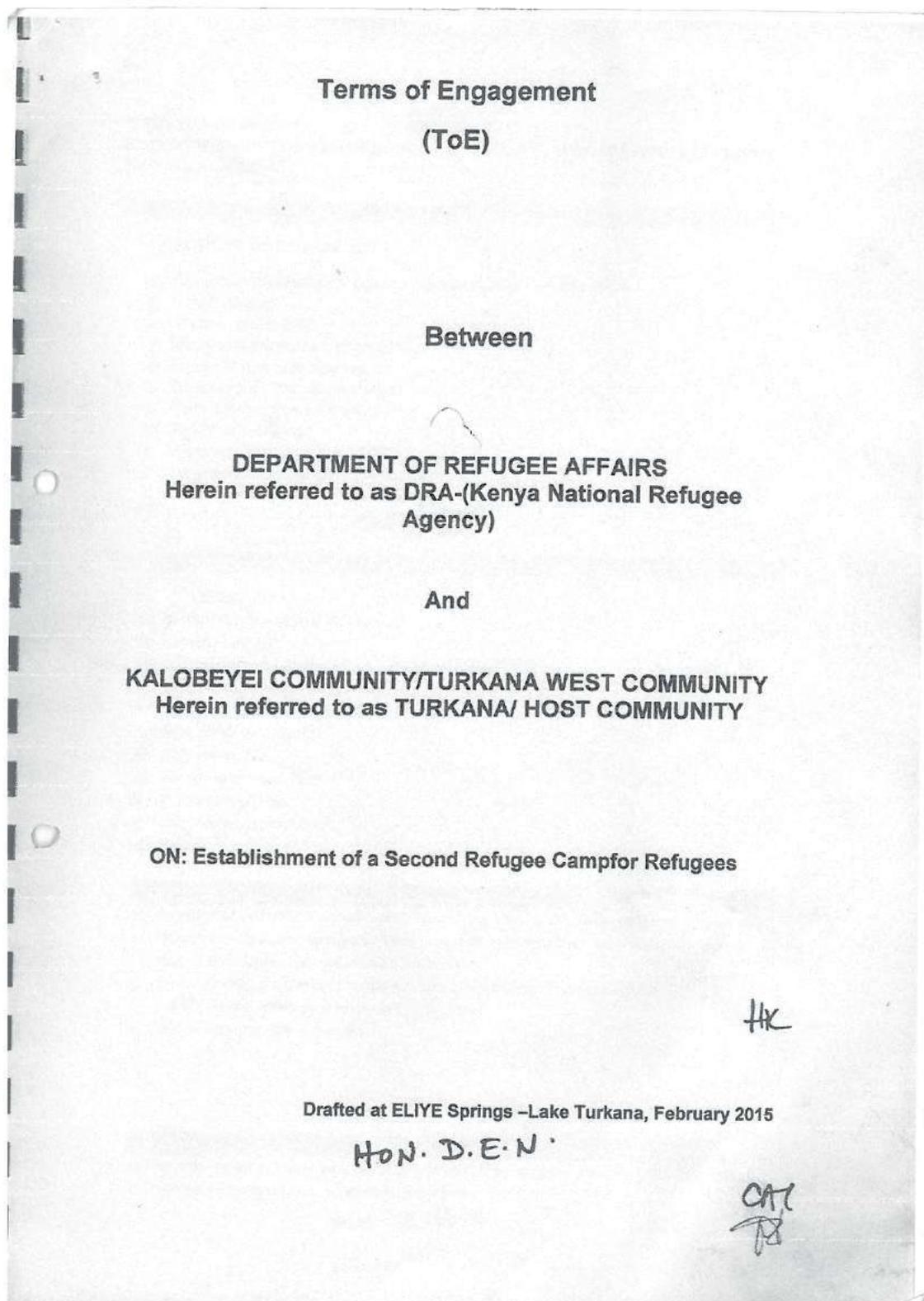
6. ANNEXES

6.2. Terms of engagement

Terms of engagement



Terms of engagement



Terms of engagement

TERMS OF ENGAGEMENT

For PROPOSED SECOND REFUGEE CAMP AT KALOBYEI, TURKANA WEST SUB-COUNTY.
7th February, 2015

TERMS OF ENGAGEMENT DESIGN (ToE)

i. PRINCIPLES OF ENGAGEMENT

- a) Respect and preserve of host community culture and way of life
- b) Uphold dignity
- c) Sincere relationship
- d) Inclusive stakeholders engagement
- e) Equitable resource sharing
- f) Transparency and accountability
- g) Participatory decision making
- h) Justice and fairness
- i) Effective communication
- j) Sensitivity and respect to environment
- k) Uphold constitutionalism and rule of law

THEMATIC INTERVENTION AREAS

1. EDUCATION

- a) Support construction of ICT Centres
- b) Capacity building.
- c) Construction and equipping school infrastructure.
- d) Support WASH Programs in schools.
- e) Support to sports and recreational activities.
- f) Scholarship for students
- g) Child protection
- h) Persons with disabilities
- i) Polytechnic collage
- j) Solar systems for schools
- k) Library

2. WATER

- a) Provision of water for Livestock – putting up Dams, rock catchments, water pans, sand dams
- b) Provision of clean and safe water for human consumption – putting up boreholes, piping system and distribution and running costs.
- c) Water for crop production – support irrigation, encourage water harvesting.
- d) Putting up cost effective wind power, solar panel
- e) Water tinkering during drought

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3. HEALTH

- a) Infrastructure development – existing facilities and building of new ones to fill the gaps- mortuary infrastructures, support of ambulances for service delivery

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- b) Service delivery – supply of drugs, lab equipment, lighting systems, disease surveillance, vaccination and follow up visits.
- c) Building Leadership and governance information systems for monitoring and evaluation
- d) Sanitation, WASH and hygiene-setting of a site for waste management e.g. cemeteries, landfills, incinerators.
- e) Training and supporting of community health workers.
- f) Access to health facilities in refugee camps
- g) Support medical outreach in remote areas and mobile clinics

4. IGA (WOMEN GROUPS, YOUTH ETC.)

- a) Support cottage industries for the youths, women's and vulnerable groups.
- b) Capacity building on business skills developments.
- c) Support of cooperative and organized groups to implement feasible income generating activities e.g. lodges, livestock markets/yards, eco-tourism, abattoirs, drugstores for livestock.
- d) Economic integration- centralization of business activities in one place both for the host community and refugees.

5. AGRICULTURE

- a) Support livestock production, health and husbandry.
- b) Support destocking and restocking programs at appropriate session.
- c) Support development of pasture and fodder production.
- d) Support buying and marketing of agricultural products.
- e) Support proven agricultural production systems for both refugees and host community
- f) Support post-harvest and marketing of the surplus produce.
- g) Support irrigation technology
- h) Establishment of food processing center

EMPLOYMENT

- a) Hiring of staffs: should be embraced on 70% to 30% - host community and other Communities.
- b) Affirmative action for gender, people of disabilities and vulnerable without discrimination to be considered for employment opportunities as per the Kenyan constitution...records of applicants should be kept.
- c) National job opportunities should also be accorded to the host community as a priority.
- d) Unskilled and semi-skilled job opportunities should be 100% given to the host community.
- e) Job advertisements be open to the public through Host Community Public Offices and should be open for a period of 2 weeks before closure date.
- f) All Local, National jobs advertised should be put on notice board.
- g) Interviews should be conducted at the field offices.
- h) Recruitment of community liaison officer with DRA

6. ENVIRONMENT

- a) Support Afforestation and reforestation (green belt) activities.
- b) Ensure sustainability, exploitation, utilization, management, protection and conservation of land as a resource e.g., achieving and maintaining tree coverage (afforestation) of at least 10% of land provided by Kenyan constitution.
- c) Use environmentally friendly building and fuel materials. e.g. prefab, fabricated iron sheets,

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- d) Protection of indigenous knowledge and bio-diversity and other resources.
- e) Encourage public participation in management, protection and conservation of environment.
- f) Preservation and protection of dignity of cultural practices and traditions.
- g) Creating awareness and sensitization of host community on environmental management in a sustainable, productive and equitable way.
- h) Recycling waste materials.
- i) Plan live trees around the camp as live boundary
- j) Beaconing of the camp at four corners of the camp

- k) Establish systems of environmental impact assessment, environmental audit and monitoring to eliminate processes and activities that endanger the environments' e.g solid and liquid waste disposal and also cemeteries.

7. SUPPORT TO IMMEDIATE HOST COMMUNITIES

- a. Compensation and benefits accruing from the sharing of Corporate Social Responsibility and Local Content resources mobilised from the camp shall benefit the following
 - i. Kalobeyei Community – 30%
 - ii. Turkana West Constituency where the refugee camp located – 70%

8. CONTRACTS AND BUSINESS OPPORTUNITY

- a) Contracts and tenders award should be given to the host communities without discrimination.
- b) Advertisement of contracts and tenders should be done in public through notice boards and other public means.
- c) Transparent and open procedures of bidding shall be done in line with the law (Constitution, Statutes/Act of parliament and Subsequent Legislations).
- d) 30% of contracts to go to the youth and persons with disability provided that the group is qualified to execute the task

9. PEACE AND CONFLICT PREVENTION

- a) Peace building and conflict prevention/resolution
- b) Embrace traditional conflict and resolution mechanism i.e. any dispute or controversy should be settled by negotiation or other agreed mode. e.g. by arbitration
- c) Sensitize refugee and host community to uphold law and order – Refugee Agencies e.g LWF/DWS (conflict among Refugees), Department of Refugee Affairs and Contracted Host Community Local Non-Governmental Organisation (Host Community versus Refugees) e.g. LOKADO.
- d) Initiate investigation on complaints and recommend action by Security agencies lead by Department of Refugee Affairs.
 - a. Design and setup refugee/host community conflict sensitive response mechanism by Turkana West Dialogue and Development Committee in consultation with Refugee Agencies.
 - b. Setup all inclusive/joint conflict and management resolution committee.
 - c. Funds related to peace building committee should be channelled to local (host community) through non-governmental organization
 - d. Should the camp be closed the land together with the infrastructure shall be handed over to the host community

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e) Security

- f) Turkana west security agents should give balanced focused attention to both Host Community (Turkana Community) and the Refugees whenever civil/criminal offences occur. (Observed biasness is skewed towards the refugee hence Hosts are usually suspects of offenses committed around the refugee camp.
- g) Refugees should not be in-fighting in the demarcated camp area
- h) Sensitize host community and refugees on community policing.
- i) No harassment of host community residents in the camp.
- j) UNHCR will construct a police station in Kalobeyi and police posts in the camp under SPP2

10. SOCIAL ISSUES MANAGEMENT

- k) Fair mechanism and strategies of managing child labour, marriage relationship between host and refugees, in the name of asylum seeking, Human trafficking
- l) Enforcement of customary laws to guide marriages between host communities and refugee communities.
- m) Refugees should not be allowed to exploit natural resources outside the designated area.
- n) Support establishment of Trauma healing and counselling psych-social centre.

11. PRIORITISATION

The community/committee would prioritise activities to be implemented in 2015 and beyond based on the funds made available by UNHCR.

12. NETWORKING AND COLLABORATION

Refugee agencies and host community should nurture a conducive environment to attract and retain investors, development and financial partners.

The host community members, Department of Refugee Affairs, County Government and Implementing Partners and Operation partners should seek a platform to dialogue on issues affecting the harmonious and peaceful coexistence.

The network of refugee and host community partners should encourage open, accountable, inclusive and consistent information sharing.

13. COMMITTEE TO FOLLOW-UP IMPLEMENTATION

There shall be Community Dialogue and Development committee in the following proportion:

1. Kalobeyi Committees –80%
2. County Government - 10%
3. National - 10%

Further to the selection criteria the following shall be observed

1. Professional – 80%
2. County Government – 10%
3. National Government - 10%

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14. RISKS AND MITIGATION

The following mitigation measures are identified against each potential envisaged risks in Kalobeyei during Refugee Camp Setting and Assistance Program as shown the table below;

Potential Risk	Mitigation Measures
Resource Based Conflict	<ol style="list-style-type: none"> 1. Just and Equitable Resource Sharing as outline in this document 2. Embracing Traditional Conflict Resolution Mechanism
Social Crimes	<ol style="list-style-type: none"> 1. Community Dialogue 2. Law enforcer's Intervention 3. Civic Education
Political Interference	<ol style="list-style-type: none"> 1. Rights based Civic Education and awareness creation 2. Legislation of this document to allow enforceability of the document
Clash of policies	<ol style="list-style-type: none"> 1. Regular Partner Coordination meetings shall clarify clash of policies and procedures
Clash of interests	<ol style="list-style-type: none"> 1. Transparency 2. Accountability 3. Participatory Decision making 4. Embracing Consensus based approach in resolutions 5. Following Rule of law 6. fairness
Duplication of Efforts	Joint planning
Environmental degradation	<ol style="list-style-type: none"> 1. Environmental Impact and Social Assessment 2. Alternative supplement of energy 3. Natural Resource Mapping 4. Spatial Planning
Unfulfilled Commitments by Implementation Partners and Operation Partners, UNHCR, DRA and County Government	<ol style="list-style-type: none"> 1. Disruption of operation 2. Conflict Resolution 3. Enforcement of Consequential Clauses in the Agreement 4. Application of the Constitutional and subsequent relevant legislations in other levels of redress (Court of Law, Appeal to County Government, Closure of the Camp and its operations). Leading to cancellation of the agreement.
Lawlessness among the Refugees	<ol style="list-style-type: none"> 1. Immediate Repatriation, relocation 2. Admission on only peaceful and law abiding refugee communities. 3. prosecution
Pastoral Livelihood disruption	<ol style="list-style-type: none"> 1. Promote Community Dialogue 2. Promote diversification of Livelihood 3. Integrate Refugee and host community market and value chain system 4. Promote resource sharing 5. Do no Harm Approach 6. Embrace Rights Based Approach against Needs Based Approach in effecting Development Programmes in the host community 7. Enact enforceable law to regulate businesses run by refugees in the camp.

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15. MONITORING AND EVALUATION

1. The technical team shall set monitoring, evaluation and accountability tools to assess the quantitative and qualitative indicators of performance and agreement progress.
2. The Turkana West Dialogue and Development Committee shall follow up implementation using tools developed by the technical team.
3. The community of Turkana West Constituency Shall organise annual evaluation meeting on the progress of the Host and the Refugee Communities' relations and agreement.
4. The refugee and host community implementing and operation partners shall share periodical progress report of assessment in coordination and committee meetings.
Note; an operational plan shall be developed later...
5. Turkana west dialogue and development addressing the emerging issues.

16. CONSEQUENTIAL MEASURES (AMENDMENTS, ARBITRATION AND MEDIATION)**a. AMMENDMENTS**

Should any clause or article or section of these terms and conditions of the agreement not favourable to any of the parties concerned, an amendment for review shall be recommended by the party affected and shall be subject to unanimous agreement by the Turkana West Constituency host community upon consultation and consensus through popular participation.

b. ARBITRATION AND MEDIATION

In the first two opportunities of misunderstanding, amicable conflict resolution mechanism shall be applicable.

17. SUSTAINABILITY AND EXIT STRATEGY

- a) Disposal of transferable asset should be donated to the institution of need and preference given to the host community. E.g. youths, chiefs, women and organisations, CBOs.
- b) Any asset handed over or donated to the host community shall be rendered, utilised and disposed off as follows:
 1. In good working condition to be utilised in the following purposes
 - i. Socio-economic productivity in Turkana West,
 - ii. To support Education, Health, and Security Institutions

To support Local Non-Governmental Organisations

County government to provide regulation on land and property utilization.

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For and behalf of KALOBEYEI COMMUNITY (REPRESENTATIVE)

Name: HON. PETER ERIPETE

Designation: COUNTY SECRETARY - TURKANA COUNTY

Signature: [Handwritten Signature]

Date: 19.06.2015

Name: HON. DANIEL EPUYO NANOK

Designation: MEMBER OF PARLIAMENT TURKANA WEST

Signature: [Handwritten Signature]

Date: 19/06/2015

Name: MR. HARUN KOMEN

Designation: COMMISSIONER FOR REFUGEE AFFAIRS (CRA)

Signature: [Handwritten Signature]

Date: 19/6/2015

Name: MR. RAOUF MAZOU

Designation: UNHCR COUNTRY REPRESENTATIVE

Signature: [Handwritten Signature]

Date: 19/6/15

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6.3. Economic Survey Summary

6.4. Socio-Economic Baseline Survey Summary

EXECUTIVE SUMMARY

The primary objective of this socio-economic baseline survey was to generate planning-relevant social, economic and spatial data outlining the development dynamics as well as the interests and concerns of both host community and refugee populations in Kalobeyei and Kakuma settlements. The survey's findings is based on a sample of 331 households and 215 businesses in four clusters in Kakuma and Kalobeyei. The survey team also carried out Key Informant interviews with the following organizations and individuals; DRC, GIZ, LWF, IRC, NRC, NCKK, UNHCR, WFP and Windle Trust, Kalobeyei Ward Administrator, Kakuma Livestock Market Manager, Kalobeyei Assistant Chief, new site *Bamba Chakula* operator and new site refugee farmer. The team also conducted FGDs with Kalobeyei Host Elders, Women group, Youth group, Kalobeyei new site business community and youth group, Kakuma Refugees Youth group and Kakuma host community youth groups to supplement the views of the households and business persons. The primary data collection was carried out in the area covering a period of around 10 days (22nd August to 2nd September 2016).

The survey findings indicate that the general socio-economic condition and welfare of the refugee camp seem to be better than the host community. This is mainly attributed to better access to various basic services such as education, health, shelter, sanitation and water courtesy of various humanitarian organizations which also explain the reason why the refugee community tend to have better support services. In Kalobeyei for example, (70.2%) of host compared to (13.1%) of refugee community lack formal education, this may also explain the family sizes, where average household size for host was found to be 5.5 as compared to refugees 3.5 and that (28.6%) of the host practiced polygamous marriage. In terms of monthly income it was noted that 73.6% of host and 60.9% of refugees earn less than Kshs. 5,000 per month translating to around 50 US Dollars per month. Transformations were also noted to be related to livelihood strategies, where most were transforming their living and open spaces to engage in commercial activities or because of need to accommodate expanding family size.

In terms of access to services there was no big discrepancy as the new settlement is yet to have all the services they need, but currently they have water in the settlement as compared to the host who have to travel long distances in search of water. The issue of water featured much during the FGD with elders and women, as it was noted to be one of the condition the community gave in exchange of the new settlement land. The survey noted that currently the local community are not enjoying any basic services in the new settlement. In terms of livelihoods, the host mainly rely on their livestock and small businesses. The new refugees in the new settlement are also engaged in small businesses.

The survey also noted that the local community are also enjoying some of the basic services in the refugee camp. The gender and connected demographic analysis shows that women tend to do a lot of work among the host community including construction of family house, fetching water and firewood, while men tend to be keen on livestock and are also associated with formal employment because of their superior education level as compared to local women. The variety and sizes of businesses in Kakuma refugees camp was superior to the existing businesses located outside the camp, the Kalobeyei new site is already attracting variety of businesses within a very short time. Among the refugees, men

Socio-Economic Baseline Survey Summary

tend to dominate ownership and operations of medium and large scale businesses as compared to women who tend to be more visible in small scale business and food oriented enterprises normally operated near business operators family dwelling places, which is a common practice in cottage industry. It was also noted that more host community came for casual work in the camp and cases of refugees working for the host community was very rare and almost non-existent. Schools and religious facilities were found to play a significant interactive spaces for both the host and refugee communities.

The local community were also found to struggle to meet their basic needs, which resorted to survival tactics such as exchanging of firewood for food or cash. The use of firewood as an interactive commodity need to be interrogated further as it has a negative impact on natural assets in the long term, given that the population is growing rapidly, thus creating demand for the same. The host were also found to engage in pastoralism while the refugee community were found to dominate all manner of businesses and few engaged in crop farming. In terms of asset base, the major asset for the host community is livestock and grazing land, while the refugees had several assets including business networks linking up to other countries, electronics including modern beddings, however it was also noted that the nature of activities carried out by refugees was related to their country of origin, where most Somalis and Ethiopians were found to be engaged in business, Burundians and Congolese to be farmers and food related businesses, while South Sudanese tended to be consumers and not really dominant in any specific income generating activities (IGAs).

The National and County Government of Kenya were noted to play a significant role in provision of services and infrastructure for the host communities, whereas the international and local organizations such as WFP, IRC, DRC, LWF, Windle Trust, GIZ, NCKK and LOKADO among others coordinated by UNHCR in provision of services to the refugees in a complementary manner.

Findings indicate that the involvement of host community is vital in the sustainable growth and achievement of the integration of the host and refugees' community, since they have permanent interest in the area as citizens and local community. Their involvement will help in addressing possible fluctuations of refugees numbers, which can be caused by returning back to their home country or relocated to another country as shown by their aspirations and desires, which implies that the host community will be required to form the foundation of the proposed integrated settlement to take care of such eventuality and to make them receptive to future needs to host new arrivals as part of community if need be. It was also noted that the development needs of the host community and humanitarian needs of the host community were not totally different as they mainly touched on **basic needs** such as water, education and some cases food and also on **livelihoods** focussing on employment and income generating activities. The only concern was that the host were keen on livestock as a source of livelihoods while the refugees were mainly keen on businesses since they can be able to sell everything within a short time when required to return to their country.

The survey recommends that any effort to integrate the host and refugee community need to focus on addressing the host livelihoods, felt underpinning inequality among the host with regards to access to basic services, linkages and networking to employment and scholarship opportunities on one hand and

Socio-Economic Baseline Survey Summary

also address at the security concerns and support the creativity of the refugees to engage in commercial enterprises including farming. Achievement of desired integration between the host and refugees is critical. This will require renewed goodwill and collaborative efforts by the Kenya Government and County Government of Turkana in one hand and the international and local organizations.

6.5. Participatory activities

Project Activities Matrix

Date/Year	Workshop/ Meeting Title	Objectives	Achievements	Main Participants (SDGS, County government, Youths or women)
29/06/2016	Community public Meeting	<ul style="list-style-type: none"> • Introduction of UN-Habitat mandate and Project scope • Collect information on community challenges and opportunities. • Primary Working group criteria 	<ul style="list-style-type: none"> • Endorsement of the project • Map of community challenges and opportunities • Understanding of UN-Habitat project scope and the criteria for its primary working groups 	<ul style="list-style-type: none"> • Local Leaders • County Government officials • Community members including women men and youths
12/07/2016	Community Public meeting	<ul style="list-style-type: none"> • Introduction to the planning process • Open forum concerning the project. • Formation of the SDG. 	<ul style="list-style-type: none"> • General Understanding of the planning process. • Community perspectives to be integrated in the planning. • Formation of a 12-member SDG group • -7 men and 5 women 	<ul style="list-style-type: none"> • Ward administrator and the assistant county commissioner. • Personal Assistant to the area member of county Assembly • Local Leaders • 41 community members(women, men and youths)
20/07/2016	Community Public Meeting	<ul style="list-style-type: none"> • Introduction of the baseline survey. • Selection of research assistants • Photography workshop 	<ul style="list-style-type: none"> • Selection of 20 RAS'. • Selection of 10 (6 men and 4 women) photography training students. 	<ul style="list-style-type: none"> • - Ward administrator and the assistant county commissioner. • Personal Assistant to the area member of county Assembly • Local Leaders • 41 community members(women, men and youths)
26/07/2016	Community Public Meeting	<ul style="list-style-type: none"> • Presentations from the photography trainees. • Introduction of the Research Consultants 	<ul style="list-style-type: none"> • Exhibition of photos with urban planning aspects from kalobeyei Town. • Conferring of certificates for the photography students • Presentation of research scope, expectations and collection of community feedback. 	<ul style="list-style-type: none"> • Selected County and local National government leaders • Community members of kalobeyei • Selected research assistants • Photography trainees.
02/08/2016	Livelihood Development	<ul style="list-style-type: none"> • Training on urban economy • Enterprise development requirements • WFP Retail engagement programme 	<ul style="list-style-type: none"> • Understanding of business opportunities, enterprise development and county government supportive platforms for youths and women. • Endorsement of 4 business trainees for retail engagement program 	<ul style="list-style-type: none"> • UN-HABITAT AND PWJ Representatives. • 30 youths, well balanced in terms of gender, vulnerability and people with disability. • Area Chief • Ward Administrator • Assistant County Commissioner

Project Activities Matrix

Date/Year	Workshop/ Meeting Title	Objectives	Achievements	Main Participants (SDGS, County government, Youths or women)
05/08/2016	Refugee community SDG Meeting	<ul style="list-style-type: none"> Collection of views on expectations for the new settlement in relation to their home country context Challenges in the new site. 	<ul style="list-style-type: none"> Bottom-Up approach in the planning process. Understanding of people's expectations, inputs and challenges 	<ul style="list-style-type: none"> UN-Habitat /PWJ 12 members of the SDG group. 4 Neighborhood leaders in the new site
08/09/2016	Joint meeting UN Agencies and the implementing partners	<ul style="list-style-type: none"> KSEDP progress and its implications. Participatory survey for relocation 	<ul style="list-style-type: none"> Comprehensive participatory assessment report on relocation of refugees from Kakuma to Kalobeyei new refugee settlement 	<ul style="list-style-type: none"> UN agencies and other implementing partners.
18/10/2016	Community Empowerment	<ul style="list-style-type: none"> Introduction to the Road, water pan and Horticultural farming projects 	<ul style="list-style-type: none"> Criteria of selecting participants for each group. 	<ul style="list-style-type: none"> UN-Habitat/PWJ/CORE Host community SDG Local leaders Ward administrator
19/10/2016	Community Empowerment – Public Meeting	<ul style="list-style-type: none"> Public awareness about the water-pan, road and water pan construction Selection of project sites Selection of participants for three projects 	<ul style="list-style-type: none"> Identification of project sites Formation of 3 groups for road, water pan and horticultural farming -Warepan-25(14 women and 11 men) -Road-20-12 men and 8 women -Horticulture-50-20 men and 30 women 	<ul style="list-style-type: none"> Community Members Local leaders Area Member of count Assembly Community Opinion Leaders.
23/11/2016	Community stakeholder meeting for the baseline survey	<ul style="list-style-type: none"> Presentation of the baseline survey Group discussion on the emergent issues 	<ul style="list-style-type: none"> Collection of community views for additional information or any discrepancy in the report. 	<ul style="list-style-type: none"> Area member of county assembly Ward administrator UN-Habitat research Consultants. Community Members- Local Research assistants
24/11/2016	Baseline survey validation Workshop	<ul style="list-style-type: none"> Presentation of the Mapping and the socio-economic survey Report. Generation of planning relevant data 	<ul style="list-style-type: none"> Feedback from the key emergent issues. General understanding of the current socio economic situation for Kakuma, kalobeyei and its hinterlands. Foundation for shaping the spatial plan for the new site 	<ul style="list-style-type: none"> UN agencies and other implementing partners in the thematic area County Government Representatives Local community leaders Youths and women representatives. Community Development Dialogue Committee

Project Activities Matrix

Date/Year	Workshop/ Meeting Title	Objectives	Achievements	Main Participants (SDGS, County government, Youths or women)
12/12/2016	Host community SDG Meeting	<ul style="list-style-type: none"> Review of previous participatory planning discussions Key emergent issues from the baseline survey Way forward 	<ul style="list-style-type: none"> Drawings of typical host community house typologies and the structure of a neighborhood. Development of key Sustainable agricultural activities visible for the area. Waste management and sustainable Energy production possibilities 	<ul style="list-style-type: none"> Yuka Terada-UN-Habitat project Leader. UN-Habitat Kakuma PWJ Host community SDG Local host community leaders
13/12/2017	Refugee community SDG meeting	<ul style="list-style-type: none"> Review of participatory planning process discussions Presentation on future sustainable development plan for the new site Validation of the current plan 	<ul style="list-style-type: none"> Drawings suggestions for the housing layout in the new site for every nationality. Matching of convergent areas. Suggestions for potential agricultural activities 	<ul style="list-style-type: none"> Yuka Terada-UN-Habitat Project Leader. UN-Habitat Kakuma. PWJ Refugee community SDG New site neighborhood leaders representatives.
09/01/2017	SDG meeting	<ul style="list-style-type: none"> Water Pan Construction Horticultural Farming 	<ul style="list-style-type: none"> Formation of a 25 member group. -14 women -11 men Horticultural farming postpone to April, during the short rains season 	<ul style="list-style-type: none"> UN-Habitat PWJ CORE Host community SDG Local leaders Area member of county assembly
11/01/2017	Turkana county Technical Meeting	<ul style="list-style-type: none"> To discuss about the water pan, road and horticultural farming projects Lobby for support of the youth and women groups for the three initiatives 	<ul style="list-style-type: none"> Technical Advice on the sustainable horticultural farming Other government platforms for youths and women empowerment Agreement to support the UN-Habitat youth and women led initiatives. 	<ul style="list-style-type: none"> UN-Habitat PWJ CORE Kenya Representatives; -Min of lands, physical planning and urban management. -Min of Trade, tourism and industrialization -Min of Agriculture, Water and irrigation -Ministry of Transport and Public works.
26/01/2017	Embassy of Japan Mission	<ul style="list-style-type: none"> Launching of the road and the water pan. 	<ul style="list-style-type: none"> Completion and launching of water pan and the road construction Formation of a youth and women led water and road construction companies. 	<ul style="list-style-type: none"> Embassy of Japan Delegates. UN-Habitat Delegate UN-Habitat Kakuma PWJ CORE Kenya Local and new settlement leaders. 24 Members of the SDG groups for the refugees and the host community

Project Activities Matrix

Date/Year	Workshop/ Meeting Title	Objectives	Achievements	Main Participants (SDGs, County government, Youths or women)
27/01/2017	Embassy of Japan Mission	<ul style="list-style-type: none"> Joint meeting with Local leaders, and the two SDGs from the host and the Refugee community 	<ul style="list-style-type: none"> Market layouts suggestions. Key action points for integration. Understanding of the host and refugee community relative capacities in terms of skills and resources endowment. 	<ul style="list-style-type: none"> Embassy of Japan Delegates. UN-Habitat Delegate UN-Habitat Kakuma PWJ CORE Kenya Local and new settlement leaders. 24 Members of the SDG groups for the refugees and the host community
10/02/2017	Waste management scoping mission	<ul style="list-style-type: none"> Evaluation of waste management in Kakuma camp and town and Kalobeyi new settlement and the town too. 	<ul style="list-style-type: none"> No proper waste management strategy in both towns and the also among the refugee community. Inappropriate waste disposal in Kakuma town and the camp. Better waste collection and disposal in kalobeyi new site; waste containers in every block and shallow pit waste collection points. Burning of solid waste near the river in kalobeyi town. 	<ul style="list-style-type: none"> Nao Takeuch-UN-Habitat urban services Branch Yuka Terada-UPDB, CPEDU Jonathan Weaver-Urban Planning and design Lab David Kitenge-UN-Habitat Kakuma. Youth rep Kaobeyei Town. County Public health Officer UNHCR WASH Coordinator NRC Wash coordinator
13/02/2017	UN-Habitat Deputy Executive Director Mission	<ul style="list-style-type: none"> Appreciation of the participatory planning outcomes Visit projects implemented by U N-Habitat 	<ul style="list-style-type: none"> UN-Habitat and UNHCR to plan for the future refugee uncertainties County to request UN-Habitat for more support on planning for Kakuma camp and kalobeyi site neighborhood Increasing number of refugees from dadaab and Southern Sudan. Future plan for sustainable human settlement. Women mainstreaming in local development emphasized. 	<ul style="list-style-type: none"> DR. Aisa Kerabo-UN-Habitat Deputy Executive Director Raouf Mazou-UNHCR Country Representative. UN-Habitat and UNHCR Delegates. UN-Habitat Kakuma County Government representatives PWJ Selected Heads of agencies in the thematic area
22/06/2018	Presentation of Draft Plan to Turkana County Assembly	<ul style="list-style-type: none"> Finalise and agree on contents of Draft Plan Capacity development on linkage of county development 	<ul style="list-style-type: none"> Agreed on contents of Draft Plan 	<ul style="list-style-type: none"> Members of County Assembly County Departments (Lands, Energy, Housing and Urban Management)
27/08/2018 - 01/09/2018	Public Consultation on Draft Plan	<ul style="list-style-type: none"> Finalise and agree on contents of Draft Plan Address concerns of land encroachment 	<ul style="list-style-type: none"> Agreed on contents of Draft Plan Establishing encroachment in Village 1 	<ul style="list-style-type: none"> County Department (Lands, Energy, Housing and Urban Management), UN-Habitat, NRC

Project Activities Matrix

Date/Year	Workshop/ Meeting Title	Objectives	Achievements	Main Participants (SDGS, County government, Youths or women)
27/08/2018 - 01/09/2018	Survey and Beaconing	<ul style="list-style-type: none"> Finalise and agree on contents of Draft Plan Assessment through beaconing exercise 	<ul style="list-style-type: none"> Agreed on contents of Draft Plan Beacons placed Site parameter placed by county government 	<ul style="list-style-type: none"> County Department (Lands, Energy, Housing and Urban Management), UN-Habitat, NRC

6.6. Participatory Outcomes

Community: Host Target group: SDG

Location: Kalobeyei town Date: 27th July 2016

Workshop agenda / parts	Key findings
Perceptual mapping of the settlement	Water scarcity is a major concern, with few boreholes in the vicinity. Majority of economic activity is clustered along the main road. Overall town structure is made up of several small villages with traditional housing typologies. No electricity grid and therefore no formal provision of energy.
Major priorities and needs	The main commercial activities are developed in Kakuma, people go there for shopping, sport and leisure. Transport costs from Kalobeyei to Kakuma and back is on average KES 400 per person. The main wishes of the host community regarding basic services are energy, water supply, sanitation as well as public facilities (social centre, health, education...) There is a major concern regarding economic activities and markets.
Wishes of the host community	Equal opportunities for the inhabitants of the new settlement and Kalobeyei town. Public transportation for continuous interaction between the new site and the town.
Overall conclusions	Residents of Kalobeyei rely on Kakuma for their daily supplies, health care and leisure facilities. The concern is the financial cost of transportation due to the absence of transport options. Strong desire for the settlement of Kalobeyei to harness the buying power of the refugees to benefit local businesses. Ensure that service provision in Kalobeyei Town aligns with the service provision in Kalobeyei New Site, either by ensuring facility access for host community in the new site or matching provision in the existing town.

Community: Refugee Target group: SDG

Location: Kalobeyei site Date: 5th August 2016

Workshop agenda / parts	Key findings	
Perceptual mapping of the settlement	Lighting	Limited to one solar lamp per cluster of 14 shelters. Not sufficient to light the area, nor there is street lighting
	Mobility	No formal transportation to Kakuma where markets, etc. are situated.
	Water	Current situation: water is being delivered and tanks are being filled daily but household provision is insufficient.
	Firewood	The main source of heat/energy is limited and collecting outside the site creates opportunity for conflict with the host community.
	Social Facilities	No existing facilities for religious or communal purposes.
	Risks	Perception of lack of security due to the limited lighting. Chance of flooding due to the temporary nature of the shelter.
	Economic	Limited market and shopping facilities which causes inhabitants to travel to Kakuma for daily supplies.
	Housing	Current planning with shelters facing a central shared space is well perceived, with small scale agricultural spaces to the rear. Concerns of overcrowding and cooking facilities were raised.
Priorities, visions & wishes	Sanitation	Currently the temporary latrine system is working over its capacity, and there are incidents of open defecation issues.
	Basic services	Better systems to allow formalised water supply to the toilets/washing spaces and gardens. As an adequate energy network does not exist, businesses to provide energy facilities could be promoted.
	Social Facilities	Religious facilities are in high demand. The implementation of Swahili training as common language could promote integration within Education.
	Economy	Strong interest in developing local businesses, such as, markets, phone charging stations, salons, nyama & kiki, pharmacy, crop market, loan organization, etc. Existing skills in the community identified to support businesses in radio and TV repairs, masons, drivers, mechanics, sewing, preaching or hotel management.
	Agriculture	Keen interest in developing the capacity for small scale agriculture in order to support their nutritional needs and potentially sell at local markets.
	Housing	Permanent housing because temporary shelter materials does not provide adequate capacity and is at risk of flooding during the rainy season.
Overall Conclusions	Sanitation	More and better sanitation facilities required with training/localised management to ensure cleanliness and to reduce cases of open defecation, ideally with one latrine per household.
		Security is a major concern for the community and as such, sustainable lighting and energy (firewood) provision is imperative.
		High demand and capacity for the development of economic activities.
		High demand for the opportunities of small scale agriculture in spaces that will not bring the risk of insects and snakes close to homes. High quality sanitation facilities and training in their usage is necessary. The existing basic community block structure works well, if the agriculture and sanitation facilities are planned better.

Community: Refugee Target group: SDG
 Location: Kalobeyei site Date: 29th September 2016

Workshop agenda / parts	Key findings	
Key Infrastructure gaps	Water	Water is needed for the household and for agriculture. Water point location implies its use: inside for drinking water, outside for irrigation. Some water points do not work (the one near the stadium).
	Economic activities	Need for a new market.
	Light	Need of lighting related to facilities and public space (market, stadium, schools...).
	Facilities	Dispensary
	Traffic	Need of calming measures.
	Bridge	Need for reparation derived from flooding.
Agricultural context	Fields are irrigated by rain water only. Wells are far from agriculture. Harvested crops are: sorghum, maize, green grams, potatoes, tomatoes, spinach. No use of fertilizers. Good soil and harvest, water is the main issue. Family farming by portions (size depending on family size and human capital – from ¼ to 2 acres). Women do the farming crop. Men look after animals (during the cattle season).	
Housing, water, sanitation context	Sanitation	Men and women go in opposite directions for sanitation purposes.
	Housing	Cooking is done in a separate hut.
	Light	Extended use of torches.
Capacity building needs	Business Agriculture Water harvesting Sex education to prevent teenage pregnancy	

Community: Host Target group: Women
 Location: Kalobeyei town Date: 29th September 2016

Key findings			
Agriculture	The refugee community has a positive response towards urban agriculture		
Housing	Burundi	Material	Bricks and cement, tin roof
		Spatial arrangement	2-3 rooms
		Water + WASH	Poor-class: fetch water, middle-class: piped water
		Security + privacy	2.5m fence. Privacy is very important
		Energy source	Poor-class: charcoal and firewood
	Sudan	Material	Bricks (auto construction) and tin roofing (high pitch)
		Spatial arrangement	Kitchen outside, latrine inside
		Water + WASH	Piped water to garden
	South Sudan	Security + privacy	Privacy is very important
		Material	Bricks
		Spatial arrangement	1 hut per wife and 1 for children, cattle in the centre, separate kitchen
	Congo	Energy source	Fire wood
		Material	Bricks and cement, tin tall roof
		Water + WASH	Rainwater harvesting
	Current	Security + privacy	Privacy is very important
		Material	Soil brick
		Spatial arrangement	Improvements: ventilation, solid flooring (cement) Family size: 11, 3 rooms sitting room, shop + housing
		Water + WASH	Rainwater harvesting

Community: Refugee Target group: SDG
 Location: Kalobeyei site Date: 29th September 2016

Categories / activities	Key Findings
Housing layout	One compound with several neighborhoods which have a common gate made of sticks. The kitchen and sleeping areas are round and thatched with twigs. The two places are separate while few use the same house for both cooking and sleeping depending on the available space. In every compound, there is a space designated for resting and a child friendly areas for playing. Between the neighborhoods, there are schools, playgrounds in close proximity. The market is located near the main street (A1 road) for easy access to the supplying market, mainly Kakuma.
Waste disposal	Lack of common dumping site. Solid waste is normally burned near the river and thrown randomly.
Sanitation	Open defecation is still common in all neighborhoods. In case community toilets and bathrooms project is implemented, the project should be commercialized and managed by committees for maintenance and collection of utility fees.
Energy	LOCADO NGO employs locals for firewood supply. Concern about sustainable and affordable renewable energy sources because of its impact on climate change.
Integration	Most of the participants were willing to relocate to the new site due to the similarities of the housing typologies and site layout with the ones of the host community. Member of SDG mentioned that the host community hasn't been incorporated in the development of the site as promised and most of them go to the site as spectators. Allocating them space would enhance the integration process.

Community: Host Target group: Women
 Location: Kalobeyei town Date: 29th September 2016

Categories / activities	Key Findings
Water pan	Constructed by trained youths from refugee community and host community. Water pan construction is labor and capital intensive. Capacity is 1000 ltrs, 60 sqm, 3m deep. Has three tunnels, two of which will be constructed using Do Nou technology by trainees to collect water from nearby streams. Waterpan is planned to support agriculture and horticulture and is located in close proximity to farms and the main road.
Road construction	Road section of 300 m was constructed using manual labour and roller. The activity took 12 days inclusive of the business and financial literacy training. The CORE CEO encouraged youths that the engagement initiatives will improve their standard of living and reduce unemployment rate.
Market+Trade+Potential	Trade between the two communities is a major contributor to integration, therefore, the host community and refugees from the different nationalities made a drawing of the market typologies. Most of the markets portrayed a similarity. Individual and retail shops are near the human settlement while bigger product markets are further but linked by good roads. The proposed Rwandese market are large and placed in central place where all products are available. The host community, being pastoral, proposed a centered market in the town along the A1 road and smaller shops adjacent to their houses. Commodity market is mainly Kakuma, Lodwar and Kitale. There is a growing trade relationship between the two communities. Refugees travel to Kalobeyei to buy meat products. Host community supply firewood, charcoal, and other products in exchange of money, cereals and maize flour. There is a regulated market in the new site incorporated with the host community.

Community: Government Target group: MCAs
 Location: Kalobeyei site Date: 10th August 2016

Categories / activities	Key Findings
Reviewing the Kalobeyei Development Plan Site Visit	To actualize the following points: Public sensitization exercise to inform of public barazas should be carried out to inform the community on why the buffer zone was affected during the planning of the settlement scheme. Public sensitization exercises should be carried out within three weeks from the day of the site visit, which is scheduled to take place before the end of August. Beaconing of the agreed land for settling refugees should be done openly and transparently while involving area MCA, Community Leaders and Kalobeyei residents. Verification of beacons should be done both physically and with GPS machines to ensure new developments are contained inside agreed boundaries. Clear boundary between road reserve, buffer zone, and the community land to avoid further conflicts. Consultation, coordination and cooperation between interested agencies and community leadership to be enhanced when demarcating land, community involvement being paramount to clear doubts and mistrust. All information in regards to Kalobeyei Integrated Settlement to be shared with the community, and leaders, including all involved agencies in open and transparent manner. Report on public sensitization, beaconing, verification of beacons amongst other agreed issues to be ratified by community leaders, community representatives and involved agencies before forwarding to the House for approval.

Community: Government, Host & Refugee Target group: All
 Location: Kalobeyei town Date: 27th August- 1st September 2018

Categories / activities	Key Findings
Outcome of Public Consultation on Draft Plan	Outcome: Alleged land encroachment - There were concerns from the host community that the existing camp has encroached on the land belonging to the host community. The initial land allocated for the camp was 1500hectares. It was therefore agreed in the meeting that the Ministry of Lands to establish the perimeter boundary for the camp through beaconing to establish if indeed there is some encroachment. The same issue of encroachment had earlier on been raised by the county Assembly committee on planning finance and trade.

Community: Government, Host & Refugee Target group: All
 Location: Kalobeyei town Date: 27th August - 1st September 2018

Categories / activities	Key Findings
Beaconing Demarcation	Outcome: Beaconing exercise - The community requested for the beaconing of the perimeter boundary between the camp and the area left for the host community. This they said will help to curb future encroachments. It was agreed in the meeting that the beacons will be placed at an interval of 200m apart around the perimeter boundary. At the end of the beaconing exercise, it was established by the survey team that indeed there was encroachment in the northern border of the camp in Village 1. Following deliberations and basing on the findings from the beaconing exercise the following were recommendations. - That development to be restricted within the proposed planning area of 1500ha. - That the report on findings to be tabled before the county assembly committee for planning, finances and trade. Basing on the report - County assembly should convene a meeting with the community, UNHCR, UNHABITAT, NRC and Ministry of Lands Energy Housing and Urban Areas Management to deliberate on the way forward, especially on the issue of encroachment. - There is need for inter-ministerial committee meetings on plan interpretation and approvals before any development are carried out within the camp.

6.7. Minutes of MCA's Site Visit



REPUBLIC OF KENYA
COUNTY ASSEMBLY OF TURKANA
OFFICE OF THE CLERK

Telegraphic address 'TCA' P.O. BOX 25-30500
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**MINUTES OF THE COMMITTEE ON FINANCE, PLANNING AND TRADE HELD ON 10TH
AUGUST 2018 INSIDE THE COMMITTEE BOARDROOM AT 10:00 A.M REVIEWING THE
KALOBYEI INTEGRATED REFUGEE SETTLEMENT SCHEME SITE VISIT**

Present

Hon. Robert Lowoko-Chairperson

Hon. James Ekan-Vice Chair

Hon. Rebecca Epae-Member

Hon. Grace Nakeno-Member

Hon. Esther Mana-Member

Hon. Joseph Epuu-Member

Hon. Nicolas Ewoi-Member

Secretariat

1. Samuel Edapal-Committee Clerk
2. Cynthia Meru-Clerk Assistant
3. Angoria Dongol Josephat-Researcher
4. David Esuron- Legal Counsel

Agendas

1. Preliminary
2. Matters a raising from the previous meeting
3. Observations from the Kalobeyei site visit
4. Agreed action points from the site visit
5. Adjournment

Min 1/10/8/2018: Preliminary

The Chairperson called the meeting to order. He read the prayers and welcomed members to the meeting. He thanked members for making time to visit the Kalobeyei Integrated Refugee Settlement despite of their busy schedules and commitments.

Min 2/10/8/2018: Matters a raising

The vice Chair Hon Ekanan reminded the committee on business yet to be concluded such as Emergency Fund report, Biashara Fund response to the statement, Public participation on CIDP, ADP, and Finance Bill 2018 among other. He affirmed that with the current members resolve, he was confident the committee shall deliver on its mandate.

Min 3/10/8/2018: Observations from the Kalobeyei site visit

The committee observed the following from the site visit tour to Kalobeyei;

1. That; from physical observation of the settlement, it looks like their encroachment; despite that, this cannot be ascertained without GPS to verify the beacons as agreed between the UNHCR and the Kalobeyei Community.
2. That; the community representatives indicated that refugee population within settlement has increased considerably since they were settled at Kalobeyei Integrated Settlement.
3. That; the buffer zone was at the centre of the current controversy as it was used to adjust the settlement plan to fully accommodate the agreed 1500 Hactares of land allocated for Kalobeyei Integrated Settlement Scheme; this also was to take care of of the road reserve and cultural restrictions imposed by the community on land use.
4. That; the community lacked information in regards to what happened to the agreed buffer zone of between 700m and 1000m between the road reserve, buffer zone and the refugee settlement.
5. That; the community leaders were not fully involved in the planning of the Kalobeyei Refugee Settlement Scheme.
6. That; beacons as earlier placed are not verifiable because some of them have been removed or moved from their original position without notifying the community and its leadership.
7. That; the UN-HABITAT was doing a better job in planning the Kalobeyei Integrated Settlement Scheme despite challenges arising from lack of trust from kalobeyei community and its leadership. This can also be attributed to lack of information sharing by the involved agencies.

Min 4/3/8/2018: Agreed action points from the site visit

From the site visit, the committee together with the UN-HABITAT, UNHCR, NRC, Area MCA and community representatives available resolved to actualize on the following action points;

1. That, a public sensitization exercise inform of public barazas should be carried by UN-HABITAT, UNHCR, Area MCA and the Community Leaders to inform the Kalobeyei Community to inform the community why the buffer zone was affected during the planning of the settlement scheme.
2. The public sensitization exercises should be done within three(3) weeks from the day of the site visit; this was scheduled to take place before the end of month of August 2018.
3. That, beaconing of the agreed land for settling refugees should be done openly and transparently while involving area MCA, Community Leaders and Kalobeyei residents.
4. That, verification of the beacons should be done both physically and with GPS machines to ensure that any new developments are contained inside the agreed boundaries.
5. That, there should be a clear boundary between the road reserve, buffer zone and the community land to avoid further conflicts.
6. That, consultation, coordination and cooperation between interested agencies and the community leadership should be enhanced when demarcating land should be enhanced; community involvement is paramount to clear doubts and mistrust.
7. That, all information in regards to Kalobeyei Integrated settlement scheme should be shared with the Community, Community leaders and all involved agencies in an open and transparent manner.
8. A report on public sensitization, beaconing, verification of beacons among other agreed issues be ratified by community leaders, community representatives and involved agencies before forwarding the agreed plan to the House for approval.

Min 5/10/8/2018: ADJOURNMENT

There being no other business to discuss, the meeting was adjourned at 11 A.M.

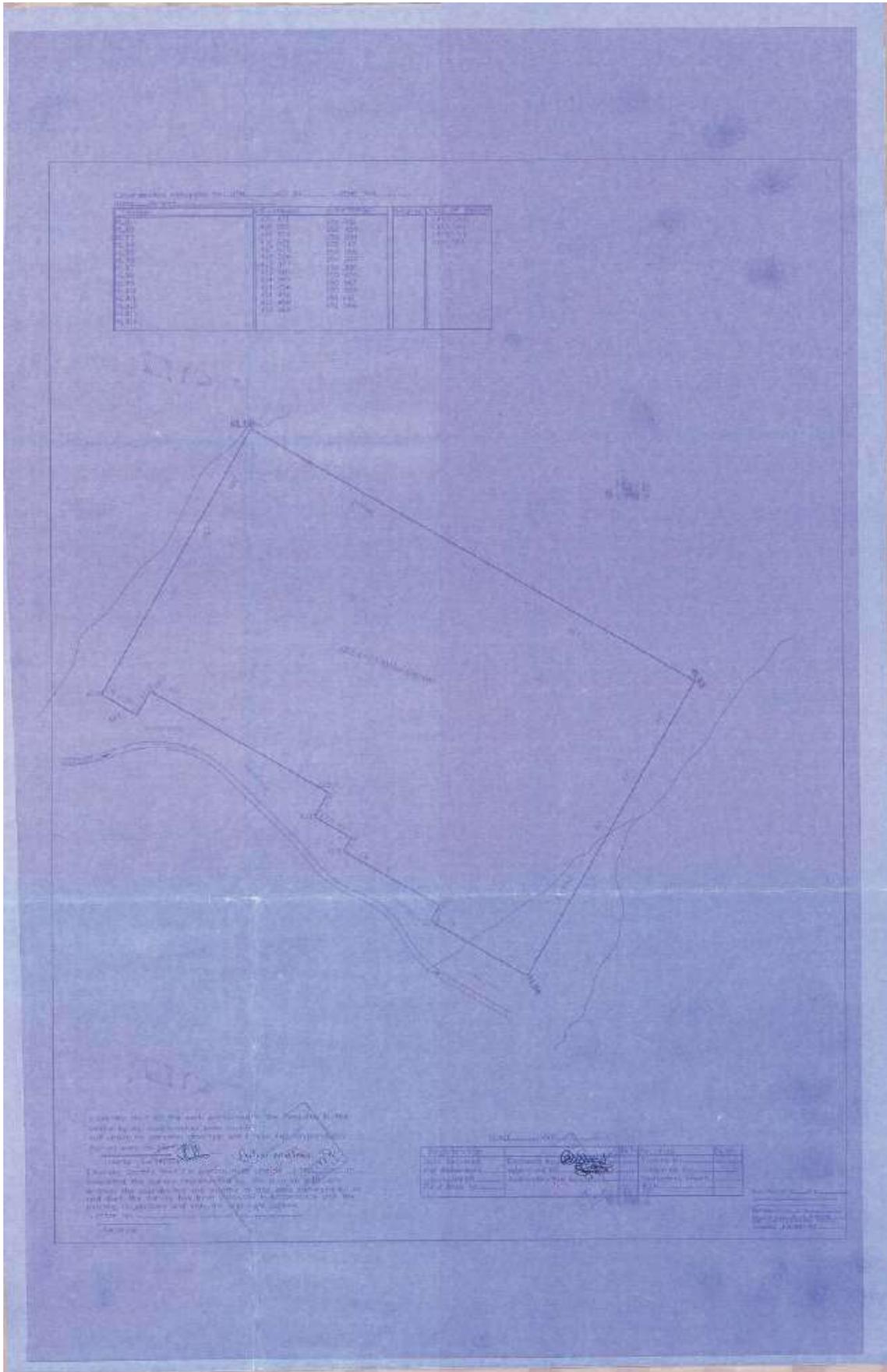
Samuel Ekeno Edapal 20/08/2018

Minutes By Samuel Ekeno Edapal-Committee Clerk

Confirmed in the presence of Chair:

Name: *Hon. ROBERT LOWOKO* Sign: *[Signature]*

6.8. Boundary Plan after Demarcation



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UN-HABITAT | LAB
urban planning and design

UN HABITAT
FOR A BETTER URBAN FUTURE