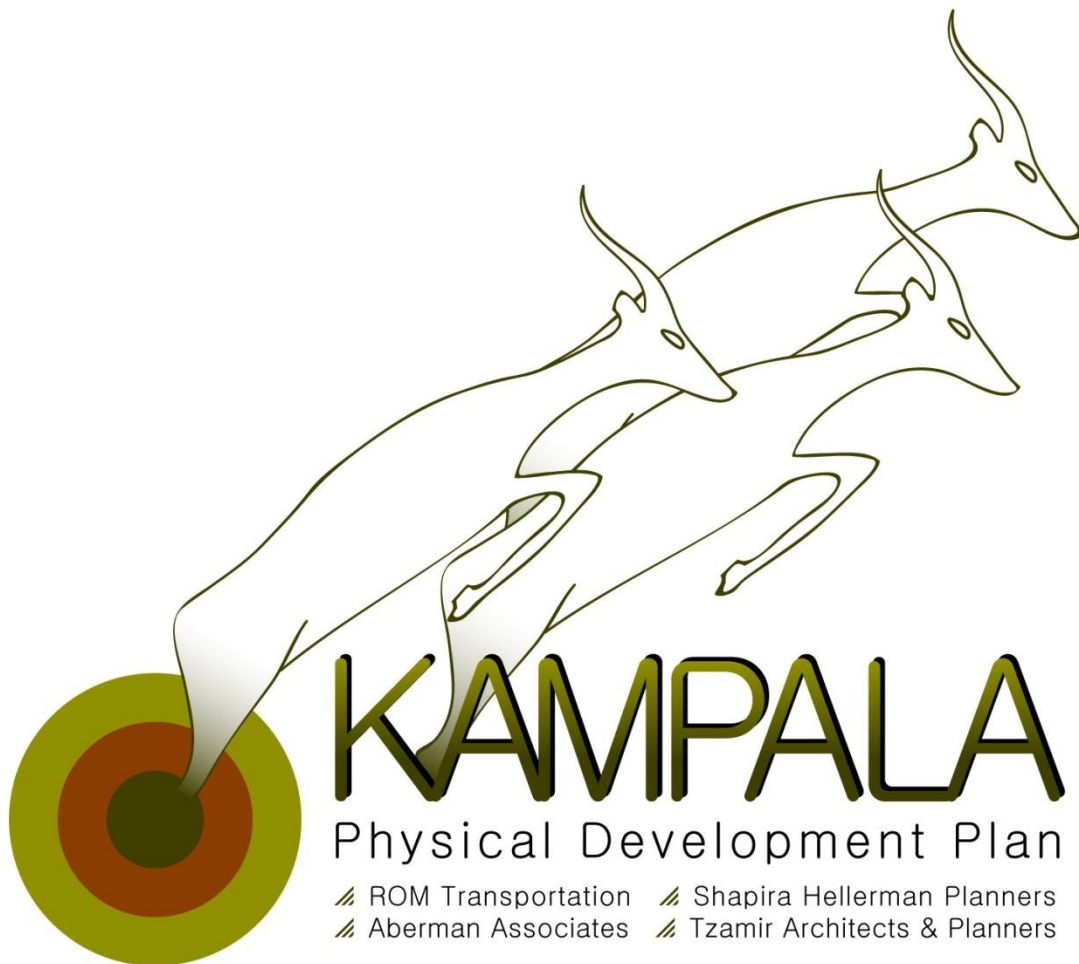


Kampala Capital City Authority
**Updating Kampala Structure Plan
and Upgrading the Kampala GIS
Unit**

Draft Final Report

September 2012



ROM Transportation Engineering Ltd.
Shapira-Hellerman Planners
Larry Aberman & Associates
Tzimir Architects and Planners Ltd.
Ofek Aerial Photography Ltd.

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List of Acronyms and Abbreviations

BLB	Buganda Lands Board
BRT	Bus Rapid Transit
BOT	Build Operate Transfer
CBD	Central Business District
CBO	Community Based Organization
CC	Corridor Count of Taxi Passengers
CDD	Community Driven Development
CIP	Capital Investment Plan
CHD	Community Health Departments
CM&E	Control, Monitoring and Evaluation
CSO	Civil Society Organisation
CZ	Central Zone
DPC	Departure & Passenger Count
DTM	Digital Terrain Model
EAC	East African Community
ED	Executive Director
ERA	Electrical Regulation Authority
ESSP	Education Sector Strategic Plan
FUFA	Federation of Uganda Football Associations
FY	Fiscal Year
GCP	Ground Control Point
GDP	Gross Domestic Product
GIS	Geographical Information System
GKMA	Greater Kampala Metropolitan Area
GOU	Government of Uganda
GPS	Global Positioning System
Ha.	Hectare
HC	Health Centre
HH	Household
HIPC	Heavy Indebted Poor Countries
HoH	Head of Household
HSD	Health Sub-District
IMF	International Monetary Fund
INASP	International Network for the Availability of Scientific Publications
IT	Information Technology
JV	Joint Venture
KACITA	Kampala City Traders' Association
KCA	Kampala Capital City Act
KCC	Kampala City Council
KCCA	Kampala Capital City Authority
KDF	Kampala Development Fund

KDP	Kampala Development Plan
KESC	Kampala Economic Services Corporation
KIIDP	Kampala Institutional and Infrastructure Development Project
KLB	Kampala Lands Bank
Km.	Kilometre
KMPA	Kampala Metropolitan Planning Area
KMSC	Kampala Municipal Services Corporation
KMTC	Kampala Metropolitan Towns, Counties and sub-Counties
KPDF	Kampala Metropolitan Framework Plan
KPDP	Kampala Special Physical Development Plan
KPIC	Kampala Plan Implementation Committee
KPDP FR	Kampala Special Physical Development Plan Final Report
KPDP SR	Kampala Special Physical Development Plan Situational Report
KSPA	Kampala Special Planning Area
LC	Local Council
LED	Local Economic Development Plan
LGDP	Local Government Development Program
LIS	Land Information System
LRT	Light Rail Transit
MAK	Makerere University
MATA	Kampala Metropolitan Area Transport Authority
MoE	Ministry of Education
MoFPED	Ministry of Finance, Economic Development and Planning
MoH	Ministry of Health
MoLHUD	Ministry of Land, Housing and Urban Development
MoW&T	Ministry of Works and Transport
MRT	Mass Rapid Transit
MZ	Metropolitan Zone
NDP	National Development Plan
NEMA	National Environmental Authority
NGO	Non-Government Organization
NHP	National Health Policy
NHS	National Health System
NMT	Non-Motorized Transport
NPA	National Planning Authority
NPB	National Planning Board
NPIC	NPB Plan Implementation Committee
NWSC	National Water Sewer Corporation
OBPC	On-Board Passengers Count
O-D	Trip Origin-Destination
OTODA	Organisation of Taxi Owners
KPDP	Physical Development Plan
PEAP	Poverty Eradication Action Plan

PPDP	Precinct/Neighbourhood Physical Development Plan
PPMT	Plan Preparation Management Team
PPP	Purchasing Power Parity
PPP (2)	Public Private Partnerships
PSFU	Private Sector Foundation Uganda
PT	Public Transport
RAFU	Road Agency Formation Unit
SC	Sub-County
SDP	Site Development Plan
SE	Social-Economic
SES	Social Economic Status
SOP	Standard Operating Procedures
SPDP	Sectoral and Physical Development Plan
SUT	Sustainable Urban Transport System
SWOT	Strengths, Weaknesses, Opportunities, Threats
TAZ	Transportation Analysis Zones
TC	Classified Traffic Counts
TC (2)	Town Council
TDM	Travel Demand Model
THS	Travel Habit Survey
TOR	Terms of Reference
TU	KCCA Transport Unit
UBOA	Uganda Bus Operators Association
UBOS	Uganda Bureau of Statistics
UCC	Uganda Communications Commission
UFUP	Uganda First Urban Project
UIA	Uganda Investment Authority
ULC	Uganda Lands Commission
UMA	Uganda Manufactures Association
UN	United Nations
UN-HABITAT	United Nations Human Settlement Programme
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNRA	Uganda National Roads Authority
UPE	Universal Primary Education
URF	Uganda Road Fund
USE	Universal Secondary Education
UgSh	Uganda Shilling
UTODA	Uganda Taxi Operators and Drivers Association
VHT	Vehicle Hours of Travel
VDT	Vehicle Distance of Travel
WB	World Bank
WHO	World Health Organisation

1 Executive Summary

This report is the draft of the final report regarding the preparation of the Kampala Metropolitan Framework (KPDF) and Physical Development Plan (KPDP). The report presents the Consultant's empiric findings and recommendations for the development and planning of Kampala based on the data and information collected and analysed, the products of Stakeholder and Public Participation activities, and on Client and Steering Committee direction.

1.1 Kampala's Development and Current Conjuncture

1.1.1 Background

Uganda is one of the richest countries in the world (soils, water, climate, natural resources) and its society and economy one of the poorest in the world (per capita GDP, infrastructure, life expectancy, standard of living).

Uganda remains a rural country and society and a largely agrarian economy, with an urbanisation rate of only some 18%, with Kampala at the core of the country's urban structure.

Uganda emerged from the colonial period in a similar position to its East African neighbours, with its own relative advantages and disadvantages. In the post-independence boom Kampala developed rapidly until the period of repression and strife of the 1970-80s.

The dark days of tyranny and conflict brought with them destructive processes and impacts that the country and the city have yet to fully recover from (significant weakening of administrative systems, expulsion of Asian entrepreneurs, abrogation of the land tenure system, intrinsic distrust and corruption, social insecurity, degradation of infrastructure and services and much more).

The past two decades have seen significant, sometimes remarkable, progress to recovery and development but the impacts of this period on Kampala are still clearly evident in assorted fields as summarized in **Section 3** below and as detailed in the KPDP SR.

1.1.2 Role and Function Kampala

Kampala currently serves as:

- Capital City and Seat of Government;
- Primate City;
- Gateway to and Showcase of Uganda;
- Centre of the Buganda Kingdom;

- Engine of Growth for Uganda;
- Home and Living Environment for its estimated 3.15 million inhabitants (GKMA); generally at a very low Standard of Living, with a low Quality of Life and very limited amenity and service.

In addition there are indications that Kampala may be developing and/or retains the potential to develop as:

- Regional Educational Centre;
- Tourism Hub.

1.1.3 Primary Development Trends

The Developing Imbalanced Mega City

Kampala, currently a little over 3 million population (GKMA) is projected to grow to some 5 million in the coming decade and to exceed, at the very minimum, 10 million within a generation. And if in-migration is to accelerate over the coming generation the City's population may well significantly exceed 15 million, indeed approach 20 million, by 2040.

In effect Kampala is subject to an unrelenting "Demographic Tsunami" driven both by rural "push" and urban "pull" factors. These factors are expected to amplify the attraction and accelerate the rate of rural-urban migration.

The Overwhelmed, Unsustainable City

The City is already overwhelmed by its current population, failing to adequately provide housing, employment, services, utilities and amenity for the bulk of its population and battles to absorb the current rate of in-migration.

Kampala lacks even the semblance of a balanced Metropolitan Structure and System, lacking the complementary and supplementary elements required to relieve pressures on the City Centre. As such, the centre itself battles to fill its role in driving development in the City and the country to higher planes.

The City has lost its form, attractiveness and identity as the "Garden City of Africa". It has inappropriately sold or used its primary inner-city land reserves. It has allowed, sometimes even unknowingly promoted, intolerable densification of informal settlements to slum level. It has degraded many of its natural assets (wetlands, forests, views, springs, etc.). It has allowed its infrastructure and services to degrade to the point where many need to be redeveloped from scratch.

Property owners are generally unregistered and lack tenure security. 25% of households renting move home in a year. The property market displays the classic signs of market failure, dominated by speculation, distorting the distribution of activities, services and facilities.

Communities and households lack stability with repeated relocation and transition.

The economic base is very limited and imbalanced, lacking significant productive and high value added sectors. Productivity is extremely low, even in the regional (East and Central African) context. Unemployment is high (close to 20%), under-employment even higher.

Poverty is all pervasive.

The transport system is progressively moving towards grid-lock despite low car ownership rates.

The Unserviceable and Unmanageable City

Kampala today is currently unserviceable given:

- Levels of poverty placing many services beyond reach;
- Lack of an effective tax-base;
- The absence of any mechanisms for the recovery of investment costs;
- Lack of resources (manpower, tools, technology, experience);
- Lack of facilities and available land, particularly in the more densely built-up areas;
- Expectations are low, job security lower, motivation even lower and initiative rare.

The City is also currently unmanageable given:

- The Land Tenure system;
- Lack of enforcement capacity and tools;
- Reported politicisation, dependence and endemic corruption over the years (with an ongoing, intensive effort on the part of KCCA to tackle it);
- The lack of alternatives (e.g. employment for illegal hawkers, shelter for residents of the wetlands, public transportation and NMT instead of boda-boda and more).

The Blessed City

Kampala has been blessed in abundance with:

- Extraordinarily fertile soils, which are also reportedly appropriate for construction;
- A particularly clement, moderate climate appropriate for habitation, recreation and tourism;
- A rich, diverse, naturally balanced eco-system based on Lake Victoria;
- An effective unlimited supply of fresh water from the lake and precipitation;
- Inherent Food Security;
- A naturally “green” environment with natural foliage and woods/forests (those that haven’t yet be cut down);
- Natural topography with generally mild slopes, appropriate for both cultivation and habitation and breathtaking vistas and views;
- The wetlands that have survived a century of abuse and still serve as the City’s filter;

- The absence of any significant known natural threats with even fire risks mitigated by frequent precipitation and “green” foliage and flood risks, whilst significant at specific points, being limited in scope and scale; and much more.

All this, despite a century of abuse of many of nature’s gifts.

Indeed, all the City’s woes as detailed above and throughout the report are not naturally derived but rather the result of human action or inaction, decisions or lack thereof, implementation or lack thereof. And as such most are reversible as the natural fundamentals remain very positive.

The City of Learning

Kampala is a society obsessed with education, with almost the entire population committed, often at the cost of deprivation, to education for themselves and particularly for their children.

Education is the key-pin in both the public and private realms for breaking the cycle of poverty and the achievements to date are indeed impressive.

The road to economic development on the macro scale and upward socio-economic mobility on the micro scale through education is a tried and proven track. However it is not a smooth ride. Rapid development and change inevitably produces imbalance, often serious imbalance, between the various elements. In Kampala’s present conjuncture the imbalance lies primarily in the growing gap between the professional labour force’s size and capacities and the growth of appropriate economic sectors to absorb and utilise the large and growing pool of capacities. The education production system also needs to be fine-tuned to produce graduates appropriately trained for more productive sectors.

There is an inevitable built-in developmental time-lag between elements. However, if and when productive economic sectors establish, grow and absorb the trained, professional workforce, the economy and with it the City will boom. The challenge is to:

- Restructure the local economy towards productive, added value activities and sectors;
- Shorten the time-lag and smooth the bumps as best possible by actively enabling and supporting appropriate development; and
- Retaining and protecting the growing knowledge pool until the gaps are closed.

As the products of the education reforms of the past decade enter the labour market, the capacity of the entire City and its economy will receive a significant boost. The challenge is build the foundations of a new modern economy to absorb and capture this capacity.

The City of Opportunity

Despite all its short-comings and problems Kampala has seen an economic boom over the past decade, based largely on the foundations of the economic and social stabilisation and growth of the previous decade.

As indicated above the foundations for further, rapid growth are being laid in the City's schools and tertiary institutions. And, with the economic growth will come the potential for the resolution of many of the City primary problems. Utilities and services will become affordable to many, demand will rise, thresholds will be achieved, marginal costs will fall and utilities and services can be made affordable to even more.

In addition, as income levels rise demand for improved housing will rise and the construction industry will have to adapt radically to meet demand. If it does so, productivity will rise and standards of construction will improve and the very face of the City can begin to upgrade.

With economic growth, opportunities will increase, specialisation can find its feet and entrepreneurial initiatives can spring up (some more successful, some less so), expectations will rise and actors will enter the market and, if enabled, the administrative and service systems to meet expectations and demand.

These processes and potential are already evident in the growing Middle Classes, with more and more professionals and businessmen and women rising into the Middle Classes.

And there is an upcoming Urban Generation, "street-wise" and with a distinct urban orientation, growing up in the City and demanding and preparing itself to lead Kampala to a new, different future.

1.2 Kampala's Future Development

1.2.1 Primary Development Scenarios

The Consultant identified, defined and analysed alternative development scenarios for Kampala's long term development as a Mega City. These are:

- **Business as Usual Scenario** with ongoing trends resulting in a relatively more organised but distinctly Dual City with wide gaps and growing structural imbalance; this scenario is clearly undesirable but highly feasible, indeed probably;
- **Worst Case Scenario** with accelerated in-migration leading to an unsustainable, unserviceable, unmanageable Mega City, languishing behind its competitors in East and Central Africa; this scenario constitutes a clear existential threat to be avoided at all costs;

- **Best Case Scenario** wherein determined intervention allows for Kampala to develop as a modern, functional, balanced Urban System leading Uganda and indeed the region towards the Vision defined in the NDP; this scenario is clear preferable but its fruition is dependent on significant intervention, investment and comprehensive structural reform.

Analysis of these scenarios clearly indicates that Kampala is at a critical crossroads and the strategic decisions and actions will determine the nature of the City for years to come.

Consultant's analysis further indicates that the Best Case scenario is indeed feasible but is conditioned on both significant structural reform and very significant investment in infrastructure and services.

1.2.2 Vision for Kampala's Long Term Development

The proposed vision for Kampala's long term development is based on:

- National Policy and Vision as defined in the NDP;
- KCCA's Strategic Vision;
- The opportunities and constraints for future development as identified in KPDP SR;
- Stakeholder and Civil Society feedback and Client and Steering Committee direction.

The proposed Vision for the long term development of Kampala, is that of a **Modern, Functional, Balanced City and Metropolitan System:**

- **Driving Uganda's Growth, Transformation and Modernisation; and**
- **Ensuring Kampala's future as a Vibrant, Attractive and Sustainable City.**

In so doing Kampala will fill a number of essential roles and functions:

- Hub of an integrated, balanced Urban System in Uganda;
- Engine of Growth for Uganda, enabling and driving prosperity;
- The "Garden City of Africa" - the Gateway to and Showcase of Uganda;
- Capital City and Seat of Government;
- Leading Cultural and Educational Centre of East and Central Africa;
- Centre of the Buganda Kingdom;
- Quality Home and Living Environment for its residents;
- Tourism Destination and Hub.

These roles and functions and their implications for planning and development are detailed in **Section 5.2**.

1.2.3 Development Strategy

The Vision defined above presents challenge of a generational scale. The preconditions for such development have to be set in place before Kampala can begin to develop into the City its decision-makers and residents desire. These preconditions need to be met largely over the coming decade, the defined planning horizon of the KPDP.

However, Greater Kampala currently houses a population over 3 million and is growing rapidly. The current population cannot and should not be required to sacrifice their basic requirements solely to enable future growth and prosperity. They too need to be catered for, albeit within the limits of reasonable capacity.

Hence, the Consultant recommends a dual development strategy as indicated in **Figure 1** below, incorporating:

- “Laying the Foundations” for future growth - resolving structural constraints, putting essential infrastructure in place, enabling and directing future growth;
- “Getting the Basics Right” as soon as possible - rationalizing and upgrading services; creating opportunities and enabling entrepreneurship; improving in as much as possible services, utilities and housing from inadequate to basic standards, from basic to reasonable standards and from reasonable to high standard as appropriate.

This dual strategy is designed to introduce greater balance in Kampala’s development whilst at the same time contributing to the improvement of the Quality of Life of the resident population; thereby establishing the platform for Kampala’s future development as a modern, vibrant and sustainable City.



Figure 1: Dual Development Strategy 2012-22

This requires intervention on both the national and local, city and metropolitan, scales. Essential national level intervention includes:

- **National Rural-Urban Integrated Development** to meet the bulk of the mounting demand for employment, education and services of Uganda’s rural youth in their home regions;
- **Resolution of Urban Land Tenure Constraints**, particularly “dual tenure”, essential to enabling the property market to function efficiently to meet projected scale of demand for housing and for employment facilities to the requisite standard and in the shortest possible time,
- **Resource Development** is essential to allow both the public and the private sectors to respond to needs and to demand on the scale required.

Essential metropolitan and city level intervention includes:

- **Balanced, Structured Metropolitan System** as detailed in **Section 7**.
- **Adequate Supply of Land** as detailed in **Section 6.2**.
- **Integrated, Multi-modal Movement System** as detailed in **Section 117**.
- **Systematic, Integrated Planning** as detailed in **Section 7**.
- **Comprehensive Infrastructural Development** as detailed in **Section 12**.
- **Economic Development** as detailed in **Section 6.4**.
- **“Greening” Kampala** as detailed in **Section 6.7**.
- **Developing Infrastructure** as detailed in **Section 12**.
- **Providing Services and Enabling Activities** as detailed in **Section 0**.
- **Providing Housing** as detailed in **Section 6.6**.
- **Social Development** as detailed in **Section 6.5**.
- **Public Space and Public Open Space** as detailed in **Section 10.7**.
- **Providing Services** as detailed in **Section 0**.
- **Resource Development** to be detailed in the Final Report.

1.2.4 Development Goals, Targets and Policy

To bring Vision to fruition requires concrete actions in a wide range of fields. To this end specific targets and goals need be set and appropriate policies defined, adopted and implemented. This presents the Consultant’s proposals for developmental targets, goals and policy in the following fields:

- **Population** - planning for some 5.8 million in the KPDF and KPDP, approximately half in the KCCA, with long term GKMA capacity estimated at some 8 million; whilst improving housing and living conditions and ensuring Quality of Life for the City’s inhabitants;
- **Built Areas and Supply of Land** - with projected built area growth being from the current 355 km² to 485 by 2022 and 655 km² over the long term,

whilst retaining over half the extended GKMA land mass as natural (wetlands, forests, etc.) and rural.

Supply of land requires significant structural reform as detailed in **Section 6.2**;

- **Densities and Intervention Approach** - to constrain the scale of the built area priority needs to be given to the densification of the existing built areas and to ensuring future development occurs at the requisite density. The recommended density targets and the requisite mechanisms are detailed in **Section 6.3**.

- **Economic Development** - planning for a work force of close on 4 million with some 2.6 million economically active in the KPDP and KPDP, approximately 60% in the KCCA, with long term GKMA work force estimated at some 5.3 million with some 3.5 million economically active;

The challenge is not merely to provide basic employment but to ensure appropriate employment on the appropriate scale and at the appropriate locations to pull the bulk of the City's population out of poverty whilst enabling Kampala to develop and function in an organised, efficient manner. This will require significant restructuring of the local economy, the composition and capacities of its workforce, its sectoral structure and its spatial composition (Space Economy).

In addition to the spatial provision for employment defined in the KPDP and KPDP herein there is a clear and urgent need to plan for and enable the City economic development in an integrated manner. Whilst **Section 6.4** presents recommended targets, goals and policy the Consultant stresses the need for an integrative **LED**.

- **Social Development** - Kampala's future balanced and sustainable development is dependant, inter alia on its capacity to absorb the scale and rate of rural in-migration, to facilitate the modernization and integration of the migrants whilst ensuring the upward socio-economic mobility of its current population and social stability. This is no mean task and requires coordinated, integrated intervention on a large number of fields.

To meet these challenges the Consultant recommends priority be given to:

- * **Education** for the City's population from early childhood to adult education as detailed in **Sections 6.5.5 and 10.2** (to be detailed in an Education and Community Development Master Plan);
- * Provision of and access to **services** as detailed in **Section 0**;
- * Provision of appropriate **employment** opportunities, as detailed in **Section 6.4**, whilst ensuring effective access, both physical and vocational, to such opportunities;
- * Provision of appropriate **housing** solutions as detailed in **Section 6.6**;

- * **Tackling poverty**, as detailed in **Section 6.5.2**, and Slums, as detailed in **Section 6.5.3**;
 - * **Community Development** as detailed in **Section 6.5.4**.
 - * **Health** as detailed in **Section 6.5.4**.
 - * **Cultural Preservation and Enhancement** as detailed in **Section 6.5.4** including the preservation and/or restoration of historic buildings and sites.
 - * **Gender** as detailed in **Section 6.5.8**.
- **Housing** - The scale of the housing challenge facing Kampala is enormous as indicated in **Table 1** below, particularly given the existing shortfall in housing in the City as detailed in the KPDP SR and assuming economic growth targets are achieved.

Table 1: GKMA Housing Targets

Indicator and Standard	2011	2022 Target	Long Term Target
Residential Units	800,000	1,500,000	2,200,000
Average Residential Unit (m ²)	55	70	78
Housing Welfare Standard (m ² /capita)	14	19	22
Built Floor Space (m ²)	45,000,000	112,000,000	173,000,000

Note: Rounded figures.

Meeting these targets will require:

- * Provision of **new housing** solutions, primarily apartment blocks as well as multi-unit town-house complexes, row-housing, higher density double storey single and semi-detached houses and appropriate basic shelter solutions as detailed in **Section 6.6**;
- * **Densification and upgrading of the existing housing stock** as detailed in **Section 6.6**;
- * Provision of **appropriate basic shelter** including such solutions as hostels, core housing, site & service and upgrading of *Muzigo* - all to minimum standards and with predesigned options for future upgrading and/or conversion to basic housing (e.g. hostels to apartments, *Muzigo* to row-housing, extension of core housing, etc.) as detailed in **Section 6.6.4**;
- * Adequate **supply of both large scale and single plot (re)developable land** itself dependent upon intervention as detailed in **Section 6.2**, particularly resolution of land tenure constraints;
- * Appropriate **design solutions and construction technologies**;
- * Development of an effective, efficient **Construction Industry** with adequate capacity and finance;

- * Appropriate **Sectional Title** legislation and administrative systems;
 - * Development of a **Mortgage System** providing adequate, accessible finance at economic rates;
 - * **Public Sector initiative and support;**
 - * **Public Sector Capacity**, in the KCCA and in KMTC LAs.
- **Environment** - Kampala's natural environment is one of the City's greatest strengths, under constant threat and pressure but still retaining immense value and potential. On the other hand, the City's built environment is one of its greatest weaknesses and constitutes a dire and growing threat to Kampala's sustainable development.

The primary threat to Kampala's valuable ecosystem is the absence of an appropriate sewage system to deal with the effluent produced by human habitation, resulting in degradation of the wetlands and associated ecosystems and contamination of Lake Victoria and groundwater. A city of 5-8 million population, and certainly its core, cannot develop sustainably nor function reasonably without a comprehensive piped sewage system. Indeed, high density housing of even basic standard, and certainly all multi-storey housing, even 3-4 storey walk-ups, have to be connected to an appropriate piped sewage system. From Roman times on, it is recognised that the first key to a sustainable city is its water and sewage system.

The implications of adopting any alternative approach (as sludge collection) is to develop Kampala as "wall to wall" *Muzigo*. As such, development of a comprehensive piped sewage system must take priority.

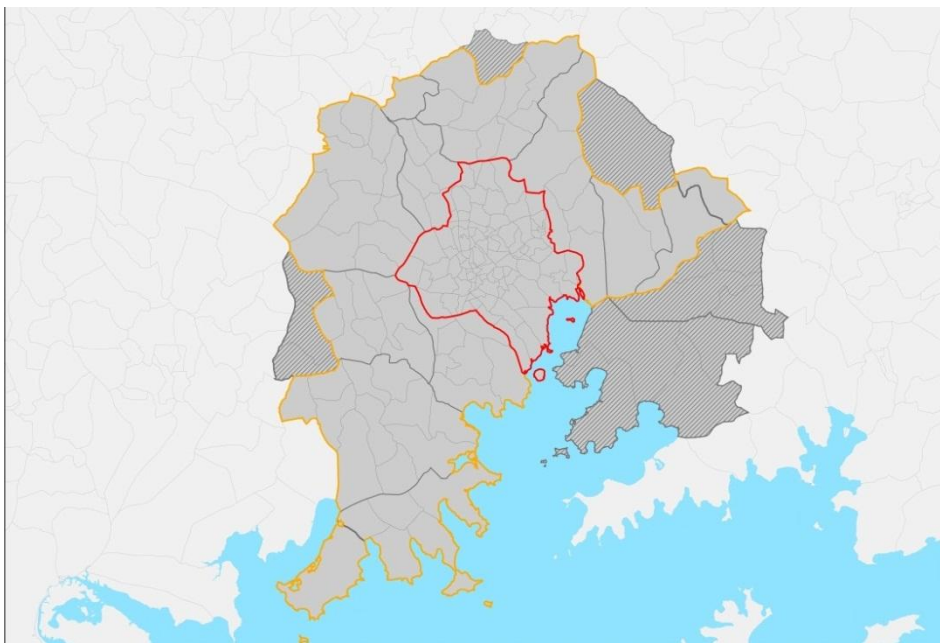
In addition the Consultant recommends:

- * Protection and rehabilitation of Kampala's **degraded wetlands** within the urbanised built areas as public open space and/or sports facilities;
- * Protection and preservation of Kampala's **non-degraded wetlands** beyond currently urbanised built areas in their natural state;
- * Strictly conserve and actively protect all natural forests;
- * Restock and protect indigenous flora and fauna as detailed in **Section 6.7.3**;
- * Plan and prepare for potential impacts of Climate Change as detailed in **Section 6.7.3**;
- * Protect and rehabilitate groundwater resources as detailed in **Section 6.7.3**;
- * Reduce sources of **air pollution** as detailed in **Section 6.7.3**;
- * Planting of **trees** on a significant scale, including the development of **commercial forestry**;
- * Upgrade the built environment as detailed in **Section 6.7.3**.

1.3 Physical and Spatial Planning of Kampala

1.3.1 Special Planning Area (KSPA)

Following analysis of the needs, constraints and potentials of the Kampala area the consultant recommended the extension of the TOR planning area boundaries to include areas outside of the GKMA. The consultant proposed declaring a Special Planning Area (KSPA) which will in practice form the metropolitan area of Kampala. The KSPA boundaries constitute a formal framework for the KPDF and KPDP and overlap the two treatment areas.



Map 1: Kampala Special Planning Area (KSPA)

1.3.2 Planning Hierarchy of the Kampala Special Planning Area (KSPA)

The KSPA was divided into four levels of planning:

1. Metropolitan Structure Plan
2. KCCA and Metropolitan Zone Structure Plans
3. KCCA Quarters and Precinct/Neighborhood Physical Development Plans (PPDP)
4. Site Development Plans (SDP)

The following flowchart illustrates the KSPA planning hierarchy.

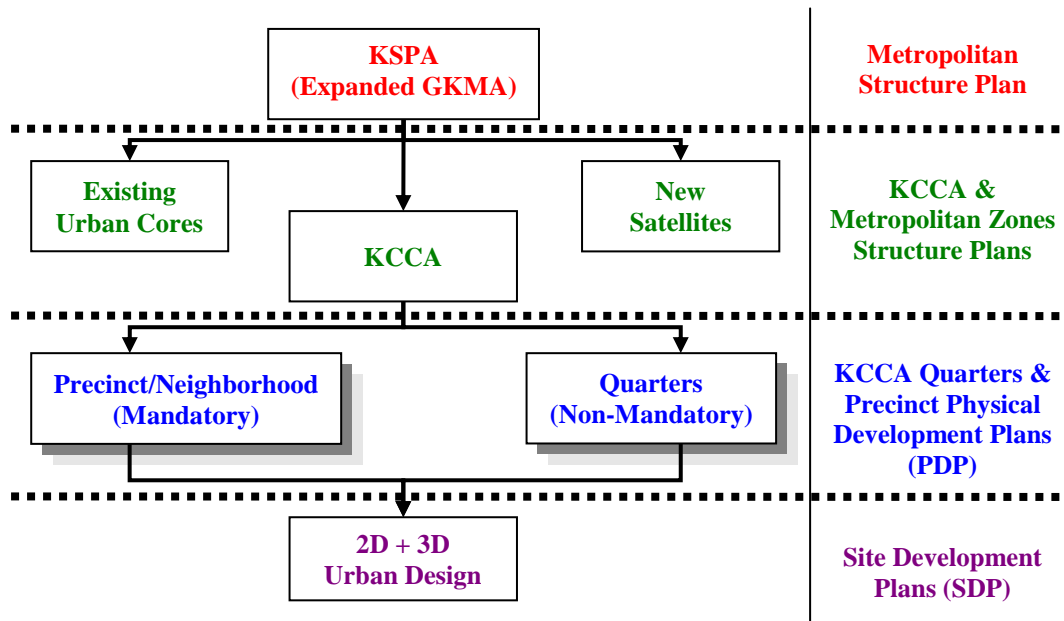


Figure 2: Planning Hierarchy of the KSPA

1.3.3 Conceptual Structure of GKMA

1.3.3.1 Spatial Analysis

The consultant conducted a Spatial Analysis of the existing situation in the GKMA. The analysis examined the current and future in-migration tendencies in the GKMA and the possible effects on urban sprawl. Increased in-migration will have a major effect on the structure of the urban tissue. Kampala today is characterized by extensive urban sprawl which extends beyond the boundaries of the KCCA into the peri-urban and rural areas of the KMTC. The result of this situation is disjointed and incremental growth.

1.3.3.2 Threats and Implication

The continuation of unplanned growth holds several dangers to the future of the city:

- Further burdening existing infrastructure
- Poor functioning of metropolitan systems
- Decreasing quality of life and living conditions
- Destruction of urban economy
- Damage to ecological system
- Blocking modern development

The implications of the unbalanced growth and unplanned urban development pose an **existential threat to Kampala and must be avoided at all costs.**

1.3.3.3 Spatial Planning Strategy

Based on the analysis of the future scenarios and threats the consultant composed a Spatial Planning Strategy which guided the creation of the KPDF and KPDP.

- A new Physical Vision for Kampala will guide the development of the city and metropolitan area in a **planned and organized manner.**
- **A National Comprehensive Urbanization Policy and Physical Plan** will boost the development of existing and new towns.
- Strengthening existing and new urban centres will **ease the pressure on KCCA infrastructure and services**, allowing the city future development.
- A planned metropolitan structure will **eliminate unbalanced sprawl.**
- Sustainable development which **protects the most important existing natural resources** will ensure the future of Kampala as a modern and quality city for future generations.

1.3.3.4 Conceptual (Topological) Spatial Models

In the analysis of the current situation and potentials the consultant examined several metropolitan planning models for the future development of the GKMA. The examined models are based on existing models of town planning from around the world and were adjusted to match the conditions of the specific situation of the Kampala metropolitan area. Four models were examined:

- The “Independent Satellite Cities” Model
- The “Urbanized Belt” Model
- The “East-West Corridor” Model
- The “Radial Integrated” Model

Each model has strengths and weaknesses, and offers different potentials in the GKMA context. In order to assess the suitability of each model and choose the most suitable spatial model for the GKMA, a suitability analysis was conducted.

1.3.3.5 Spatial Suitability Analysis

The evaluation of metropolitan planning models was conducted through a Location Analysis and Spatial Suitability Analysis process. The Suitability Analysis was conducted on two levels: The entire metropolitan area and specific sites which were identified as having greater potential.

The Spatial Suitability Analysis for the GKMA included the following layers: Orthophoto, Parishes and Boundaries, Density, Landuse, Open and Restricted Areas, and Topography and Slope Analysis.

The first stage of the Suitability Analysis pointed to four potential areas for development within the KSPA boundaries:

- Mukono-Goma-Kira
- Wakiso-Nansana
- Ssisa-Nsangi
- Nakisunga-Ntenjeru
- Entebbe

A Detailed Sites Analysis was conducted for the areas (not including Entebbe). Each area was examined according to four criteria: Permitting terrain, Connection to urban structure, Low density and vacant land, and Large available area. Each area received a score for each criterion, the score was summarized in a Spatial Suitability balance sheet and the total score calculated to reveal the areas with highest potential for new development and for strengthening of existing core.

1.3.3.6 Conceptual Structure Scheme

Cross referencing of the Suitability Map with the possible Conceptual (Topological) Schemes reveals that the most suitable model is the “Radial Integrated” Model adjusted according to the Suitability Map. The combination of the two creates a hybrid model which best represents the existing situation in the GKMA and the potentials for the metropolitan area.

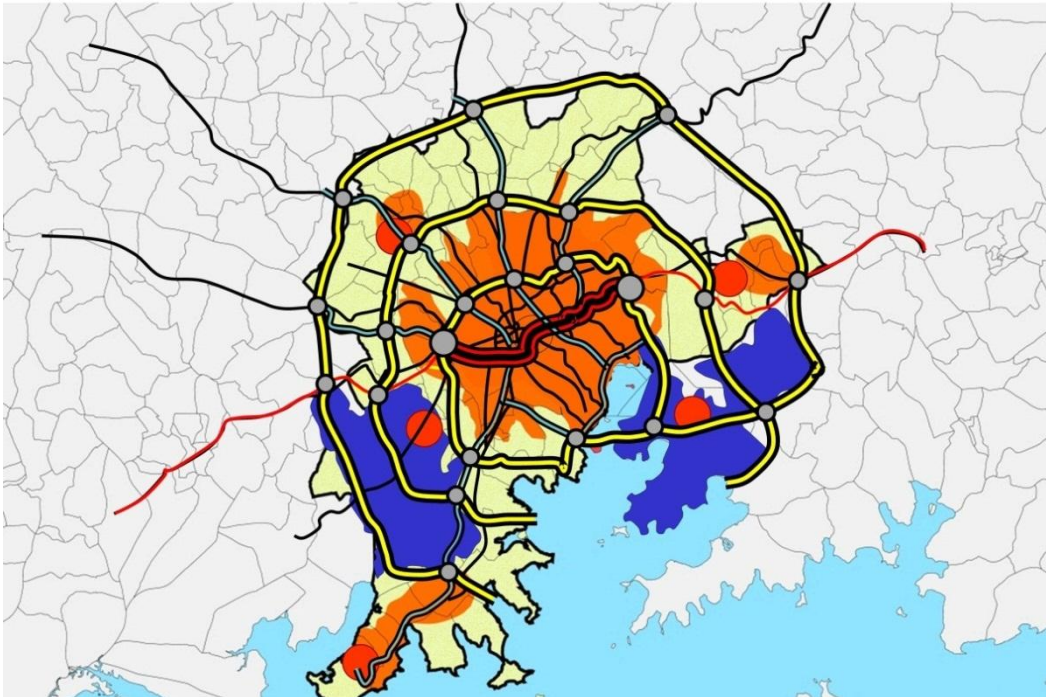
1.3.4 GKMA Physical Vision and Policy

The integration of the Conceptual (Topological) schemes and Suitability Map led to the crystallization of a Physical Vision and Development Policy for the Kampala metropolitan area. The Physical Development Policy is aimed at carrying out the Physical Vision of Kampala to create a well-organized and modern urban metropolitan system.

The Physical Development Policy is composed of four primary elements:

- Strengthening existing cores.
- Developing new satellite towns.
- Development of the KCCA.
- Construction of a Metropolitan Road System.

The following scheme summarizes the Physical Vision and Development Policy for the Kampala metropolitan area.



Map 2: KSPA Physical Vision and Conceptual Structure

1.3.5 Physical Development Framework (KPDF)

The KPDF includes three planning components:

- A Physical Development Framework for the long term development of the KSPA based on the Physical Vision.
- Long term targets and goals for KSPA development.
- Suggestions for short term (2022) action areas, targets and goals for GKMA development.

1.3.5.1 Structural Layers of the KPDF

The GKMA Physical Development Framework covers several aspects of metropolitan organization. The different aspects are summarized as four levels of the metropolitan structure: Transportation System, Metropolitan Planning Zones, Population Distribution, and Metropolitan Services Hierarchy.

1.3.5.2 Layer 1: KPDF Metropolitan Transportation Plan

The new metropolitan transportation plan incorporates new metropolitan highways and the existing roads system as a local system which passes through and serves the existing and new urban organs. The metropolitan transportation plan is based on a radial structure combining radial highways and concentric ring

roads which together create an efficient and coherent structure. The ring-roads system is divided into three rings: 1. Inner ring, 2. Mid ring, 3. Outer ring.

The new roads are located in presently vacant areas and will serve as a highway system for rapid transport. The most important of the radial roads is an urban freeway which runs through the city centre along an east-west axis.

An extensive BRT system will pass along the existing roads and routes, reaching the centres of population and moving them in and out of the KCCA. BRT stations will be distributed along the routes in a manner which allows easy access to the BRT.

1.3.5.3 Layer 2: KPDF Metropolitan Planning Zones

Based on the new metropolitan transportation system, a new division into Planning Zones (PZ) was constructed. The GKMA and the additional planning areas supplemented to it were divided into eight Planning Zones. The Central Zone (CZ) is surrounded by seven metropolitan Planning Zones: Wakiso-Nabweru (A), Nangabo (B), Mukono-Goma-Kira (C), Nakisunga-Ntenjeru (D), Ssisa-Katabi (E), Ssisa-Nsangi (F) and Entebbe-Katabi (G).

Each of the Planning Zones is to be planned as a functional unit with its own service centres according to the metropolitan service centre hierarchy.

1.3.5.4 Layer 3: KPDF Population Distribution

Following the Suitability Analysis and the division into metropolitan planning zones, two strategies for population distribution are addressed: Widening Existing Cores and Development of new Regional Towns. Each of the areas will receive treatment according to a unique policy chosen for the area in question.

- Widening Existing Cores: As indicated in the Suitability Analysis, there are three areas which are suitable for strengthening and widening of existing cores: 1. Mukono in the Mukono-Goma-Kira area, 2. Wakiso in the Wakiso-Nansana area, and 3. Entebbe in the Entebbe-Katabi area.
- New Regional Towns: Two new satellite towns are proposed in the KSPA: in the Ssisa-Nsangi area and in the Nakisunga-Ntenjeru area. The addition of the new towns will ease the pressure on the KCCA as the main and sole major service centre in the area, and assure the containment of urban sprawl and the sustainable and modern development of the GKMA.

1.3.5.5 Layer 4: KPDF Metropolitan Service Centres Hierarchy

There are four levels of service centres in the metropolitan service centres hierarchy: 1. Central zone (CZ), 2. Metropolitan Zone (MZ) Centres, 3. Quarter Centres, 4. Local Centres. The CZ is the largest of all centres and it serves the entire metropolitan area. The next level of centres is the MZ centres which serve

each its own MZ. Each zone is also served by a system of Quarter centres and Local centres according to the division of the zone into quarters and precincts.

1.3.6 Physical Development Plan (KPDP): KCCA

According to the conceptual KPDP, the KCCA area was identified as an individual planning zone of special importance. The consultant proposes the expansion of the Central Zone to include areas beyond the KCCA boundaries which should be regarded as part of the metropolitan centre and receive a unique planning status.

1.3.6.1 KPDP Spatial Planning Goals

The consultant has identified ten planning goals which should serve as 'ten commandments' for the physical planning of Kampala:

- To create a **multifocal and multifunctional City Centre** composed of special components of metropolitan importance.
- To **enlarge and extend the CBD**.
- To construct an **Urban Freeway** for better accessibility to employment and businesses.
- To develop Kampala as a **Lakefront city** and to connect the lake to the Inner City.
- To change the attitude towards wetlands within the city and develop them to become lively, healthy and functional **Central Parks** of the city.
- To create a **new hierarchy of service centres and sub-centres** and to stop the endless linear sprawl of shops and public services.
- To crystallize a **new spatial system, as part of the city centre, for cultural activities, recreation and tourism**.
- To develop the **hill tops for public use, recreation and tourism**.
- To define and designate new **Urban Quarters and Precincts** as planning entities for better control, management and development.
- To encourage **new housing models**, including affordable housing, in future design of quarters and precincts.

This ten planning goals will be realized in the physical plans for the KCCA area, and will be addressed in detail later on in this report.

1.3.6.2 Structural Models for KCCA

Three structural alternatives for the KCCA were examined for future development of the KCCA:

- The “Ribbon Development” Model
- The “Focal Centres” Model
- The Integrated Model

The Integrated model was chosen as most favourable in the KCCA context. This model will form the basis for the KPDP and as a guideline for detailed planning in the KCCA.

1.3.6.3 Structural Layers of the KPDP

The KCCA Physical Development Plan covers several aspects of the city structure. The different aspects can be summarized as levels of the city structure: Transportation System, Landscape Resources, City Planning Zones, Population Distribution, City Services Hierarchy, City Centre Components, and Residential Area Planning.

1.3.6.4 Layer 1: KPDP Transportation System

The new KCCA road system is composed of four types of roads of different hierarchy:

- The Urban Freeway which passes through the centre of the city from east to west.
- Urban Highways which are either upgraded existing roads or newly constructed roads.
- Existing major roads which are not upgraded to Urban Highways, but which remain significant in the road system as they connect different areas in the city.
- Existing minor roads which do not have a significant role in KCCA connectivity.

The transportation system for the KCCA includes an extensive BRT system based on the existing road network. The BRT system will be able to pickup people from within their neighbourhood and to transport them to important locations within and outside of the KCCA.

1.3.6.5 Layer 2: KPDP Landscape Resources

KCCA Topography: Kampala is located on a hilly topography and the hills are significant in the Kampala landscape and inner structure. The hilltops are

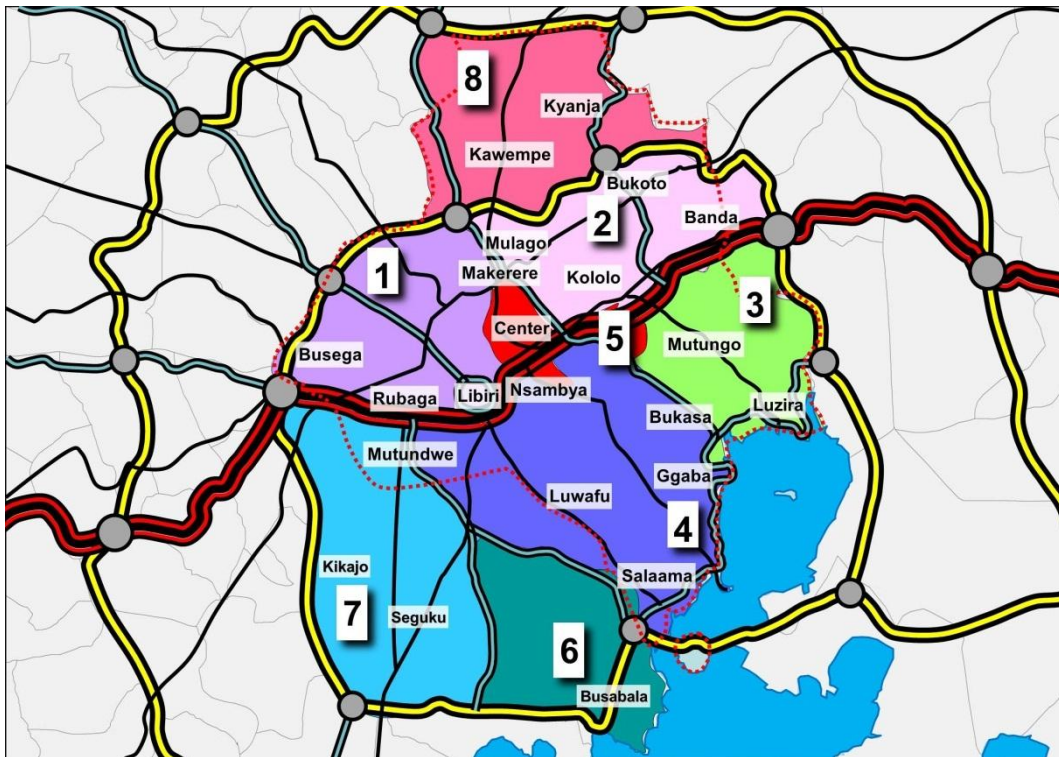
especially important as they offer great potential for development as a system of tourist and recreational areas

KCCA Open Spaces and Urban Parks: The consultant proposes transforming the wetlands within the city boundaries to a system of urban parks which will function as the city's green system. Development of the wetland areas as urban parks will allow the preservation of the wetlands' role in the ecological system while eliminating the problems that occur due to their location within the city.

Lakefront: One of Kampala's landscape resources with the greatest unfulfilled potential is the lakefront on the shores of Lake Victoria. Development of the lakefront as a recreation, business and service centre, through proper drainage and design, will help protect the lakeshore and stop encroachment.

1.3.6.6 Layer 3: KPDP City Planning Zones

The CZ was sub-divided into Quarters and Precincts which act as functional planning units according to the city's internal structure. Following functional considerations the CZ area is divided into eight Quarters which were then divided into 29 Precincts.



Map 3: Quarter Sub-division

1.3.6.7 Layer 4: KPDP Population Distribution

The definition of the city quarters as planning units makes it possible to examine each of the quarters' potentials. Each of the quarters was analysed according to its size, current population density and its short and long term capacity.

1.3.6.8 Layer 5: KPDP Services Hierarchy – Focal Crystallization

The city's service centres are organized in a hierarchy of 1. CBD 2. Quarter service centres and 3. Local service centres. The purpose of the centres is to supply necessary employment, education, health and services centre for the inhabitants of the city. The focal crystallization offers an alternative to the existing sprawl of service and commerce along main roads. This will allow supplying the inhabitants of the city with organized and accessible services.

1.3.6.9 Layer 6: KCCA City Centre Components

The quarters defined as the Inner City hold the majority of the special elements in the city. These elements are unique in the KCCA and have both functional and conceptual significance. The City Centre components include:

- Cultural facilities: The main cultural facilities are located in Quarter 1 and include Libiri, Kabaka's Lake, Bulange, Kasubi, the Gadaffi Mosque, and the Rubaga Cathedral.
- Health services: The Mulago Hospital, one of Kampala's most important health centres, located in Quarter 2.
- Educational facilities: Two important Educational facilities exist within the KCCA boundaries – the Makerere University in Quarter 1 and the Kyambogo University in Quarter 2.
- Industrial sites: Both Quarters 2 and 5 contain industrial sites which are located along the route of the planned Urban Freeway and do not realize their full potential as residential, business, and employment centres.
- CBD: The CBD in Quarter 5 includes a variety of mixed uses such as commerce, transportation, government and financial services. The consultant proposes an urban design scheme for the extended CBD area. The urban design scheme includes restructuring the CBD area into a modern and organized business centre. The Extended CBD is defined as a Quarter or its own – the City Centre Quarter.

1.3.6.10 Layer 7: KPDP Residential Area Planning – Intervention Approaches

The development processes the city of Kampala must go through include raising the overall density of residential areas in the city. Densification can be achieved by applying several intervention approaches to new and existing urban tissues. The intervention approaches include: Preservation, Redevelopment, Infill and Densification, Slum Avoidance and Upgrade, and New Development.

1.3.6.11 Threats and Obstacles

The successful restructuring and transformation of Kampala's Inner City is dependent on the ability to face and overcome certain threats and obstacles.

- **Slums:** The main threats presented by the location of the slums is the growth of the slum into the site for development making it difficult to redevelop the area and concern for the image of the new development areas.
- **Wetland encroachment:** One of the implications of wetland encroachment on the future development of the city is the threat of losing precious natural resources, eliminating all possibility of developing substantial open green spaces inside the city.
- **Preservation of Transportation options:** As the city continues to develop there will be an increasing need for new and upgraded roads. With the rapid development of the city it will become ever harder to locate new areas in the city for future development.

1.4 Kampala's Transportation & Movement System

1.4.1 Transportation Vision and Development Strategy

To overcome the transport problems identified and detailed in the KPDP SR the Consultant proposes the following vision and objectives:

The Transportation Vision for Kampala 2022: By 2022 the Kampala Transport System will be integrated, sustainable and safe; providing access to basic services to all residents in an affordable manner.

Several quantitative goals and objectives were defined by the consultant to reach the proposed vision.

To meet these objectives, the Consultant proposes a Transportation Development Strategy for the following sub-sectors: Roads, Public Transport, NMT and Traffic Management.

The main recommendations are:

1.4.2 The Road Network

The proposed road network for the long term for GKMA is presented in the following map.

The proposed development strategy for the road network is:

- Develop as soon as possible the urban freeway. It is recommended to explore private sector involvement, as we recommend accompanying the construction of the urban freeway with high quality residential and commercial

development, as can be seen in the 3D simulation shown elsewhere in this report.

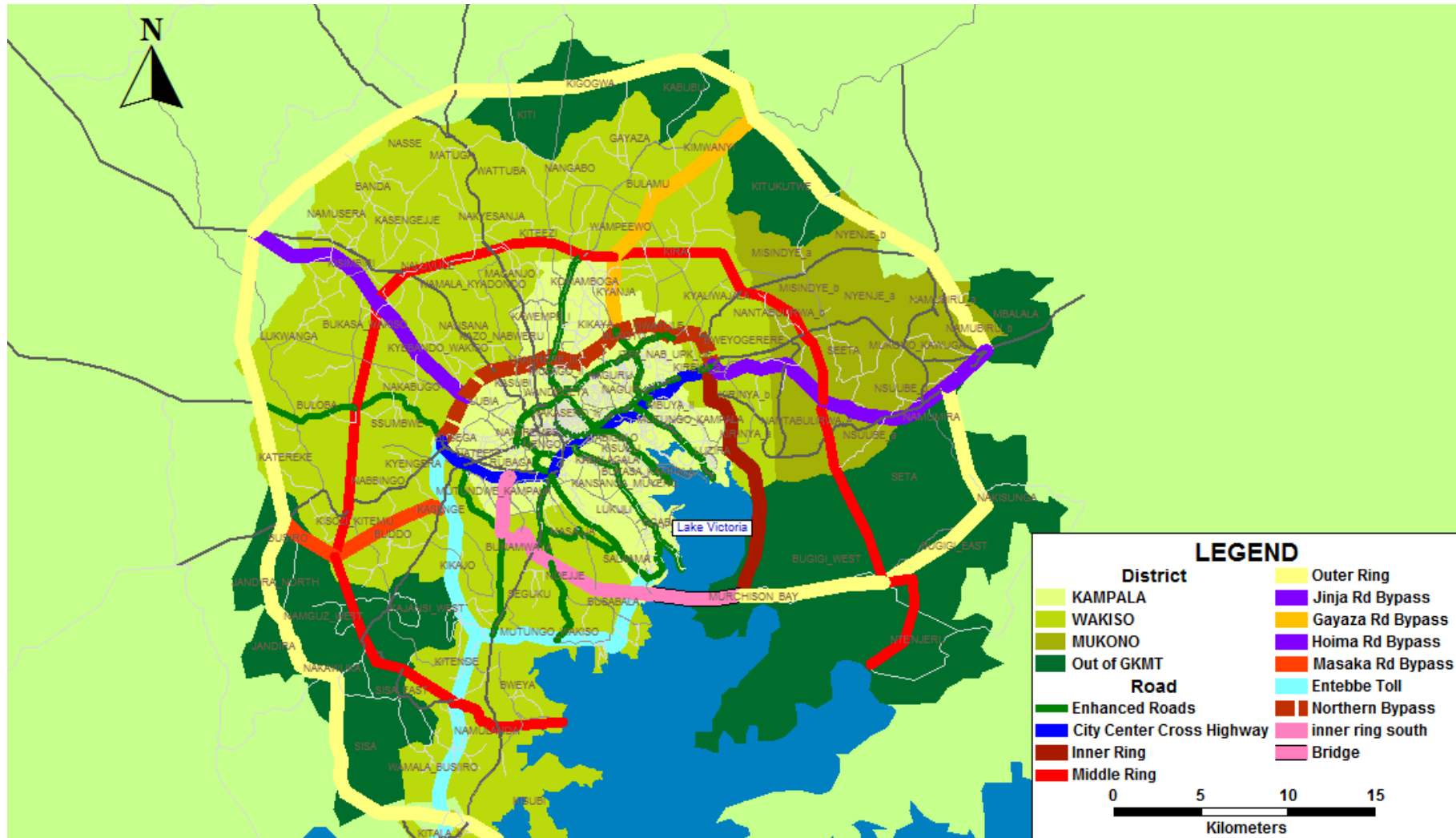
- Prepare feasibility study and detailed design for the Southern by-pass section of the inner ring road and explore PPP options, including toll.
- Reserve the necessary ROW for the rest of the roads proposed for GKMA and KCCA, especially for the second ring road.

1.4.3 The Public Transport Sub-Sector

The most important policy recommendation in the transport sector is to introduce a Mass Rapid Transit (MRT) system as soon as possible. This means that for the first stage, the MRT will be based on buses and will have the characteristics of a BRT. Later, it is recommended to introduce urban rail service in the form of an LRT system.

The proposed strategy to develop an efficient, attractive and affordable PT services for KCCA by 2022 is as follows:

- Establish a Public Transport Authority (or any equivalent to a strong regulator): There is an urgent need to create a strong entity that will manage, operate, regulate and enforce integrated public transport services in KCCA. Without such an entity, it will be almost impossible to have an efficient integrated public transport service. There is a need to recruit and train the personnel as well as to create the necessary legal base for its operation.
- Adopt a public transport master plan for KCCA: The master plan should include: (1) the list of proposed services (BRT, LRT, rail, taxi, boda-boda), (2) the proposed integrated routes, (3) the integrated fare structure, (4) integrated public information system, (5) the proposed MRT corridors, (6) order of priority for implementation, (7) preliminary demand and revenue forecasts for each service, and (8) procurement plan for implementing the integrated public transport service
- Conduct feasibility studies and a detailed design study for the required services according the identified priorities
- Construct the corridors and procure the services according to the procurement plan.



Map 4: Proposed New Road Network for the GKMA

1.4.4 The NMT Sub-Sector

The following development strategy is proposed:

- Identify all current major walking routes (i.e. routes with more than 1,000 pedestrian per hour per direction). Review the available walking infrastructure and prepare detailed design and tender documents for the provision of adequate walkway infrastructure. The design should be based on international standards for walkway widths and quality
- For each proposed BRT station, identify relevant walkways routes in a radius on 2 km from the station, and design and construct the walkways based on international standards
- For each local centre, identify walkways in a radius of 2 km, design and construct the walkways based on international standards
- Adopt new geometric design standards for urban roads that include the necessary width for separated and paved walkways along the street.
- In any new urban road include a proper walkway in the cross section. Similarly, whenever an existing urban road is reconstructed, introduce paved and separated walkways as part of the new cross section.
- Identify main potential cycling routes that will connect major residential locations to main and local activity centres. Prepare a master plan for cycling routes for KCCA for 2022 that will include at least 200 km of cycling lanes, mainly along existing roads and streets.
- Adopt best international geometric design standards for safe cycling lanes and select several corridors for detailed design and construction
- In parallel, for each BRT corridor that will be designed, include cycling lanes as part of the overall cross section. Similarly, along every new road, introduce cycling lanes as a standard part of the overall cross section
- Develop a comprehensive communication strategy to increase cycling awareness among decision makers and potential users
- Develop a comprehensive cycling outreach program, to include all major employers in KCCA. Identify potential infrastructure needs (i.e. bicycle parking facilities and bicycle lanes leading to these locations) and prepare a plan to provide these facilities.
- Select carefully a pilot project, construct the necessary lanes and parking facilities, and launch a communications campaign to increase awareness and usage.
- Conduct “before-after” surveys and draw conclusions from the pilot project

1.4.5 The Traffic Management Sub-Sector

The proposed traffic management strategy for KCCA 2022 is as follows:

- Relocation of the main taxi stage (old park and new park) away from the centre
- Relocating of the smaller taxi stages from the main roads
- Introducing new on-street parking regulations especially along the main roads.
- Evacuating all commercial activities that encroach the roads' ROW
- Redesign of traffic circles in city centre and replacing them with traffic signals
- Introduction of a new parking management system
- Restructuring taxi routes to reduce the number of taxis along main roads

1.5 Kampala's Infrastructural Systems

There are many gaps in the infrastructure of Kampala, the major ones of which have severe implications for the health of the population, the ecological system, and an acceptable urban environment for the residents of Kampala. All of Kampala's future residents should be protected from floods, have easy access to clean water, and be served by piped sewerage systems and regular collection of solid waste, as detailed in **Section 12**. There also needs to be careful coordination so that the KPDP urban growth model and plans for infrastructure development are consistent. Consultant's recommendations include:

- Planning of infrastructure development be based on the **long term capacity** projections and short to medium term investment programmes be derived therefrom;
- Planning be based inasmuch as possible on the use of **integrated infrastructural corridors** based on the proposed road system; ROWs be defined to include relevant infrastructure requirements; and acquisition costs be shared;
- **Investment priority** be placed firstly on servicing and enabling the development of new employment centres; and secondly on upgrading the Inner City (CZ) and existing town centres to enable their upgrade and densification; and thereafter to enable other high density development;
- Ensuring the development of infrastructure on an **economic basis** with appropriate and progressive **fee structures** and adequate **interim financing** to allow Kampala to close gaps and meet future needs;
- All drainage systems, not just Nakivubo, and including those shared with areas outside KCCA, need to be planned in detail and drainage measures implemented accordingly; such measures to take account of sensitive ecological systems and to be combined with appropriate development control

and community sensitisation; at the same time Nakivubo planning needs to be revised in the light of population and economic activity goals and targets;

- Although a high proportion of the population has access to piped water, priority needs to be given first and foremost to upgrading the network supplying high density residential areas to ensure that piped water is actually clean water; and thereafter to ensuring timely increases in the capacity of the system eg. Katosi WTP. There is an urgent need to ensure a drastic reduction in physical losses of water and a decrease in the proportion of the population served only by kiosks and stand-pipes,
- There are critical shortcomings in the current wastewater system, with only one area served with a piped sewerage system and one major faecal sludge treatment works under construction, although implementation of new networks in the Nakivubo and Kinawataka systems is about to commence. Planning at this stage does not address all areas within KCCA, let alone in the rest of GKMA. There is an urgent, essential need to develop a comprehensive piped sewage system for the entire City (KCCA and GKMA towns and urbanised built areas) if the City's vision, targets and goals are to be achieved even in part.
- Solid waste collection, recycling and disposal systems are very weak in KCCA, with inadequate logistics, unauthorised dumping, burning of waste, and inadequate landfill, and no composting facilities perspective. A comprehensive waste handling and disposal system must be planned in close coordination between KCCA and the rest of GKMA, so as to share facilities, obtain economies of scale and enable efficient logistics; This should include a hierarchy of collection, sorting and disposal facilities which promotes sorting at source, diversion to recycling as early in the process as possible, and minimisation of collection and transport costs, with high frequency of collection so that the public is encouraged to use the formal and organised system of disposal, rather than casual dumping or burning. One new landfill - that is physically stable, properly lined and drained and has modern facilities for treatment of leachate and gas emissions and composting facilities must be a major component of the landfill system - is required immediately and more will be needed over time.

1.6 Towards Implementation

The experience of past plans, specifically including that of the 1994 Kampala Structure Plan, as indicated in **Section 3.11** below, clearly indicates the need for appropriate, structured, coordinated and properly funded implementation organs to enable and ensure implementation of the plan.

The Consultant's recommendations are detailed in **Section 15** below. They include the establishment of four formal, statutory implementation bodies:

- **NPB Plan Implementation Committee (NPIC)** - given the unique significance of Kampala to Uganda, a national body, in the framework of the National Planning Board, coordinating, overseeing and directing implementation of both the KPDP and the KPDPF with relevant national institutions. This with a primary emphasis on policy and resource allocation;
- **KCCA Plan Implementation Committee (KPIC)** - a KCCA body coordinating, overseeing and directing implementation of the KPDP on the local level with a primary emphasis on the operational side and on coordination in the field.

The establishment of these implementation committees are incorporated in the proposed statutory provisions of the KPDP (see Appendix A Section 5.2)

- **Kampala Development Fund (KDF)** - a dedicated fund with dedicated revenue source to fund development of infrastructure and public facilities in the City.
- **Kampala Lands Bank (KLB)** - a joint KCCA and ULC body mandated to hold, acquire, exchange and/or subject to clear restrictions sell, plan, manage, enhance, upgrade, develop (directly or in JV) and allocate for public benefit all public (GOU and KCCA) real estate properties in the jurisdiction of the KCCA.

Recommendations further include:

- Strengthening and enabling the KCCA Planning Directorate;
- Establishment of the Kampala Economic Services Corporation (KESC);
- Establishment of the Kampala Municipal Services Corporation (KMSC);
- Establishment of the KCCA Transport Unit (TU);
- Intergation of other KCCA bodies and actors in the implementation of the KPDP;
- Recommendations regarding adaption of Local Government and Municipal Structures to the spatial structures identified in the KPDP;
-

2 Introduction and Background

2.1 Introduction

This Draft Final Report is prepared according to the contract for consultancy services for Updating the Kampala Structure Plan and Upgrading the Kampala GIS unit. The consultancy services are contracted by the GOU and KCCA (“Client”) and provided by ROM Transportation Engineering Ltd. in association with Shapira & Hellerman Planners, Aberman Associates, Tzamir Architects and Planners Ltd. and Ofek Aerial Photography (“Consultant”).

This report integrates and presents the Consultant’s findings and recommendations regarding:

- The historic development of Kampala;
- The current conjuncture of both KCCA and the wider GKMA;
- Primary Development Trends;
- Alternative Development Scenarios;
- Planning Vision for Kampala;
- Quantitative and qualitative development Goals and Targets;
- Development Strategy;
- Planning and Development Policy;
- Proposed Metropolitan Framework Plan for the GKMA;
- Proposed Special Physical Development Plan for the KCCA;
- Institutional Structures towards implementation of the plans;
- Capital Investment Plan (CIP).

These findings and recommendations are based on and derived from:

- Empiric findings and conclusions as detailed in project reports and working papers;
- Steering Committee feedback and directions as detailed in **Appendix C** below;
- Stakeholder and Civic Society feedback in the framework of the Public Participation event as detailed in **Appendix D** below;
- The Consultant’s experience and understanding of the relevant issues as detailed in the body of this report.

2.2 Report Structure

This report is structured as follows:

- **Section 1** contains the Executive Summary;
- **Section 2** presents the background to the project; project objectives; the scope, area and for horizon planning; the status of the plans; and the primary methodology adopted.
- **Section 3** presents a summary of the Consultant's findings on the analysis of Kampala's historic development and current conjuncture;
- **Section 3.11** outlines the primary development trends identified and presents alternative development scenarios identified and analysed and their implications for planning.
- **Section 5** presents the proposed planning vision and development strategy for Kampala including the City's roles and functions;
- **Section 6** presents detailed long and medium term development goals and targets and recommended policy regarding demographic growth; land supply to meet projected needs; densities and intervention approach, economic development, social development, housing; and environment.
- **Section 7** presents the Consultant's approach to the physical and spatial planning of Kampala including planning hierarchy; spatial impacts of the development scenarios; definition and assessment of alternative conceptual (topological) spatial models and their implications; site analysis; proposed conceptual structure and physical vision and policy recommendations.
- **Section 8** details the proposed Physical Development Framework (KPDF) for the GKMA including primary components - transportation system; planning zones; distribution of population and employment; existing cores, new towns and proposed service centres hierarchy.
- **Section 9** details the proposed KCCA Physical Development Plan (KPDP) including goals; definition and analysis of structural alternatives and their implications; primary components - transportation system; landscape resources; planning zones; distribution of population and employment; proposed services hierarchy; city centre components; intervention approaches for residential areas; identified threats and obstacles and an example of city quarter structure.
- **Section 10** details the Consultant's recommendations for land allocation for public institutions, facilities and services including major institutions, education, health, sports and recreation, markets, community services and facilities; public open space and cemeteries.

- **Section 11** details the Consultant’s recommendations for the future transport system for Kampala including transportation vision, goals and objectives, the proposed road network, policy and strategy proposals for an integrate public transport system, for NMT and for traffic management.
- **Section 12** details the Consultant’s recommendations regarding drainage, water supply, wastewater and sewage treatment and solid waste treatment.
- **Section 13** presents the Consultant’s recommendations regarding the institutional and organisational requirements for the implementation of the KPDF and KPDP.
- **Section 14** presents proposed Physical Planning Projects and Action Plans based on the KPDF and KPDP.
- **Section 15** presents the KPDP structural planning layers.
- **Appendix A** presents the statutory documents of the proposed Kampala Spatial Physical Development Plan.
- **Appendix B** presents the project bibliography and references.
- **Appendix C** contains the minutes of Steering Committee meetings informing this report.
- **Appendix D** contains the final report presenting the findings of the KPDP Stakeholder and Public Participation process informing this report.
- **Appendix E** contains the final report on Urban Planning and GIS training.
- **Appendix F** contains the final report on the upgrading of KCCA GIS unit.
- **Appendix G** presents proposed Action Points and the proposed CIP (Capital Investment Plan) for the KCCA and recommended Action Plans for implementation.
- **Appendix H**, under separate cover, presents KPDP maps to scale with detailed legends.

Note: Maps incorporated in the report text are not to scale and are utilised for graphic representation of the subject matter. Scale maps are presented in Appendix H.

2.3 Background to the Project

As part of the Kampala Institutional and Infrastructure Development Project (KIIDP) the KCCA (then the KCC), with the participation and support of the Ministry of Lands, Housing and Urban Development and the Ministry of Local Government, determined a TOR which called for the Updating of the Kampala Structure Plan and Upgrading of the Kampala GIS Unit. Given recent legislative changes, the Structure Plan is now referred to as the Kampala Physical

Development Plan, but the range and depth of planning mandated in the TOR remains the same.

The project is funded by the World Bank, and is being carried out by a consortium of ROM Transportation Engineering Ltd (Israel), Shapira & Hellerman Planners (Israel), Aberman Associates (South Africa), Tzamir Architects and Planners Ltd (Israel) and Ofek Aerial Photo (Israel).

A Steering Committee composed of representatives of KCCA and the relevant ministries and institutions is guiding the project and directing the planning.

2.3.1 Objectives of the Assignment

The overall objective of the assignment, as defined in the TOR, is the preparation of a Physical Development Plan to guide orderly physical and sustainable development of the city over the next decade through a participatory process.

The specific objectives as defined are to:

- Evaluate past planning interventions and draw lessons learnt from it so as to form a basis for the subsequent planning interventions;
- Develop a communication strategy for sensitizing the private and public stakeholders during the preparation and implementation of the structure plan ;
- Prepare a new Physical Development Plan that includes maps, and other graphics, and reports for the planning area;
- Upgrade the existing GIS system so that the information generated in the background studies and during the preparation of the structure plan can be linked and used for further planning and land management;
- Evaluate the manpower and technical / skill capacity gaps in physical planning and land management, formulate a training strategy and conduct on-the-job training programmes for the staff on specific thematic areas;
- Review and develop development standards and guidelines for the implementation of the development plan; and
- Develop a Capital Investment Plan (CIP) reflecting priority intervention areas with cost estimates.

2.3.2 Scope of the Project

The assignment, as defined in the TOR, includes the following tasks:

- Evaluation of the past planning interventions and drawing lessons learnt to form a basis for the subsequent interventions;
- Definition of the planning area boundary for the City region;
- Develop a Community Awareness and Information Dissemination Strategy;

- Organize and conduct consultative forums for all stakeholders;
- Assist in upgrading the current GIS unit to enable it to become an integrated city GIS unit that can efficiently and effectively support the structure planning process and respond to the spatial data needs of all KCCA Directorates;
- Update the physical profile of the City Region to determine the development trends and/or status of the City Region;
- Prepare a base map of the Planning area using an appropriate scale;
- Conduct situation studies and analysis using mostly secondary data;
- Develop and present a physical development framework for the city region;
- Prepare the new physical development plan in accordance with the Physical Planning Act (Cap 246, Revised Laws of Uganda) or the relevant planning law applicable at the time;
- Prepare a broad Capital Investment Plan (CIP) linked to the new city Physical Development Plan;
- Submit the City Physical Development Plan to the then Town and Country Planning Board for consideration. Under the new legislation the relevant body is the Kampala City Planning Board;
- Present and deposit of the best plans to all stakeholders;
- Receive public comments/representations from the respective Councils and incorporate comments where necessary;
- Presentation of the plan to the Urban Councils and depositing for 3 months;
- Secure recommendation/approval minutes from the Urban Councils;
- Presentation of plans to the then Town and Country (now National) Planning Board for consideration

The Consultant's approach and recommendations regarding the methodology and process required to meet these tasks were detailed in their proposal and updated in the Inception Report.

2.3.3 The Planning Area

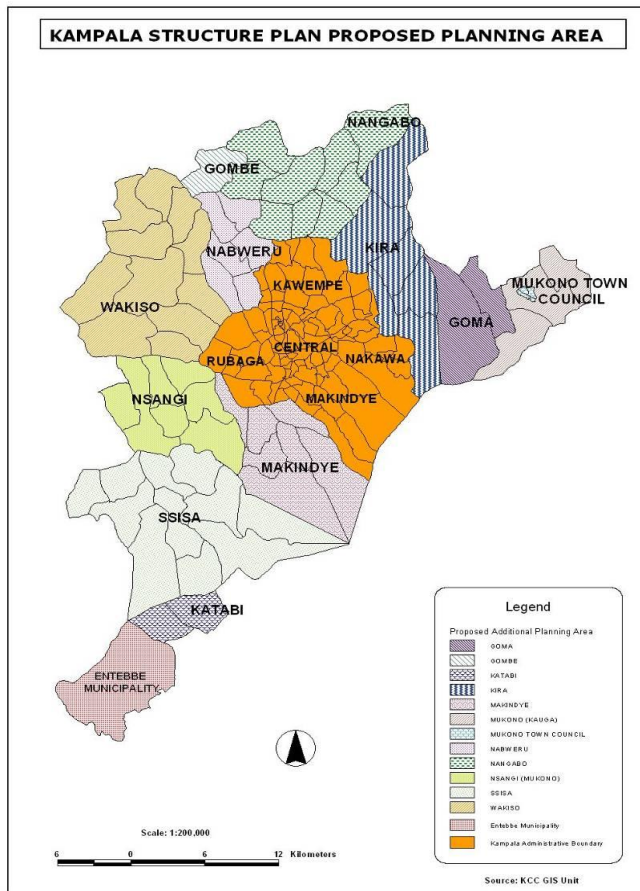
The TOR defined the scope of the assignment as the City Region or Greater Kampala Region which is in effect the Greater Kampala Metropolitan Area (GKMA) as defined therein, in addition to the jurisdiction of KCCA. A Development Framework is to be produced for the GKMA and a detailed Physical Development Plan is to be produced for KCCA.

The GKMA includes already urbanised areas and those expected to be urbanised in the medium term, including the Municipal and Town Councils of Entebbe, Wakiso, Kira, Mukono and Nansana and parts of Wakiso and Mukono districts

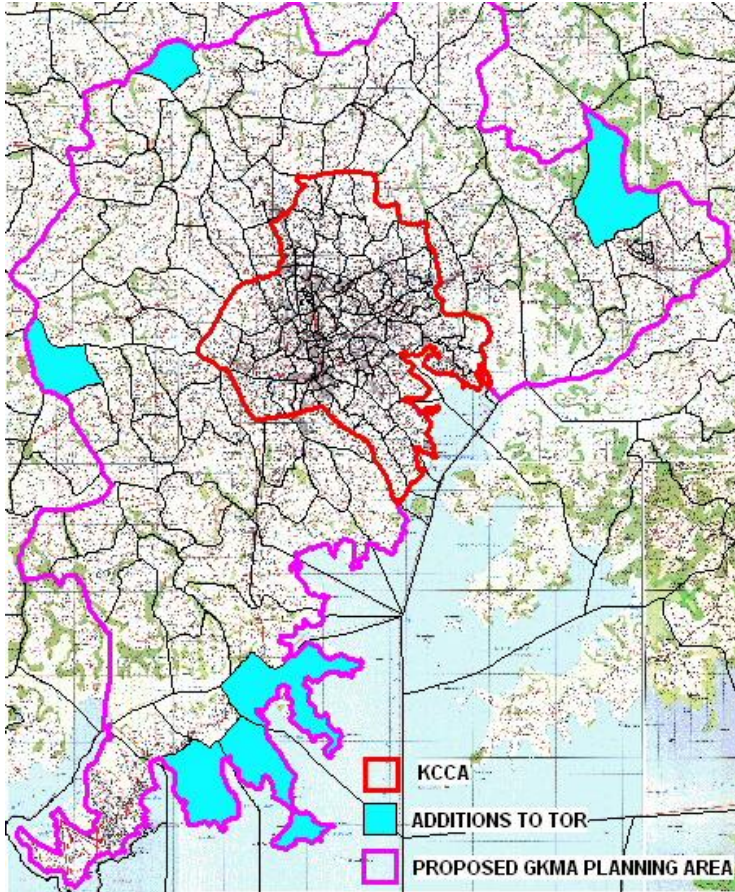
located between these town councils. The GKMA as defined in the TOR is presented in Error! Reference source not found. below:

In the Inception Report the Consultant recommended the planning area for GKMA be determined by analysing existing patterns of urbanisation, likely future directions of development, informed by the TOR and the GKMA Transport Master Plan, given the importance of the transport element in the planning. The boundaries of the two areas are similar, but the following additions to the TOR definition, as indicated in Error! Reference source not found. below, covering some 38 km², were recommended: Nyenje; Nasse-Nasse; Katereke; Kisubi; Nalugala; and Nkumba.

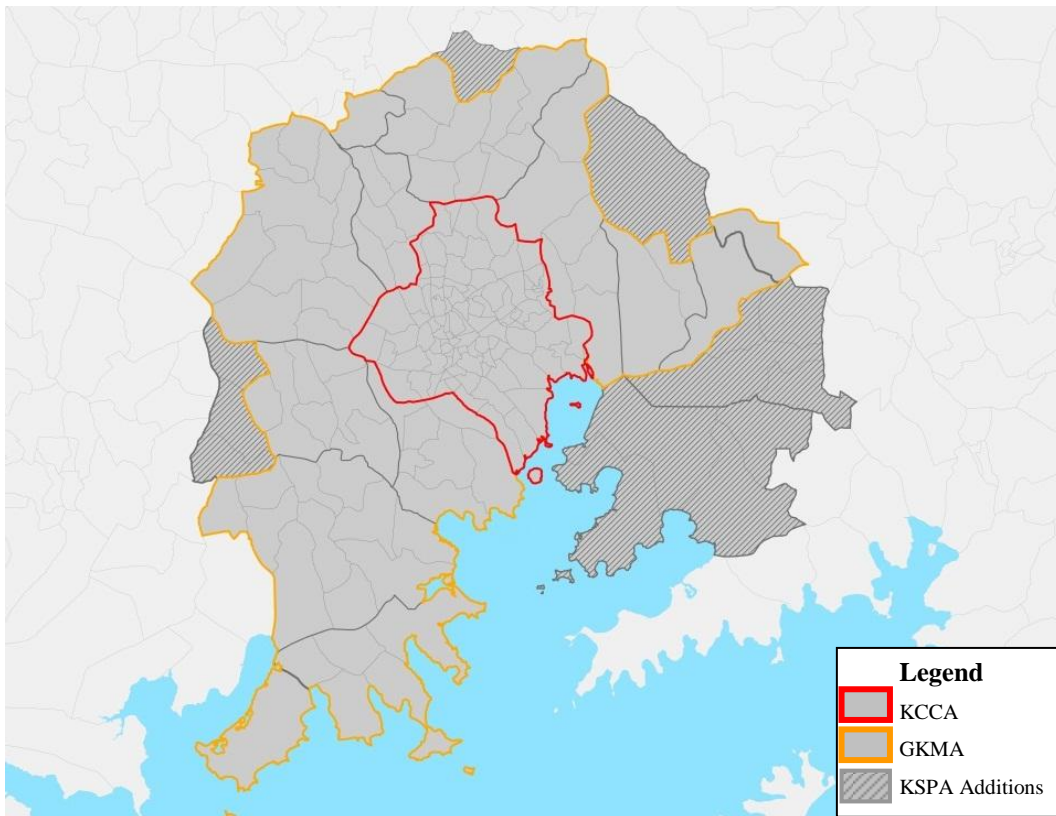
However, the Consultant’s further analysis of the growth trends, carrying capacity and development options indicates that the GKMA is of an inadequate scale for long term development, requiring the further extension of the planning area from a landmass of approximately 1,250 km² to a landmass of approximately 1,450 km² as indicated in **Map 7** below. The recommended extension was adapted by the Steering Committee and approved by the Hon. Minister of Lands, Housing and Urban Development.



Map 5: TOR Defined Planning Area



Map 6: Adjusted GKMA Boundary



Map 7: KSPA Extended Planning Area

2.3.4 Plan Typologies and Approval Process

As indicated in the KPDP SR, significant new legislation has been enacted recently. Of particular significance are:

- Physical Planning Act, 2010.
- Kampala Capital City Act, 2010.

This legislation has changed the institutional environment in which this assignment is conducted and hence directly impacts the planning process and products. The primary impacts include:

- KCCA status and institutional & organisational structuring;
- Planning Institutions, Plan Status and Approval Process;
- Planning and Study Areas.

The Physical Planning Act 2010 defines a hierarchy of Physical Development Plans, replacing the Structure Plans defined in the Town and Country Planning Act. These plans can be effectively divided into two categories:

- National and Regional¹ Physical Development Plans whose purpose and content is defined in the Fourth Schedule of the Act which in the Consultant's opinion are clearly developmentally oriented and enabling, appropriate to objective planning requirements for Kampala and consistent with TOR requirements and definitions;
- District, Urban and Local Physical Development Plans whose purpose and content is defined in the Fifth Schedule of the Act which in the Consultant's opinion are technically oriented and less enabling, less appropriate to objective planning requirements for Kampala and diverge from TOR requirements and definitions.

The Act further defines Special Planning Areas. Under Section 24 of the Act "*the Minister may, on the recommendation of the (National Planning) Board, declare an area with unique development potential or problems, a special planning area*".

Once so declared the planning of the specific area is subject to the definitions and procedures of National and Regional Plans.

The Act defines the approval process for the various plans:

- National, Regional and Special Physical Development Plans are effectively subject to National Planning Board and Ministerial approval;
- District, Urban and Local Physical Development Plans require a multi-stage approval process, appropriate to lower level plan to both ensure compatibility with higher level (national, regional and/or district) plans.

All plans require deposition and the consideration of representations with the standard period being 90 days. Section 20 (4) of the Act allows for the reduction

¹ Regional plans are not limited to administrative regions but defined as a plan "which covers more than one district".

of the deposition and display period at the discretion of the National Planning Board.

On consultation with the Client, the Consultant recommended the National Planning Board be requested to recommend:

- The KCCA & GKMA be declared by the Hon. Minister as a Special Planning Areas given that:
 - Kampala retains unique developmental potential as the Capital City, Primate City, Gateway and National Engine of Growth of Uganda;
 - Kampala faces unique developmental problems given its size and scale and its function as the core of a major metropolitan area;
 - The nature of planning required for Kampala is more appropriate to the developmental oriented definition of a regional plan under the Act than to that of a technical oriented local plan.
 - Kampala is no longer a City Council but an Authority as defined in the Kampala Capital City Act 2010.
 - Kampala has developed beyond its administrative boundaries.
- The KCAA Special Physical Development Plan be prepared and presented by the KCCA for National Planning Board consideration and approval.
- The National Planning Board be requested to reduce the deposition period for the KCAA Special Physical Development Plan given the extensive Public and Stakeholder Participation process involved in its preparation.
- The Metropolitan Development Framework defines planning boundaries for future Special Physical Development Plans in the GKMA.

The National Planning Board adopted these proposals and its recommendation to declare the Kampala Metropolitan Area a Special Planning Area has been approved by the Hon. Minister of Lands, Housing and Urban Development and formally gazetted.

2.3.5 Planning Horizon

The TOR mandates a planning horizon of 10 years. In the Inception phase it became apparent that Kampala is growing at an extremely rapid pace, both demographically and spatially. Initial analysis of trends, detailed further in this report, indicates that on a generational timeframe Kampala will inevitably develop into a Mega City: Such a scale of growth cannot be adequately tackled on a 10 year planning horizon. In these circumstances the 10 year planning products have to be informed and guided by a clear long term development strategy. Hence, in the Inception Report the Consultant recommended the planning horizon be redefined on a generational scale (20-30 years) and the planning products be directed by a long term conceptual framework.

The KSPA defined in **Section 2.3.3** above retains a theoretically assessed capacity of some 10 million population or an effective capacity in the range of 8.0-8.5 million, adequate to 2030-2040 depending on migration trends. This scale serves as the “Long Term” and/or “2040” in the body of this report.

2.4 Methodology and Planning Process

The methodology and planning process for the assignment were detailed in the Inception Report:

The planning process, activities and products are indicated in **Figure 3** below.

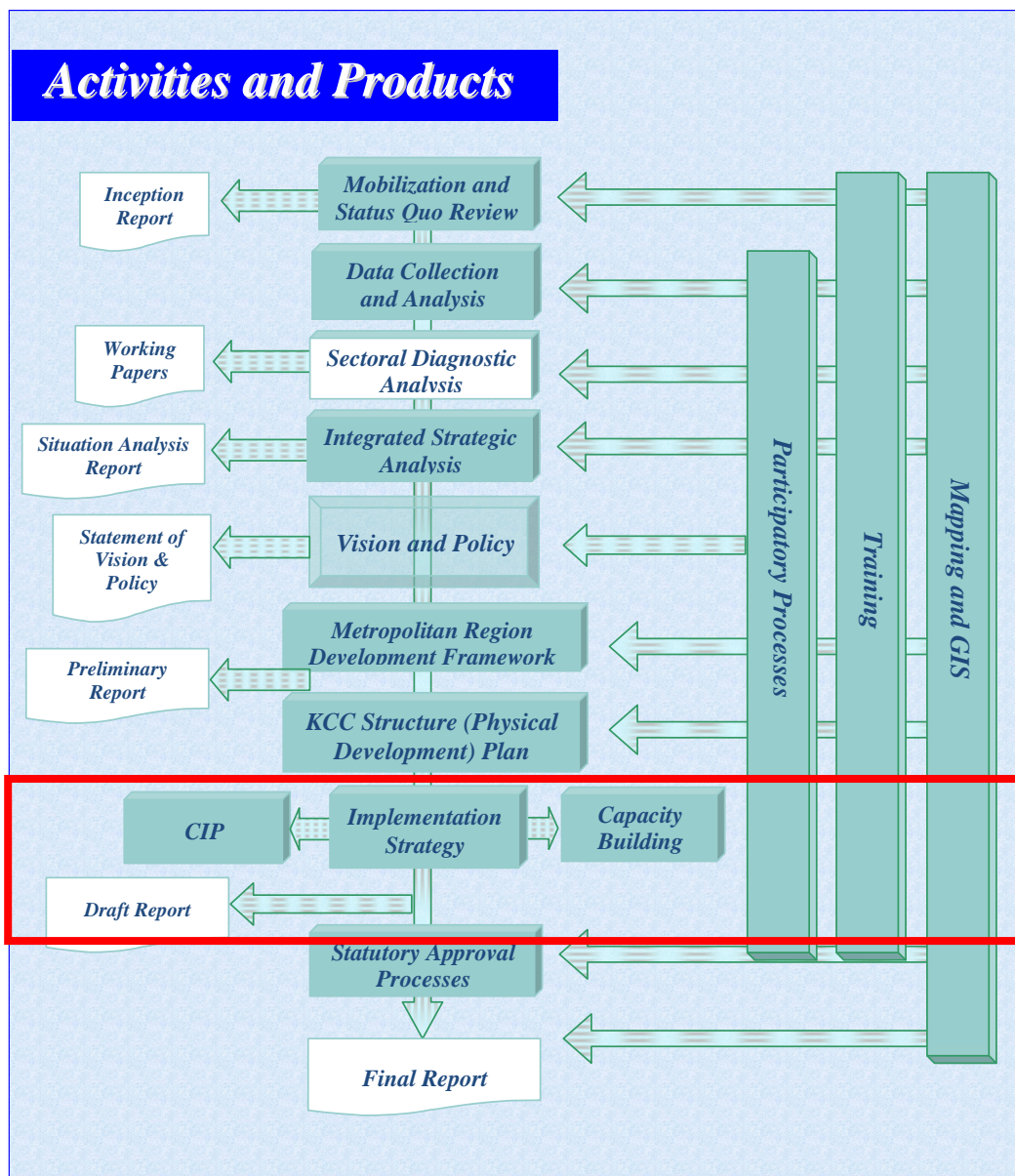


Figure 3: Project Activities and Products

2.5 Information Resources

Over the years Kampala has been studied in depth and analysed from numerous perspectives. Most of the studies, conducted under various titles for assorted purposes are largely based on common data and information resources, primarily UBOS statistical data and specific sectoral data bases and GIS systems. Beyond these the quantitative data and information inputs and outputs are limited and the products vary with qualitative inputs and perspective. Hence, there is extensive, readily available data and information for certain fields and a serious dearth of data and information in many other fields.

The primary information resources available are:

- Stakeholders;
- Legislation and Policy Papers;
- Academic Literature and Professional Reports;
- Statistical Databases;
- Operational Databases;
- Comparative International Databases;
- Mapping and GIS systems;
- Media, both electronic and printed.

2.5.1 Stakeholders

Stakeholders, both institutional and civil society, are of special significance to the planning of Kampala, given the knowledge and information they retain and their capacity to influence the development of the City. Over and beyond objective data and documentation they hold, many retain undocumented organisational memory, specialised knowledge and experience, perspective and understanding of interests and issues.

To access stakeholder information from key institutions and bodies the Consultant has interacted directly, and where necessarily together with the Client formally, with relevant functionaries, officeholders and professionals as required.

To access wider stakeholder information and knowledge, including civil society, the Consultant has undertaken extensive Public Participatory activities.

The Consultant mapped and developed a data base for hundreds of relevant functionaries, officeholders, professionals and civil society representatives. Relevant stakeholders were identified and reported in **KPDP SR Appendix B**.

Institutions, bodies and representative organisations identified and consulted include:

- **Government Ministries** - Agriculture, Animal Industry and Fisheries; Defence; Education and Sports; Energy and Mineral Development; Finance, Planning and Economic Development; Gender, Labour and Social Affairs; Health; Information Communication Technology; Lands, Housing and Urban Development; Local Government; Trade and Industry; Water and Environment; and Works & Transportation.
- **Governmental, Statal & Quasi-Statal Institutions and Bodies** including Buganda *Bulange*; Buganda Land Board; Civil Aviation Authority; ERA (Electricity); National Physical Planning Board; NEMA (Environmental Authority); NWSC (Water & Sewage); Revenue Authority; UBOS; UCC (Communications); Uganda Investment Authority; Uganda Land Commission; Uganda Police; Uganda Railways.
- **KCCA and Divisional** functionaries, officeholders and professionals including representative parish and LC functionaries.
- **Wakiso and Mukono District** officeholders and professionals.
- **GKMA Town Councils** and representative sub-County functionaries, officeholders and professionals.
- **Civil Society** representatives including assorted sectors as Academic; CBOs; Commerce; Community ; Education; Health; Industry; Market Traders, Media; NGOs; Professional Associations; Real Estate & Development; Sports; Tourism; Transport, etc.

2.5.2 Literature, Data Bases and Information Sources

2.5.2.1 Legislation and Policy Papers

The legislative system in Uganda is still based partially on its Colonial past and progressively on the Constitution of 1995. Legislation in critical fields of relevance to the assignment has undergone systematic revision with crucial new legislation having been enacted in the past years. Further legislative revision, primarily secondary legislation, is required to ensure effective implementation of the primary legislation.

In addition, National Policy Papers in crucial areas have recently been adopted and/or prepared for Cabinet approval.

The following legislation and policy documents have been identified as retaining particular significance for the planning of Kampala:

- The Constitution of the Republic of Uganda;
- Kampala Capital City Act;
- Physical Planning Act and past planning legislation;
- Local Government Legislation;

- National Environment Act;
- Land Legislation and Land Management Policy Proposal;
- National Development Plan 2010-14; and more.

These documents have been analysed by the Consultant and have been systematically utilised to inform the planning process and support the decision-making process. Findings are detailed in analysis of various subjects as relevant.

The Consultant has, in as much as possible, undertake the planning and make recommendations within the framework of existing and/or pending legislation. However, where new legislation is deemed absolutely essential appropriate recommendations have be included as appropriate.

2.5.2.2 Academic Literature and Professional Reports

As indicated there is an abundance of academic literature and professional reports covering numerous aspects of Kampala and Uganda, their history, population, culture and society; education, health and services; poverty, employment and economic development; planning and urbanisation; et al.

As may be expected the standard and quality of literature varies, some are repetitious and others refreshing and informative. Most rely on the standard data bases, primarily UBOS publications and relevant sectoral reports, some add specific new data and information. Most are drafted in academic format. Each provides its specific sectoral and/or institutional perspective. A select few constitute practical applied research proposing or reporting on effective implementation tools.

Relevant international literature and reports available to the Consultant have been utilised as appropriate to provide perspective, comparative information and examples of intervention experience, both in developing environments and international “best practice”.

Relevant international literature and reports are listed in **Appendix XX**.

2.5.2.3 Media

The media, both printed and electronic, has provide the Consultant a window into Ugandan culture and society, issues of public interest, lifestyles, consumption patterns, employment opportunities and more. Selected relevant media articles are listed in **Appendix XX**.

The media can also serve to support the planning process. The Consultant’s recommendations in this regard have been presented as in the Communications Strategy Working Paper and approved by the Steering Committee.

2.5.3 Data Bases and Alphanumeric Information Systems

2.5.3.1 UBOS

UBOS retains an extensive, reliable data base covering assorted fields relevant to the assignment. Preliminary data has been collected. The primary relevant information includes:

- 2002 Census data and reports;
- 1991 Census data and reports;
- Sectoral data and reports (e.g. Business Register; Transportation, etc.);
- Socio-Economic Survey data and reports.

Most UBOS publications provide data at the aggregate national, regional and district levels. Planning however requires greater geographical detail. Selected detailed statistical data and information at the parish level is available for Census 2002 and has been utilised by the Consultant.

Relevant UBOS data is largely based on the 2002 census with a new census planned for 2012 but reportedly delayed. This data is therefore primarily applicable for the identification and analysis of trends. Extrapolation of such trends can at best provide reasonable estimates of the present conjuncture. They cannot, on their own, provide an adequate basis for further future projection and planning and require complementary data to verify census based projections and to provide other essential data.

2.5.3.2 KCCA Data Bases

Whilst KCCA retains significant information relatively little is available in structured accessible data bases. Data bases are:

- GIS;
- Valuation rolls and valuation data kindly provided by Bageine & Co.;
- Education facilities and enrolment (unstructured alpha-numeric, limited partial data only);
- Businesses for licensing purposes which are disparately managed at Division level;
- Community Based Organization and Non Government Organizations information;
- Land records referred to as Kalamazoo in which private land information is managed;
- 2011 Markets Survey data;
- 2011 Health Centre Survey data;

In all, KCCA data bases are very limited, partial, not readily accessible and/or not necessarily up to date.

2.5.3.3 Transportation Model

The previous Travel Demand Model (TDM) developed by some of the Consultant's key personnel in 2004, served as a starting point for the transport sector analysis. The Consultant has developed and utilised an updated TDM based on extensive surveys detailed in **Section 2.6.2** below.

2.5.3.4 Other Local Data Bases and Sources of Information

- The Ministry of Education has kindly provided school registration data from its data base;
- Messrs. Bageine & Co. have kindly provided the Consultant, through the Client, the data utilised in their preparation of the city's valuations roll, in addition to the valuations themselves;
- IGN and Ministry of Lands, Housing and Urban Development provided the aerial photography images of 50 cm resolution which data was collected as part of the Land Information System. They also provided the ground control points which offered a starting point for ground control points collected for GIS and 3D mapping;
- NFA for the forest and nature reserves, the Digital Elevation Model for the planning area;
- UBOS provided the latest administrative boundary data up to village level;
- UBOS provided periodic changes in administrative boundary data.

2.5.3.5 International Data Bases

The Consultant has utilised relevant available international data bases (e.g. World Bank, UN Habitat, Devcom, WHO, Lincoln Land Institute, Unicef, etc.) and statistical resources of relevant developing countries (e.g. South Africa, Kenya, Brazil, etc.) to provide relevant comparative data in assorted fields as required.

2.5.4 Mapping and GIS Systems

In 2004, KCC established a Geographic Information Systems unit (GIS) to support city management functions of the directorates and departments. The GIS unit since provided spatial information to a variety of users from within KCCA and from the public. At the inception of the GIS unit, several geodatabases were created including:

- Topographical basemap of Kampala (with buildings, roads, contour and land use) but only limited to the extent of the satellite imagery utilized;
- Digital Cadastre Maps as a pilot study;

- Property Valuation Information System as a pilot study link properties with geographic coordinates and enable distribution of demand notes;
- Kampala Road Information System building on the database created under KUTIP for infrastructure and facility management;
- School Location Information System in conjunction with Ministry of Education.

2.5.4.1 Situational Overview

The GIS data and infrastructure has been utilized since 2004 without systematically being integrated in institutional routine processes and activities. The use continues but it is unstructured. Coupled with inadequate maintenance and replacement, the infrastructure has only been upgraded recently with five workstations, a large format plotter and large format scanner. In addition, new licenses of ArcGIS software have been acquired by the Consultant and provided to the Client. On the other hand human resource capacity has remained stagnant with reliance on one individual while other staff from the department experience capacity gaps in managing and utilizing the tools of GIS. The Consultant has provided structured training to the seconded staff to close these gaps.

Regarding the geodatabases, the current layers have not been updated nor fully developed for integration largely because there is still a gap to move from project GIS to corporate GIS in which full integration, utilization and digitizing the enormous data existing in analogue form by KCCA.

Cadastral data capture has progressed slowly and is now augmented by acquisition of the large format scanner. The Client intends to digitize property boundaries after scanning of the sheets and to capture attributes from the Kalamazoo registry. In parallel, the and Ministry of Lands, Housing and Urban Development through IGN is undertaking the scanning and data capture of cadastral information in six districts, including the entire GKMA. Products of this project however will only be available after the conclusion of the KPDP.

As part of the project, GIS mapping and building of a corporate GIS was undertaken. Recent satellite imagery for GKMA has been acquired by the Consultant. Analysis of the DTM provided by the Client indicated significant shortcomings and a DTM has similarly been acquired by the Client.

2.5.4.2 GCP Survey

Similarly, analysis of the GCP data provided by the Client indicated serious shortcoming, particularly given that most of the original physical Control Points no longer exist or are no longer recognisable. Moreover the GCP data provided by IGN, whilst accurate and recognisable is not detailed enough for the 3D mapping. As such the Consultant has had to conduct a comprehensive GCP survey of some 90 Ground Control Points, as indicated in **Map 8** below.

GCP survey details have been provided to the Client and MoLHUD (IGN). GCP data is presented in **KPDP SR Appendix S**.



Map 8: Ground Control Points Survey Locations



Figure 4: GCP Survey Equipment

2.5.4.3 GKMA Orthophoto

Utilising the above, the Consultant has prepared and presented an Orthophoto of the GKMA. The Orthophoto serves as the basis of much of the analysis presented in this report. See **Map 9** below.



Map 9: GKMA Orthophoto

2.5.4.4 KCCA 3D Mapping

The Consultant has prepared detailed mapping of the KCCA including attributes detailed in **Table 2** below².

Table 2: Mapping Layers

GIS Layer	Attributes
Land Cover and Land Use	Agriculture informal, Commerce small scale & informal, Community facility, Flats, Forest, Formal commercial and offices, Government, High income residential, Industrial, Low income residential, Middle income residential, Mixed use, Park & sport, Peri-urban, Quarry, Transport, Utilities, Vacant land, Very low income residential, Wetlands.
Built Up Layer	Structures, Fences
Road	Roads, Tracks, Ditches, Footpaths, Cycle paths, Railways, Airstrips, Parking lots
Water Body	Selected features
Topography	Selected topographic features
Elevation	Contours of 5 and 10 m, Spot heights, benchmarks, 3D map of City, Digital Elevation Model, Orthophoto
Vegetation	Trees, Bush lands, Forests, Park gardens
Utility	Selected utilities
3D map for GKMA	Elevation of topography and buildings

2.5.5 Updated GIS System

Utilising the above together with KPDP analytic and design products the Consultant has prepared and provided the Client with an updated GIS system as detailed in **Appendix XX**.

It must however be stressed that this updated system can only serve as the basis for an effective GIS system for KCCA. There are numerous additional requirements to ensure the system's effective management and utilisation. These are detailed in **Section XX** and **Appendices XX** and **XX**.

² Timetables for mapping have been delayed by the need to undertake a comprehensive GCP survey.

2.6 Surveys

Given the limitations of the data and information available the Consultant has undertaken a series of extensive surveys of Households and Transportation in Kampala, covering both KCCA and KMTC.

2.6.1 Household Survey

The household survey was conducted to enable the Planning Team to collect and analyse data in these fields in order to:

- Identify post Census 2002 trends and update inter-census trends;
- Provide essential information not otherwise available, particularly information on household and family structures, tenure and consumption patterns;
- Provide relevant demographic and socio-economic information for Development Programming and Transportation Modelling.

The household survey encompasses, *inter alia*:

- Demographics (gender and age);
- Household and family structure;
- Location and typology of residence;
- Construction typology and maintenance;
- Tenure status;
- Number of units (tenements and apartment blocks) and structures per plot;
- Size (residents, rooms and sample of meterage);
- Selected Household Expenditure;
- Utilities, facilities and ownership of vehicles;
- Residential patterns (region of birth, periods of residence);
- Education levels and locations for pupils and students;
- Economic activity, employment (sectoral and occupational) and location;
- Access to vehicles, transportation and sources of information.

To ensure efficacy and consistency the Household Socio-Economic Survey was integrated with the THS and sampling defined to meet the requirements of both surveys.

Approximately 3,500 households were interviewed including pilot surveys and households rejected in QC. A total sample of 3,007 households with 11,520 residents are included and analysed in the household survey. Data was also collected regarding 612 household members temporarily non-resident in the household (for employment or study purposes).

Survey findings serve as the basis of much of the analysis presented in this report. Detailed findings are presented in **KPDP SR Appendix E**.

2.6.2 Transportation Surveys

Table 3 below presents the list of the various surveys the Consultant has conducted. Survey findings serve as the basis of much of the analysis presented in this report. Detailed findings are presented in **KPDP SR Appendix F**.

Table 3: List of Transport Surveys

Name of Survey	Sample Size
THS (travel habit survey)	3,000 HH after QC (~ 3,500 surveyed)
GPS travel habit survey	130 HH
DPC – departure & passenger count	All known stages in GKMA (90) and all routes (275) originating from these stages. ~7,700 of records.
Taxi route GPS survey	All routes that were surveyed in the stages survey and operate in boundaries of the GKMA. Some routes were surveyed more than once. Each route is samples both O→D and D→A
O-D for taxi passengers	Passengers waiting to board a route are interviewed for their O-D. Survey is in peak AM (6.30-9.30). ~7,000 records.
TC - classified traffic counts	12 locations at AM peak hours (06:30-09:30) including: <ul style="list-style-type: none"> ▪ 3 locations for full day (06:30-22:30) on weekdays (Mon – Fri) ▪ One location for the whole day on the weekend (Sat – Sun). ▪ One at AM peak on the weekend.
CC – corridor count of Taxi passengers	30 locations at AM peak hours (06:30-09:30) including: <ul style="list-style-type: none"> ▪ 5 locations for whole day (06:30-22:30) on weekdays (Mon – Fri) ▪ One the above 5 for the whole day on the weekend (Sat – Sun). ▪ One location for AM peak on the weekend.



2.6.3 Methodological Note

Administrative boundaries in Kampala, particularly in the KMTC, have undergone frequent revision and change, reflecting changes on the ground, from the District level down to the village/ward level. There is no definitive database utilised by all defining and encoding administrative area names or boundaries. In addition there are multiple transliteration spellings of local names³ as well as repetition of names (e.g. parish names in different Towns and sub-Counties). Moreover there are inconsistencies in GIS boundary definitions over time and between organisations and projects, with each applying its own “solution”. In addition, data from the same source on the same subject is not always fully consistent.

This leads to severe data management problems and to data loss and errors. The Consultant has tried to overcome these constraints and compensate for them as best possible but data from different sources is sometimes presented in the format and terminology of the relevant source. Contradictory or conflicting data has either been put aside or selected and utilised on the basis of the most sensible and/or consistent. Hence, much of the data presented in this report must be viewed as “best estimate” and serve as indicators of scale and trend rather than precise reliable data.

³ Primarily use of single or double ‘s’, ‘a’, ‘g’, ‘b’ and ‘k’, interchange of ‘l’ & ‘r’ and ‘i’ & ‘y’.

2.7 Public and Stakeholder Participation

2.7.1 Participatory Activities

Public and stakeholder participation in the planning process has a number of main goals:

- Including active participation of stakeholders and the public in the planning process;
- Informing the public about the planning process and its stages;
- Expansion of knowledge and databases;
- Paving the road for authorization of plans at the various levels;
- Reducing objections and preventing conflicts;
- Informing the public about the planning process and its stages;
- Ensuring transparency in the planning process.

The participatory planning processes are indicated in **Figure 109** below.

Consistent with the terms and spirit of the ToR, the purpose of these meetings with the stakeholders and civil society, and particularly with professionals, in addition to acquiring information and enriching the planning process, is the idea of participation in and of itself and of recruiting assorted interested parties to work jointly towards implementation of processes contributing to the planning of the City and the GKMA. Indeed, as appropriate to an open civil state and whilst ensuring the highest standards, 1,000 participants took part in the process.

Findings and details of the participatory and consultative processes are presented in **Appendix D**.

2.7.2 Consultative Forums

As indicated in **Table 73** below public representatives and professionals from all Divisions of KCCA participated in the process (in a total of 5 meetings). Beyond KCCA boundaries additional district and local meetings were held (7 meetings in total), in which both public representatives and professionals participated.

Prior to the Consultative Forum meetings (in the Divisions, Towns and Districts), normally a short preliminary meeting was held with a senior local representative, followed by a general and structured assembly which began with a presentation and explanation regarding the plan (its purposes and methodology), and then structured workshops during which questions were raised for discussion. Participants were divided into discussion groups, in which each participant was given the opportunity to voice his or her opinion on the issues raised. Group

findings were then presented to the plenum and finally local representatives gave concluding remarks.

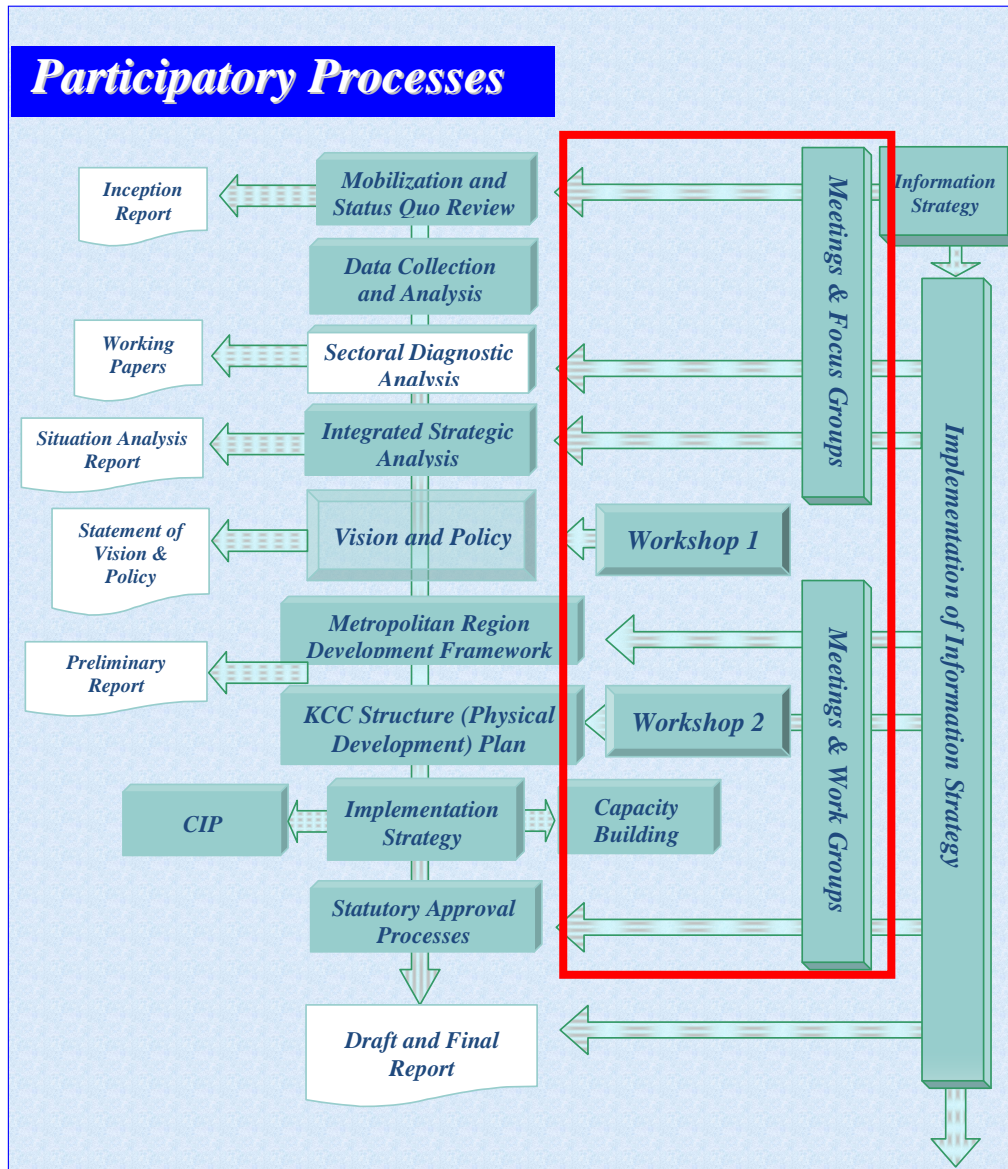


Figure 6: Public and Stakeholder Participation in the Planning Process

Table 4: Consultative Forums

Forum	Date	Location	Number of Participants
Kampala Central Division	13.6.11	KCCA Offices	35
Nakawa Division	15.6.11	Nakawa Division Offices	130
Makindye Division	16.6.11	Makindye Division Offices	55
Rubaga Division	17.6.11	Rubaga Division Offices	50

Forum	Date	Location	Number of Participants
Kawempe Division	20.6.11	Kawempe Division Offices	70
Wakiso District	18.7.11	Wakiso District Offices	35
Mukono District and Municipality	19.7.11	Mukono District Offices	40
Entebbe Town	20.7.11	Entebbe MC Offices	70
Kira Town	21.7.11	Kira TC Offices	50
Wakiso TC & Sub County	31.8.11	Sub county Hall	28
Katabi, Ssisa and Makindye Sub counties	31.8.11	Makindye Sub county	32
Kasangati - Nangabo	21.9.11	Nangabo Sub- county	21

2.7.3 Focus and Thematic Groups

In parallel thematic meetings were also held on various topics including with educationalists, parents and pupils (4 meetings), markets representatives, urban farmers representatives, entrepreneurs, young academics, young graduates and students. Structured focus groups were held at three neighbourhoods (slums) around the city, in which neighbourhood residents including women, men and some youths participated. In addition, a structure workshop on environmental and infrastructural issues was conducted. See **Table 74** below.

Table 5: Focus and Thematic Groups

Forum	Date	Location	Number of Participants
Students and Graduates	19.2.11	Consultant's facilities	17
Teacher's Union	10.6.11	KCCA	15
Head Teachers	16.6.11	KCCA	10
Parents	13.6.11	KCCA	10
School Management Committees	15.6.11	KCCA	8
School Pupils	20.6.11	KCCA	3 + 3
Urban Agriculturists	5.5.11	KCCA	15
Market Traders	5.5.11	KCCA	14
Young Professionals	7.5.11	Consultants' facilities	12
Kisenye Parish	9.5.11	In the parish	+30
Makarere III Parish	9.5.11	In the parish	+50
Property and Real Estate	19.7.11	KCCA	12

Forum	Date	Location	Number of Participants
Tourism	20.7.11	KCCA	12
Environmental Workshop	25.8.11	KCCA	30

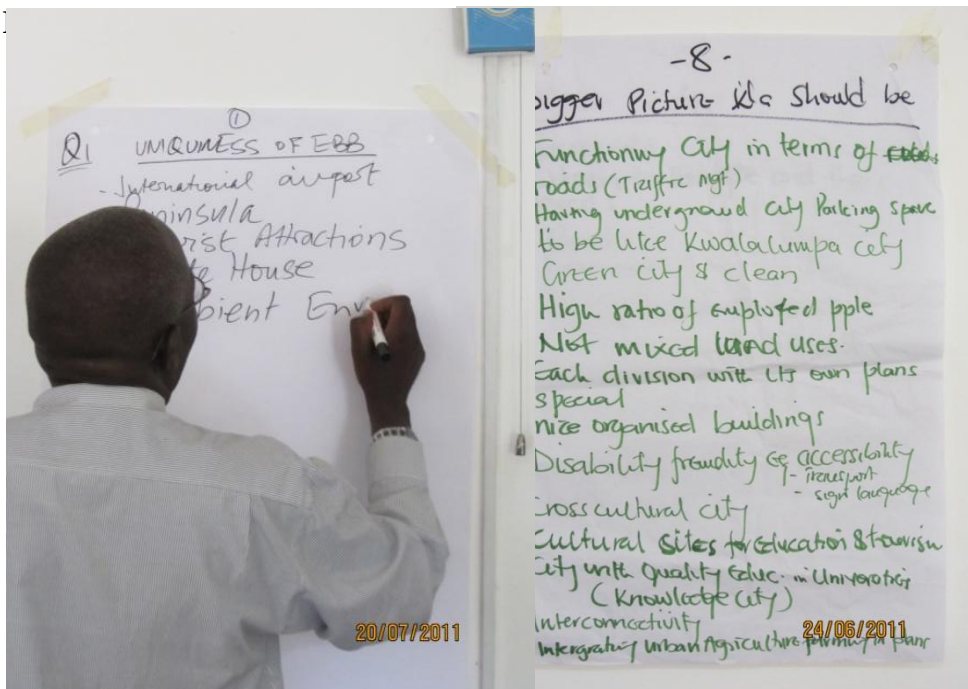




Figure 7: Examples of KCCA and KMTC Consultative Forums, 2011



Figure 8: Examples of Parish Focus Groups, Kampala, 2011



The meetings were led by planning team professionals, including KCCA seconded staff who took part in organizing the events and contributed to their success. In addition to leading, their role was also to translate and explain the terms or topics under discussion in Luganda.

All issues raised during the meetings were noted and documented.

Dozens of individual and small groups meetings and interviews were conducted by the Consultant in addition to the above noted structured activities.

2.7.4 Workshop 1 - Public Participation Stakeholder & Civic Society

The first Public Participation Stakeholder & Civic Society Workshop was held on the 29th of February 2012 at the Grand Imperial Hotel in Kampala, under the auspices of the KCCA Executive Director Mrs. Jennifer Semakula Musisi. The assembly included approximately 240 participants, including the City Councillors, Divisions and Towns Mayors, senior officials, professionals, representatives of the neighbourhoods, NGOs and stakeholders in the city. The meeting was chaired by Mr Savino Katsigaire Director Physical Planning and Urban Development MLHUD and coordinated by Mr Kiggundu David Tamale Project Coordinator KIIDIP KCCA.



Figure 10: KCCA Executive Director - Workshop 1 Opening

The meeting included:

- Opening Remarks by the Executive Director KCCA;
- Presentation of the Findings (Situational Report);
- Structured Group Discussion;
- Plenum Reporting;
- Presentation of the Scenarios - Strategic Choices;
- Open Discussion and Feedback.

2.7.5 Workshop 2 - KCCA

The second Public Participation Stakeholder & Civic Society Workshop was held on the 20th of July 2012 at the Metropol Hotel in Kampala, under the auspices of the Kampala Lord Mayor Mr. Erias Lukwago. The assembly included approximately 200 participants, including the KCCA City Councillors, Divisions Mayors and Councillors and senior KCCA officials and professionals, as well as representatives of the MoLHUD.

The meeting included:

- Opening Remarks by the Lord Mayor;
- Presentation of Kampala today - current situation, potential and challenges;
- Presentation of Conceptual Metropolitan Structures;
- Presentation of Spatial Suitability Analysis and Detailed Sites Analysis;
- Presentation of proposed GKMA Physical Development Framework;
- Presentation of proposed KCCA Physical Development Plan;
- Short Term (10 Years) Policy for Planning and Development Projects;
- Open Discussion and Feedback.



Figure 11: Examples of Workshop Groups and Reporting, Kampala, 2012

3 Kampala's Development and Current Conjecture

3.1 Background

3.1.1 Introduction

Uganda is one of the richest countries in the world (soils, water, climate, natural resources) and its society and economy one of the poorest in the world (per capita GDP, infrastructure, life expectancy, standard of living).

Uganda remains a rural country and society and a largely agrarian economy, with an urbanisation rate of only some 18%, with Kampala at the core of the country's urban structure.

Uganda emerged from the colonial period in a similar position to its East African neighbours, with its own relative advantages and disadvantages. In the post-independence boom Kampala developed rapidly until the period of repression and strife of the 1970-80s.

The dark days of tyranny and conflict brought with them destructive processes and impacts that the country and the city have yet to fully recover from (significant weakening of administrative systems, expulsion of Asian entrepreneurs, abrogation of the land tenure system, intrinsic distrust and corruption, social insecurity, degradation of infrastructure and services and much more).

The past two decades have seen significant, sometimes remarkable, progress to recovery and development but the impacts of this period on Kampala are still clearly evident in assorted fields.

3.1.2 Role and Function of the City

Kampala serves as:

- **Capital City and Seat of Government** - with the assorted arms of central government serving as the major employer, investor and client of the private sector; with government being a very significant land owner and decision-maker in the City;
- **Primate City** - with distinct primacy on the national scale in all fields, serving as the centre of administration, services, commerce, finance, education, culture, sport, *et al* for the entire country.
- **Gateway to and Showcase of Uganda** - within the City's current capacities and limitations.
- **Centre of the Buganda Kingdom** - with significant historical, social and cultural elements and features and sizeable land holdings.

- **Engine of Growth** for Uganda - a role it has played for a century but constrained by the structural imbalance of both the national economy and the local economy;
- **Home and Living Environment** for its estimated 3.15 million inhabitants (GKMA); generally at a very low Standard of Living, with a low Quality of Life and very limited amenity and service.

In addition there are indications that Kampala may be developing and/or retains the potential to develop as:

- **Regional Educational Centre** - based on Makerere University and numerous other tertiary education institutions in the City, with a rapidly growing foreign, largely East African, student population;
- **Tourism Hub** - still largely untapped potential.

3.1.3 Growth

Kampala has seen ongoing rapid growth of 4.5% to 5.0% per annum over the past generation. Such a rapid rate, over such a long period, has overwhelmed the City. It simply could not and cannot keep pace with ever growing demand for housing, employment, services and utilities.

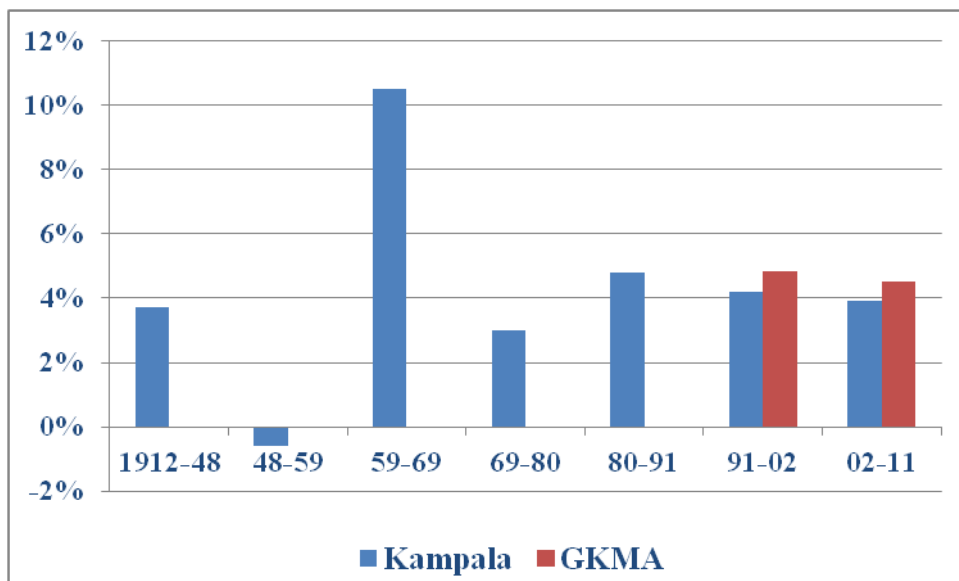


Figure 12: Kampala Average Population Growth Rates, 1912-2011

Sources: 1912 to 1980 data - 1994 Structure Plan; 1991, 2002 - UBOS, 2011 - KPDP estimate.

This “Demographic Tsunami” denies the City even short-term equilibrium and constrains it from developing in a balanced manner.

Growth is driven by Kamala’s primacy in Uganda although other smaller urban centres are growing fast, some even faster than Kampala.

Kampala’s demographic growth has historically been based on the combination of natural growth and in-migration. Natural growth has fallen off significantly with

declining fertility rates but in-migration has continued apace, indeed it may actually have increased.

Kampala today is estimated to house around 3.15 million persons in some 800,000 households (GKMA) with some 1.75 million in the KCCA (56%) and some 1.4 million in the KMTCC (44%). Today the KMTCC is growing far more rapidly than the KCCA.

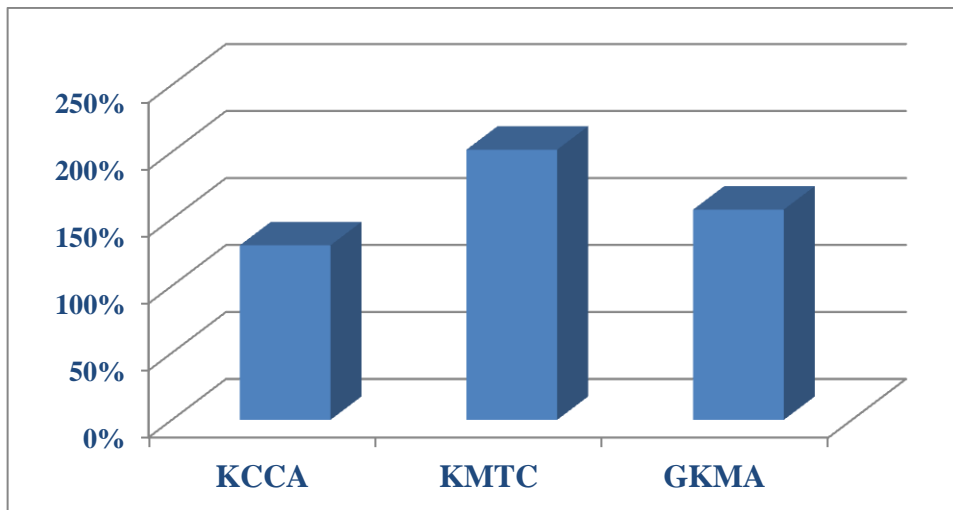


Figure 13: GKMA Population Growth 1991-2011 by Area

Kampala's (GKMA) population is projected to reach approximately 5.0 million by around 2021. To this horizon, planning must accommodate at least 6.0 million to ensure a minimal reserve for both exigencies and implementation constraints.

The City's future growth, over the coming decade and particularly over the coming generation will be determined by national rural-urban migration patterns.

There is no reason to expect a fall-off of rural in-migration, in fact it may well accelerate. The very rapid ongoing urbanisation in the GKMA, and indeed in the Uganda as a whole, is expected to continue. Given trends in sub-Saharan Africa, urbanisation can be expected to accelerate as the carrying capacities of the rural areas reach their limits⁴ and as the impacts of universal education begin to influence the aspirations and expectations of the younger generation.

Indeed, data indicates that the Urban Sector in Uganda as a whole is growing, albeit at a slower pace than Kampala (3.7% between 1991-02⁵). In all circumstances Kampala serves as a magnet for rural-urban migration with the GKMA being more than 10 times larger than any other town in the country, retaining levels of service and offering opportunity on a scale and level unavailable in any other part of the country. As such, without intervention on the national scale, in-migration to Kampala may well be expected to accelerate.

⁴ In Uganda these limits are functional not natural and hence can be raised with rural development.

⁵ Urban change in Uganda: The challenge of managing urban areas in a global environment, Isolo Paul Mukwaya. For comparative data see Appendix K.

Exigencies, such as conflict or crop failure in a particular rural areas may well induce a flood of migrants to Kampala as occurred in the late 80s from the Northern Region.

If Kampala today, lacking adequate housing, service and infrastructural capacity, is overwhelmed by the ongoing flow of migrants at present rates, it totally lacks the capacity to cater for accelerated in-migration. Over the coming generation Kampala will inevitably grow into a Mega City with at least 10 million population but unless migration is reduced it will probably grow to some 13 million by 2040. If migration further accelerates and/or fertility rates fail to drop, Kampala may well significantly pass the 15 million mark, in a sea of slums, lacking service, amenity and any semblance of Quality of Life.

The solution to this threat lies on the national scale, requiring intensive intervention to reduce fertility rates and an integrated national Urban-Rural Development Policy and Plan to cater for the expected mass migration and rapid urbanisation of the population in a balanced National Urban System siphoning off the bulk of migration before it reaches Kampala.

Similarly, continued East African integration, coupled with relatively slower economic growth in Uganda, may well channel some of the future rural-urban migration to the major Urban Centres in neighbouring countries as Nairobi, Dar es Salaam, Kigali, etc..But this will be selective out-migration accelerating Uganda's "Brain Drain".

In all circumstances the KPDP needs to cater for:

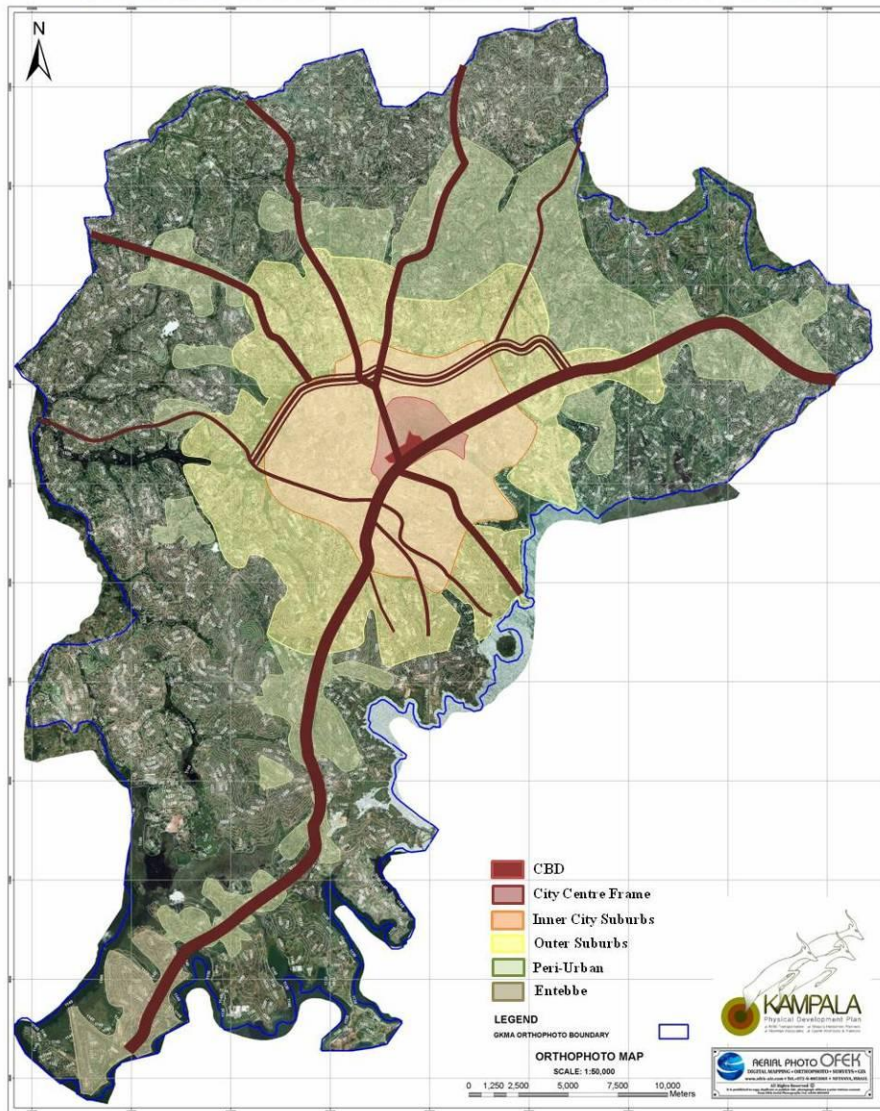
- A projected population of 5.0 million by 2021;
- Providing adequate reserves for a population of 6.0 million by 2021;
- Maximal utilisation of the potential for economic growth deriving from the "Demographic Windfall" inherent in its demographic structure;
- Ensuring future options for long-term growth.

3.2 Physical and Spatial Structure

3.2.1 Urban Structure

Kampala's urban structure reflects its traditional and colonial history, the impacts of natural constraints (morphology, Lake Victoria, wetlands, etc.) and the significance of the access routes to and from the City (particularly the routes to the two primary ports of entry to the City (Entebbe airport and the land route to Kenya along Jinja Road).

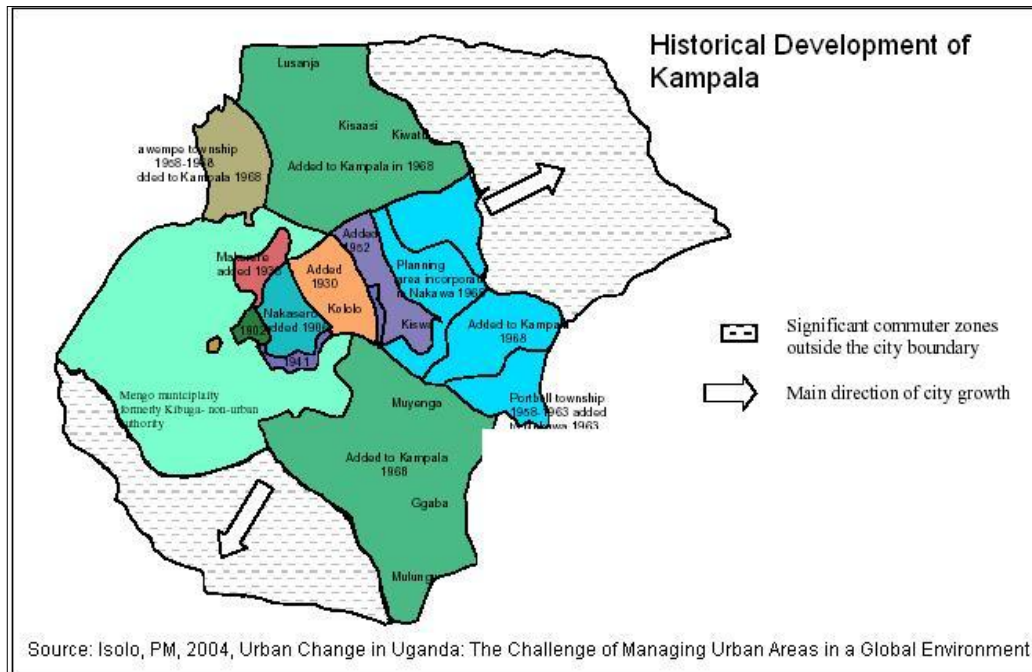
Kampala displays a clear radial structure concentrated on its centre with clear concentric rings around it and a further developing ring evident on its peri-urban periphery.



Map 10: Kampala's Primary Structure

Kampala's clear radial movement network concentrates almost all activities of significance, apart from residence, or of higher order in and around the City Centre. This enables the City to attain thresholds for higher order services and amenities (primarily serving the wealthy and partially the middle classes with the poor only able to access basic and/or informal services) but at significant cost (economic, social, environmental, etc.).

Beyond that, Kampala lacks a coherent, even partially balanced, Urban Structure. Its growth has been and remains concentric, increasing inner densities and spreading out concentrically, restricted only by access constraints, severe slopes (largely to the west) and water bodies (with significant construction on marginal lands including extensive wetlands).



Map 11: Historical Development of Kampala

In effect, Kampala does not retain a coherent Metropolitan Structure, with distinct, distributed, interlinked and complimentary centres of specialization (with the exception of Entebbe), nor does it function as a Metropolitan system wherein the whole is greater than the sum of the parts. Rather, it is a large, growing conurbation concentrated almost exclusively on its centre.

Growth spreads along the movement routes as “fingers” or “stubs” and fills in the gaps, amoeba-like, without meaningful structure, amenity or adequate service. The public at large is well aware of the lack of amenity and services, relating it to inefficiency, lack of planning, lack of resources and implementation constraints. Professionals are generally aware of structural shortfalls in their specific disciplines whilst a few recognize the systematic inter-relationships and causal factors underlying structural dysfunction.

By and large, beyond the Inner-City these routes (“fingers”) do not constitute functional Corridors. They lack almost all complementary elements except movement, housing, basic local services (primary schools, low order clinics) and largely local, informal commerce.

Entebbe (with its airport, government institutions, recreation) and Mukono (new industrial zone, university) retain anchor elements and the routes display signs of developing into “activity corridors”. In the City itself, these routes, as well as Hoima Road and to a lesser extent Kira and Gabba Roads, display intensive generally lower-order activity but are not structured to function as integrated functional Corridors.

Both the GKMA and the KCCA lack a clear hierarchy of urban centres and sub-centres, with most all high and medium order facilities and activities concentrated

in and around the City Centre and lower order activities strung out along the primary radial routes. Apart from the primary radial routes the City also lacks a clear movement hierarchy.

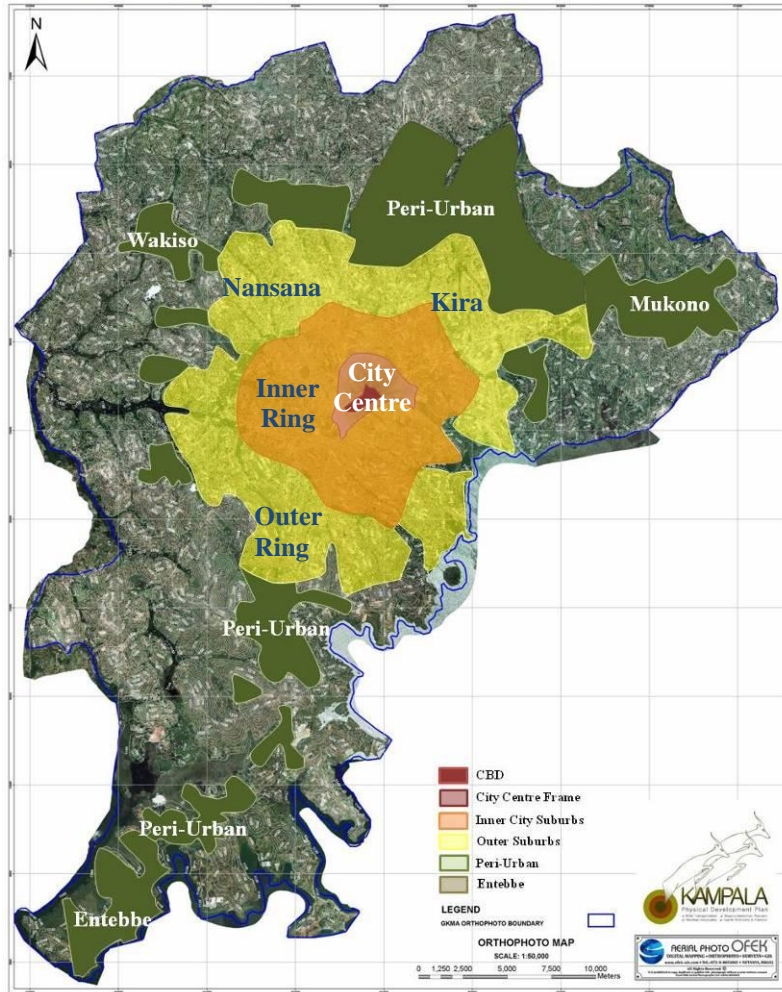
Structure on the metropolitan, city and neighbourhood scales is essential to the functioning of a city and its constraints, and in many areas its effective absence in Kampala is readily evident.

Urban structure enables, organises and directs human activity and land use. It determines the city's legibility and impacts on its functioning and hence its efficiency and productivity. It attracts, channels, enables or constricts movement. It sorts, orders, enables or limits levels and scale of activity (residential, economic, recreational, *et al*). It contributes to the urban form, intuitively informing both resident and visitor as to the "natural" location of facilities and activities; or fails to do so. It balances and integrates the natural and the built elements into a cohesive whole or mixes them in a haphazard, mutually detrimental manner. It confers identity to the City and the specific neighbourhood, be it positive or negative, in as much as the individual home confers identity to its residents.

As such, Kampala urgently requires a coherent, legible, functionally efficient structure, on the metropolitan and city scales, and indeed also on the local neighbourhood scale, to begin tackling its current severe social, economic and environmental problems and its considerable future challenges.

3.2.2 Settlement Pattern

Growing concentrically from its very establishment, Kampala has expanded and developed in the same pattern over the past century. Growth has continuously extended along the primary movement routes, later filling in the gaps between the various routes. The gaps between the radial arms begin to close as development along the route widens out, achieving an effective balance in access time to the centre. As such inner gaps get filled in concomitantly with the ongoing extension along the movement routes.



Map 12: GKMA Settlement Pattern

The GKMA is effectively composed of the following:

- The Metropolitan Core - the **City Centre**;
- An Inner Ring - the **Inner City Suburbs** - with only minor gaps in the ring defined by significant natural constraints (channels and large wetlands) to the south-east;
- An Outer Ring - the **Outer Dormitory Towns and Suburbs** - with gaps to the south and east again defined by the same natural constraints; incorporating most of Kira and Nansana Towns;
- **Peripheral Towns** - specifically Entebbe (distinctly the most urbanised), Mukono (with a small, weak urbanised centre) and Wakiso (with a town centre reminiscent of an enlarged village centre).
- Significant **Peri-Urban** extension “fingers” to the south-west towards Entebbe (with a peri-urban extension developing from Entebbe north east towards Kampala) and to the east towards Mukono.

To the north east of the KCCA particularly and to the north the peri-urban extensions are clearly closing the gaps and creating a significant section of the next ring of settlement around Kampala.

To the north west and west the extensions are less pronounced, more “stumps” than “fingers”, primarily the result of natural barriers and access constraints.

- The **Rural Periphery** - the immediate rural hinterland of the City.

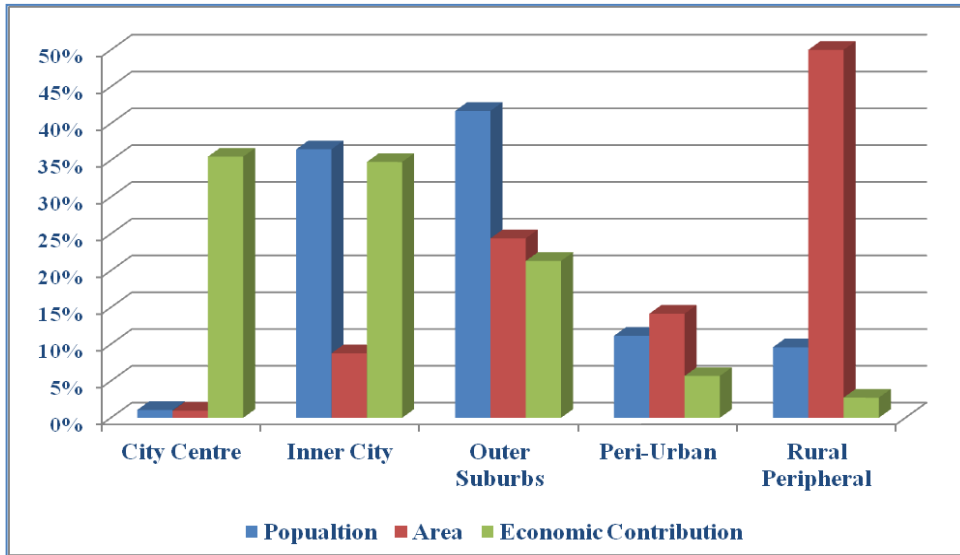


Figure 14: Scale, Size and Economic Contribution of Settlement Types

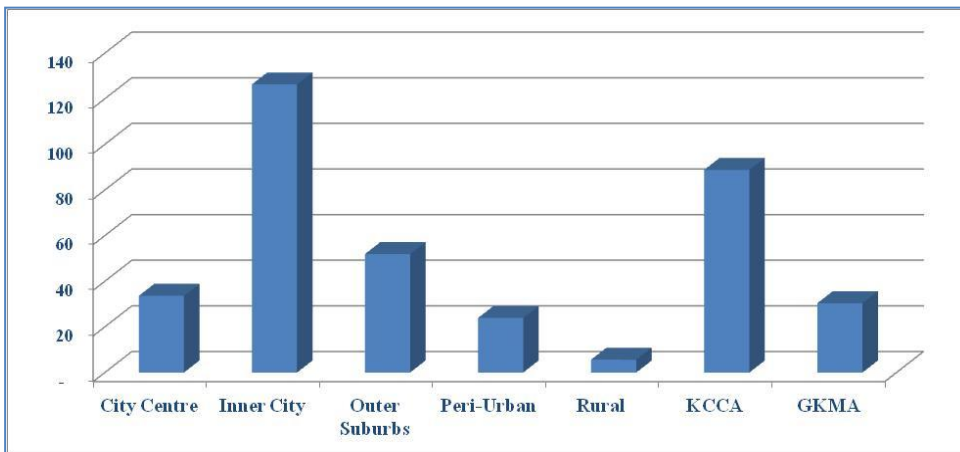


Figure 15: GKMA Gross Density (persons per Ha.) by Settlement Type

The City Centre concentrates much of Kampala’s non residential activities, over 40% of the annual economic product of the City. Hence its land area is largely dedicated to economic, industrial and institutional uses and its relative share of population and the resultant residential densities are low. Its built area density is relatively high concentrating most of the multi-storey buildings in the CBD.

Kampala's historic colonial suburbs retain clear structure, as do the more modern planned developments. They generally retain adequate infrastructure, albeit often in disrepair, and services, generally provided by the private sector.

Beyond the City Centre, Kampala's Inner City Suburbs, all located within KCCA boundaries, are the primary urbanised, developed areas in the GKMA. Apart from distinct exceptions, largely to the north-east, they are generally developed to a very low standard.

Kampala's Inner-City Suburbs cover approximately 90 km² (9% of the GKMA land mass) and house some 1.15 million population (37% of the GKMA population) in a very reasonable average density of some 120 persons or 30 households per Ha. (gross area). They contribute approximately one-third of the local economy including significant public institutions and services, significant government facilities and functions; commerce of mid to lower order; a wide range of private services; ongoing building and construction; etc.

The Inner Suburbs are by and large established and the inner ring retains an elemental structure, defined primarily by the road network and partially by the location of institutions. This elemental structure partially supplements the primary radial structure concentrating most activity in the City Centre and alleviates somewhat the pressures on the centre. The Inner Suburbs are composed of a patchwork of neighbourhoods of varying standard and quality from top range exclusive suburbs to extremely dense slums.

The Outer Towns and Suburbs are effectively dormitory suburbs of Kampala, partially within the KCCA but largely beyond and immediately adjacent to its administrative boundaries, whose inhabitants work in the City Centre or Inner Suburbs or provide local services (some formal but primarily informal low order commerce with some residual agriculture).

Kampala's Outer Ring covers approximately 250 km² (25%) and houses some 1.3 million population (42%) with a low average density of just over 70 persons or some 18 households per Ha. (gross area), growing at some 6% per annum in an ongoing process of expansion, infill and some densification.

The Outer Ring is estimated to contribute some 20% of the local economy, primarily attributed to the value of residential property use.

The Outer Suburbs are composed of a patchwork of old village cores; established and new neighbourhoods including new slums; peri-urban fringes; remnants of rural agriculture; and numerous vacant plots awaiting future development.

Entebbe is a peripheral town with distinct urban elements (structural elements, employment opportunities anchored by the airport and government, with unique attractions serving the GKMA as a whole and more) but still of very low density development and low intensity activity.

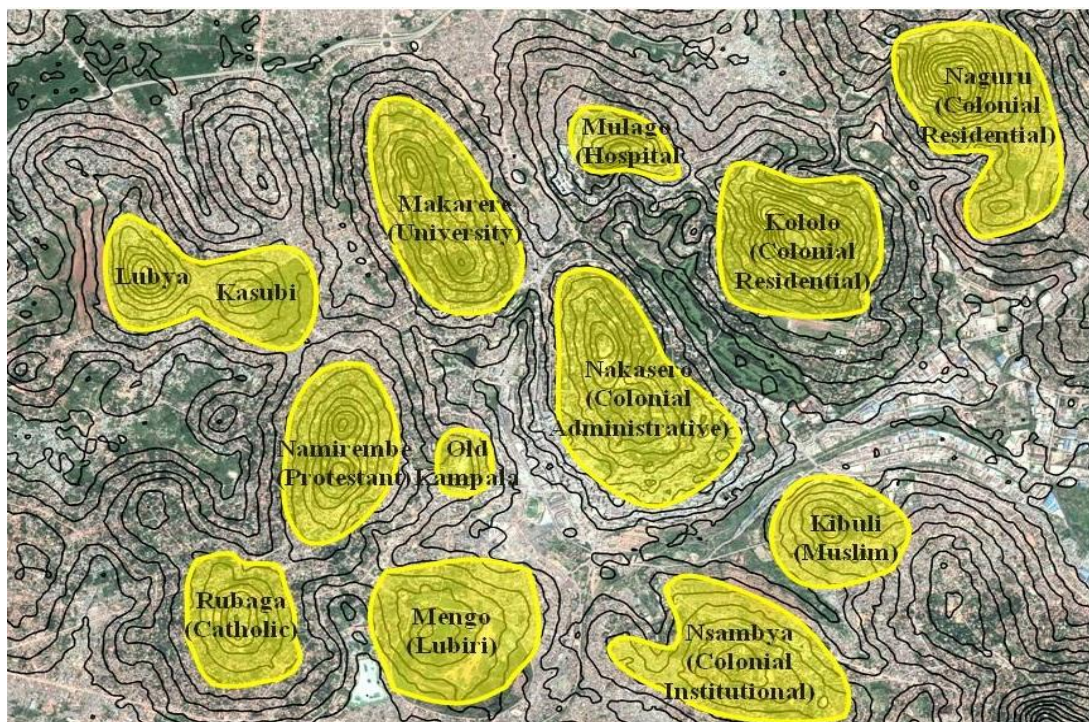
Mukono is a peripheral town with elemental urban elements (basic structure, some employment opportunities, university, cathedral and hospital) but of very low density development and very low intensity activity. Except perhaps for its centre, Mukono is still largely peri-urban. The new Kampala Industrial and Business Park to the west will clearly accelerate its development.

Wakiso is a peripheral town with few urban elements, very low density development and very low intensity activity; retaining town council status as a function of its district administrative role.

The Peri-Urban Extensions are a set of areas, generally linear extensions of the City's Outer Suburbs, broadening out around older village centres. Generally of low density residential development; very little, if any, infrastructural development apart from the road around which development is occurring; very limited services and very limited intensity activity beyond the village markets.

3.2.3 Urban Form

Kampala's topography, its hills and water logged valleys, initially determined the City's form and dictated the initial settlement pattern in the City with the colonial township, the *Kibuga*, the denominational quarters, Makerere University, etc. - each located and identifiable on its own distinct hill.



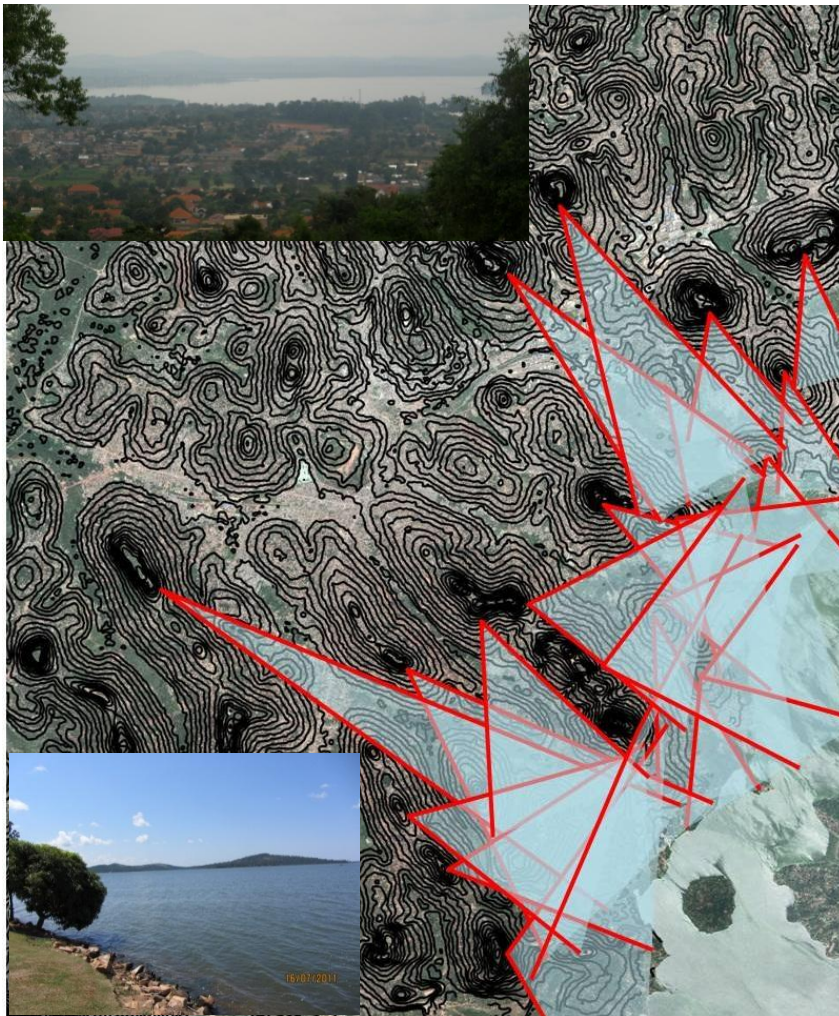
Map 13: Kampala's Central Hills

Movement routes developed between these elements and outlying centers in the lower valleys, generally skirting the wetlands and crossing them at narrow or strategic points. Sporadic infill over the years has however blurred out these historic elements and transformed the City into a single contiguous, ever growing,

largely unstructured, disorganised urban “muddle”, lacking order, clarity, legibility and identity.

What was once the “Garden City of Africa” has become a sea of tin roofs interrupted only by dominant hilltops, large water bodies, residual agricultural areas or empty plots with a few “islands” of structured development; only partially mitigated by natural foliage.

Lake Victoria, its catchments and rivers, together with Kampala’s topography provides a natural landscape with numerous views and vistas. However, these are rarely appreciated and protected and frequently built upon, often hidden and in numerous instances degraded by development.



Map 14: Lake Victoria Views and Viewpoints in Kampala

Despite the natural abundance, the City lacks a structured, contiguous, maintained and protected open space system. Most residential neighbourhoods lack public open space, gardens, parks and playgrounds. The few developed and maintained gardens in the City are concentrated in the City Centre and generally closed off from the public.

The inherent potential and beauty of the City’s topography and of Lake Victoria has barely been appreciated or utilised. Nonetheless, Kampala still retains significant natural values and still grants the potential for the City to develop as a City of Quality, a “green” City, utilising its natural potential to provide amenity for its residents.



Figure 16: Examples of Incipient Boulevards, Kampala, 2011

Kampala’s skyline is defined by its topography with almost all high-rise buildings concentrated in the CBD (with a new landmark multi-storey atop Nakaseru Hill and a few new 6-8 storey apartment complexes on the periphery of the City. The CBD itself is in transition with multi-storey office complexes adjacent to old single or double storey structures (some of historic significance and/or value).



Figure 17: Kampala's Skyline

Apart from the roads, what little structured public space there is in Kampala is concentrated in the CBD with elements in Old Kampala, in the *Kibuga* and within institutional compounds (as the MAK). These are maintained to varying degree.

Beyond the centre, many plots and compounds are walled off, “giving their backs” to the public realm, further degrading it.



Figure 18: Examples of Structured Street Fronts, Kampala, 2011



Figure 19: Examples of Unstructured Street Fronts, Kampala, 2011



Figure 20: Examples of Structured and Unstructured Parking, Kampala, 2011



Figure 21: Examples of Kampala's Natural Foliage



Figure 22: Examples of Open Public Gardens, Kampala & Entebbe



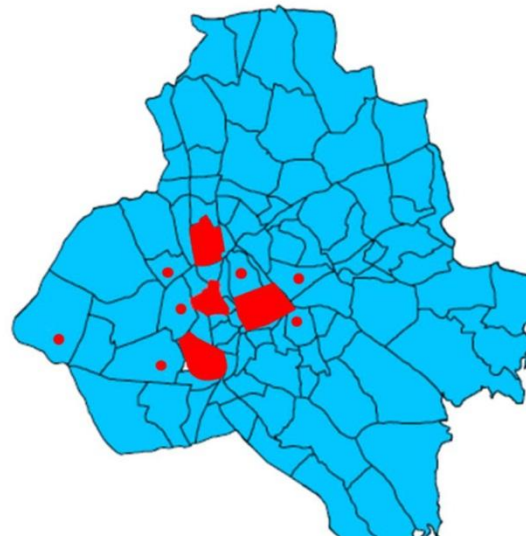
Figure 23: Examples of Institutional Gardens



Figure 24: Residual Elements of Africa's "Garden City"

Kampala also has a large number of historic buildings, many of them of cultural significance, which demand protection and where possible public access. These are generally concentrated in but not limited to:

- Old Kampala;
- The Historic Centre (the *Kibuga*);
- Makerere University;
- Old Colonial Suburbs;
- The City Centre;
- Historic schools, hospitals and missionary compounds.



Map 15: Primary Distribution of Historic Buildings



Figure 25: Examples of Historic Buildings, Kampala, 2011

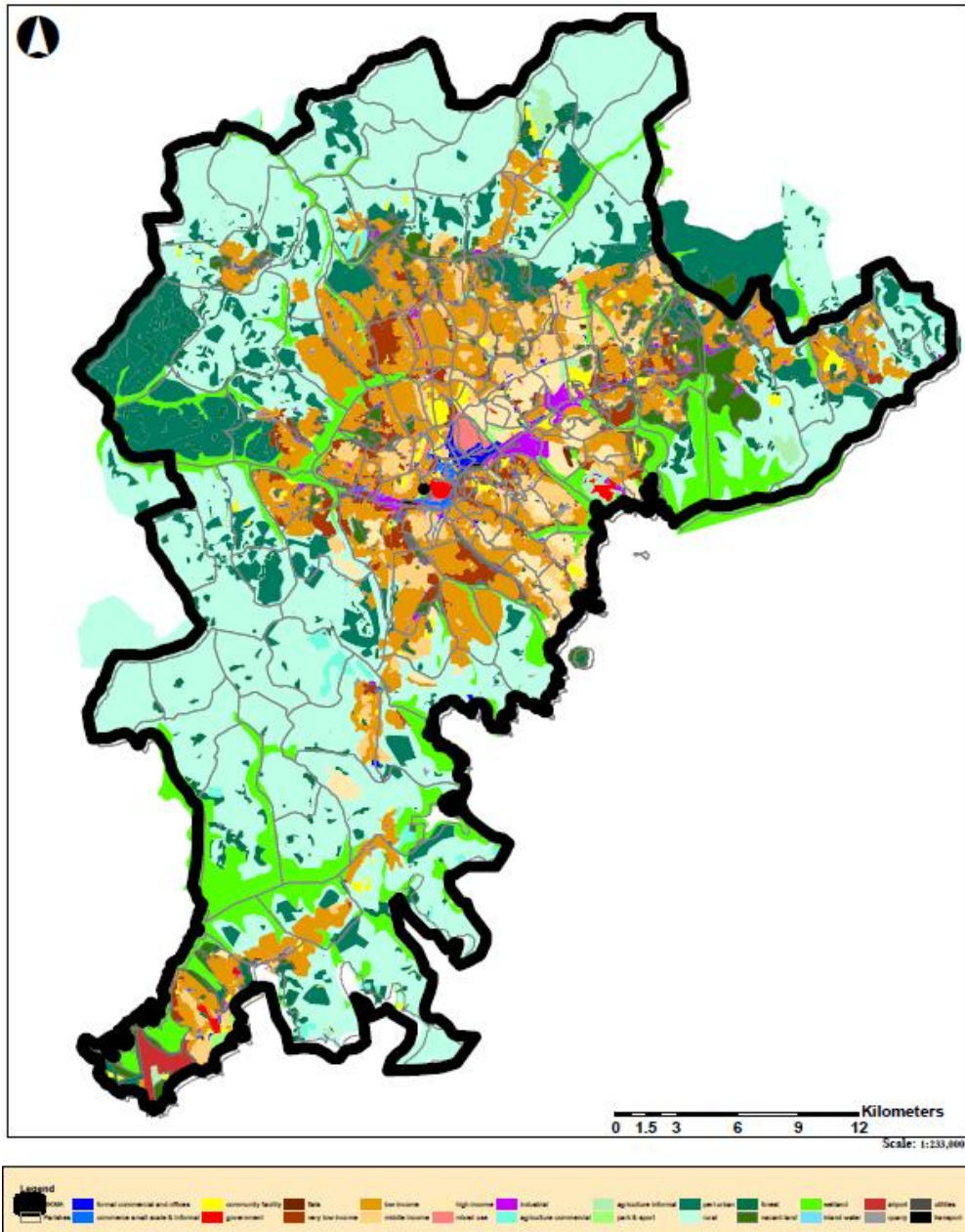
Many of these have been identified by the Makerere Dept. of Architecture (see **KPDP SR Appendix M**) but the Consultant has observed additional buildings of architectural and cultural value deserving of protection.

For the benefit of future generations, for cultural identity and for tourism it is essential that these buildings be protected and where possible renovated.

3.2.4 Land Use

Land use was analysed on the basis of aerial photography kindly supplied by the DeSILISoR Project undertaken by IGN France International for MLHUD.

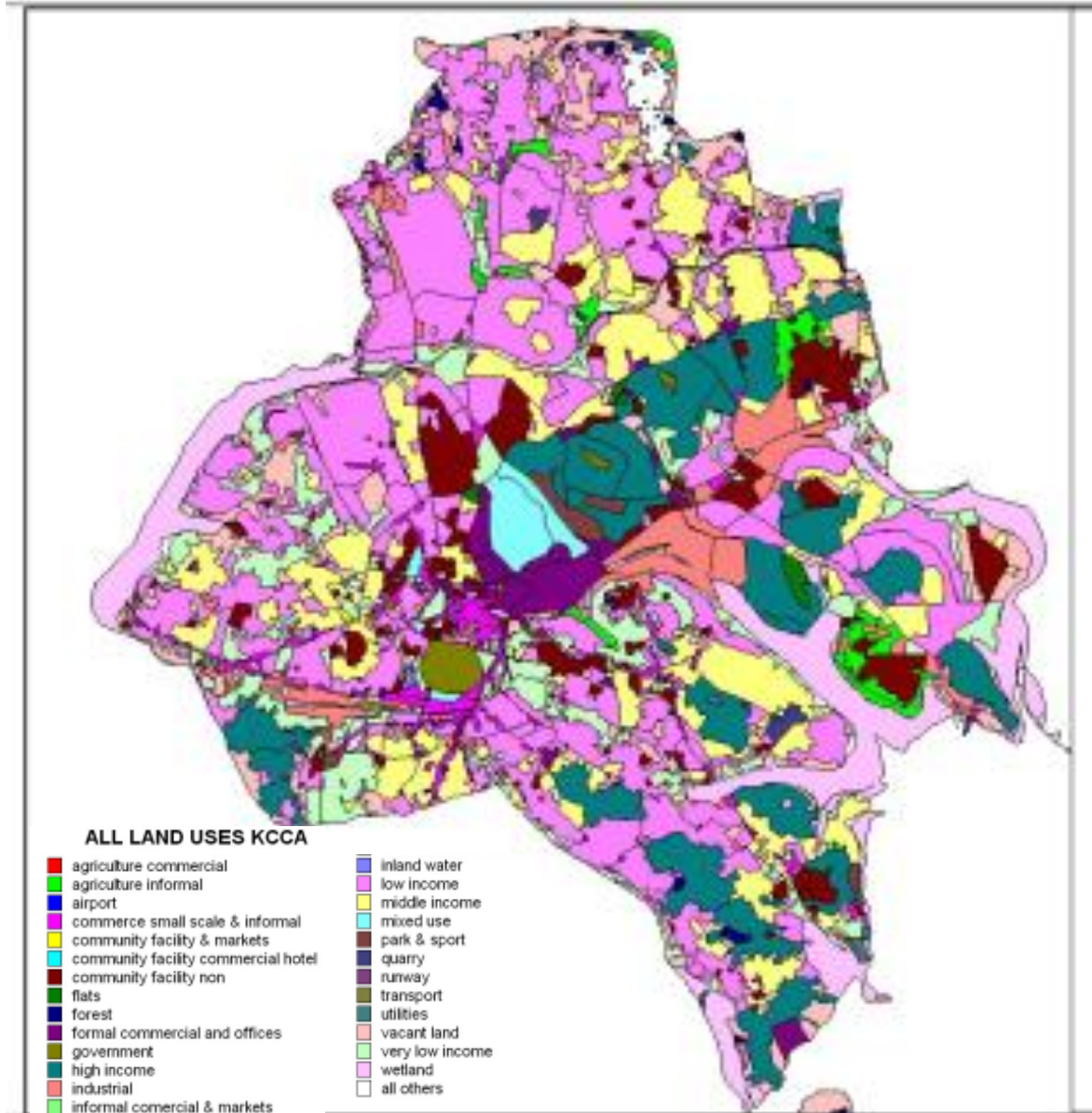
Land use mapping of the GKMA 2011 is presented in **Map 16** and of the KCCA in **Map 17** below. Comparative land use mapping of the KCCA 2002 is presented in **Map 18** below. Land use was classified into 25 categories, which are summarised in **Table 6** below.



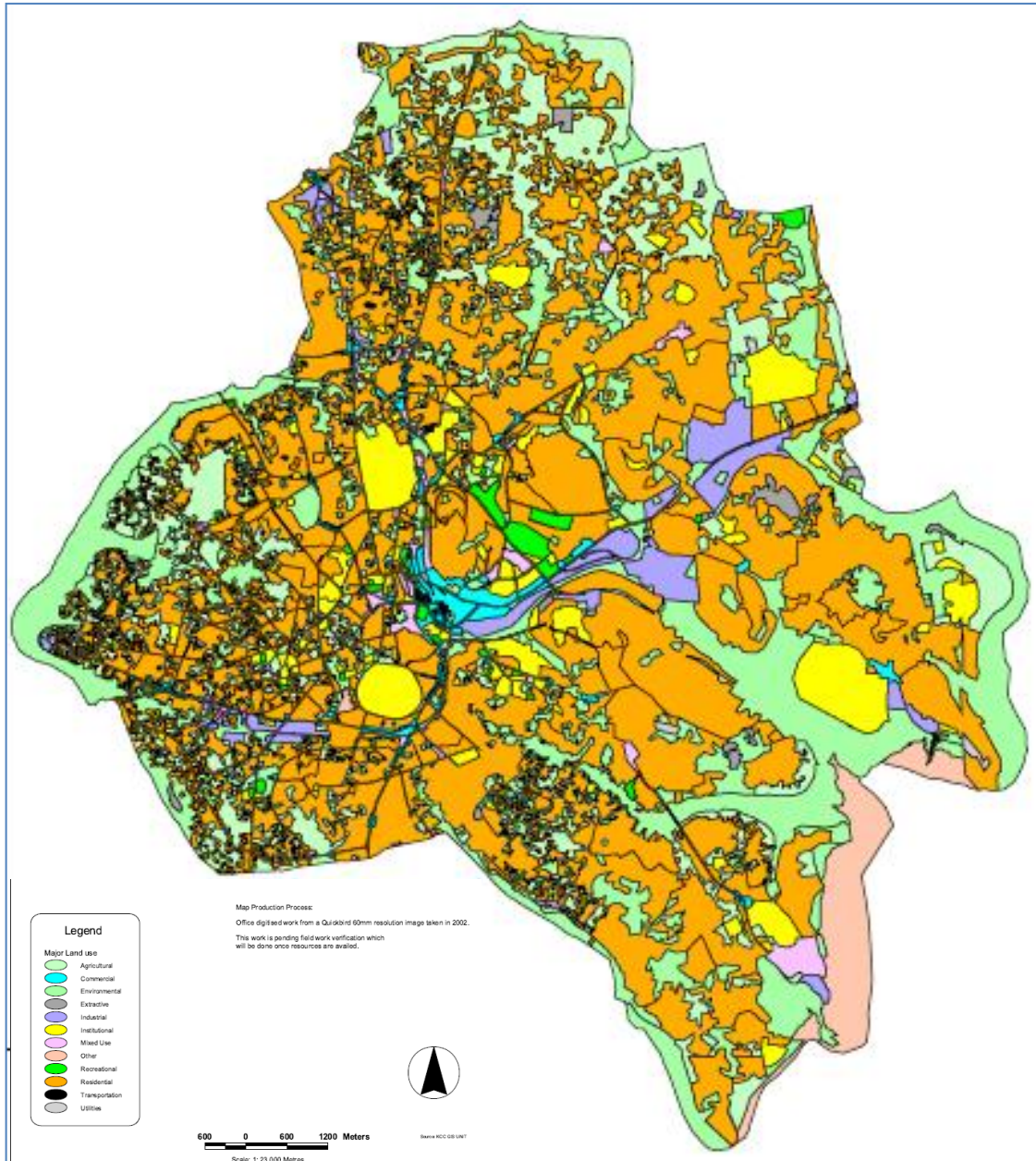
Map 16: GKMA Land Use, 2011

As is evident in these maps and as indicated in **Table 6** below, the bulk of the GKMA (over 60%) remains, as yet, undeveloped. However, in contrast, the KCCA is almost entirely built-up. Comparison of 2011 (**Map 17**) with 2002

(Map 18) indicates that much of the residual open (vacant or agricultural) land available in 2002 has already been developed and the scale of open land reserves in Kampala today is very limited. Indeed vacant land constitutes less than 10% of the KCCA’s landmass, with another 7% being wetlands.



Map 17: KCCA Land Use, 2011



Map 18: KCC Land Use, 2002

Source: KCCA GIS Unit

The large bulk of development is residential covering some 23% of the GKMA landmass (over 60% of the total developed areas in the GKMA) and some 64% of the KCCA landmass (over 60% of the total developed areas in the KCCA).

Employment associated uses account for barely 3% of the GKMA land mass and public services and facilities only 2%. For the KCCA landmass these figures are 10% and 6% respectively.

With the KCCA largely built-up, peri-urban development is effectively restricted to the KMTCC (11% of the GKMA landmass or 13% of the KMTCC).

Wetlands constitute some 11% of the GKMA landmass and 7% of the KCCA landmass. Remaining forests cover only 3% of the GKMA landmass and have been virtually eradicated from the KCCA with only 58 Ha. identified.

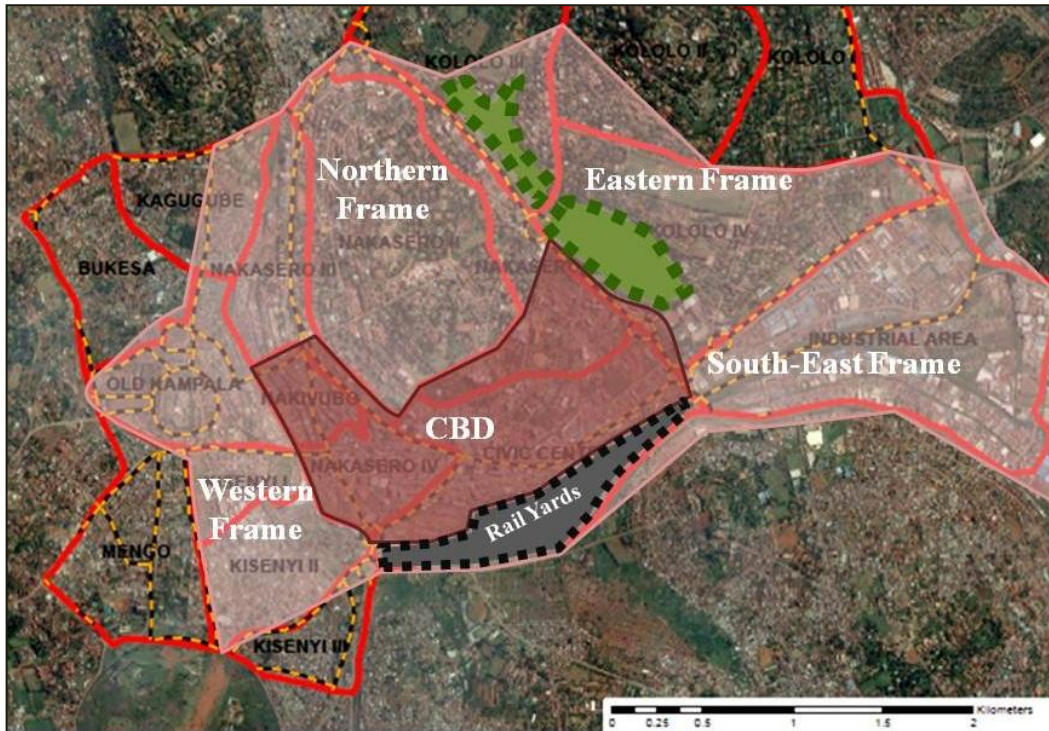
Table 6: Land Use by Field and Category 2011

Field	Land Use Category	KCCA	KMTC	GKMA	KCCA % of GKMA	As % of KCCA	As % of KMTC	As % of GKMA
Employment	Agriculture	-	801	801	0%	0%	1%	1%
	Commercial	-	435	435	0%	0%	0%	0%
	Airport	-	435	435	0%	0%	0%	0%
	Commerce Small Scale & Informal	441	353	794	56%	2%	0%	1%
	Formal Commercial & Offices	331	88	419	79%	2%	0%	0%
	Government	196	83	280	70%	1%	0%	0%
	Industrial	737	298	1,035	71%	4%	0%	1%
	Mixed Use	230	-	230	100%	1%	0%	0%
	Quarry	57	131	188	30%	0%	0%	0%
	Transport	53	-	53	100%	0%	0%	0%
	Utilities	27	25	52	51%	0%	0%	0%
	Total	2,072	2,214	4,287	48%	10%	1%	3%
Peri-Urban	Peri-Urban Total	204	12,703	12,907	2%	1%	13%	11%
Public	Community Facility	875	927	1,803	49%	5%	1%	2%
	Park & Sport	91	154	245	37%	1%	0%	0%
	Total	966	1,081	2,048	47%	6%	1%	2%
Residential	Apartments/Flats	60	19	79	76%	0%	0%	0%
	High Income	2,077	427	2,504	83%	12%	0%	2%
	Low Income	5,180	10,344	15,524	33%	29%	11%	14%
	Middle Income	2,573	2,068	4,641	55%	15%	2%	4%
	Very Low Income	1,467	1,943	3,411	43%	8%	2%	3%
	Total	11,357	14,801	26,159	43%	64%	15%	23%
Undeveloped	Agriculture Informal	265	540	805	33%	1%	1%	1%
	Forest	58	3,412	3,470	2%	0%	4%	3%
	Inland Water	1	2	3	24%	0%	0%	0%
	Rural	-	45,530	45,530	0%	0%	47%	40%
	Vacant Land	1,531	4,207	5,738	27%	9%	4%	5%
	Village	-	620	620	0%	0%	1%	1%
	Wetland	1,254	11,058	12,312	10%	7%	11%	11%
	Total	3,109	65,369	68,478	5%	17%	68%	61%
Grand Total		17,708	96,168	113,879	16%	100%	100%	100%

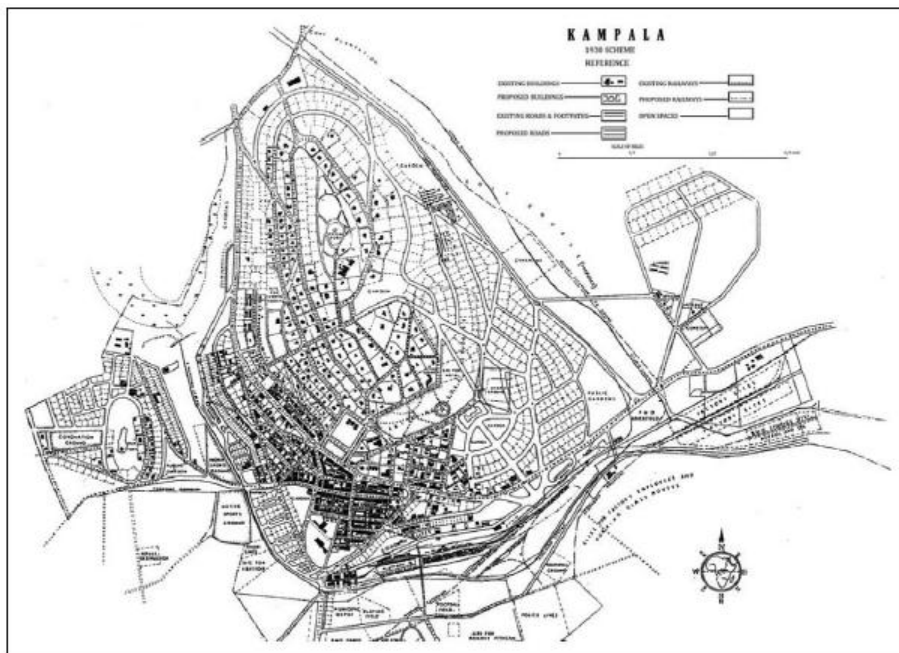
3.2.5 Special Elements

The City Centre

The City Centre is composed of the CBD and its Frame and is effectively based on the old Colonial Township.



Map 19: Kampala City Centre



Map 20: Miram's 1930 Plan of Kampala

Source: Planning of Kampala City 1903-1962, Omolo-Okalebo *et al*, 2010

The CBD serves as the primary, high-order business and service centre in the City, and indeed in the country as a whole, serving as Uganda’s “showcase” to the region and the world.



Figure 26: Kampala CBD Eastern Segment Office Blocks, 2011



Figure 27: Kampala CBD Western Segment Markets and Arcades, 2011

The CBD “spills” over into adjoining areas, with varying intensity, in all directions except directly south where it is blocked by the Rail Yards. Generally these areas function as a “City Frame” which has developed around the CBD core. Each section of the frame retains its own characteristics and specific fields of specialisation

The following segments (effectively sub-zones) of the City Frame are recognisable and their fields of specialization are evident in the present mix of uses:

- **The Eastern Frame** - much of Kololo retains a mix of uses including government, institutional and private office space, upper end services, commerce, embassies and diplomatic residences and the very top end of the residential market; with infrastructure of relatively high quality but with gaps, primarily maintenance. This section of the frame is physically barriered from the CBD by the Golf-course.
- **The Northern Frame** - the central and northern segments of Nakaseru Hill, retains a mix of uses including government, institutional and private office

space, hotels, embassies and diplomatic residences, top end services and the very top end of the residential market after Kololo; with infrastructure of relatively high quality but with gaps, primarily maintenance.

- **The Western Frame** - Kisenyi I-II and Old Kampala, retains a mix of uses including inner-GKMA and intra-city public transport “stages”, markets, arcades, street-front trading, light industrial workshops together with very high density residential areas (slums), the Nakivubo Stadium and more; first and foremost the domain of the informal sector and generally of high intensity, low added value trade.
- **The South East Frame** - primarily the Industrial Zone with manufacturing, logistics and much of the wholesale trade.
- **The Southern Frame** has in effect failed to evolve, being barriered from the CBD by the rail yards, with the Nsambya Police Barracks and Railway housing to the south of the yards. These areas retain significant potential for redevelopment.

With close to 500,000 employed in and around the City Centre and some 800,000 persons entering daily, the City Centre, and the CBD in particular, is buckling under the weight.

The eastern section of the CBD functions reasonably well but urgently requires transportation, traffic (including pedestrian traffic) and parking solutions.

Given its significance to the national economy the CBD urgently requires a “makeover”, i.e. the overhaul and upgrading of public space. This not just an issue of aesthetics, it is the very image Uganda presents to the business world and there is a clear need for an image of a modern efficient economy. Moreover, upgrading of public space has proved to be an effective catalyst for the upgrading of adjoining private properties and with it the upgrading of commerce and business in the area. This of course needs to be undertaken together with the upgrading and reorganization of the road network and movement system in a single integrated intervention.

More urgent however is the resolution of the relentless pressures on the western segment of the CBD which is overcrowded to breaking point. Here, direct intervention (e.g. reorganization of the taxi “stages”, pedestrianisation of selected areas, physical upgrading, etc.) may somewhat alleviate the pressures but will not resolve them. Resolution will require systematic intervention including, *inter alia*:

- Restructuring of the Public Transport system (see **Section 11.4**);
- Relocation of lower order commerce and services, especially non-durable food markets, to the suburbs; primarily by providing appropriate alternatives in the neighbourhoods;

- Tackling the problem of the slums, specifically Kisenyi I-III, in a systematic manner;
- Infrastructural upgrading; and more.

The potential for resolving many of these problems may be found in the missing Southern Frame segment, first and foremost in the Rail Yards. Their relocation is now feasible given an alternative location in the New Kampala Industrial and Business Park, which includes a planned, dedicated rail oriented zone. Once relocated the barrier to the southern segment will effectively be removed and that segment can be developed, be it for residential, industrial, commercial or public use, or any appropriate mix, specifically including relocation of functions and/or populations from the western segment, allowing for its redevelopment.

The South East Frame segment, the Industrial Zone, requires upgrading and restructuring, particularly access and movement both to and from the zone and within the zone. This, to enable its functional upgrading to incorporate new, clean, high added value industries, including office and commercial functions, with the heavier industries and logistics systematically relocating to the New Kampala Industrial Park and/or other new industrial zones.

The Northern Frame is of special significance too as it can easily be adapted to host the business development potential inherent in Makerere University (see below).

Old Kampala retains special potential with its institutions, their land reserves and the abundance of historic buildings in its precinct. Potential includes fields as arts and culture, tourism and academic institutions. There is a clear need for the upgrading of Old Kampala; utilising the inherent potential of the area, whilst renovating and protecting the City's heritage.

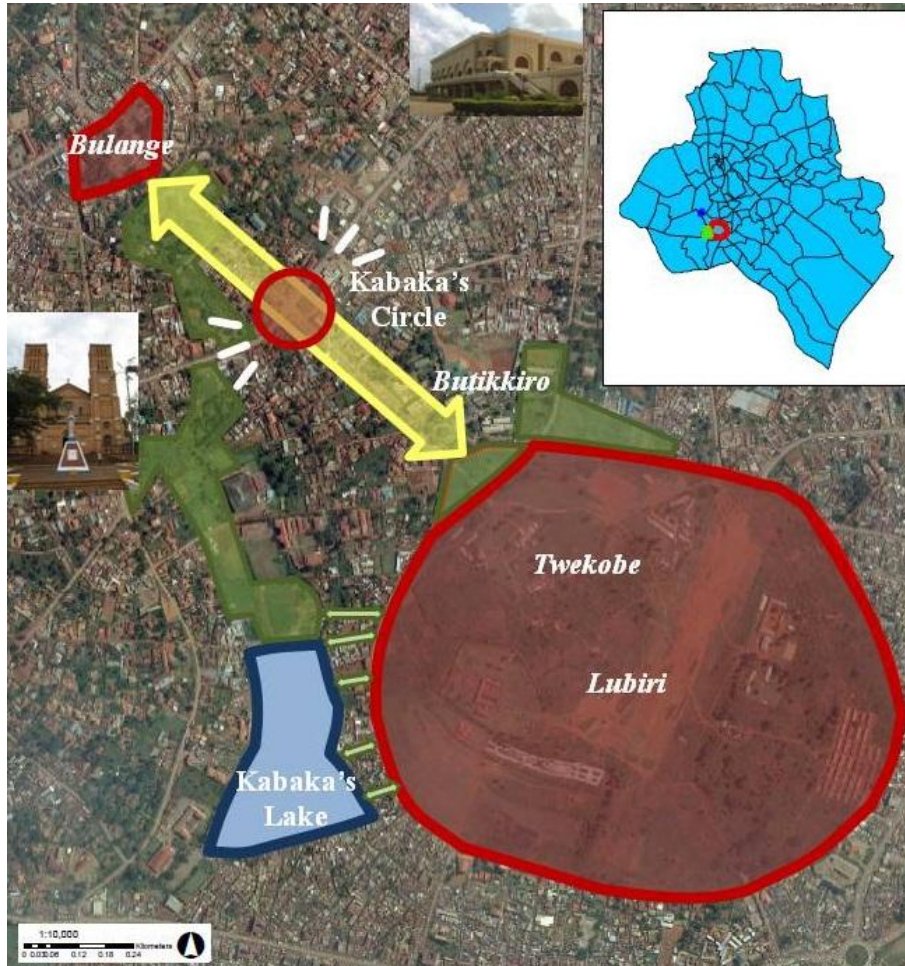
The City Centre, excepting the northern and eastern segments, lacks open public space. The CBD and the Frame retain significant, albeit still inadequate, open space elements.

The primary "green" potential in the City Centre is the Kampala Golf-course, which needs to be retained until it can be developed as Kampala's Central Park including such elements as an open-air theatre (amphitheatre), Botanic Gardens, etc.

Given the above, there is a clear and evident need for detailed planning of the City Centre as a whole (as identified above together with the "missing" southern segment, specifically Nsambya Police and Railway compounds but excluding the far northern segment which requires detailed planning together with Makerere University).

The *Kibuga* - Kampala's Historic Centre

Hosting the primary institutions of the Buganda Kingdom, themselves housed in significant historic structures, with assorted other institutions and clear structuring, Mengo Hill and the adjacent Namirembe Hill retain unique value and opportunity - as a place, a cultural centre, a tourist attraction and potentially one of the most attractive quarters of the City.



Map 21: The *Kibuga* - Kampala's Historic Centre

Indeed, in the Consultant's opinion, the *Kibuga* retains the potential of developing into Africa's equivalent of Versailles, based, *inter alia*, on:

- The *Lubiri* - the Royal walled compound retains unique potential, suited to serve as an inner-city Nature Sanctuary, restocked with indigenous fauna, including impala, and flora. The *Twekobe*, the Palace, recently renovated, can serve as a major cultural



Figure 28: The *Twekobe*

facility such as a museum, possibly complemented by one or two other new cultural facilities;

- The *Bulange* - of particular cultural significance and anchoring the Kabaka Anjagala Road;
- Kabaka Anjagala Road - linking the *Bulange* to the *Lubiri*, with the basic elements of a tree lined boulevard;
- Kabaka's Circle - with particular ceremonial value and impressive views;
- Kabaka's Lake - with significant development potential as a recreational and tourism node; and more.



Figure 29: View of Kabaka Anjagala Road

In the Consultant's opinion the *Kibuga's* potential contribution to the City as its cultural centre and for tourism is under-recognised and under-utilised. There is a clear need for the detailed planning of the *Kibuga* and a clear opportunity for its development on a sound economic footing. There is an immediate need to act to preserve the area from inappropriate development.



Figure 30: Kabaka's Lake

Makarere University

Makarere University (MAK), is Uganda's largest and leading tertiary education institution hosting a student body approaching 35,000 (approximately 90% undergraduate) producing some 12,500 graduates annually, distinctly slanted to the Arts & Humanities as opposed to the Sciences & Applied Sciences.

The Makarere University campus of some 1.2 km², is located on Makarere Hill, immediately north of the City Centre, in close proximity to Mulago Hospital located to its east. In many ways it may be considered an extension of the northern segment of the City Frame. Within its campus MAK houses a series of historic buildings of cultural and architectural value, an under-utilised asset.

Makarere's reputation and standing has attracted the establishment of a number of other institutions of higher learning in the area, turning the entire area into the

locus of tertiary education in Kampala and filling the area, including its slums, with full-time and part-time students, making it one of the most vibrant and crowded segments of the City. Moreover, Makerere is a major factor in the emergence of Kampala as an attractor of foreign students to the City.



Makarere University serves as the anchor for tertiary education in Kampala and in Uganda as a whole, and indeed for Eastern and Central Africa. It is the only African university outside South Africa to be ranked in the top 2,000 universities in the world (1,402, 2010, Ranking Web of World Universities) and the only non-South African academic institution in the top 10 in Africa.



Figure 31: Makerere University

Its significance and potential contribution is only partially tapped. The trend internationally is towards strong linkages between academic institutions and its host society and economy, with the student body actively involved in the host community; the faculty actively integrated in the advancement of the productive sectors of the economy, specifically including applied research and public-private joint ventures; and their academic programmes tailored to serve the needs of the society and economy, specifically the productive sectors. These elements are key to entrance to and participation in the international Knowledge Economy marketplace.

Best practice internationally has seen the emergence of Knowledge Cities (e.g. Houston, TX; Nottingham, UK) and, of greater relevance here, Knowledge Precincts (e.g. 22@ Poblenu, Barcelona; One North, Singapore). There are no known Knowledge Precincts in Africa and certainly no Knowledge Cities.

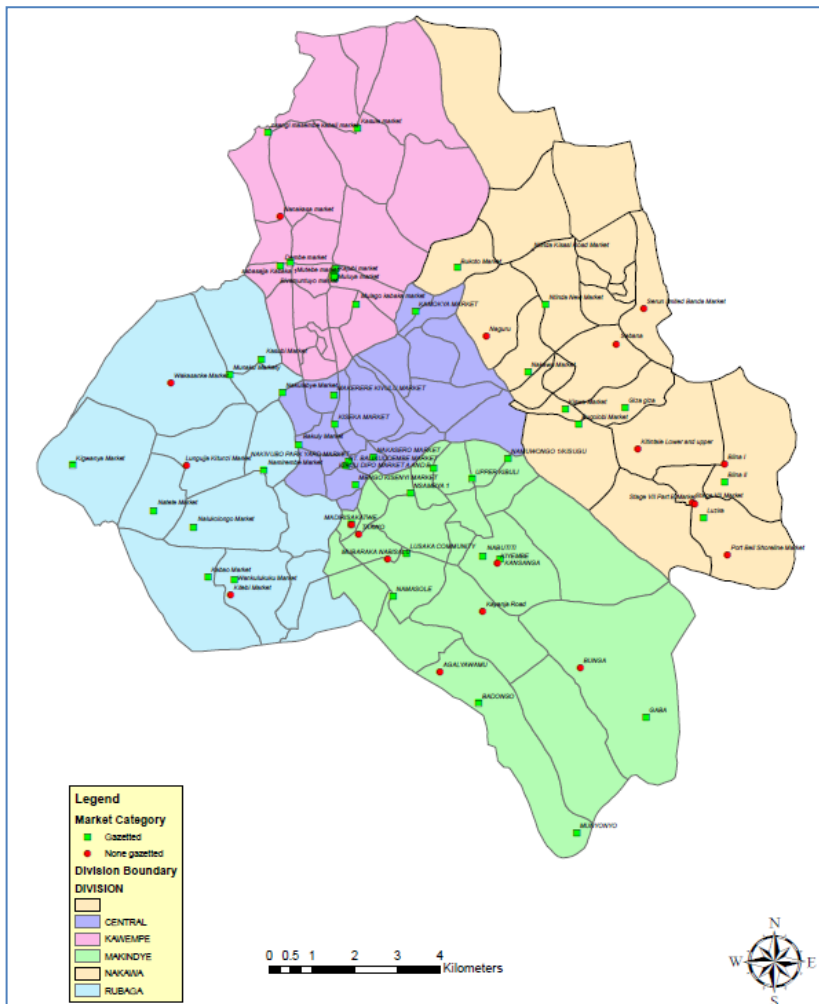
Given MAK's relative strengths it offers Uganda's best option to penetrate the Knowledge Economy and to leverage advanced manufacturing and service industries. As such there is an urgent need to redefine MAK's role and function within the City and develop an integrated, coordinated Development Strategy encompassing, *inter alia*, the University itself, local industry and services (hi-tech elements), the KCCA, government, international partners and possibly Mulago Hospital, towards the development of a Knowledge Precinct leveraged on and further supporting MAK.

This Development Strategy will require the detailed planning and design of the University itself together with the northern segment of the City Frame, residential areas surrounding the campus and possibly Mulago Hospital.

A similar approach may be considered for the development of the Kyambogo-Nakawa Institutions axis and possibly Entebbe’s southern division in conjunction with the Airport, each with a different, complementary field of specialisation.

Markets

As in most sub-Saharan cities, markets play a key role in Kampala. They are generally strategically located both in the City Centre and the suburbs; supply the bulk of the population food, both fresh produce and durables, clothing and household products; provide employment to 5% or more of the active workforce; and serve as local meeting places for residents. Often they are colourful places, literally and figuratively.



Map 22: KCCA Gazetted and Ungazetted Markets, 2011

Kampala has more market facilities and vendors than are required to supply its population with foodstuffs and household goods. Paradoxically there is an evident

shortage of market facilities in the residential areas, with over half the capacity and more than half the trade concentrated in the City Centre.

The City Centre is not the appropriate location for fresh produce and basic foods markets, nor for trade in basic household products. Their location in the CBD and its immediate surrounds physically degrades the CBD, disrupts its functioning and compounds its traffic problems, all detracting from the amenity of the resident client. On the other hand, the markets in the residential areas are inadequate in scale, distribution and standard.



Figure 32: Examples of Markets in KCCA and KMTC, 2011

The market system, particularly the fresh food distribution system, is totally inefficient, resulting in unnecessarily high cumulative mark-ups, despite the fierce competition, inflating food costs, whilst still only providing the individual worker, trader and agricultural producer with subsistence level income. In addition, the

supply of goods to the City Centre markets and the conflict between the motorised and pedestrian modes significantly compounds traffic problems in and around the markets. Moreover, the markets constitute serious health and fire hazards.

Indeed approximately one half of all the units are concentrated in markets in the City Centre.

There is an urgent need for an integrated policy and plan to restructure the food distribution and markets system in the City including:

- The establishment of wholesale fresh produce markets at the urban-rural interface entry points to the City, reducing producer transportation costs;
- The development and operation of inner-city bulk distribution systems for foodstuffs concentrating on supply to markets in the residential areas;
- Development and/or redevelopment of markets in a balanced city-wide distribution, coordinated and integrated with the Public Transport system and bus stops and where possible with emergency service facilities;
- Development and/or redevelopment of markets to minimum standards;
- Progressive reorientation of the City Centre markets from fresh produce and basic goods to specialised markets benefitting from their central location.

3.2.6 Kampala's Land Reserves

Kampala, housing an average of 30 persons per Ha. in the GKMA and under 90 per Ha. in the KCCA itself, is one of the least dense cities in Africa and indeed internationally⁶. As such, in the absence of significant physical barriers to further development, the GKMA should easily accommodate the projected 5 million population to the planning horizon with average densities rising to a very amenable 50 persons per Ha.

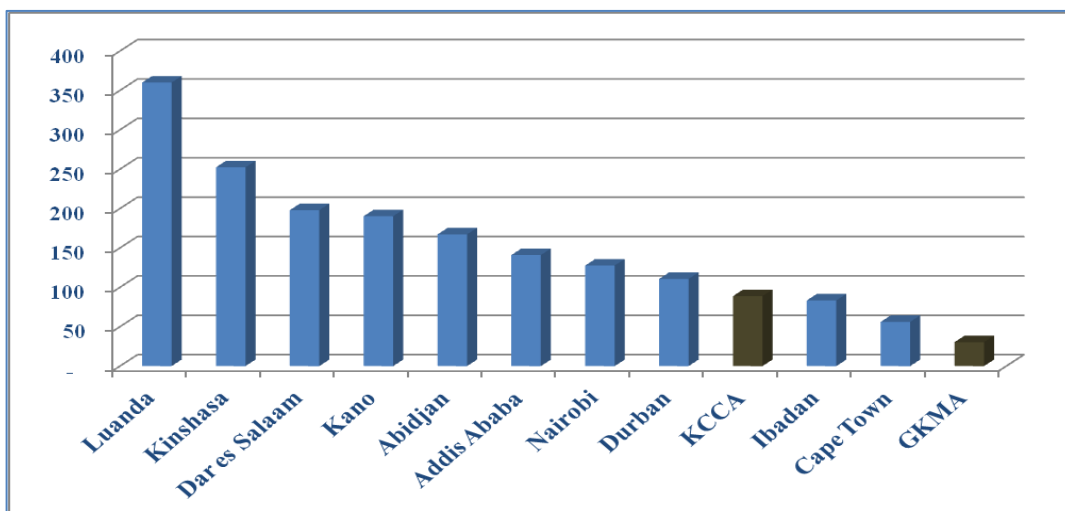
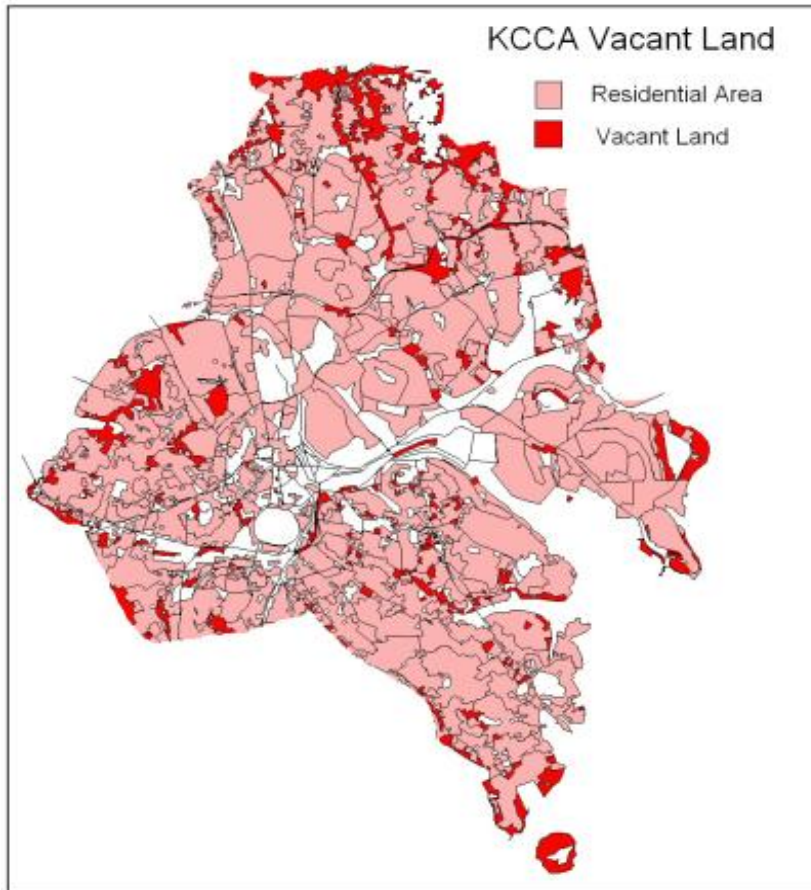


Figure 33: Gross Densities of Comparative sub-Saharan Cites, 2000 (Kampala 2011)

Source: Comparative data - Universe of Cities, Kampala - KPDP estimate.

⁶ For comparison the GKMA density is less than 10% that of Luanda and KCCA alone has a density comparable to that of Cape Town with all its inner-city mountains.

Paradoxically, Kampala contains extremely dense slums and simply lacks an adequate supply of land for residential, industrial, infrastructure, utility and service facility development. Effectively the land is there on a scale to meet all current needs but it is simply unavailable for development.



Map 23: KCCA Vacant Land

All told, KCCA lacks significant land reserves under current conditions - specifically the land tenure system, residential patterns, land uses. As such it is rapidly reaching its carrying capacity, with a gross density of approximately 89 persons per km². Under current conditions Kampala may reach a gross density of some 100+ persons per km² or a population of some 2.0-2.25 million.

Further population growth can only be enabled by increased densities. In an unplanned manner this will involve construction of more and more *Muzigo*, primarily in the informal settlements, turning them into even larger and possibly even denser slums.

With planned, directed, enabling intervention this can be based primarily on the redevelopment and densification of low and medium density neighbourhoods with the construction of apartments (largely walk-ups) and other appropriate forms of moderate density construction (row housing of reasonable standard, town-housing of high standard).

The outer ring towns and suburbs are still characterised by low density development. Built areas still retain very significant land reserves for large scale infill with adequate space for all requisite infrastructure and services. Assuming these areas fill-in over time in the same manner and to the same densities as currently in KCCA, these outer ring towns and suburbs can be expected to house an additional 1.0 million or a total of some 1.75 million persons (KCCA's current population). With appropriate planning, direction and support, most of these areas can be developed to far higher densities, on a scale adequate to absorb the bulk of the projected growth to the planning horizon (2021).

On the City's periphery, beyond the outer ring of towns and suburbs, there is effectively an unlimited supply of vacant land, be they nominally cultivated or not, but these are effectively inaccessible and lack basic infrastructure and services. And once a road is planned or developed these lands become the immediate target of speculation, raising prices and restricting supply.

These areas constitute Kampala's strategic reserve for balanced long term development, enabled by land tenure reform and regularisation and by systematic infrastructural development particularly road access, subject to planning direction and priorities.

The paradoxical lack of accessible land is the direct result of the land tenure system, the inefficiencies of the real estate and property market, gross income inequality, the effective absence of a residential construction industry and the effective absence of long term planning and implementation.

Kampala's land reserves include a wide range of lands of varying location and ownership:

Government Compounds - largely Inner-City but also in the Outer Suburbs; some effectively utilised, most distinctly under-utilised; some appropriately located, others clearly candidates for relocation on an economically viable basis; some large, some smaller. These include, *inter alia*, Railway Yards; Nsambya Police and Railway compounds; assorted Police Stations throughout the City; remnants of Naguru Airstrip; Luzira Prisons; Butabika Hospital and old ministerial and Institutional offices and facilities.

There are also reported to be a large number of government properties over which assorted actors have taken effective possession (e.g. much of Naguru Airstrip).

Residual KCCA Land and Property Holdings - both Inner-City and in the Outer Suburbs; most utilised, some effectively, others less so; some appropriately located, others clearly candidates for relocation or redevelopment; most to be dedicated to public use. These include, *inter alia*, markets; bus stations; slaughterhouses; schools; health clinics; commercial and residential properties; and vacant plots awaiting development for public use, although many have already been sold off.

Buganda Kingdom Lands and Property Holdings - specifically including the *Lubiri*; Kasubi Tombs; and assorted leased, occupied and vacant land holdings throughout the GKMA; only partially under the control of the Buganda Land Board.

Kyambogo University / I.t.e.k. - with large land reserves; appropriate for a balanced mix of public and residential uses.

Kampala Golf-course - barriering the eastern segment of the Frame from the CBD, restricting access and movement; optimally located to serve as Kampala's Central Park, including amphitheatre and Botanic Gardens, but also very attractive to speculative interests;

Inner City Sports Stadia - appropriately located for public use, specifically open public space and/or recreational and sports facilities open to the wider public; and/or development; for either restructuring and/or relocation to e.g. the Mandela Stadium complex or other Outer Suburban locations.

Private Vacant Properties - more limited in scale in the Inner City, but by no means rare, and on a large scale in the Outer Suburbs and obviously in the existing peri-urban built areas; for appropriate development and/or acquisition for public use.

Medium and Low Density Built Properties - particularly older Inner-City Suburbs and also in the Outer Suburbs; subject to location many are appropriate to redevelopment, based primarily on infrastructural extension and an enabling planning approach; particularly appropriate given the marginal value of the existing built stock, mostly to inadequate or basic standard.

KMTC Peripheral Towns Land Reserves - with significant land reserves with basic infrastructural development in place particularly in Entebbe and Mukono.

Peripheral Lands - for balanced development, enabled by land tenure reform and regularisation and by systematic infrastructural development particularly road access, subject to planning direction and priorities.

There is a clear urgent need for coordinated intervention including:

- Clear policy, by joint compact between GOU, KCCA and the Buganda Kingdom, prioritising public lands for meeting firstly own institutional needs spatially distributed in a balanced manner; secondly public facility, utility and open space needs; and thirdly medium to high density, reasonable standard, affordable housing on an economically viable basis;
- Comprehensive audit and mapping of all government and all KCCA property and property rights in the City and preparation of a comprehensive Business Plan for their systematic, controlled allocation and development on an economic basis with due consideration of their potential urban contribution

and impact, to the mutual benefit of the specific ministries, bodies and agencies, the City and its population;

- Adopting clear policy in which public (government and KCCA) lands, if sold or leased at all, are only sold or leased once developed to realise their full economic potential or on a PPP basis ensuring ongoing public sector economic interests in the developed property; with the exclusive dedication of all revenues, from sale, lease or rental of public property to the acquisition of new public property, either the purchase or expropriation of additional lands, or the construction of new public facilities or the upgrading and renovation of existing public facilities (specifically not to the financing of current expenditure);
- The Kampala Golf-course needs to be protected until it can be relocated whilst ensuring its exclusive utilisation as the City's Central Park and not designated for any other development;
- Promotion of infill within the built areas with an incentive system to promote development of appropriate higher standard and higher density housing and other functions and/or its acquisition to provide for public use on vacant plots both within the Inner City and the Outer Suburbs;
- Promotion of redevelopment and densification of moderate to low density low and middle income inner city and some outer suburb neighbourhoods with the systematic, staged provision of infrastructure, specifically roads, drainage and sewage, with enabling planning and technical support for the construction of new affordable apartments;
- Systematic acquisition of appropriately located vacant plots to meet long term public infrastructural, utility and service facility requirements and their effective protection until they are utilised;
- Coordination with the Buganda Land Board for the protection, utilisation and allocation of appropriate lands for public use, specifically to the KCCA and relevant LCs, together with support in resolution of tenure issues and in the financing and development of Kingdom land's for selected public use; on the basis of a joint social compact and coordinated land use planning.
- Clear planning direction for the development or the constraint of development of peripheral areas.
- Capacity building for KCCA and for Outer Ring LCs.

3.3 Natural Systems and Environment

Kampala's ecosystem is defined first and foremost by Lake Victoria and its catchment areas. Together with its location on the equatorial highlands, these have defined the region's climate and carved out its topography.

Primary elements include the Lake itself and Murchison's Bay in particular; the topography and morphology of Kampala; the inland rivers, water-bodies and wetlands; the sensitive geo-hydrology, aquifers and the multitude of water sources throughout the area.

The GKMA has an unusual number of valuable natural systems and attributes, which do or can contribute greatly to a sustainable ecological system and to consequent human welfare. These include the location on Lake Victoria, high rainfall and a warm climate, extensive wetlands, forests, biodiversity on land and in water, and hydroelectric power potential (beyond the GKMA but close enough to serve it). These systems are, however, under widespread threat, due to undesirable or disproportionate human activities, instead of the pursuit of proper integration of society and nature.



Figure 35: Waste Collection Point, Kampala, 2011

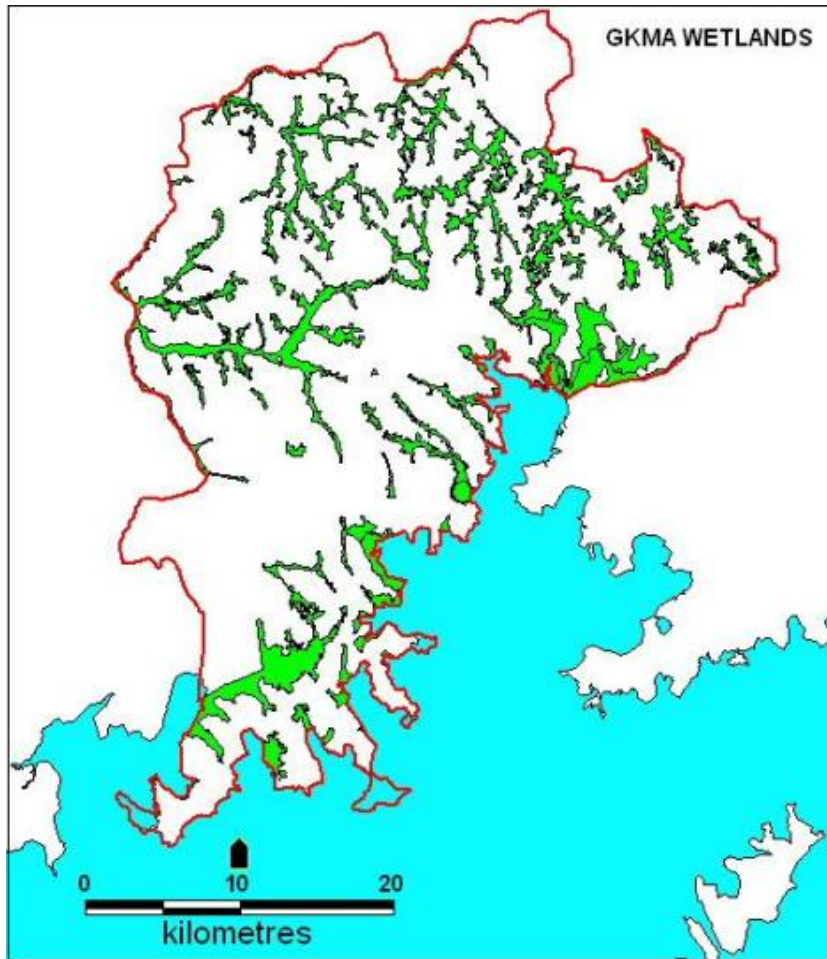


Figure 34: Burning Waste, Kampala, 2011

Problems include wetland encroachment and degradation, inadequate sanitation and solid waste disposal, air pollution, forest depletion and the impacts of climate change. Concerted and integrated planning, implementation and enforcement are essential to a sustainable future for the GKMA.

Lake Victoria serves as the lynchpin of the GKMA's ecosystem. Together with natural precipitation, the lake provides an unlimited source of water to the City, its inhabitants, its industry and its agricultural hinterland. Its role in the life of Kampala extends into assorted fields (fishing, recreation, agriculture and much more). It provides large expanses of the GKMA with extraordinary views and beauty.

However, the nature of its shorefront (largely wetlands without natural beaches), the lake's pollution and the prevalence of malaria and bilharzia severely restrict its effective utilisation for direct shorefront water related recreation and tourism (paddling, swimming, recreational fishing, etc.). Deep-water recreation and tourism activities (sailing, water sports, angling, etc.) are less constrained by these factors.



Map 24: GKMA Wetlands

The wetlands serve a series of sensitive ecological functions, primarily water and waste filtration. They have been systematically filled in the City Centre and Inner-City Suburbs, infiltrated and polluted by residential and industrial activities. Almost all the wetlands are already deemed degraded to some extent. It is apparent they have not withstood the impacts of the City's growth and cannot continue to serve as Kampala's primary sewage plant and dumpsite. Moreover, they constitute a distinct health hazard and constraint on development and movement.

The wetlands enjoy legislative protection and are of significant environment awareness and concern but in practice are not protected.

The wetlands have been studied repeatedly and in depth, primarily from the ecological and environmental perspectives but a comprehensive approach is lacking. There is an evident need for a balanced, comprehensive determination of the wetlands' role and function, sensitivity and system-wide impacts and clear policy as to their utilisation and/or protection.



Figure 36: Examples of Wetland Intrusion, Kampala, 2011

In all circumstances, regardless of which wetlands will be filled in and which protected in practice, the rapid expansion of the sewage network and waste collection and treatment systems needs be implemented without delay. This is urgently required, and widely demanded, and in and of itself will contribute immensely to the wellbeing of the lake and the wetlands, in addition to their contribution to the health and Quality of Life of Kampala’s inhabitants.

Kampala, once the “Garden City of Africa” has been defoliated. Its natural flora and the extensive forests around the present day city have been devastated and the process is ongoing with new development continuously encroaching on the remaining forests, including “gazetted” supposedly protected forests. There is an urgent need to reforest and reintroduce trees and foliage into the City on a large scale, for soil protection, for climate and runoff mitigation but primarily for the amenity and wellbeing of Kampala’s inhabitants,

Similarly Kampala’s natural fauna has been decimated. The city named for its impala herds no longer hosts any and its inhabitants need to travel to the Entebbe Zoo to show their children an impala. Stray dogs however are not uncommon in the built areas, particularly the slums.

Kampala is blessed with a particularly clement climate, contributing first and foremost to the Quality of Life of the inhabitants who are not required to battle excessive heat or cold, nor do they need to cool or heat their homes and work spaces. Rainfall is both plentiful and well distributed over the year and the day, beneficial for cultivation and barely restricting most human activity.

However Climate Change is already impacting the seasons and timing of rainfall and it is projected to lead to a rise in average temperature and increased rainfall. This will require, *inter alia*:

- Stringent development constraints along the lake shorefront⁷, along the wetlands and watercourses and in flood prone areas⁸ and practical, on-the-ground enforcement;
- Reassessment of engineering standards, specifically for drainage and for infrastructures including roads in flood prone areas;
- The preparation of an integrated Drainage and Water Management Master Plan for the GKMA extending and updating the KCCA plan and based on the KPDP;
- Resolution of the issue of residential areas in flood prone areas, generally slums, either providing effective flood protection or relocation, whilst ensuring no further encroachment;
- Large scale reforestation and appropriate large scale inner-city tree planting, in both the public and private realms, for temperature and runoff mitigation and for amenity.

3.4 Social and Demographic Structure

A City's social structure is an integral part of its urban structure and frequently reflects its spatial structure. Many of the factors which influence and are influenced by the social structure are important planning parameters. Social gaps and the causes of imbalance in the social structure “tell the story” of the City and reflect its unique character.

3.4.1 Demographic Structure

Kampala's population is young, albeit older than the national averages, with an estimated median age of 23 and an estimated average age of 24 years. Differences in age (median, average and distribution) between the KCCA and KMTC are relatively negligible.

Kampala has an extremely low Dependency Ratio⁹ of 45 dependants to 100 persons of economic activity age, largely a result of in-migration from rural areas. The 20-29 age group accounts for over one quarter of Kampala's population indicating both the scale and the impact of in-migration of young adults from the rural areas.

⁷ Given the only historical data available, presented in **Error! Reference source not found.**, this ill require a minimum elevation of 2 m above current levels.

⁸ At minimum to the 20 year floodplain, preferably to the 50 year floodplain.

⁹ Representing the proportion of “dependants” to “potentially economically active”, by age groups, defined as the number of children 0-15 and elderly 60+ in relation to 100 aged 16-59.

Such a low ratio is termed a “Demographic Windfall” wherein the proportion of dependants is so low that the scale and proportion of the active work-force provides distinct opportunity for rapid economic growth. This constitutes a unique window of opportunity which Kampala, and indeed Uganda, cannot afford to squander with the current levels of unemployment and under-employment.

3.4.2 Socio-Economic Structures

Kampala's population has been formed by continuous waves of immigration. As such, the City's society has and is constantly struggling to climb the socioeconomic ladder, and socio-economic mobility is neither guaranteed nor always linear.

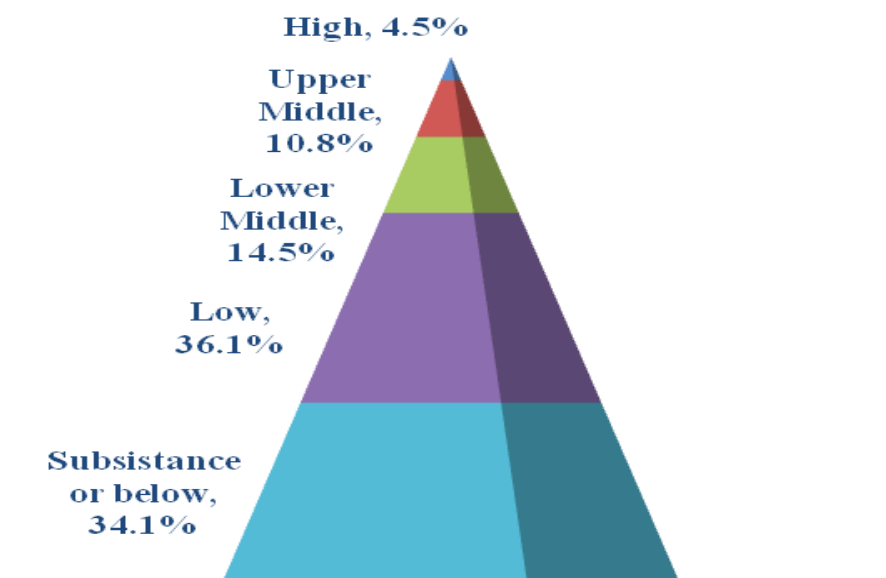


Figure 37: Socio-Economic Categories, Estimated Frequency Distribution

These adjustment processes have many aftereffects including the emergence of specific housing and lifestyle conditions such as the slums, cheap rental housing (*Muzigo*), overcrowding and an ever growing demand for work opportunities and housing particularly for young adults (both local born and bred and migrants). Unemployment is widespread and under-employment even more prevalent. Women tend to be at the bottom of the ladder (particularly single mothers).

The correlation between high education and socio-economic status is often dissipated by the limited availability of appropriate employment opportunity. Absolute income constraints limit welfare levels even for the middle classes and a significant proportion of young, relatively higher income families “choose” to live in inadequate rental residences in order to save towards buying land and constructing a house in the future.

Middle and Working Class (Upper Middle to Low Socio-economic categories) households are generally headed by salary earners in the governmental and formal

sectors, generally living in basic-inadequate housing. Over one-third of all households fall into the Subsistence or below SE category, with Heads of Household being unemployed, daily laborers or working in the informal sector, generally residing in inadequate-inappropriate housing and facing associated harsh living conditions.

Kampala's social landscape is a "sea" of pervasive poverty with troughs of deep poverty and "islands" of welfare and affluence. Most of the very poor are concentrated in the City's slums but in most parishes there is a mix of poor and working classes living side by side in informal settlements with the higher income groups in close proximity in identifiable structured and relatively organised, better serviced neighbourhoods.

Characteristics of Kampala's Socio-economic categories, their composition and distribution are detailed in body of the report.

3.4.3 Impacts of Housing

There is a high correlation between Socio-Economic status and Housing Standards in Kampala although this is partially distorted by the shortage of reasonable and basic standard housing in the City.

In Kampala fully 69% of all households reside in rental accommodation. Whilst this is not exceptional in large cities in developing countries, it is indicative of the extent of poverty in such cities, including Kampala.

Internationally residential property ownership is the primary medium for capital accumulation for the Middle Classes. The purchase of a home is usually the largest and most significant investment for the average Middle Class family. Mortgage payments are generally the most significant form of savings for the Middle Class household and once paid off the asset provides financial security to the household.

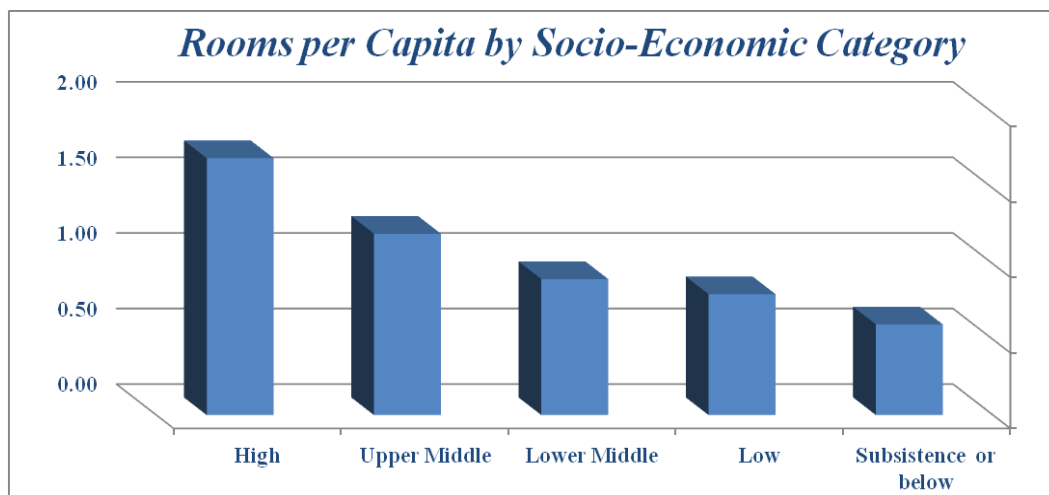


Figure 38: Residential Density (Rooms per Capita) by Socio-Economic Category

In Kampala however this is not the case. The immature property and financial markets in the City are generally not structured to enable the financing of the purchase of residential property. The only financing available is short-term small-sum loans secured against salary income in addition to savings and familial resources if available.

In these circumstances inflation plays havoc not only on the poor but no less on the Middle Class. As land prices rise and the value of cash savings depreciate, the dream of acquiring an “owned home” dissipates. Double digit inflation, as in 2011, significantly reduces, in most cases precludes, the possibility of the average Working or Middle Class household attaining an “owned home”.

3.4.4 Gender

In Uganda the relative deprivation of women occurs as a result of structural inequality and subordination with deep roots in the history and the tradition of the nation. Many of the women are frequently the "poorest of the poor". Traditional and widespread societal discrimination against women reportedly continues, especially in rural areas, despite constitutional provisions to the contrary. Many customary laws discriminate against women in the areas of adoption, marriage, divorce, and inheritance.

Development is the improvement in the quality of life of the people at unequal rates resulting in significant differences between groups, including between men and women.

Access to land is still widely governed by customary law and norms. In theory and in legislation, women have access to land. Decision-making powers, however, are typically granted to men and most female landowners lack the power to administer their land holdings. Access to bank loans is particularly difficult for women in Uganda. The physical integrity of Ugandan women is poorly protected too, with violence against women being reportedly widespread: Women on average have less education and their asset rights are effectively restricted.

Women are characterized by high mortality rates at birth and suffer from sanitation problems. Single parent households, generally headed by women, are significantly over-represented in the slums and the poorest neighbourhoods.

3.4.5 Poverty

Urban Poverty is one of Kampala’s primary and readily evident characteristics. Poverty permeates almost every corner of the City and dictates behaviour and decision-making on the individual, family/household and collective/community levels. It is evident on the roads (taxis and boda-boda) and sidewalks (vendors and hawkers), in the built fabric (densities, standards and methods of construction), the local economy (unskilled labour orientation, low value added activities, employment insecurity), inter-personal relations (distrust and conversely mutual

support), in the households (diet, familial structures, commitment to education of children), in services (availability and access) and much more.

As in most Sub Saharan cities, poverty in Kampala is directly related to the rapid pace of urbanisation and the City's incapacity to accommodate and provide for its population whilst ensuring adequate Standards of Living and Quality of Life.

Some 70% of Kampala's population are estimated to fall in the Low or the Subsistence or below Socio-economic categories.

Data reflects the difficult aspects of life in the city, pointing to the fact that, although there is a very clear correlation between income, socio-economic status and education, socio-economic mobility is not guaranteed by education given the limited scale of appropriate employment opportunities for graduates.

Kampala has undergone massive urban growth based on very poor infrastructure, without being prepared for it, without adequate capacity to define and implement the plans prepared to handle and direct these trends. Whilst this is common to many cities in developing countries, in Kampala this has been compounded by the history of turmoil of the 1970s and early 80s. The result is a typical situation of urban poverty which will take decades, if not generations, to correct and put the city on the right track.

All too frequently, Urban Poverty has become a cycle from which the poor have little chance to escape, resulting in second and third generation poverty. In many ways uneducated, rural migrants have been pushed from the rural environment (by lack of access to land, natural disaster, social upheaval, etc.) and attracted to the City (hope and expectation of employment, opportunity, services, etc.). Inasmuch as the hopes and expectations do not materialise, the rural migrant faces a bleak future in the City, barely eking out a living, residing in inadequate accommodation (often inappropriate for human habitation), lacking access to basic services and amenity and remaining powerless to pull him/herself and his/her children out of the abyss of absolute poverty. In effect the migrant has exchanged rural subsistence, forgoing the benefits of the rural environment (access to natural vegetation and foods, social support of the community, open space, etc.), for abysmal urban subsistence.

The typical Cycle of Poverty is shown in **Figure 39** below.

Housing is a major factor in the cycle of poverty. The poor require cheap access to employment and basic services. Given the proportion of income expended on food and basic subsistence, the poor often cannot afford basic housing or public transport. As such, they are forced to compromise on housing, residing in inadequate shelter, *Muzigo*, within walking distance of employment. Since most employment opportunities are in or around the City Centre, the poor seek to locate in the Inner City (generally within 5 km of the centre) often on marginal land

(wetland intrusion), and pay a significant premium for the location (whilst saving on transportation).

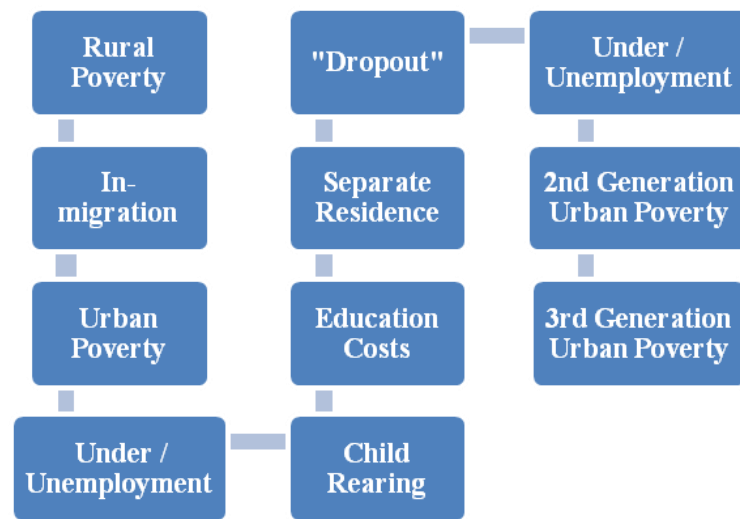


Figure 39: Cycle of Poverty

Given demand for cheap inner-city housing, consistently growing with in-migration, its limited supply, and decreasing supply of available land, housing demand has been met primarily by the construction of tenements (*Muzigo*) in increasingly high densities, to the point that inner city slums are characterised by their density and the lack of open space, public or private, with only narrow paths or lanes providing pedestrian access and serving as outdoor “kitchens”, “shopfronts” and play areas for children. These slums house an estimated population of 500,000 in densities and with extremely poor living environments reminiscent of some of the worst slums in Africa, Asia and Latin America.

Moreover, it must be stressed that the rental costs for *Muzigo*, particularly inner-city *Muzigo*, are, per m² “built” area, the most expensive of the housing options in Kampala (see **KPDP SR Appendix E Section 13.2**) and further characterised by residential insecurity with approximately one-quarter of the population moving residence every year.

In addition, residential densities for poor *Muzigo* residents are intolerably high with only 0.5 rooms or some 5 m² per capita. Privacy and personal space are simply not available and the basic conditions for a child to prepare homework are totally lacking, further entrenching and exacerbating the impacts of poverty.

It is further noted that the housing market in Kampala, and the effective absence of financing mechanisms for the residential market, compound the impacts of poverty and substantially increase the barriers to “breakout” from the cycle of poverty for the working classes (Low and Lower Middle SE categories).

Health too is a factor in the cycle of poverty. The poor, living in overcrowded unsanitary conditions often in low lying malaria prone areas, are more exposed to health risks. Often, given dietary limitations, the immune system is relatively

weak and the incidence of illness is therefore more frequent. This is further compounded by limited access to medical treatment, primarily the availability and affordability of medication, extending both the period of illness and exposure to infection. Frequent work absence, for own illness or illness of a child, let alone incapacity, compromises employment security and possible job loss inducing the individual to work whilst ill, further extending the period of illness and widening infection exposure.

Public Policy over the past decade and more has been directed to breaking the cycle of poverty, both rural and urban, primarily by enabling Universal Education, initially primary education, followed by secondary and now higher education (S5-S6), and supplemented by programmes to enable economic growth and employment.

Consultant’s findings indicate that the populace of Kampala has adopted a similar strategy, prioritising education as the primary mechanism to “break-out” of the cycle of poverty. Findings further indicate that this strategy has clearly been successful with education serving as the key to socio-economic mobility. The strategy generally adopted for “breakout” from the Cycle of Poverty is shown in **Figure 40** below.

Education however is only the precondition. Stable employment is the necessary requirement for the individual and household unit to first stabilize and over the years break out of poverty, with employment in Para-statals, Government and Formal Private Sector, in that order, being the preferable frameworks. Conversely unemployment, casual daily labour, unskilled work and informal sector employment, regardless of educational attainment, is a sure recipe for driving the individual and household deeper into poverty.

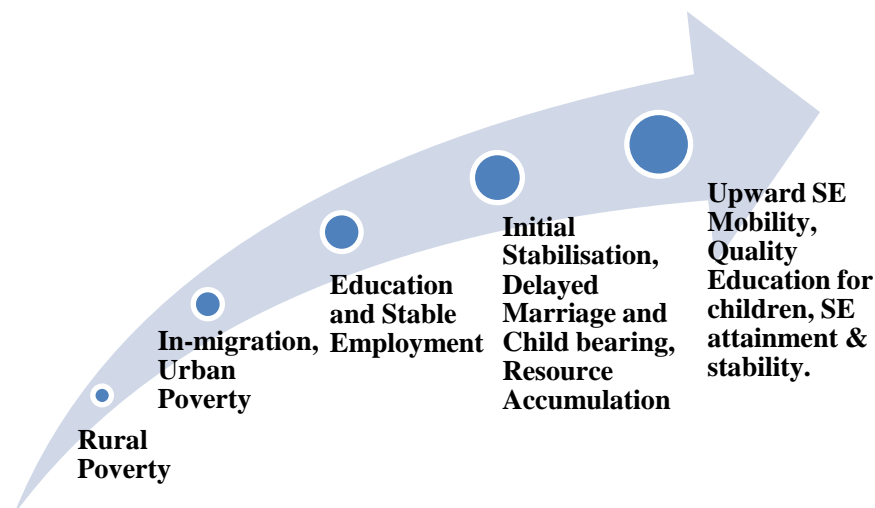


Figure 40: “Breakout” Strategy from the Cycle of Poverty

3.4.6 Slums

Kampala is characterized by both scattered unplanned settlements and slums¹⁰, with some of the characteristics included in the World Bank and UN-Habitat definitions of slums, but also with unique characteristics of its own.

The situation in Kampala, which is aggravated by encroachment into marginal land and especially the wetlands, results in an overall collapse of services and infrastructure throughout the entire city. One of the main manifestations of this situation is the overwhelming insecurity regarding housing and income, as well as a risk of further deterioration of the younger generation, particularly in the slums.

The KCCA has identified 31 slums in the City, concentrated in an inner ring around the City Centre and an outer ring on the fringe of the Inner City as detailed in the KPDP SR. They are generally, but not exclusively, located in the flood prone lower valley areas and some in wetlands.

The city today includes a number of types of slums, with attempts having been made to improve a few of them. The slums may be characterised as:

- City Centre Slums;
- Established Inner City Slums;
- Slums in the process of Formation in the Outer Suburbs.

All the slums have developed without any infrastructure, structuring or formal organisation, although reports indicated that they sprung up with a “wink and a nod” of the authorities at various levels. What limited services are available they were organised and provided *post factum*, hence lacking in facilities and standard.

Current upgrading attempts are localised and lack any comprehensive spatial vision or wider context. There is no national or urban mechanism in place to seriously deal with the challenge - to prevent the development of new slums and to find solutions to existing ones - only specific pilot projects.

Past intervention programs have relied largely on the free market, generally without adequate preparation, any foundations or infrastructure. In cases of severe poverty and adversity this method does not always work particularly well, and often serves to displace the weakest populations.

¹⁰ With the difference between informal settlements and slums being the mix of housing types (almost exclusively *Muzigo* in slums) and populations (almost exclusively Subsistence and below SE category in slums), the density of construction (extremely high in the slums) and the proportion of open space, public and private to the built footprint.

- Provision of appropriate housing solutions at the various levels – to avoid the expansion of existing and the establishment of new slums; to enable upwards socioeconomic mobility by enabling home-ownership; and to ensure minimum health standards by enforcing minimum housing standards (at minimum water and electricity connection, sewage and toilets, even if collective, and minimum construction standards including cast flooring).
- Ensuring accessibility in general, reducing transportation costs and ensuring access to services with a balanced distribution of services and appropriate physical access.
- Provision of appropriate employment solutions at the various levels – on the basis of an integrated economic development strategy oriented first and foremost to productive sectors and to higher value added activities, providing higher income levels to all strata employed.
- Extension and upgrading of infrastructure – with clear priorities derived from planning goals and targets and spatial distribution of populations and activities in the framework of the KPDP.
- Definition and adoption of an integrated approach to Kampala’s slums, tailored to the different types of slums identified.

Proper handling of these issues will result in economic welfare and a strong basis for better adaptation of populations migrating into the city, as well as improving the Quality of Life of residents in general and achieving economic growth.

3.5 Economic Sustainability and Development

Kampala is key to the national economy. Its primacy is readily evident and it has served as the gateway to Uganda and the “engine of growth” for over a century.

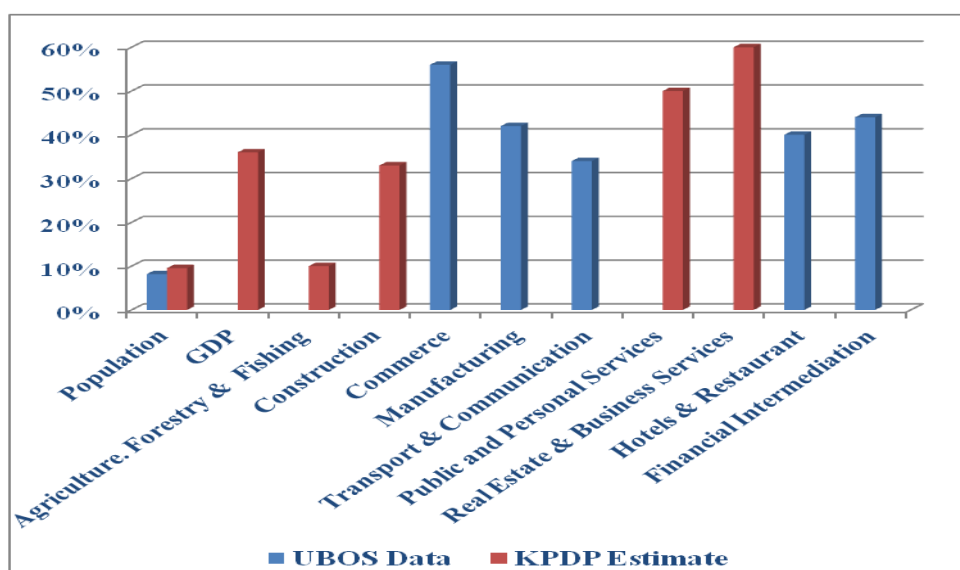


Figure 41: Kampala in the National Economy

The economy of Kampala remains very weak despite rapid growth over the past generation. It is structurally imbalanced, dependant on government employment and investment and on low order, low value trade and services. The City’s Space Economy is distorted, over-concentrated in the City Centre.

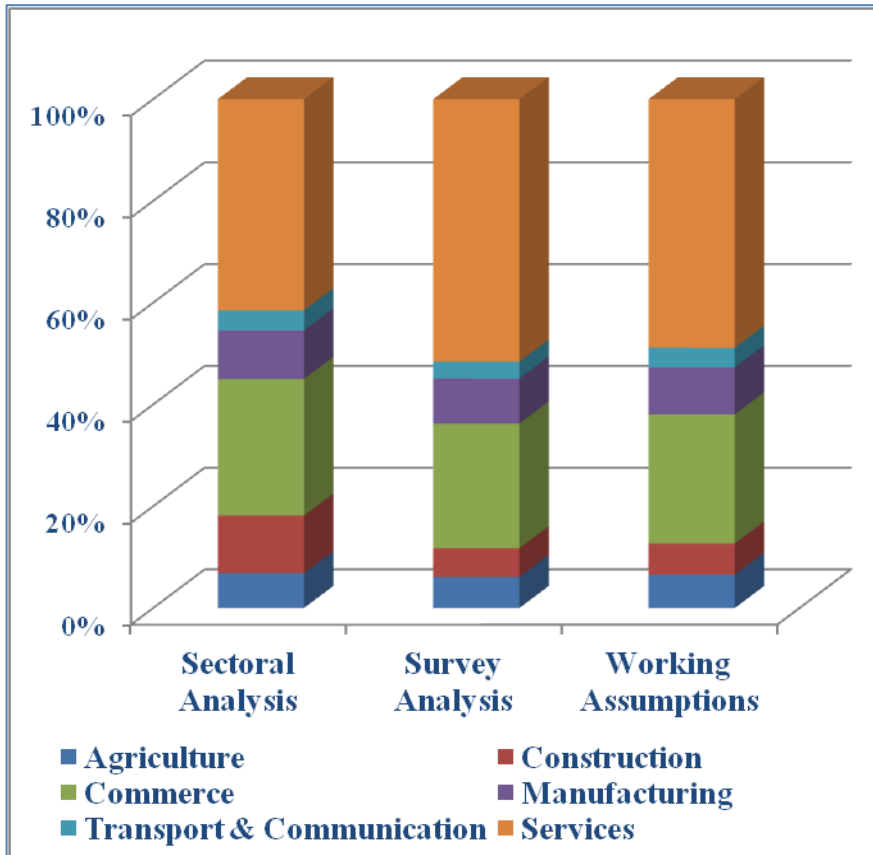


Figure 42: Estimated Sectoral Distribution, 2011

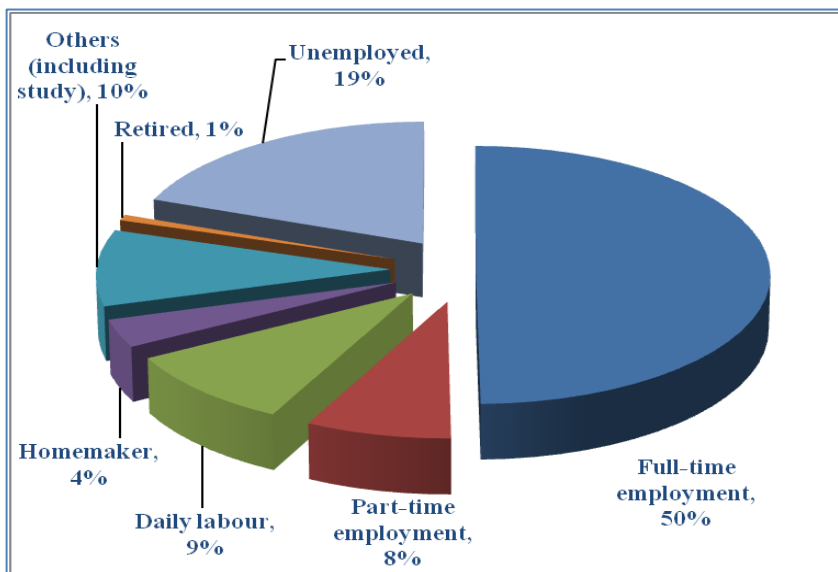


Figure 43: GKMA Work Force Employment and Unemployment

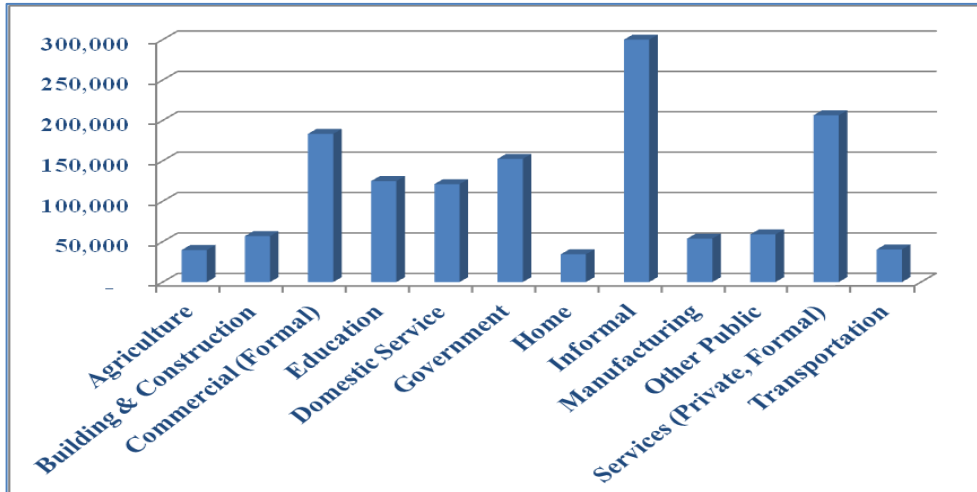


Figure 44: GKMA Employment Sectoral Distribution

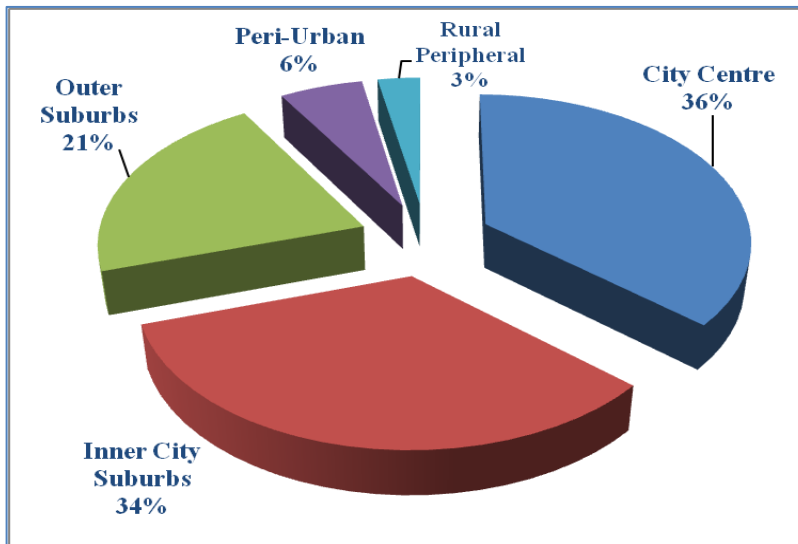


Figure 45: Spatial Distribution of Employment in the GKMA

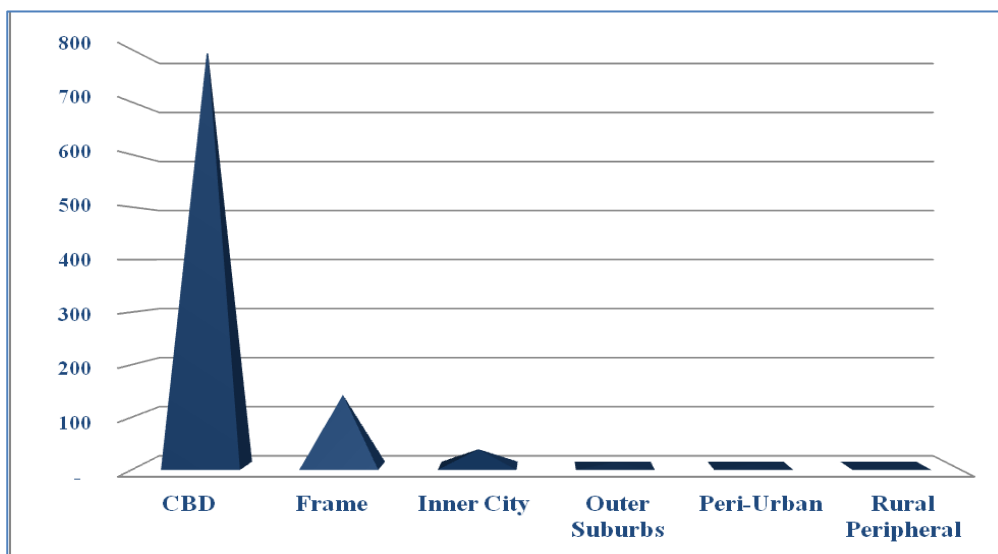


Figure 46: Intensity of Economic Contribution by Location (\$ million/km²)

In effect, Kampala is currently economically unsustainable, reflected first and foremost by the breadth and depth of poverty in the City, in the low level of service and amenity provided to the residents, the low standards of living and ultimately in mortality rates and short life expectancy.

The economic development of Kampala is key to the development of the City and indeed an essential precondition to national development. Economic development is the precondition to:

- Effective reduction and mitigation of poverty,
- Tackling unemployment and under-employment;
- Improving the Standard of Living of the City's population;
- Closing the current housing shortfall in the City and properly meeting future housing demand, enabling the Middle Class to achieve reasonable standard housing and the Working Class at least basic if not reasonable housing and indeed home ownership.
- Upgrading the built stock and thereby the form and face of the City;
- Providing the resource base to enable the extension and upgrading of the City's infrastructure and enabling the population to avail themselves of utilities;
- Providing the resource base and the tax base to enable the construction of public service facilities and their maintenance and allow for the provision of accessible, reasonable standard, affordable services;
- and much more.

The potential for economic development in Uganda as a whole and in Kampala specifically is readily evident, not least given the rapid economic growth achieved over the past generation. But evident challenges and opportunities remain, some readily achievable in the short-term, including:

- Import substitution manufacturing given the size of the local market;
- Water intensive manufacturing with clear relative advantage;
- Added value tourism services and extension of the tourism markets;
- Rapid modernisation and expansion of the construction industry and the financial sector by introducing accessible affordable mortgage schemes (and associated savings schemes) essential to the resolution of the housing crisis in the City;
- Extending penetration into the regional tertiary education market;
- Penetration into the regional medical services market;
- and much more.

Economic development will involve and require, *inter alia*:

- Restructuring of the local economy of the GKMA, balancing its dependence on government and low value trade and services with strong, vibrant, productive sectors, specifically manufacturing, high added value services, a modern efficient building and construction industry and a modern efficient public transport sector.
- Restructuring the space economy of the GKMA, partially balancing the predominance of the City Centre with modern, regionally and internationally competitive, employment centres and new, large scale industrial zones capable of achieving requisite economies of scale and agglomeration.
- Upgrading and reorganising the City Centre, particularly the western end of the CBD and the western and southern frames, specifically including the Industrial Zone and the Railways Yards;
- Restructuring of the education system to ensure the provision of well-trained skilled and professional manpower required to staff and fuel the economy, specifically providing appropriate vocational training and balancing tertiary education towards the sciences and the applied sciences;
- Enhancing, effectively creating, entrepreneurial capacity and enabling its application across the board;
- Leveraging the status and reputation of, and applying the significant capacities retained in, Makerere University and other academic institutions into applied research and towards the development of advanced business and industrial sectors;
- Development of appropriate tourism facilities and extension of existing capacities including development of new markets (for example resort tourism, sports oriented tourism, Arab States market, integrated East African marketing, health tourism, etc.);
- Extension and upgrading of infrastructure in the GKMA; and more.

This will require:

- The preparation and systematic implementation of an integrated Economic Development Plan for the GKMA with emphasis on the KCCA;
- The updating and implementation of the National Tourism Development Plan with special emphasis on Kampala;
- Allocation of adequate long term land reserves for economic development in the KPDP, the acquisition of the requisite lands and their effective protection.

3.6 Housing

Population growth over the past two decades has been accommodated by inner-city infill, densification and spatial extension into the adjoining towns and sub-counties (KMTC).

New construction of housing in KCCA (in the past decade and more) is primarily of tenements (*muzigo*) with demand driven by the poor for minimal shelter with access to employment opportunities and basic services.

In the KMTC new construction is primarily of single detached houses meeting the demand of the middle classes for basic and/or improved housing. There are already more single detached houses in the KMTC than in the KCCA.

Apartments are springing up at a rapid pace in both KCCA and KMTC, in assorted locations (including in the middle of slums) but remain a relatively small segment of the housing supply and are for rental only (lacking enabling sectional title legislation).

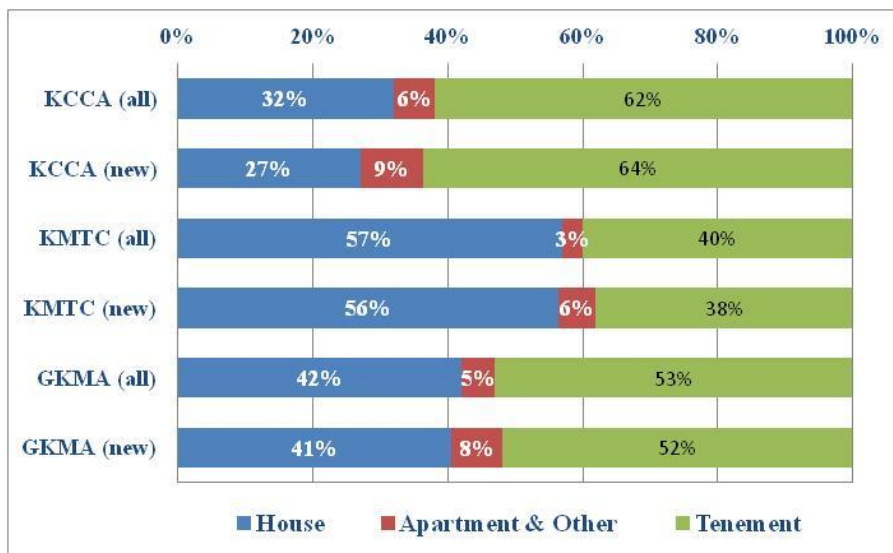


Figure 47: Distribution of Residential Types by Area

KMTC towns and sub-counties adjacent to KCCA are by and large indistinguishable from KCCA's outer suburbs and are viewed by their inhabitants and representatives primarily as dormitory towns and suburbs of Kampala.

There is significant unmet demand for improved housing driven by the Middle Classes.

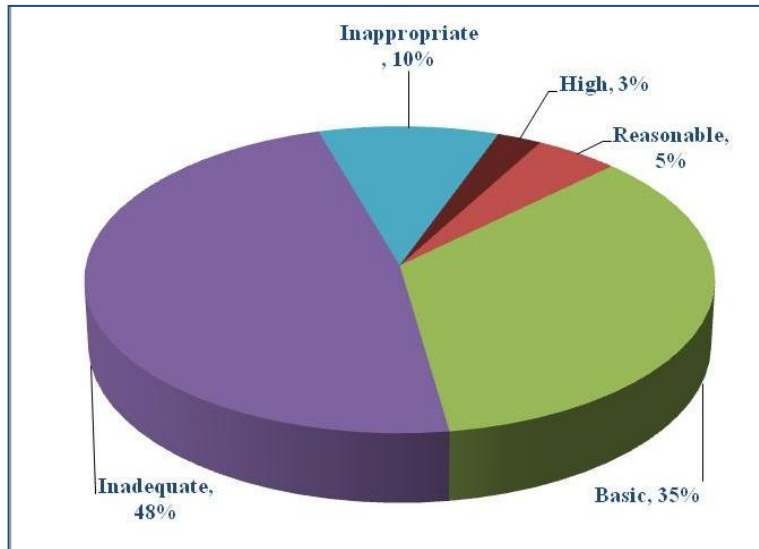


Figure 48: Standard of Residential Units in GKMA

The Kampala housing property market simply fails to meet current needs. It is not merely a case of market immaturity or market inefficiency, it is a classic case of Market Failure as a result of a combination of factors, primarily:

- The lack of appropriate, available land as a result of the **Tenure System** and the ensuing duality in property rights and tenure uncertainty and insecurity;
- The overwhelming **scale of rural in-migration** lacking realistic alternatives for urban life in the country;
- The depths of **poverty** in the City and the consequent low level of household income, severely compounded by the weight of expenditure on education and transportation, effectively reducing housing expenditure capacity by at least one-third of normative levels (17% as opposed to 25%);
- The **absence of mortgage financing** on any effective scale - whilst mortgage financing does exist its scale is marginal, its capital base very limited, its terms restrictive (particularly given the shortcomings of the Tenure System) and its rates exorbitant¹¹;
- The debilitating effects of **inflation** on savings, further distancing the average Middle and Working Class family from home ownership;
- The effective **absence of appropriate housing alternatives**, specifically inner-city condominiums (sectional title apartments), on any scale approaching needs;
- The **incapacity of the formal sector**, both developers and contractors, to build on any scale approaching needs;
- The extensive **infrastructural gaps**.

¹¹ Reports indicate some 10% or more above inflation rates.

These structural factors are, as repeatedly indicated in the public participation events and in the media, severely compounded by corruption, ineptitude, bureaucracy and political gerrymandering. But whilst these factors are clearly present, they are merely compounding factors and whilst their resolution is required, this in itself will not resolve the housing backlog nor meet future housing needs. The best planning, meticulous, effective implementation and determined enforcement will not meet the needs without resolution of the structural issues.

The challenge is enormous:

- At least 165,000 housing units of reasonable standard need to be built, largely by the small formal sector, simply to close the current gap.
- An additional 550,000 new units will be required by 2021 to meet projected growth and a further 275,000 new units may be required if in-migration were to accelerate very rapidly.
- In total Kampala has to gear up to provide between 700-800,000 new housing units including over 400,000 of Reasonable to High standard and some 300,000 of Basic standard over the coming decade.

The Construction Industry in Kampala has to be revamped, with the formal sector effectively developed from scratch, in the shortest possible period of time, given the scale of needs:

- Just to close the current gap for reasonable standard housing over the coming decade will require that the rate of construction of non-*Muzigo* housing be doubled and that all such additional construction be of reasonable standard, i.e largely provided by the formal sector.
- To meet projected demand to the 2021 planning horizon with the current mix of types and standards, without any improvement, construction capacity must increase by two-thirds. To provide for accelerated growth to the same horizon existing capacities must double.
- To provide for projected demand to the 2021 planning horizon whilst closing the current gap and ensuring an appropriate mix of new construction without adding Inadequate or Inappropriate standard units, construction capacity must increase by some 6 fold. Within that the formal sector must grow some 20 fold based primarily on improved productivity with employment growing but at a far lower rate.



Figure 49: Examples of *Muzigo*, Kampala, 2011



Figure 50: Examples of Single Detached Houses, Kampala, 2011



Figure 51: Examples of Semi-Detached Houses, Kampala, 2011



Figure 52: Examples of Row Houses / Townhouses, Kampala, 2011



Figure 53: Examples of Apartments in Kampala, 2011

3.7 Land Tenure

The Land Tenure System is one of the major impediments to the development of Kampala, impacting on multiple fields and in numerous ways including:

- Limiting the supply of land for housing, public services, economic activity, particularly for activities requiring large parcels and/or concentrations of activity (e.g. primary institutions, industrial and business zones, etc.);
- Enabling and encouraging land speculation and distorting the Property Market;

- Limiting the supply of developable land and consequently directing development to where land is available, thereby distorting the Spatial Structure on the metropolitan, city and local (parish and neighbourhood) scales including:
 - Leap-frog development on the periphery;
 - Concentration of middle-order functions and activities (markets, schools, clinics, etc.) in and around the City Centre;
 - Intolerable densities in Inner-city slums and informal neighbourhoods;
 - Small scale residential or industrial developments lacking continuity and hence not achieving local thresholds;
 - Encroachment into marginal lands and environmentally sensitive areas;
 - Encroachment into public lands including roads and rights of way;
 - Location of and access to public services;
 - Minimal, if any, maintenance of most properties given tenure insecurity;
 - and more.
- Requiring enormous financial resources to enable land acquisition for infrastructural development and public service facility provision, effectively restricting infrastructural and service provision;
- Entrenching poverty by effectively placing home ownership beyond reach, even for families with two working bread-winners;
- Constricting and limiting local initiative and entrepreneurship by limiting access to mortgage finance for most home owners with unregistered properties;
- Significantly complicating and delaying the planning and implementation of assorted projects, both public and private, often even scuttling projects;
- Deterring foreign investors; and much more.

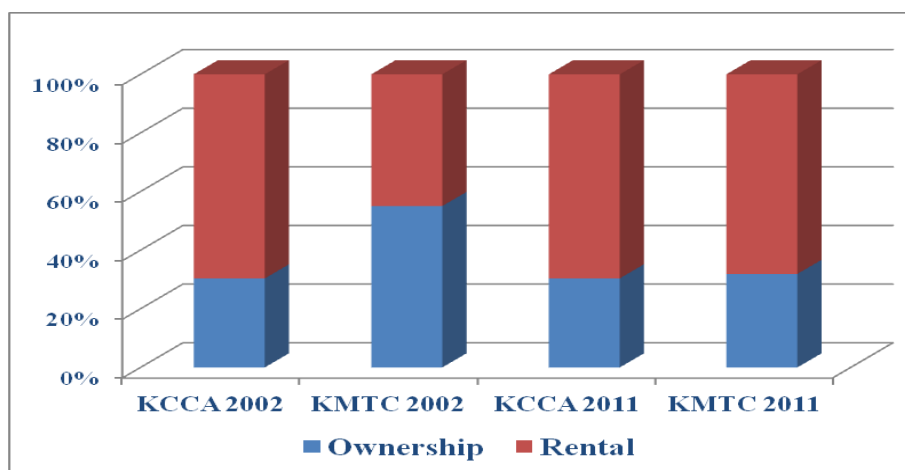


Figure 54: Tenure in the GKMA 2002, 2011

Source: 2002: analysis of UBOS census data ; 2011: analysis of KPDP HH survey data.

The future of Kampala is dependent on the urgent resolution of the primary shortfalls in the tenure system and the bottlenecks in the management of land registration including:

- Resolution of Dual Ownership and Tenure Insecurity - in a manner that enables, indeed encourages, maintenance, upgrading and/or development and/or redevelopment of the specific property;
- Successful development and implementation of the LIS under development - with priority to the GKMA;
- Ensuring Land Information accessibility and transparency;
- Effective on-the ground Land Regularisation - including survey and claim resolution, with priority to public lands;
- Definition, statutory approval and implementation of an effective, economic Land Acquisition System for infrastructure and public service provision - with a combination of stream-lined compulsory acquisition procedures¹², reasonable compensation (financial or other), effective property taxation, investment recovery fees, property allocation mechanisms and/or alternative mechanisms, at the national and/or municipal levels;
- Definition, if necessary statutory approval and implementation of an effective, economic Land Readjustment and/or Land Swap mechanisms to enable reorganisation and structuring of existing low to moderate density neighbourhoods and the provision of infrastructure, utilities, service facilities and public open space at the neighbourhood level;
- Approval and implementation of Sectional Title legislation;
- Capacity Building in the MoLHUD and the District Land Boards (including KCCA whose legal status under the new Capital City Act requires resolution) to ensure service levels supportive of investment in the Property Market.

Implementation of the proposed National Land Policy will go a long way to meeting many of the above requirements but not all. The Consultant stresses that in the absence of resolution of the above issues the value of the KPDP will be severely limited as implementation will be largely dependent upon these issues.

¹² Alternatively termed Compulsory Purchase, Eminent Domain and Expropriation.

3.8 Services, Institutions and Facilities

3.8.1 Institutions

Kampala hosts the primary institutions of State and associated institutions (courts, museum, library, etc.) in Uganda, generally concentrated in but not limited to the City Centre. The City similarly hosts the primary institutions of the Buganda Kingdom, mostly in the historic *Kibuga*.



Figure 55: Parliament

Kampala similarly hosts the primary service institutions and facilities in the country (Makarere University, Mulago Hospital, Mandela Stadium, etc.).

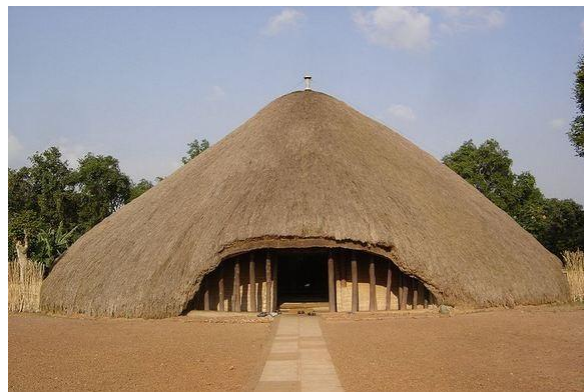


Figure 56: Kasubi Tombs

There are however significant gaps in institutional provision on the national and city scales. These are primarily in the fields of culture and recreation as well as convention centres.

3.8.2 Education

There are an estimated 1,500 schools in Kampala¹³ today, over 800 of them in KCCA. These include over 1,250 Primary schools and over 250 Secondary schools. In sharp contrast with national norms, the large majority, over 80%, are private schools.

The total number of enrolled pupils, primary and secondary, in the GKMA is estimated to exceed 570,000 (530,000 in 2009) with over 350,000 or over 60% in private schools. Of these, a little over 60% study in the KCCA.

Primary pupils generally attend school in their residential neighbourhood, whilst secondary pupils tend to travel, generally to or within the KCCA.

As is to be expected schools in Kampala are larger than the national average, secondary schools are significantly larger than primary schools but in comparative terms remain relatively small and private schools are significantly smaller than public schools.

¹³ Based on Ministry of Education data 1,448 in 2009.

Table 7: Primary and Secondary Schools and Students by Area and School Category, 2009

Area / Category	Primary		Secondary	
	Schools	Pupils	Schools	Pupils
KCCA Total	635	217,038	158	89,534
Community	31	6,582	5	1,745
Government	87	63,418	20	32,686
Private	517	147,038	133	55,103
KMTC Total	571	185,058	84	38,777
Community	22	5,715		
Government	169	83,359	11	9,195
Private	380	95,984	73	29,582
GKMA	1,206	402,096	242	128,311

Enrolment in primary education in Kampala exceeds 90%¹⁴ and universal secondary education is progressing rapidly. The planned extension of universal education to include high schools (S6) will obviously significantly increase enrolments as facilities are constructed and services provided.

The public education services in Kampala have simply been overwhelmed by the rapid growth in demand driven by both population growth and by demand for educational services, particularly quality educational services. As a result the majority of primary education services in the City and the large majority of secondary education services are provided by the private sector. The public sector struggles to manage its own schools, let alone regulate and supervise private sector services, resulting in a reported wide range of standards in service provision. As such, the education system in Kampala suffers numerous problems including:

- Low standard and low levels of achievement of the education system – particularly in government schools.
- Severe shortage of educational facilities - of schools, classrooms and support facilities resulting in significant overcrowding in primary schools and an absolute shortfall for Secondary Education, in particular in consideration of the planned the extension of universal education to S6.
- Incomplete and un-integrated system – the primary gaps include pre-school education, technical and vocational education and training; applied sciences in the academic sphere; lack of continuous integrated learning structures; extra-mural facilities and services; and limited knowledge, information and communication systems in the school system and their absence in the community structure.

¹⁴ Household survey findings indicate 93%.

- High costs of education – one of the recurring issues raised in the public participation processes and clearly identified in the Consultant’s household survey, is the significant financial obligation (often financed by loans) imposed by education on the household, severely impacting standards of living, primarily

at the cost of housing standards and all too often at the expense of food expenditure.

- Imbalanced distribution – imbalanced, unplanned distribution of educational services and facilities on the metropolitan, city and even parish scales, restricts access of populations to studies, induces inefficient “solutions”, negatively impacts the structure of the City and compounds traffic congestion in the centre.

- Inadequate facilities – these include inadequate and sub-standard facilities, equipment shortages, severe maintenance problems, unfit sanitary conditions; and more.

- Standard and training of teachers and their motivation, particularly in the public sector schools given remuneration levels;

- High dropout rates from Secondary and High Schools;

The overcrowding of the classrooms and pupil-teacher ratio, particularly in primary education are key to the low standard and low levels of achievement. The impact of continuous, direct, personal relationship between pupil and teacher

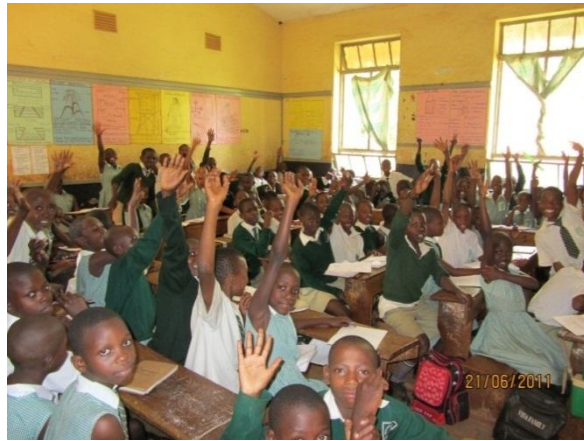


Figure 57: Classroom, Nakasero P. S.



Figure 58: Two Classes in a Single Classroom



Figure 59: Covered Assembly Ground, Nakasero Primary School

during the formative years on academic achievement is well known and well document and lies at the core of the Finnish educational system, widely recognised as the leading system in the world.

The need to travel to school, particularly a good school, takes a toll in time and energy on the child and the parents, negatively impacting educational achievement, parental work productivity, family dynamics and household budget, local community dynamics and adding pressure on the transportation system; frequently leading to enrolment in boarding school.

Housing conditions significantly impact educational achievement. When the child lacks the basic facilities and space to do his/her homework and study, the results are inevitable.

The education system in Kampala is of major economic significance to the City. Directly is estimated to provide well over 100,000 jobs (academic staff, teachers and support staff) and contributes upwards of US\$ 700 million annually to the local economy. No data is available on multipliers, however given that this sector in almost exclusively based on locally supplied manpower, facilities and equipment, its total contribution, with spin-offs and downstream activity, is estimated to well exceed \$ 1 billion annually. In addition, of course, it supplies the local economy with almost all its professional and skilled manpower.

However, the inherent weaknesses of the educational system in Kampala significantly detract from the City's growth and functioning including:

- Lack of employment opportunity for university graduates.
- Shortage of appropriately skilled labour for various sectors, particularly industry, construction and utilities;
- Shortage of trained professionals in the applied sciences, with arts and humanities enrolment and graduation in tertiary education exceeding those in the sciences by at least x 5.
- A significant number of schools, generally considered neighbourhood and community scale facilities, are located on prime real estate in and around the City Centre, detracting from market supply and unnecessarily inflating tuition fees or detracting from standards.

Kampala is the centre of higher education in Uganda. It hosts Makerere University, Kyambogo University, Makerere Business School, Kampala International University and Gaba Seminary amongst others. There are two Government aided Vocational Institutions in Kampala and several privately owned institutions. There are three teacher-training colleges and four known Nursery school training institutions and an equal number are reportedly in the process of registration.

Even before the opening of borders under the Common Market, more East Africans have been flocking to Ugandan schools and institutions of higher learning, than the four sister states combined. The numbers have been increasing by almost 50% every passing year.

Makarere University serves as the anchor for tertiary education in Kampala and in Uganda as a whole, and indeed for Eastern and Central Africa. It is the only African university outside South Africa to be ranked in the top 2,000 universities in the world (1,402, 2010, Ranking Web of World Universities) and the only non-South African academic institution in the top 10 in Africa.

However, as indicated, the potential inherent in Makerere University, and its standing in Africa and internationally, is not adequately leveraged to advance the development of the City.

There is a clear need for:

- Provision of appropriate educational facilities in the City to enable the extension of universal education to S6.
- A balanced distribution of educational facilities on the metropolitan and city scales;
- Down-stream detailed planning for the distribution of educational services to ensure access, community, proximity to home (at the various levels), efficiency and economy, based on projections regarding the distribution of population and demand for services to the planning horizon;
- Standards and mechanisms to extend the range of educational facilities and services (e.g. pre-schools, sports and extramural activities, youth centres, multi-functional community centres for enrichment and recreation, etc.) at the parish or neighbourhood scale.
- Mechanisms to enable and support the relocation of some City Centre schools to residential areas enabling improved access to the schools and releasing significant inner-city land reserves for appropriate development and use, including public open space.
- Directions and mechanisms to ensure adequate integration of technical and vocational educational institutions in appropriate industrial zones.

There is also a very clear need for a comprehensive KCCA Education Master Plan, incorporating community services and sports, coordinated with similar plans in the KMTC towns, based on KPDP population projections and quantitative programmes.

3.8.3 Health

Health issues in Uganda are best summated by a single statistic, life expectancy of a little over 50 years as compared with expectancies in the late 70s and even early 80s in developed countries.

Life in Kampala is fraught with health risks:

- Endemic diseases associated with the wetlands, malaria in particular but also bilharzia and diarrhoea;
- Contagious diseases associated with poor sanitary conditions compounded by the warm climate;
- Road safety and work related accidents;
- HIV-AIDS;
- and more.

It must be noted that food security is not a major issue in the City. Whilst not to say there is no hunger or malnutrition in Kampala, and older residents complain that food “used to be free” there is no reported systemic shortage and, in comparison to most sub-Saharan cities, food is widely available and generally accessible even to the very poor.

The health system in Uganda is hierarchical with outreach health workers in the field at the lowest rung to Mulago Hospital in Kampala, the primary referral hospital in the country.

Health services in Kampala are widely distributed in the KCCA, particularly the in Inner City and still reasonably accessible in KCCA Outer Suburbs as well as Mukono and Entebbe. KMTC Outer Suburbs are generally less well catered for and in the peri-urban and rural peripheries access is poor. Specialised capacities are generally concentrated in and around the City Centre.



Figure 60: Mulago Hospital

Health services, apart from the main hospital and higher order HCs, are largely private sector. In KCCA at least, access to services is more about affordability than physical access.

Table 8: Ownership of Health Facilities by Category, 2011

HCs and Hospitals	Government / KCCA	NGO / CBO	Private
HC II	0.3%	0.4%	99%
HC III	13%	14%	73%
HC IV	38%	15%	46%
HC V	14%	29%	57%
HOSPITAL	36%	21%	43%

Source: Analysis of KCCA survey data, 2011

The state of most HC and even hospital facilities is by and large poor, indeed sub-standard with sanitation and hygiene constituting serious challenges and patient comfort and convenience largely an unknown concept. Medical waste disposal is effectively only organised in the hospitals. In HCs medical waste is generally burnt on-site.

In addition, public sector facilities in Uganda suffer from stringent budgetary constraints and in Kampala at least severe staffing problems given remuneration levels (in effect Kampala is investing in and training medical personnel who then cannot afford to work and provide services in the City).

**Figure 61: Health Centre Waiting Room**

Intervention to improve the health of the population is urgently required with emphasis on resolution of the primary health risks including:

- Rapid expansion of the sewage network;
- Ensure basic standards in all new housing development, formal and informal;
- Resolution of the wetlands issue, either structured, adequate infill and flood protection or systematic relocation out of the wetlands; and stringent enforcement of development restrictions;
- Systematic upgrading of the markets, specifically ensuring shading and enabling refrigeration, and strict enforcement of hygiene standards for all non-durable food product trade;
- Appropriate road safety measures;
- Systematic upgrading of HC facilities and strict supervision of the private sector;
- and more.

This in addition to the Health Master Plans currently under preparation on the national and city scales.

3.8.4 Community Services

Kampala is undergoing constant rapid development and growth. This reality is reflected in large scale in-migration of new populations wishing to integrate in Kampala, a city in which many residents are already in need of assistance and aid.

In addition, and as in any other city, Kampala requires a community life, tailored to its unique needs. As such, throughout the city there is a distinct need for community services of all types.

The existing social and community services in Kampala, in both KCCA and KMTCC, have been established by assorted formal and informal institutions, churches and institutions dealing mainly with “at risk” populations (youth, women, the elderly and the disabled).

Community life generally revolves around churches, mosques or temples – depending on affiliation. In parallel the churches and various missionary institutions are active in various fields. There are also a number of voluntary community organizations operating in Kampala.

It has been reported that although well-meaning and retaining potential to assist residents, NGO/CBO activities are often conducted by different, uncoordinated actors, and often cease for lack of resources or poor conditions (due to flooding, lack of facilities, equipment, etc.). Whilst these activities are important the service is not sufficiently comprehensive and they are far from able to meet the city's extensive needs.

There is no clear or well-defined hierarchy of community, social or extramural services and very few adequate facilities. In the Consultant's opinion the City lacks a comprehensive Education Master Plan incorporating community services, and in the absence of such a plan the City is unable to ensure a proper deployment of community services.



Figure 62: Examples of Medical Waste On-site Disposal (KCCA, Kira, Mukono)

3.8.5 Sports, Recreation and Culture

Apart from Mandela and Mutesa Stadia and selected facilities in Entebbe the primary national sporting facilities in Kampala are located in and around the City Centre, with most concentrated at the Logogo Junction. Similarly many of the elite schools with sporting facilities are located in close proximity to the centre, as are the Makerere University sporting facilities.

Organized sports activities in general are quite limited in the GKMA for lack of resources. The public is interested in sports and a makeshift football field exists in almost each and every Parish, but a lack of funding prevents the development of an adequate, more diverse public sporting infrastructure. At present, the open fields in each Parish in which sporting events take place serve as the only communal open space, and are thus used for a range of public sporting and other collective activities such as parades and holiday celebrations.

Major recreational facilities are located on the lake shorefront primarily in Munyonyo and Entebbe. Sporting facilities at all levels double as recreational and communal facilities.

Major cultural and entertainment facilities are located primarily in and around the City Centre. The major hotels also double as cultural and entertainment facilities. The City clearly lacks a major auditorium, congress/convention centre, open-air theater and more.

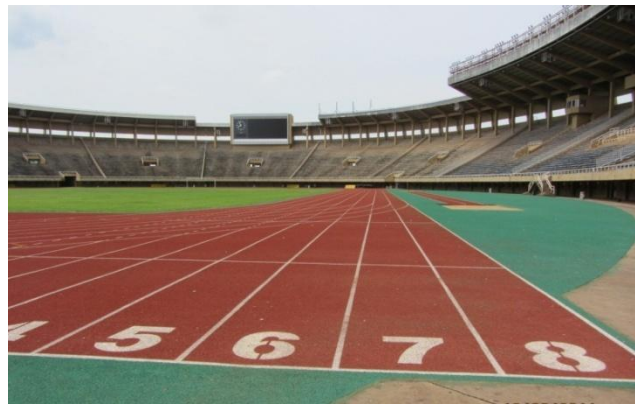


Figure 63: Mandela National Stadium



Figure 64: Munyonyo Resort Facilities

Popular entertainment facilities (pubs, discos, etc.) of various order are widely distributed throughout the City, particularly along the primary movement routes but also intruding into residential areas.

There is a need to define standards for culture and entertainment frameworks of all kind with emphasis on the public sector and all population



Figure 65: Typical School Soccer Field groups, where possible integrated with educational and community facilities.

3.8.6 Municipal Services

Municipal services in Kampala are particularly poor. Their weakness severely detracts from development, economic activity and the very Quality of Life of the City's inhabitants. And with the notable exception of Entebbe which is considered a model municipality in Uganda, the state of services in the KMTC Towns and sub-Counties is far worse.

Primary services include Sanitation and Street Cleaning (largely limited to the City Centre and to some exclusive neighbourhoods; highly inefficient); Waste Collection, Treatment and Disposal (partial, limited service); Infrastructural and Institutional Development (largely limited to roads and major drainage projects; largely donor funded and hence efficient and organised); Urban Planning (detailed separately); Infrastructural Maintenance (extremely limited and ineffective; largely concentrated on City Centre and primary route roads and critical drainage points); Open Public Space Development and Maintenance (extremely limited); Lighting (low standard, limited distribution); Regulatory Functions (very partial and reportedly often selective); Markets; PT Stations and Cemeteries.

Whilst the standards of service are generally low and their spatial distribution generally very limited, the City's population is growing, its spatial footprint extending and its residents increasingly aware and demanding adequate services.

But, the City today is unserviceable given:

- Lack of an effective tax-base;
- The absence of any mechanisms for the recovery of investment costs;
- Lack of resources (manpower, tools, technology, management, experience);
- Lack of facilities and land, particularly in the more densely built-up areas;
- The divergence in standards and expectations between the workforce and the KCCA's customer base, its residents.

Under the Kampala Capital City Act the KCC has been replaced by KCCA with the clear intention of revamping the City administration and services from top to bottom. Initial improvements are already evident, particularly in the field of infrastructural maintenance. The organisation is in the process of rapid reorganisation.

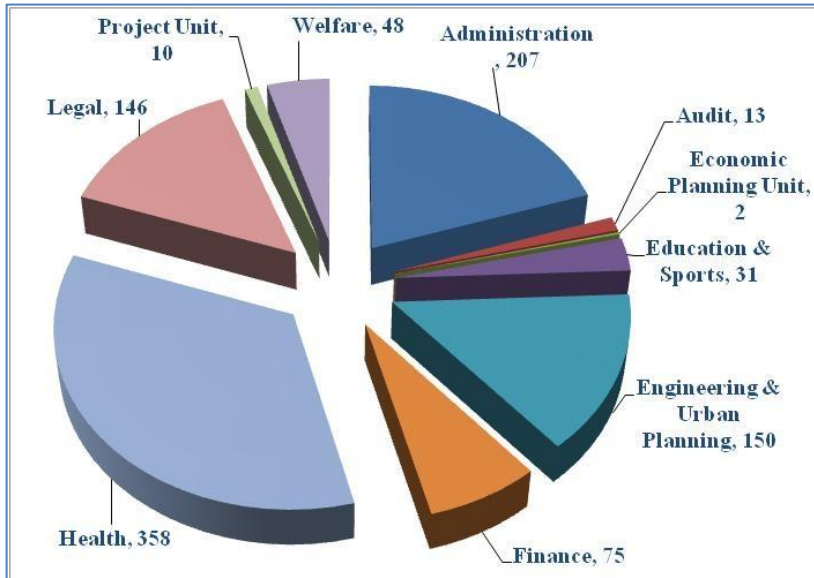


Figure 66: KCCA Staffing, 06.2011

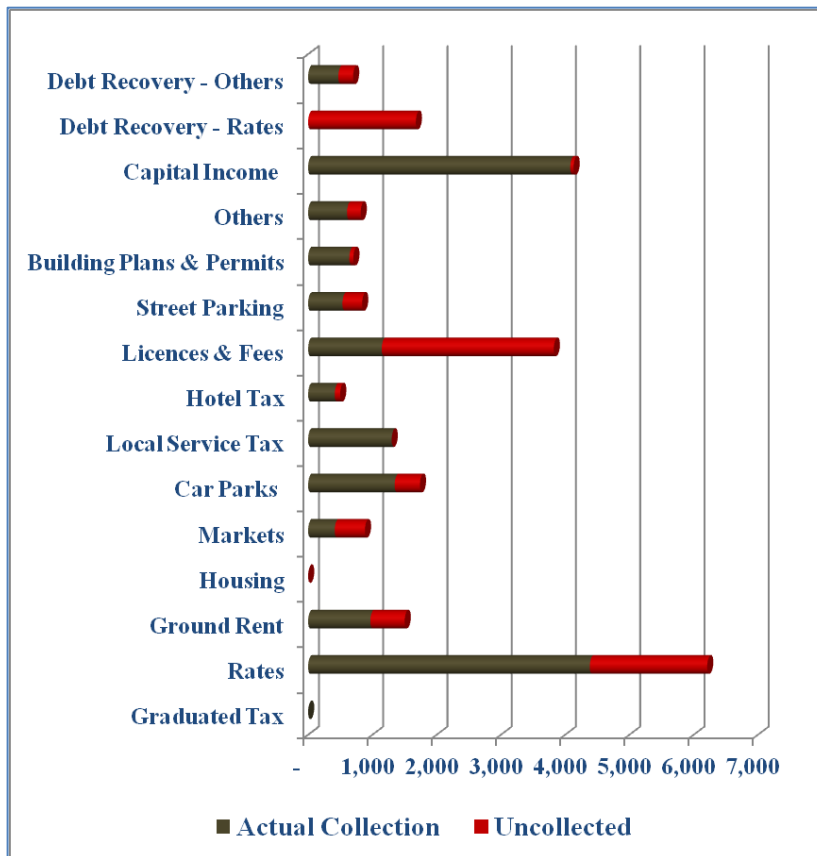


Figure 67: KCC Revenue Collection 06-12.2010

However the KCCA, like the KCC, is largely dependent on government budgets to cover its current expenditures, largely salaries with little residual for direct service provision; and on government and donors for development and capital investment.

The KCCA is effectively devoid of any significant tax bases. The KCC battled to collect even the limited own revenues budgeted. As a result, the KCC reportedly consistently sold off real estate assets to finance its budgetary shortfall, further depriving the City of land reserves for the development of services, utilities and open public space.

There is an urgent need to find and create reliable independent revenue sources for the KCCA and ensure their effective collection for the City to begin providing reasonable standards of service, let alone initiate a cycle of development. And it is essential that these include appropriate mechanisms for the recovery of investment costs.

There is also an urgent need to restructure budgetary arrangements and reporting to:

- Develop and implement a single integrated KCCA budget to allow proper budgetary control and financial management, reportedly currently ongoing.
- Clearly distinguish between the current operating account and capital investment in the KCCA budget; and to clearly distinguish between salaries and overheads and direct expenditure on service provision in the current operating account.
- Ensure full transparency in the KCCA budget and financial reporting, at least to a level similar to that of the National Budget.

3.8.7 Urban Planning and Regulation

Planning in Uganda is undertaken by a number of bodies and agencies along two primary, only partially coordinated, paths:

- Spatial/Physical Planning under the Physical Planning Act 2010 administered by the MLHUD and local authorities (National Planning Board and District, Urban and Local Planning Committees);
- Developmental Planning under the National Planning Authority (NPA).

In addition, sectoral planning is undertaken by numerous ministries, autonomous or semi-autonomous bodies, for example Transportation Planning; Infrastructural Systems (e.g. Water and Sanitation); Services (e.g. Education and Health).

Planning is generally undertaken in a detached framework with each sector and body defining its own goals and targets, planning horizon, population projections, boundaries, etc.

Physical and spatial planning coordination and integration is hierarchical, not lateral.

The legislative framework for physical and spatial planning has been updated with the recently enacted Physical Planning Act 2010 and the complementary National Physical Planning Standards and Guidelines, 2010. Together these constitute an adequate basis for the planning and regulation of development in Kampala although specific complementary tools will be required for Kampala, specifically regarding high-rise and large scale structures, facilities and developments. The primary challenge of course is implementation and enforcement.

Given lack of capacity and resources on the local tier physical and spatial planning in Uganda is in practice concentrated in the hands of the MLHUD, particularly given its wide scope of powers, including land administration, surveying & mapping and housing, in addition to direct responsibility for planning, enforcement and urban development.

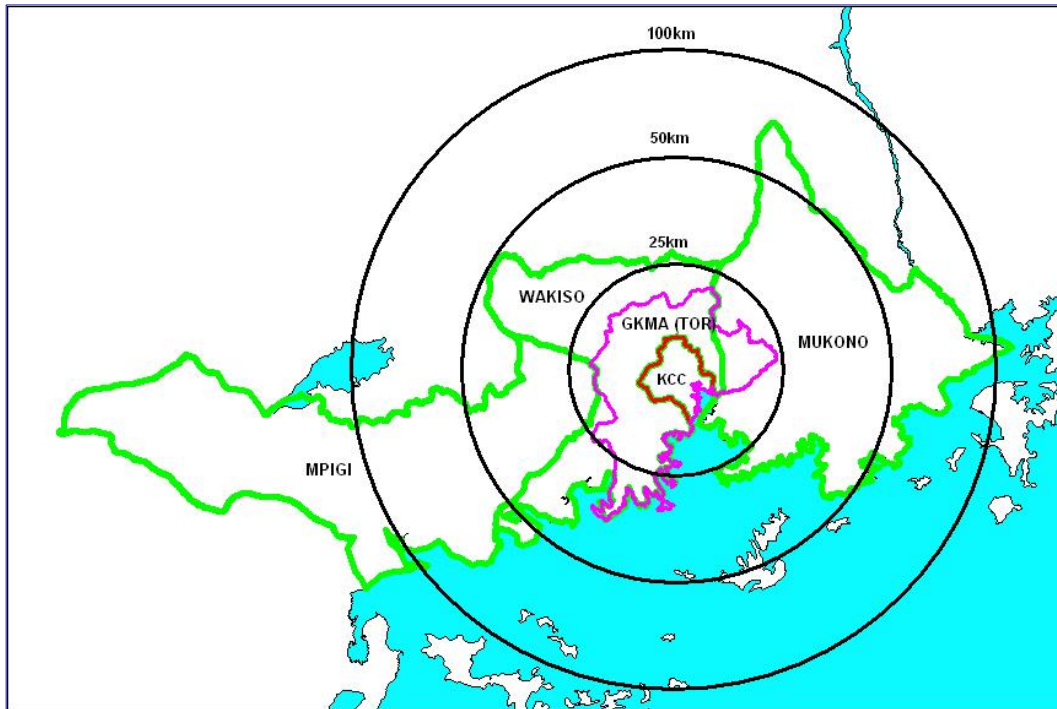
The KCCA is mandated and structured to conduct planning and enforcement in the City but it is distinctly under-staffed and under-equipped for the task. The Kampala Capital City Act mandates the establishment of a Physical Planning Directorate. The newly established KCCA Directorate was until recently based on the existent KCC department. It has now been separated from the Engineering Directorate, with surveying remaining in the Engineering framework, and largely restaffed. The recent restaffing has served to disrupt continuity and institutional “memory” whilst at the same time allowing the Director of Planning to staff professional positions to meet projected challenges. It has further disrupted the continuity of the project with most seconded staff being replaced in the final stages of the project, leaving few members of staff acquainted with the planning process and products.

Whilst the KPDP is contributing to the upgrading of capacities (GIS upgrade and extension, training, etc.) this cannot, on its own, compensate for capacity constraints or procedural bottlenecks, particularly given the recent changes in staffing.

The situation in the KMTC districts and towns is even more severe with only three town plans identified and eventually located and two more reported but not locatable, and with only one TC (Kira) operating a GIS system.

As a result Urban Planning in Kampala is generally only responsive, not proactive and not transparent, indeed plans are effectively inaccessible to the wider public. Regulation and enforcement of development and construction is very limited (and reported to be selective) whilst licensing procedures are complex and drawn-out. And each planning, licensing and enforcement shortfall further constrains the balanced development of the City.

In addition, the Kampala Capital City Act mandates the establishment of a Metropolitan Planning Authority for Kampala, Wakiso, Mpigi and Mukono, an extremely wide, primarily rural area. The authority has yet to be established and its interface with the structures defined in the Physical Planning Act have yet to be defined.



Map 26: GKMA (TOR) and KMPA (Capital City Act) Boundaries

Source: GIS analysis

Table 9: GKMA (TOR) & KMPA (Capital City Act) Area and Population

	Cumulative Area (km ²)	Population (000's)
KCC / KCCA	~ 200	1,660
GKMA (TOR)	~ 1,000	2,606
KMPA (Capital City Act)	~ 7, 369	4,445

Source: 1. Area: GIS Analysis.

2. Population: UBOS projection 2011.

There is an urgent need to:

- Coordinate and advance physical/spatial and developmental planning on the national tier to begin tackling the long term challenges and threats facing Kampala;
- Integrate physical/spatial and developmental planning at the local tier, at least in the KCCA;

- Ensure the integration of the Metropolitan Planning Authority with and in the structures defined in the Physical Planning Act, presumably as an integrated District Planning body, and if possible redefine its spatial realm to an area appropriate for the GKMA's long term development;
- Ensure an appropriate balance between enabling and restrictive planning and an appropriate balance between proactive developmental initiative and enforcement of constraints in all fields;
- Significantly extend and upgrade the planning and enforcement capacities of the local tier (KCCA, Districts, MCs, TCs, SCs) in all relevant fields and aspects - staffing, GIS and communications networks, extended training and coaching, equipment, legal support, surveying services, SOPs, structured coordination forums and mechanisms, and much more;
- Ensure all plans are readily available for public perusal (prominent placement in all relevant administrative facilities, direct internet access, advertising, etc.);
- Enforce plans and planning and construction standards and guidelines in Kampala (GKMA) based on effective tools;
- Complement the national standards and guidelines with specific standards and guidelines appropriate to Kampala.

3.8.8 Emergency Services

Emergency services in Kampala are provided by the Uganda Police including public safety and security, ambulance services and fire brigade together with policing, traffic management and traffic policing.

The Kampala Capital City Act mandates the establishment of a Metropolitan Police Force. The force is currently being established and its spatial dispensation is planned based on the concept of Emergency Centres, each comprised of a traffic patrol car, police patrol car, fire unit, ambulance and recovery truck. Ten of these are planned for the GKMA. The number and location of these centres may require adjustment once the KPDP has defined the preferable distribution of population.

The fire brigade needs to be significantly reinforced and its capacities extended to deal with the growing number and height of multi-storey structures and to ensure its integration and active involvement in the licensing of, at minimum, all multi-storey construction and all large scale structures and facilities, ensuring minimum safety standards.

3.9 Infrastructure

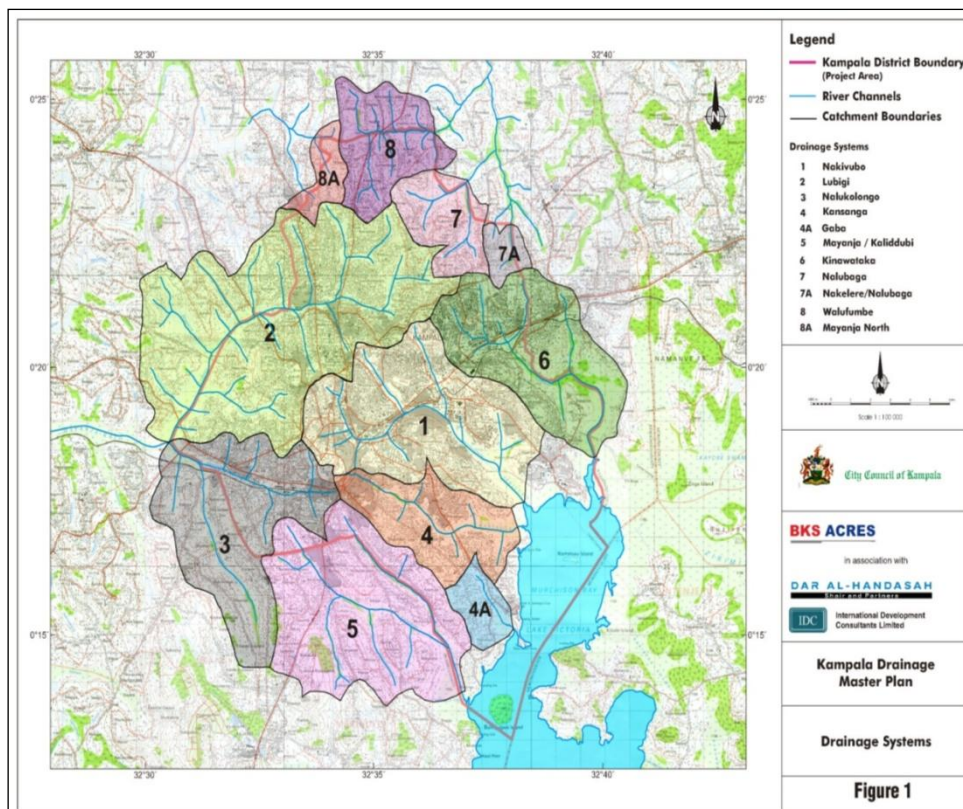
3.9.1 Drainage

The drainage systems for KCCA have been investigated in depth and major works have been carried out on the Nakivubo drainage system, the most important for the functioning of the inner part of KCCA. It is demonstrated that flood plains for different periods do not vary greatly because of relatively steep banks, although it is also pointed out that there were limitations to data in some cases. Where flood plains are constrained by banks the impacts of flooding on informal settlements would mostly be a result of building in very low lying areas.

The implementation of drainage works has mostly been confined to the Nakivubo drainage catchment but will need extending to others. In addition there is a need for a specialised investigation into drainage systems in other parts of the GKMA.

Most drainage in the built areas is in open culverts, of varying type, along the roadside. As a result road widths and pedestrian sidewalks are severely constrained. Often pedestrian access to and from the road is severely constrained and makeshift crossings are constructed and used. The culverts also frequently constitute road safety hazards.

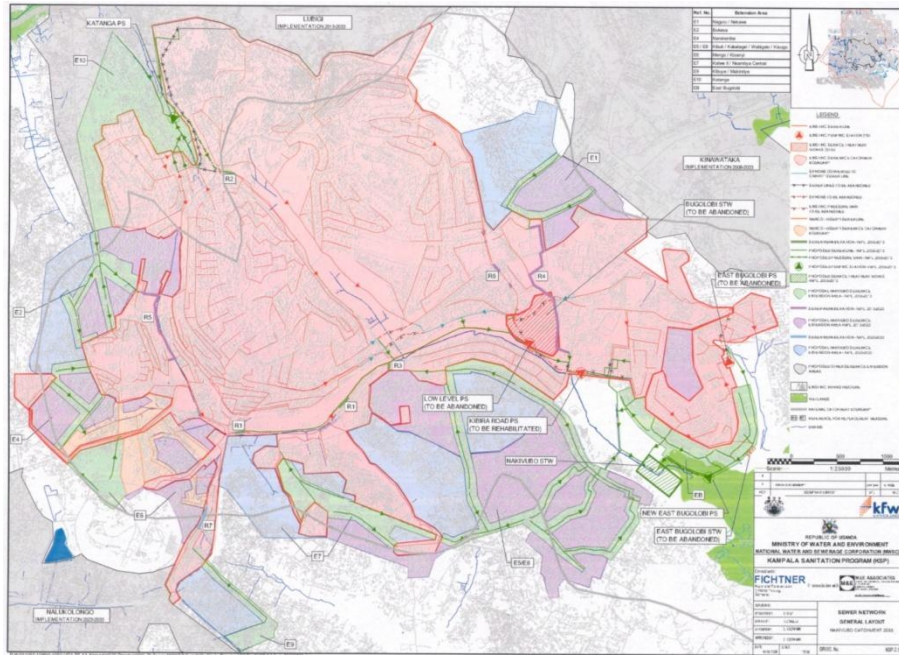
Moreover, the open culverts are frequently utilised as dumping grounds for waste disposal. Given low maintenance levels they constitute severe health and localised flood risks.



Map 27 : Kampala Drainage Master Plan

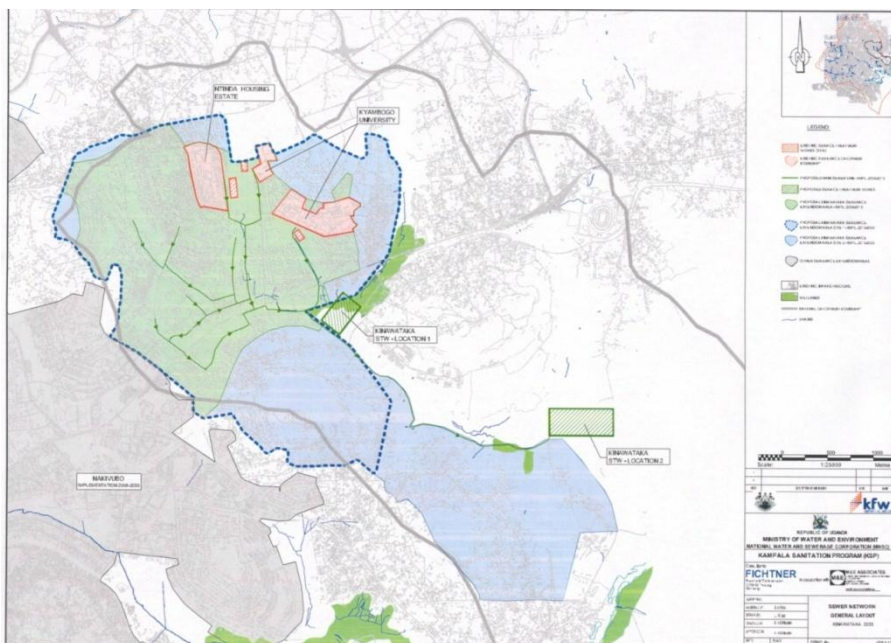
3.9.2 Sewerage System

There is a serious lack of waterborne sewerage systems in the KCCA and particularly in the KMTCC. In KCCA it is estimated that not more than 10% of the population make use of these systems, while the rest use on-site or collective sanitation facilities. Most of the on-site and particularly the collective toilets are the source of serious ecological and health problems. Industrial discharges, either direct to the natural system or to the treatment plant are the source of other, different, pollution problems.



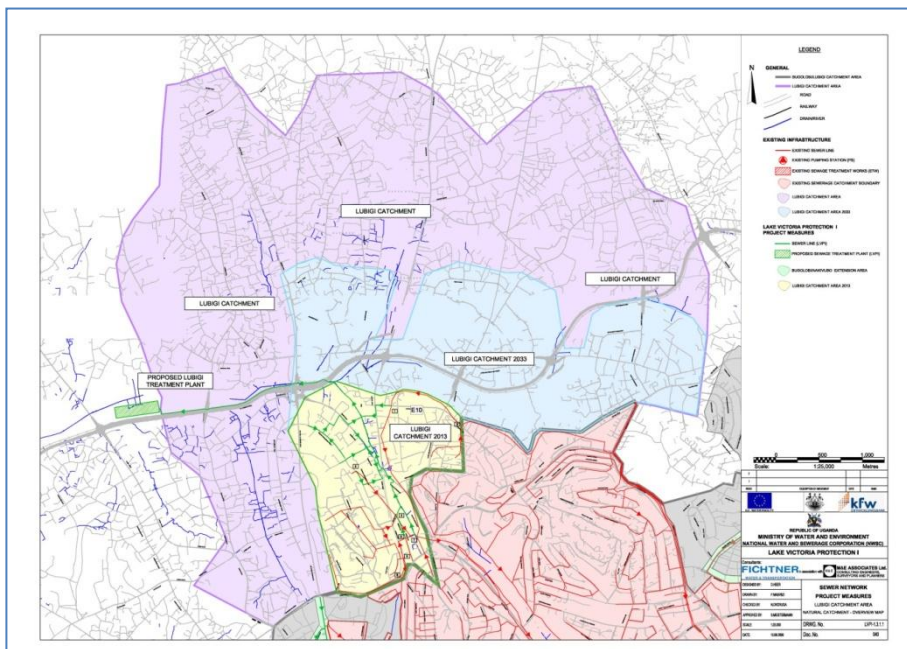
Map 28: Nakivubo Sewerage System including Extensions to 2033

Source: UFSKWS



Map 29: : Kinawataka Planned Sewerage System

Source: UFSKWS



Map 30: Lubigi Catchment

Source: UFSKWS

The main measures planned or underway in KCCA are:

- Rehabilitation and expansion of the Nakivubo waterborne sewerage system, including rehabilitation of the existing STW at Bugolobi, to be followed by a new STW in the Nakivubo wetland;
- Development of a new waterborne sewerage system at Kinawataka to serve the eastern part of KCCA, this system to include a STW;
- Development of a FSTW in the Lubigi wetlands, which will include a STW, but whose main role will be to receive sludge removed from on-site sanitation facilities.

The programmes above will provide very significant improvements to the sanitation systems but the development of the systems is faced with serious financing problems and the inability or unwillingness of the population to pay for appropriate facilities. Despite the progress described above there is concern that on-site facilities will not be environmentally sustainable.

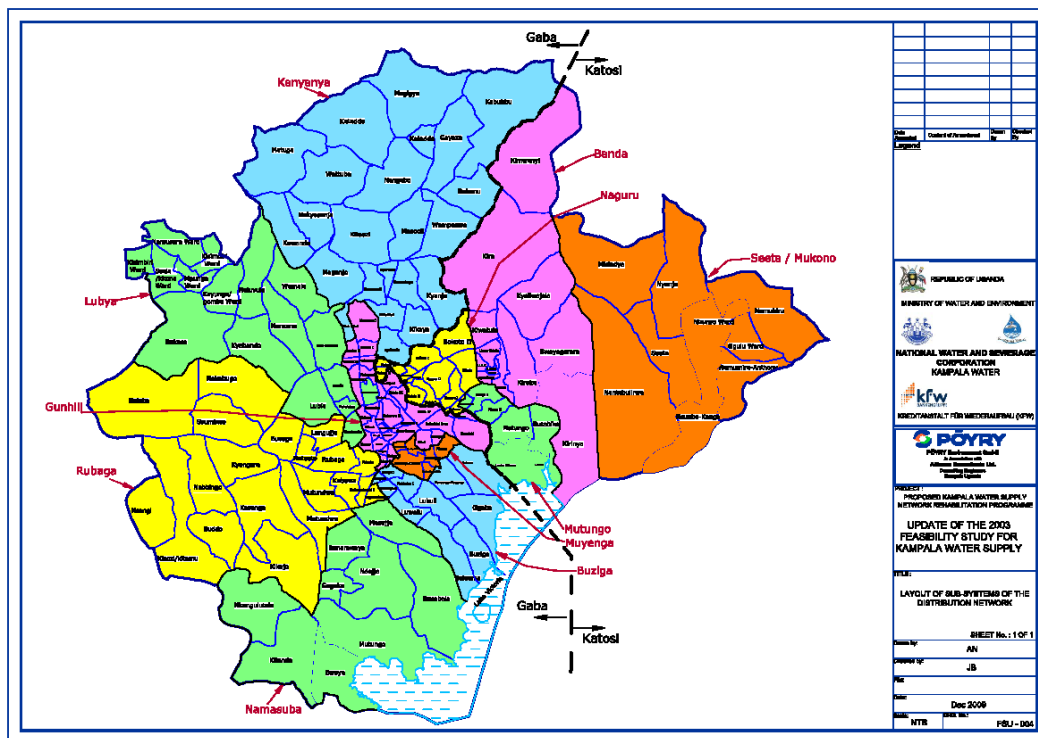
The status in KTMC, and sanitation solutions for the area, need to be the subject of in-depth studies as have been done in the case of KCCA. Parts of those areas are already densely populated and there need to be holistic solutions for them. Analysis and planning should take into account the forecasts and proposals for location of population and different land uses in the KPDP. These should guide ongoing planning of sanitation.

Urgent priority needs be given to the sustainable financing of the sewage system in Kampala, both the KCCA and the urbanised and urbanising areas of the KMTC.

3.9.3 Water Supply

Access to safe water is the norm in the built areas of Kampala. However significant problems have been indentified, including:

- The age and disrepair of the distribution network;
- Standard and quality of water given the above (“safe water” is not necessarily safe);
- Access is generally not direct in-house or even on-plot access with a preponderance of collective access points (stand pipes) frequently resulting in high fees charged by yard-tap owners and kiosk operators;
- Limitations of the distribution system in peripheral areas leading to the use of often polluted and unhealthy springs and shallow wells.



Map 31: Kampala Water Supply System

Source: UFSKWS

of the investment.

The planning of the future water distribution is being dealt with in a holistic manner for the GKMA, through the combined coverage of the Kampala and Entebbe systems, which are not confined to the authorities of the same names. The plans for abstraction and treatment of water will cater for future demand, albeit to a shorter horizon that originally planned. The timeframe for implementation needs

to be reassessed utilising updated population figures (based on KPDP estimates or following Census 2012).

The distribution network in the older established areas of KCCA in particular requires urgent upgrading and the projected growth of the City will require significant expansion, only partially catered for in the existing plans.

The population and land use projections of water supply planning in total and for specific areas will need to be compared with those of the KPDP to ensure coordinated planning.

Given that water supply is already established as a norm in Kampala today the future development of water supply system can and should be used to direct and selectively support or constrain growth.

Moreover, water is a precondition for agriculture, particularly commercial agriculture, and for industry. Given the natural abundance of water in most of the country, including Kampala, Uganda retains clear relative advantage for water intensive industry (e.g. sugar, timber/pulp, beverages, textiles and high quality water for hi-tech, etc.). As such, appropriate water supply is a key to the economic development of the City.

Hence, it is important that the updating of the planning for the water supply system coordinate not only scale but also priorities.

Financing in addition to that generated from operations might be required if backlogs in coverage and rehabilitation are to be met. The financing of the development and upgrading of the water supply system requires reassessment with due consideration of the both direct and indirect health costs of the present system and of impacts on productivity.

3.9.4 Waste Management and Treatment

There are widespread lacunae in the system of solid waste management in GKMA, in collection, disposal and processing of waste and in law enforcement.

KCCA has a basic system of collection and disposal and a partly appropriate landfill site. Collection and transportation facilities need to be upgraded, with particular relevance to informal settlements. The Kiteezi landfill site will soon reach capacity and another site is being acquired, or alternatively the existing site will be expanded. In the former case it is vital for it to be a properly designed and constructed landfill. In the latter some upgrading is desirable together with gas flaring technology.

Mukono has an effective waste composting facility, with Entebbe to follow suit. This technology can be used for KCCA waste, along with efficient and environmentally sound practices of waste sorting (including at source) and recycling of material such as plastics.

In the other parts of KTMC, organised waste collection and disposal barely exists. There needs to be a focus on sharing of facilities so as to achieve an integrated waste management system for GKMA as a whole.

Medical and other toxic waste is by and large untreated, apart from hospitals. Such waste is generally discarded with other solid waste, either finding its way to the landfills, being burnt on-site or simply discarded, with all the health implications involved.

There is an urgent need to tackle the waste disposal system on an integrative regional scale, at minimum covering all urbanised and urbanising areas. As such there is an urgent need for a GKMA Waste Disposal Policy and Plan accounting for all types of waste including medical and toxic waste and sewage sludge.

3.9.5 Electricity

In general the network is in poor condition, with frequent outages and it is intended to upgrade and rehabilitate it.

In view of the failure to produce sufficient hydroelectric power in recent years, power has also been supplied by thermal generation, using petroleum products (diesel or heavy oil), so that fossil fuels have played an increasing role in power supply, especially for peak periods. With the discovery of oil in the Lake Albert Basin, this is likely to continue. The environmental impacts are of concern especially when compared with clean hydroelectric power. Two of the plants are in Kampala (a third at Lugogo has been decommissioned).

Power supply is an obvious precondition for economic activity, development and productivity. It is also an effective precondition for health and education, both within the household and institutional. It also significantly impacts living standards and lifestyles.

The shortcomings of the electric supply system in Kampala and their solution are first and foremost issues of power generation, a national issue being tackled on the national scale with new hydroelectric projects and transmission infrastructure.

3.9.6 Telecommunications

The telecommunications sector in Uganda is dominated by mobile services, which are growing rapidly, spurred on by new entrants and intensive price competition. Fixed line services, which are supplied by two operators, are also growing significantly but form a small segment of the market.

The sector is a major contributor to economic growth in Kampala and indeed the country, both directly in terms of activity, hiring, etc. and indirectly enabling activity and productivity.

However, the telecommunications industry in Uganda, including Kampala, is still in its infancy, still concentrating primarily on market penetration. Most standard

value added services, if on offer, are unknown in the market place with value added services limited to SMS, ring tones and a newly introduced, successful, useful and efficient money transfer service. Telemarketing is marginal, largely limited to the service providers themselves. e-Commerce, e-Banking and certainly e-Government are unknown. Even emailing is not a reliable communications method, let alone an alternative to paper usage. Internet usage remains basic and relatively limited to the formal sectors and higher SESs.

The transmission network today consists of mainly microwave links. There are however fibre optic cables, mostly in the south of Uganda, but a national fibre Backbone is being implemented in stages. UTL, MTN and the electricity company UETCL have networks. There are fibre-optic rings in Kampala CBD. Also being implemented or planned are links to other East African countries and participation in an undersea cable from Kenya, but international connections are currently through satellite links.

There is a direct relationship between fixed-line infrastructure, particularly fibre-optics, and the provision of broadband high speed internet services with all its social and economic implications. In its absence solutions exist based on the power network for the provision of broadband internet. This option needs to be assessed as a potential solution for Kampala.

The current microwave transmission network carries significant environmental impacts and constitutes a serious health hazard. The common approach is to reduce the number of transmitters and masts in appropriate locations. However, “Best Practice” today, particularly in Europe, is towards larger numbers of low power transmission antennae widely distributed which impact less on the environment and significantly reduce health hazards.

3.10 Transport

3.10.1 The Need for an Integrated Multi-Modal Transport System

A sound urban transport system should be composed of an integrated approach between different modes of transport system that provide multiple affordable choices to all communities and segments of the population.

The main key cornerstones of a multi-modal planning approach tailored for Kampala are as follows:

- **Integration** between different modes by offering alternatives for travellers to choose from.
- **Affordable** Transport schemes that offer low-cost travel opportunities to all and increase levels of mobility for the underprivileged who currently cannot afford to pay the high public transport fares let alone afford a private vehicle.
- **Connectivity** through designated transport hubs which provide easy and smooth transfers between modes.

- **Consistency** between planning and policy will provide the most cost effective solution. This includes for instance parking limitation along MRT corridors, road narrowing and speed reduction measures in high-volume pedestrian corridors among others.
- **Hierarchical** solution appropriate to Kampala will prioritize NMT modes over motorized modes and public transport solutions over auto travel.
- **Mass Transit corridors** need to be established along major corridors to cater for large numbers of people who need to commute daily from residential areas to the City Centre. This network will be the backbone of any multi-modal solution and will be complemented by short walking & cycling trips, other bus / taxi feeder / complementary lines, and usage of private cars.
- **Interface to inter-city** facilities such as central bus station, highways, train station, marine port and the airport

3.10.2 The Need to Develop NMT Infrastructure Networks

Walking is the most dominant mode of transport in Kampala and accounts for half of the trips performed in the metropolitan area, yet NMT infrastructure lags behind the existing demand levels with almost no direct funding allocated to the improvement and upgrading of pedestrian facilities. The low quality of the existing NMT facilities deters others from walking to their destination and induces use of other modes (primary Boda-boda or Taxi).

The Consultant advocates the need to complete a comprehensive NMT Master Plan. As part of the master plan, all existing pedestrian facilities need to be mapped, while major pedestrian corridors need to be identified as part of a design of a comprehensive pedestrian network within the City. In most cases existing cross-sections of those high pedestrian volume corridors don't meet international standards and need to be re-designed and re-built allocating significantly wider space for sidewalks, mainly on account of open drainage and on-street parking.

The Consultant argues that such infrastructural improvements will likely lead to a higher share of NMT trips while improving safety condition for pedestrians. Moreover, separating pedestrian and motorized traffic and allocating adequate facilities to pedestrians is likely to improve motorized traffic flow and speed. This can be achieved by minimizing friction between pedestrian and car, which is likely to significantly increase road capacity.

Cycling is not a preferred mode of transport in Kampala today. This is attributed mainly to the lack of any cycling facilities within the city's boundaries. The consultant proposes to design a broad network of cycling paths along major corridors that connect near-by residential areas to the City Centre. Such a network needs to be radial in nature and includes some additional cycling path along major urban streets.

3.10.3 The Need for an Affordable Transit System

Public transport is by far the most popular mode of transport in Kampala for mid-range trips. Modal split between PT to CAR stands on 85%-15% in favour of public transport.

The comprehensive travel habit surveys reveals that most population groups use taxi as their primary motorized modes, with slightly higher number of users within the low SES:

3.10.4 The Need for a Mass Transit System

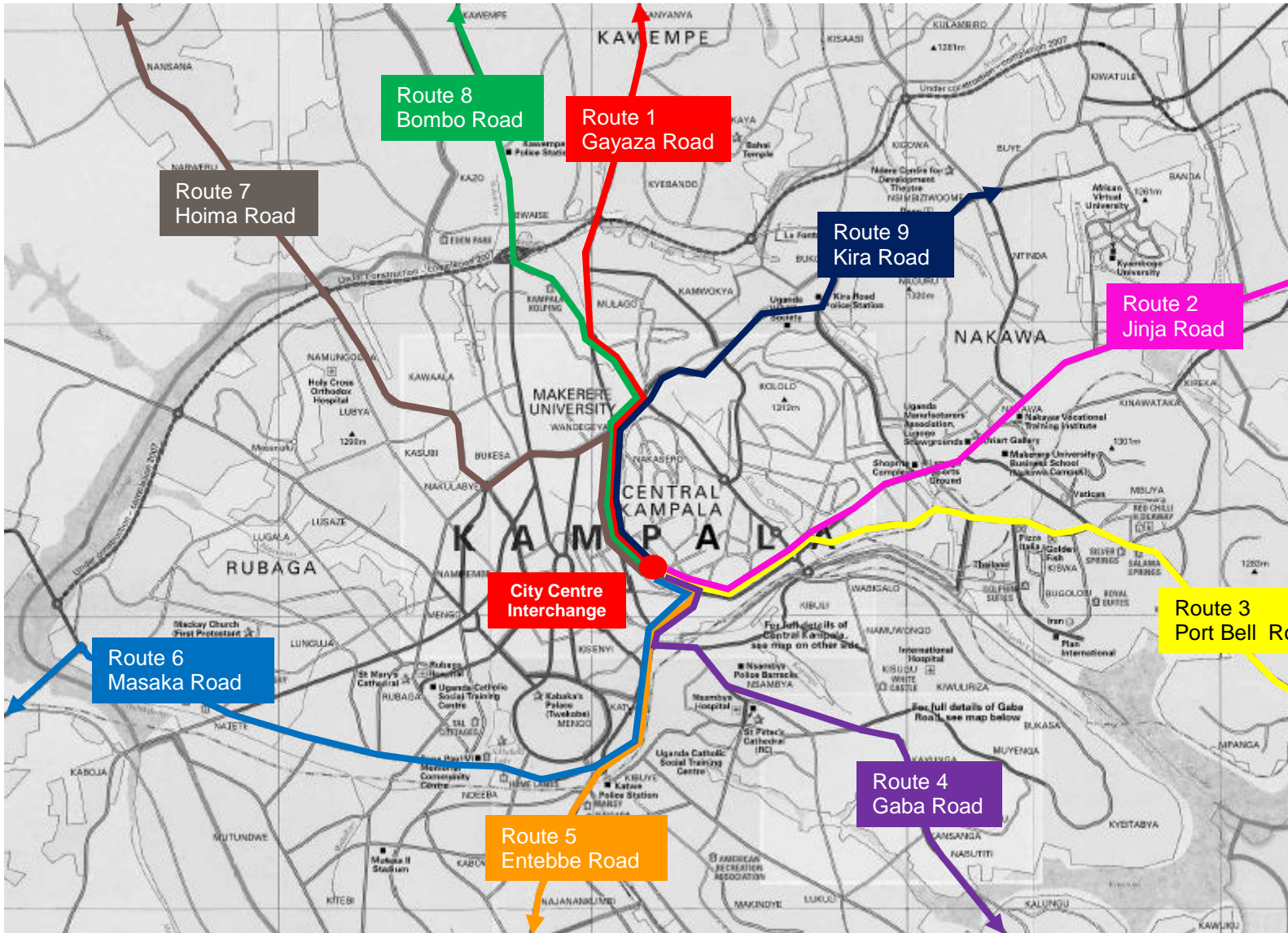
A mass transit system needs to be the backbone of any transport system in Kampala. Such a network should be established along several corridors and provide fast, affordable, reliable, comfortable and safe travelling option to a large share of the citizens of KCCA.

The radial layout of the city suggests a star-like solution where several corridors from different direction will meet in the City Centre. This requires delicate planning for the most suitable alignment of each line within the City Centre whilst providing adequate transfer facilities for a mass scale of passengers.

The Consultant estimates that the implementation of 5 MRT corridors can serve approximately 500,000 passengers daily by 2020, higher than current PT usage.

The Consultant plans to use the recently developed Travel Demand Model to consider most suitable public transport corridors for Kampala.

The following map identified the most attractive corridors based on the *Pre-feasibility study for the development of a Long-term integrated Bus-Rapid Transit System for the Greater Kampala Metropolitan Area*:



Map 32: Proposed BRT Corridors in Kampala

Another aspect of the creation of an MRT system is the pros and cons of different modes: Light rail, Metro, Tram or BRT. It can be noted that BRT enjoys relatively very low construction cost while providing adequate capacity for a high volume of passengers:

Therefore, the consultant believes that it is advisable for Kampala to base its mass transit system on BRT, as has been done in many developing countries. However, in case capacity exceeds the limits of a BRT system, there will be a need to upgrade the BRT system into light rail transit (LRT), which would be relatively easy to complete since designated right of ways will have already been secured.

3.10.5 The Need for a Better Road Network

The road network in Kampala has limited capacity and was not built for high volume traffic which therefore has caused severe congestion during the day resulting in significant time loss among transport system users. The consultant estimates that 92 million man-hours per annum are lost in Kampala due to the increasing congestion, equivalent to over \$ 100 million per annum. This has a tremendous impact on the overall economy and well-being of the city and its inhabitants.

Conditions are expected to get worse over the next few years due to increasing car ownership and population growth throughout the city in which projected road construction doesn't meet the growing demand. This has severe implication not only on auto traffic but also on the ability to provide a sound and reliable public transport service, which is limited to the main corridors and generates additional traffic along narrow streets.

There are 4 major identified reasons for the low level of the road network in Kampala:

1. A lack of a hierarchical road network with 2 or 3 lane arterial roads linking major residential areas to the City Centre.
2. A lack of highways / ring roads connecting major settlements outside the KCCA.
3. A lack of segregation between different traffic modes, specifically segregation between vehicular traffic and pedestrian / public transport passengers. This drastically reduces the capacity of the network as as detailed in the body of the report.
4. Low level of road standards, with only 35% of roads being paved, whereas the rest of the road network consists of dirt road, some of which are in very poor condition. This puts additional stress on the existing paved network which must channel all traffic that avoids using unpaved roads.

3.10.6 Kampala's Transportation System

The current transport system is a major factor affecting the quality of life as well as the urban development of Kampala. The current system in the GKMA, and especially in the KCCA, is unsustainable: The level of service it provides is constantly deteriorating, and its damaging effect on the environment and quality of life is constantly increasing.

Level of mobility (mobility = number of daily tours) in the GKMA is low – only 1.25 tours per person per day. Most tours are pedestrian, especially non-working tours. Moreover, the average length of a pedestrian trip is very short, ~0.35 km. This means that most Kampala residents do not have good access to important services.

The Consultant estimates that ~2.5 million hours are spent every day on travel in the GKMA, 75% of this time is spent walking. The Consultant further estimates that the GKMA can benefit significantly from improving the transport system. GKMA residents will be able to make more trips that will stimulate the economy while wasting significantly less productive time on travel.

Under the current policy and strategy, the situation will get much worse. Whilst today car ownership levels are low, every year there are more and more cars on the roads of the GKMA. Unless there is a drastic change in policy, the metropolitan area will face a scenario under which traffic gridlock will bring Kampala to a practical halt. People and goods will hardly move across the GKMA. As a result, unplanned and unexpected changes will occur in the spatial distribution of land uses.

The main problems associated with the current transport system are:

- A. ***Lack of vision and strategy toward the creation of a sustainable urban transport system (SUT).*** SUT is defined as a system that maintains an adequate level of service for current and future generations without degrading or diminishing future resources.
- B. ***Lack of hierarchy and capacity on the road network:*** Less than 3% of all roads in the KCCA are dual carriageway, with two lanes in each direction with median separation (33 km out of 1,217). This is clearly not enough for a metropolitan area. As an indicator for a proper hierarchical network, one usually expects that 30% of the total roads will serve 70% of the traffic (veh-km). This is clearly NOT the case in the GKMA.
- C. ***Lack of a traffic management system:*** even the current road network is not managed properly (if at all). Only 4 intersections are signalized, lanes are not marked so traffic is not properly channelled, on-street parking is mostly not regulated so the available capacity is reduced even more and commercial activities encroach on the roads rights-of-way. Furthermore, there is no organized operational parking for taxis (or minibuses), which park along the roads and cause further congestion to the already constrained narrow roads. Right turns are usually not protected with a dedicated lane, so waiting vehicles disrupt through traffic. In short, this is one of the worst traffic management systems imaginable.
- D. ***Lack of integrated and regulated public transport system:*** Public transport in Kampala is provided by taxis (minibuses). There are more than 300 different routes. However, these routes are neither coordinated, nor integrated, nor clearly regulated. There is a lack of committed timetables for PT operation, as well as a lack of organized stops along the route. Fares are not regulated at all which means that for the same route at the same time of day, drivers can and do charge different fares. There is a high degree of “in-the-market” competition, thus high demand corridors

are served with many routes, As a result, average daily occupancy of a taxi is relatively low (~100 passengers/day). This explains why fares are relatively high, as drivers need to recover their daily O&M costs and retain some revenue. Since the network is not coordinated, many people need to transfer to another taxi and to pay again. As a result, many people can't afford to use PT system, and are forced to walk.

Also, as there is no effective regulation system, as taxis leaving the origin stage only do so when at full passenger capacity. This forces passengers to walk all the way to the bus parks; otherwise they won't be able to get a taxi during the morning and afternoon peak hours.

E. ***Lack of NMT facilities:*** Although most trips are pedestrian, there are no proper pedestrian facilities. Along most roads there are unpaved and physically separated sidewalks, thus pedestrians are forced to walk along roads, exposing themselves to the risk of traffic accidents. In fact, the number of pedestrians killed in the KCCA is very high, and pedestrians constitute 50% of all fatalities in KCCA accidents. This is a very high rate of pedestrian involvement, and the number of people killed increases every year (as opposed to the worldwide trend of decreasing accidents and fatalities).

F. ***Lack of integration between urban planning and transport planning:*** Currently, there is no formal linkage between urban and transport planning. Entrepreneurs of new development are not requested to conduct traffic impact assessments, and there is no transport master plan that guides future development of the metropolitan area.

One can find many more problems, but the Consultant believes that the above mentioned are the dominant ones.

Due to the enormous impact of the transport system, the Consultant finds it necessary, even at this stage, to propose the following recommendations regarding the vision, goals and strategy for Kampala's urban transport system.

The Consultant's vision for urban transportation in Kampala is the establishment of an integrated multimodal transport system that will enable Kampala to transform itself. The transport system should assist by providing a modern, safe, high quality network that benefits all citizens of Kampala in such a way that it offers more choices to individuals, families, communities and businesses.

In supporting the vision, the Consultant proposes three high level objectives, as follows:

- The Transport sector should support and enable urban economic growth;
- The Transport sector should support poverty reduction by providing the poor and other socially disadvantaged groups with better access to both

services and opportunity;

- Urban Transport should support the improvement of life quality.

The strategic directions that are essential in achieving the Transportation vision are:

- An Integrated Transport System – all sectors and modes of transport should be designed, constructed, operated and managed as an integrated and complimentary system. Each sector should supplement the other sectors.
- Accessible Public Transport Services - the Consultant recommends achieving a more transit oriented community by expanding public transport services and facilities, thereby providing easier access to transport services and encouraging residents to make responsible travel choices.
- Integrated Urban and Transport System Planning - major new land use projects should be planned and designed together with a matching transport planning to ensure that the new development will not worsen the general traffic situation, and that the new development is properly served with a modern transport system.
- High standard of NMT Facilities - in any future transport system, the majority of the trips will be non-motorized. The urban transport strategy for Kampala should provide attractive, safe and high quality NMT facilities for all users.

3.11 The Planning of Kampala

3.11.1 Planning Responses

Early planning included the 1919 and 1930 Schemes, which covered Nakasero Hill and some of the immediate surrounds. The 1951 Outline Scheme, which covered additional areas to the east and was the last Colonial regime plan, remained in force until it was revoked in 1968, after which the “1972 Structure Plan” came into force. The 1972 Structure Plan, more accurately the “Kampala Development Plan 1972 - Structure Report” was part of this. Even then its authors indicated that the jurisdiction of the then-KCC would be unlikely to accommodate the growing population.

The production of the 1972 Structure Plan coincided with a period of political turmoil, especially with the beginning of the Amin period. This led to a weakening of planning and other institutions, autocratic and arbitrary decision making, problematic processes of selection of civil servants and lack of finance. Among the impacts were loss of professional personnel, weakening of security of land tenure, inadequate regulation and control of urban development and the inability to provide for rural-urban migration which resulted in the development of many poor, badly serviced informal settlements in inappropriate locations. Poverty also increased significantly during this period.

Following the re-establishment of political stability, notably in southern Uganda in the latter half of the 1980s, Kampala began to regain its professional capacities and partial control over its urban development. From that period on, Uganda as a whole, and Kampala, began to benefit from positive economic development, external aid and technical assistance. Nevertheless, nearly two decades of institutional decay, unplanned or unregulated urban development, and neglect of infrastructure is a legacy that is extremely difficult for any urban system to rid itself of, even under good financial conditions and with external assistance. It was against this background that the 1994 Kampala Urban Study, commonly known as the “1994 Structure Plan”, was prepared¹⁵.

The plan was part of the First (Kampala) Urban Project, the objectives of which were to: improve living conditions and alleviate poverty by restoring infrastructure; improve financial management; strengthen institutional capacity and development management.

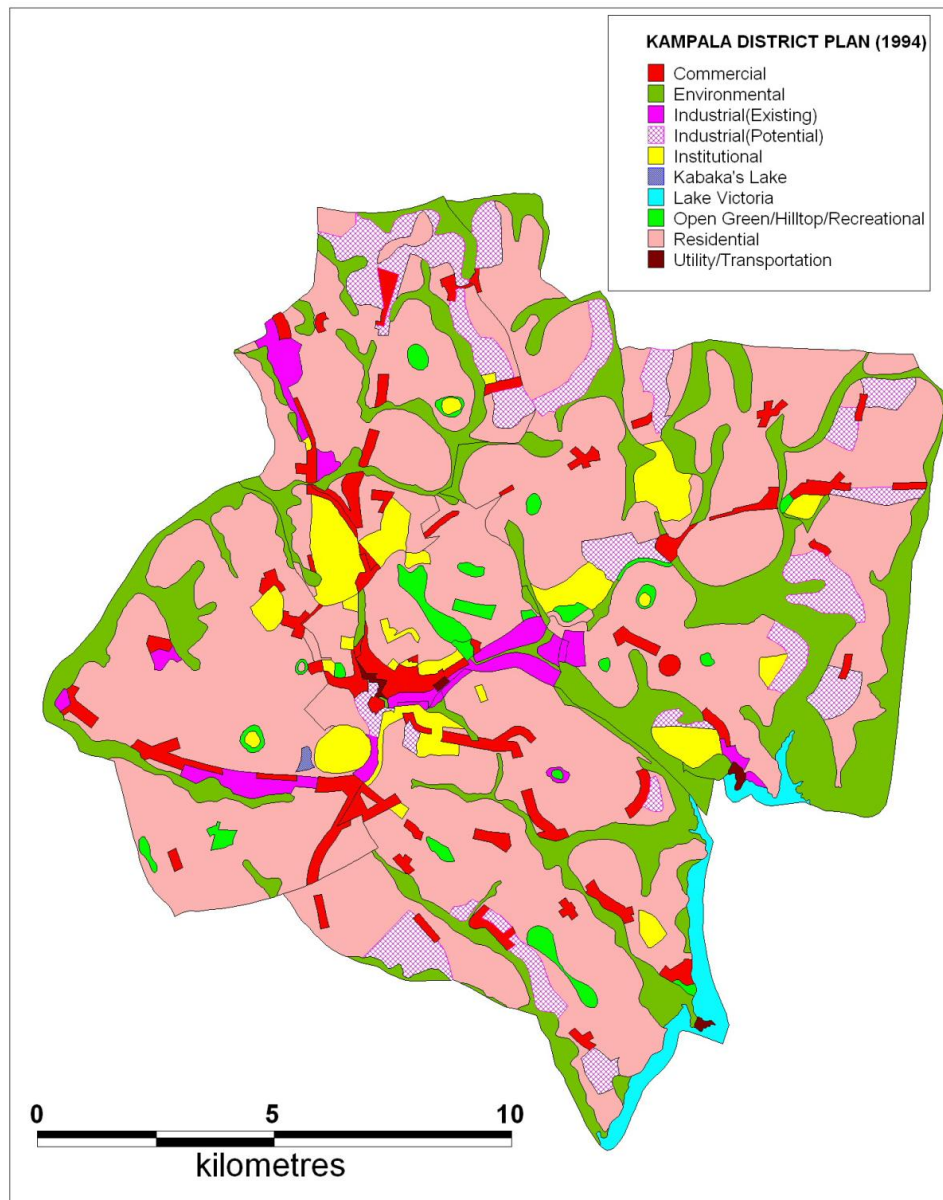
The time period is of significance - a period of ten years for a structure plan is short, even if the intention is to update it after the initial period. Ideally it should be based on a longer term understanding of, and conceptual planning at least, for the planning area. These lessons have been learnt in the preparation of the KPDP, wherein the Consultant, on Client and Steering Committee approval, prepared the

¹⁵ John van Nostrand Associates Ltd , March 1994, Kampala Urban Study, Final Report Part II.

KPDP on the basis of analysis of and definition of Targets and Goals for the Long Term (2030-2040) development of the City.

The plan covered an area slightly wider wider than Kampala District. The Consultants, John van Nostrand Associates, clearly indicated the need for distinctly wider planning, Here too the lessons of the past plan have been learnt with the preparation of the KPDP being based on a wider Metropolitan Framework Plan prepared by the Consultant for the extended GKMA as defined in 2.3.3 above.

The Proposed Structure Plan, presented in **Map 33** below addressed the following urban components: environment; industry; commerce; residential; social facilities; and transportation. A wide range of objectives were set out, in addition to those concerned with land use and regulation.



Map 33: Kampala District Plan 1994

It is frequently said that the 1994 Structure Plan “has not been implemented”. Its analyses and findings did however appear to play a role in the thinking of KCCA planning staff. In addition the Written Provisions of the plan are used on a daily basis in handling development applications. However, given the rapid population growth, particularly amongst low income groups in unplanned areas, limited staffing, and political interference, implementation and enforcement have been clearly insufficient, at best marginal. This evidenced in the large gaps between the plan’s landuse targets and effective landuses in the planned area as mapped in 2011 (see **Table 10** below).

Table 10: Comparison of 1994 Structure Plan and 2011 Land Use – Ha.

Landuse Category	1994 Plan Targets	2011 Landuse
Commercial	1,172	820
Environmental	4,087	2,503
Industrial (existing)	501	799
Industrial (potential)	1,598	
Institutional	1,034	1,156
Open Green/Hilltop/Recreational	351	2,349
Residential	12,786	13,670
Utility/Transportation	35	84
Total	20,931	21,380

- Notes:
1. 1994 numbers are planned, not existing
 2. 1994 numbers include additional areas outside then KCC
 3. Totals do not match due to discrepancies in mapping and classification
 4. Differences between 1994 and 2011 may be partly due to issues of classification

Consultant’s analysis indicates that despite the plan having been a comprehensive, professional, well-considered plan it was largely not implemented. In particular:

- Most industry was not developed;
- Little of the infrastructure proposed was built, indeed the only significant element implemented was the Northern by-pass (and that beyond the planning horizon);
- Environmental zones were not protected and most have effectively disappeared;
- The plan and its proposals remained largely unfinanced and certainly not prioritised;

- The plan was, and remains, not widely accessible, with a low level of awareness amongst both developers and decision-makers, indeed few are aware of its existence;
- The plan was not geo-referenced and is not available in workable (GIS) format;
- No downstream, detailed planning was prepared;
- Generally construction and development was not regulated.

There is therefore a clear, evident need:

- To ensure appropriate implementation mechanisms and structures;
- To adopt an enabling approach to development whilst ensuring direction and enforcement;
- To ensure planning and enforcement capacities within the KCCA;
- To identify and ensure adequate sources of revenue to enable investment in essential infrastructural and facility development.

4 Development Trends and Scenarios

4.1 Primary Development Trends

The primary development trends and challenges facing Kampala were defined as below.

4.1.1 The “Demographic Tsunami”

Kampala, currently a little over 3 million population (GKMA) is projected to grow to some 5 million in the coming decade and to exceed, at the very minimum, 10 million within a generation. And if in-migration is to accelerate over the coming generation the City’s population may well significantly exceed 15 million, indeed approach 20 million, by 2040.

In effect Kampala is subject to an unrelenting “Demographic Tsunami” driven both by rural “push” and urban “pull” factors. These factors are expected to amplify the attraction and accelerate the rate of rural-urban migration.

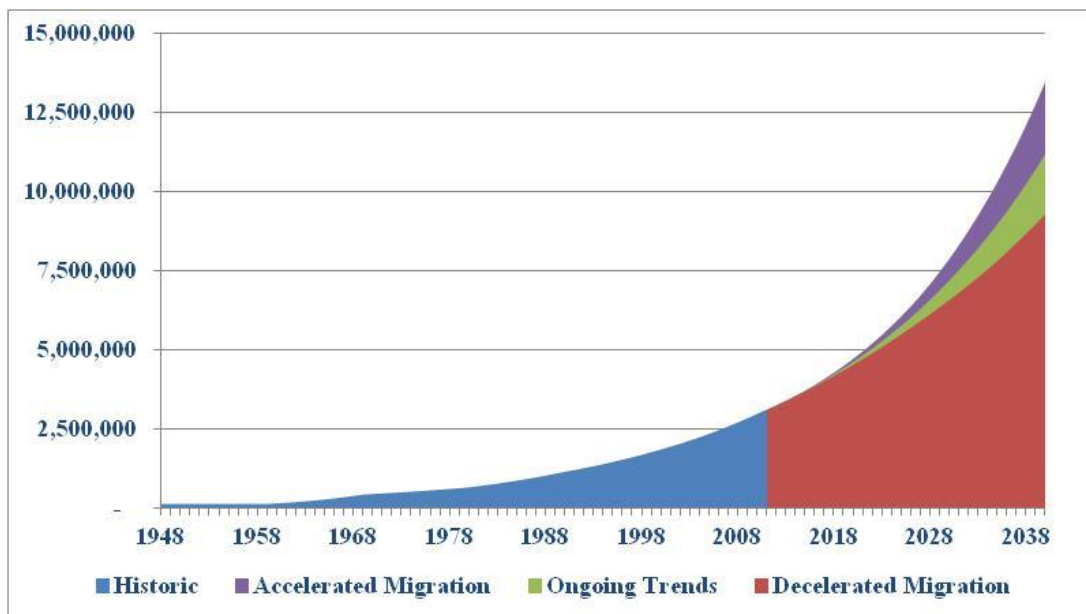


Figure 68: GKMA Projected Population

4.1.2 The Overwhelmed, Unsustainable City

The City is already overwhelmed by its current population, failing to adequately provide housing, employment, services, utilities and amenity for the bulk of its population and battling to absorb the current rate of in-migration.

Kampala lacks even the semblance of a balanced Metropolitan Structure and System, lacking the complementary and supplementary elements required to relieve pressures on the City Centre. As such, the centre itself battles to fill its role in driving development in the City and the country to higher planes.

The City has lost its form, attractiveness and identity as the “Garden City of Africa”. It has inappropriately sold or used its primary inner-city land reserves. It has allowed, sometimes even unknowingly promoted, intolerable densification of informal settlements to slum level. It has degraded many of its natural assets (wetlands, forests, views, springs, etc.). It has allowed its infrastructure and services to degrade to the point where many need to be redeveloped from scratch.

Property owners are generally unregistered and lack tenure security. 25% of households renting move home in a year. The property market displays the classic signs of market failure, dominated by speculation, distorting the distribution of activities, services and facilities.

Communities and households suffer from repeated relocation and transition.

The economic base is very limited and imbalanced, lacking significant productive and high value added sectors. Productivity is extremely low, even in the regional context. Unemployment is high (close to 20%), under-employment even higher.

Poverty is all pervasive.

The transport system is progressively moving towards grid-lock despite low car ownership rates.

4.1.3 The Unserviceable and Unmanageable City

Kampala today is currently unserviceable given:

- Levels of poverty placing many services beyond reach;
- Lack of an effective tax-base;
- The absence of any mechanisms for the recovery of investment costs;
- Lack of resources (manpower, tools, technology, experience);
- Lack of facilities and available land, particularly in the more densely built-up areas;
- Expectations are low, job security lower, motivation even lower, and initiative rare.

The City is also currently unmanageable given:

- The Land Tenure system;
- Lack of enforcement capacity and tools;
- Reported politicisation, dependence and endemic corruption;
- The lack of alternatives (e.g. employment for illegal hawkers, shelter for residents of the wetlands, public transportation and NMT instead of boda-boda).

4.1.4 The Blessed City

Kampala has been blessed in abundance with:

- Extraordinarily fertile soils, which are also reportedly appropriate for construction;
- A particularly clement, moderate climate appropriate for habitation, recreation and tourism;
- A rich, diverse, naturally balanced eco-system based on Lake Victoria;
- An effective unlimited supply of fresh water from the lake and precipitation;
- Inherent Food Security;
- A naturally “green” environment with natural foliage and woods/forests (those that haven’t yet be cut down);
- Natural topography with generally mild slopes, appropriate for both cultivation and habitation and breathtaking vistas and views;
- The wetlands have survived a century of abuse and still serve as the City’s filter;
- The absence of any significant known natural threats with even fire risks mitigated by frequent precipitation and “green” foliage and flood risks, whilst significant at specific points, being limited in scope and scale; and much more.

All this, despite a century of abuse of many of nature’s gifts.

Indeed, all the City’s woes as detailed above and throughout the report are not naturally derived but rather the result of human action or inaction, decisions or lack thereof, implementation or lack thereof. And as such most are reversible as the natural fundamentals remain very positive.

4.1.5 The City of Learning

Kampala is a society obsessed with education, with almost the entire population committed, often at the cost of deprivation, to education for themselves and particularly for their children.

Education is the key-pin in both the public and private realms for breaking the cycle of poverty and the achievements to date are indeed impressive.

The road to economic development on the macro scale and upward socio-economic mobility on the micro scale through education is a tried and proven track. However it is not a smooth ride. Rapid development and change inevitably produces imbalance, often serious imbalance, between the various elements. In Kampala’s present conjuncture the imbalance lies primarily in the growing gap between the professional labour force’s size and capacities and the growth of appropriate economic sectors to absorb and utilise the large and growing pool of capacities. The education production system also needs to be fine-tuned to produce graduates appropriately trained for more productive sectors.

There is an inevitable built-in developmental time-lag between elements. However, if and when productive economic sectors establish, grow and absorb the

trained, professional workforce, the economy and with it the City will boom. The challenge is to:

- Restructure the local economy towards productive, added value activities and sectors;
- Shorten the time-lag and smooth the bumps as best possible by actively enabling and supporting appropriate development; and
- Retaining and protecting the growing knowledge pool until the gaps are closed.

As the products of the education reforms of the past decade enter the labour market, the capacity of the entire City and its economy will receive a significant boost. The challenge is build the foundations of a new modern economy to absorb and capture this capacity.

4.1.6 The City of Opportunity

Despite all its short-comings and problems Kampala has seen an economic boom over the past decade, based largely on the foundations of the economic and social stabilisation and growth of the previous decade.

As indicated above the foundations for further, rapid growth are being laid in the City's schools and tertiary institutions. And, with the economic growth will come the potential for the resolution of many of the City primary problems. Utilities and services will become affordable to many, demand will rise, thresholds will be achieved, marginal costs will fall and utilities and services can be made affordable to even more.

In addition, as income levels rise demand for improved housing will rise and the construction industry will have to adapt radically to meet demand. If it does so, productivity will rise and standards of construction will improve and the very face of the City can begin to upgrade.

With economic growth, opportunities will increase, specialisation can find its feet and entrepreneurial initiatives can spring up (some more successful, some less so), expectations will rise and actors will enter the market and, if enabled, the administrative and service systems to meet expectations and demand.

These processes and potential are already evident in the growing Middle Classes, with professionals and businessmen and women rising into the Middle Classes.

And there is an upcoming Urban Generation, "street-wise" and with a distinct urban orientation, growing up in the City and demanding and preparing itself to lead Kampala to a new, different future.

4.1.7 The Future Mega City

Kampala is on course to developing into a Mega City. The issue and the challenge confronting the planners and the decision-makers is which type of Mega City will arise as detailed in **Section 4.2** below.

4.2 Alternative Development Scenarios

The Consultant identified, defined and analysed alternative development scenarios for Kampala's long term development as a Mega City. These are:

- **Business as Usual Scenario** with ongoing trends resulting in a relatively more organised but distinctly Dual City with wide gaps and growing structural imbalance;
- **Worst Case Scenario** with accelerated in-migration leading to an unsustainable, unserviceable, unmanageable Mega City, languishing behind its competitors in East and Central Africa;
- **Best Case Scenario** wherein determined intervention allows for Kampala to develop as a modern, functional, balanced Urban System leading Uganda and indeed the region towards the Vision defined in the NDP.

4.2.1 Business as Usual Scenario - the Dual City

The "Business as Usual" scenario is based on the extrapolation of ongoing trends. Without drastic intervention or significant externalities this scenario is appears to be the most probable and feasible scenario for Kampala's future growth. However, analysis presented hereunder brings its feasibility into question.

No major structural reforms (e.g. Land Tenure, Finance, etc.) are incorporated in this scenario although administrative reforms are expected to continue and bear fruit (improved services, modernisation, reduced barriers, etc.).

Under these circumstances Kampala's growth will be driven, first and foremost, by continuous rural in-migration at rates similar to those experienced over the past 2 decades. At such rates the population of Greater Kampala can be expected to reach some 12 million by 2040. The population of Kampala will remain majority rural migrant, themselves predominantly young adult.

To accommodate this population in the mix of housing common in Kampala the built area of the City can be expected to grow significantly surrounded by large peri-urban areas on ascale significantly larger than the GKMA and even the extended KSPA.

Economic growth can be expected to continue to outpace demographic growth but the economic structure of the City will remain imbalanced - dominated by commerce and services (both private and government) with significant informal sectors and limited productive sectors.

The Space Economy will remain distinctly imbalanced with significant over-concentration on the City Centre and limited economic opportunity and activity on the periphery.

In these circumstances Kampala will be characterised by very wide and consistently growing income inequality with the wealthy and middle classes progressively improving their standards of living. On the other hand, poverty will become further entrenched and multi-generational for the bulk of the population. Particularly amongst second and third generation urban poor social malaise can be expected to become endemic, expressed in high and rising crime rates, alcoholism and drug dependency and resulting in chronic social instability.

Improved infrastructure can be expected with sewage coverage, improved maintenance of roads, lighting, etc. and with selective waste disposal services to be found primarily, if not exclusively, in the better neighbourhoods.

Access to services will be wide but will be characterised by extreme gaps in the standards of service. The wealthy and the middle classes will pay for and enjoy modern commercial and personal services, private quality education, private quality health services, etc. The poor on the other hand will continue to remain dependant on basic informal services, inferior education (public or private), basic health service (inferior private, public or NGO), etc. The very poor, at subsistence level or below, will continue to battle to access even these. And the gaps will continue to widen.

The wealthy and generally well-to-do middle classes will be limited in size and proportion (~25%). They can be expected to enjoy improved, reasonable housing, upgraded infrastructure and quality services. However, given the widening gaps and their social impacts, their personal safety and security will be threatened, as is evident today in such Dual Cities as Nairobi, Johannesburg and Sao Paulo. As a result gated, fenced and patrolled housing compounds will spring up and become the norm for both the wealthy and the middle classes.

The city will be largely populated by a large poor population (~35%) working and making do with basic housing, infrastructure and services and by a large very poor population (>35%), unemployed and underemployed, with inadequate housing, services and infrastructure.

Most of the working poor will be housed in basic housing in informal settlements with those in the Inner City progressively densifying and developing into slums. Large slums, exclusively *Muzigo*, will house the very poor and many working poor.

In essence over 40% of the population will be squeezed into less than 15% of the built area whilst the relatively small upper and middle classes will control and enjoy the vast bulk of the city and its facilities.

Major traffic and transport problems will be endemic throughout despite the introduction of Public Transport and possibly even the introduction of some mass transit. And for the poor, particularly the very poor, access to employment, opportunities and services will remain limited to pedestrian access given income and cost constraints.

Environmental degradation can be expected to continue apace. With limited sewage coverage and the scale of human settlement the wetlands can be expected to fail to filter the city's waste and become cesspools throughout the GKMA. Most, if not all, groundwater sources within the built areas will be contaminated and unusable. Most remaining forests will disappear and large tracts of agricultural land will suffer intrusion.

In short Kampala can be expected to develop as a CLASSIC DUAL CITY.



Figure 69: Images of a Dual City - Nairobi



Figure 70: Images of a Dual Mega City - Sao Paulo

4.2.2 Worst Case Scenario - the Unsustainable Mega City

The “Worst Case” scenario is based on the assumption of accelerated demographic growth, driven by increased rural in-migration as a result of such externalities as crop failures, drought, conflict, etc. and/or as a result of the success of rural education and the resultant aspirations of rural youth. Without drastic intervention to enable and distribute rural-urban migration on a national scale and to siphon off most migration to regional urban centres, this is unfortunately a feasible scenario for Kampala’s future growth.

In this scenario, the population of Greater Kampala can be expected to grow at an accelerated rate and exceed, possibly significantly exceed, 15 million by 2040, driven by mass in-migration. The population of Kampala will then be predominantly rural migrant, themselves predominantly young adult.

No major structural reforms (e.g. Land Tenure, Finance, etc.) are incorporated in this scenario. Although administrative reforms are expected to continue their contribution is expected to be overwhelmed by the scale and pace of migration and growth and, at best, provide stop-gap solutions to demand for employment, opportunity and services.

To accommodate this population in the mix of housing common in Kampala the built area of the City can be expected to grow enormously surrounded by expansive peri-urban areas, well beyond the GKMA and even the extended KSPA.

Economic growth can be expected to barely beat demographic growth and possibly not even manage to keep up. The economic structure of the City will become totally imbalanced and extremely inefficient, dominated by the informal sectors with limited formal and productive sectors.

The Space Economy will be distinctly imbalanced with excessive over-concentration on the City Centre, itself largely over-run by the informal sectors with only very limited economic opportunity and activity on the periphery.

In these circumstances Kampala will be characterised, first and foremost, by all pervasive poverty, with income inequality chasms between the small wealthy and middle classes and the mass of the population. The standards of living for the bulk of the population are expected to be abysmal and social malaise rampant. Given the predominance of very poor young adults, existing social mechanisms will be challenged and social stability threatened.

Investment in infrastructure will fail to keep pace with population growth and with the scale of spatial sprawl. Sewage coverage, maintenance of roads, lighting, etc. and selective waste disposal services will probably be found almost exclusively in the wealthier neighbourhoods.

Access to services will be limited particularly in the extremely large peripheral areas with extreme gaps in the standards of service. The wealthy and the middle classes will pay for and enjoy modern commercial and personal services, private quality education, private quality health services, etc. The working classes and the poor will remain dependant on basic informal services and be served by inferior, overwhelmed and frequently failing education services (public or private), basic overwhelmed health service (inferior private, public or NGO), etc. The very poor, at subsistence level or below, will at best have limited access even to these. Indeed, many achievements in the fields of education and health may be expected to regress as the systems become overwhelmed and the population continues to spread.

The wealthy and well-to-do middle classes will be limited in size and proportion (<20%). They can be expected to enjoy improved, reasonable housing, upgraded infrastructure and quality services. However, given the widening gaps and their social impacts, their personal safety and security will be threatened. Gated, fenced and patrolled housing compounds will become essential whilst many areas of the city, including much of the City Centre, can be expected to become “no-go” areas for the wealthy, the middle classes and even the working classes.

The large poor population (>30%) working and making do with basic housing, minimal infrastructure and very basic services. will be outnumbered by the very poor. Indeed, the city will be largely populated by a very large, very poor population (>50%) unemployed and underemployed, with inadequate and inappropriate housing, generally lacking even basic services and infrastructure.

In this scenario Kampala can be expected to host very large slums with a mix of *Muzigo* and makeshift shacks, for the very poor and many working poor;

Most of the working poor will be housed in basic housing in informal settlements with most current Inner City informal settlements and many of those in the Outer Suburbs developing into slums.

In essence over 60% of the population will be squeezed into less than 20% of the built area whilst the small upper and middle classes will control and enjoy the vast bulk of the city and its facilities but will battle to access most parts of the city on a regular basis given movement and security constraints.

Traffic and transport problems can be expected to reach standstill on the major arteries through much of the day. The introduction of Public Transport and even Mass Transit will provide partial relief for those sections of the population able to afford it (the working classes). But Public and Mass Transport will not constitute a solution for the wealthy and middle classes given safety and security considerations.

For the very poor access to employment, opportunities and services will remain limited to pedestrian access given income and cost constraints, resulting in excessive overcrowding in the Inner City and its slums.

Environmental degradation can be expected to accelerate. With very limited sewage coverage and the scale of human settlement the wetlands will be totally overwhelmed, failing to filter the city's waste, frequently resulting in epidemic scale health outbreaks. All groundwater sources within the built areas will be contaminated and unusable. Most, if not all, remaining forests will disappear and very large tracts of agricultural land will suffer intrusion on a mass scale (radius of 30km or more beyond the City Centre).

In short Kampala can be expected to develop as **AN UNSUSTAINABLE, UNSERVICEABLE, UNMANAGEABLE MEGA CITY.**





Figure 71: Images of an Unsustainable Mega City - Lagos

4.2.3 Best Case Scenario - the Modern, Balanced Urban System

The “Best Case” scenario is based on the assumption of very significant investment, indeed drastic intervention, undertaken to ensure the future, balanced growth of Kampala.

Major structural reforms are fundamental preconditions to this scenario. Although administrative reforms are expected to continue and bear fruit (improved services, modernisation, reduced barriers, etc.), they in themselves will not suffice to enable appropriate development.

Preconditioned on significant structural reforms including Land Tenure reform, Land Regularisation, effective taxation for development and services, appropriate fees for utilities, quality Public Education and Health services, financing for investment and housing, and more.

This scenario is also predicated on the assumption of intervention on the national scale to reduce the rate and scale of rural in-migration to Kampala with the planning and development on a balanced urban system on the national scale, fully integrated with intensive rural development. In this scenario Kampala will experience ongoing but reduced demographic growth, particularly beyond the planning horizon of the KPDP, 2022.

As Kampala upgrades and develops, its development will in and of itself begin to serve as a barrier to mass rural in-migration. As housing and service standards improve the costs of housing will become prohibitive to many potential migrants. As utilities and services become the norm these costs too will serve as barriers. As the economy formalizes and modernizes, productivity standards will rise and demand will shift from basic and semi-skilled labour to skilled and professional labour serving to selectively attract and deter migration. As the balance of the population tends to an urban majority, the customs and norms of society will be appropriate to such a population and less amenable to rural migrants.

Under these circumstances Kampala's growth will continue at a reduced rate driven by the combination of rural in-migration and natural growth. As such, the population of Greater Kampala can be expected to continue to grow and reach some 10 million by 2040. The population of Kampala will reflect a balance between the urban reared and rural migrant segments. Moreover the balance between family households and single/couple migrant households will shift and the demographic age structure of the population will be more balanced with proportionately more children and middle-aged adults. Although the dominance of young adults will remain it will be partially mitigated.

To enable a balanced, well developed Urban System, Kampala has to develop as a relatively denser city, both within the KCCA and in the KMTC. Otherwise the economies of scale and of agglomeration will not be achieved and the resultant development will not meet the definition. As such, in this scenario, it can be expected the mix of housing in Kampala will change and densify significantly and the built area of the City can be expected to be relatively limited and the surrounding peri-urban areas significantly limited. However, even under the best

of circumstances, the scale of the city will still exceed the GKMA and even the extended KSPA but far less so than in the alternative scenarios.

Economic growth can be expected to rapidly outpace demographic growth and the economic structure of the City can be expected to become increasingly formalised and balanced - dominated by commerce, services (private and government) but balanced by relatively significant productive sectors and with relatively limited informal sectors. Supported by appropriate infrastructure and services the local economy will be able to support the city which will in turn be able finance, in large part, its infrastructure and services.

A more balanced and efficient economic structure will lead to increasing demand for skilled and professional labour which will command appropriate remuneration, significantly improving income levels and standards of living. These benefits will be enjoyed, first and foremost, by the middle classes but will also significantly contribute to improving the living standards of the skilled working classes. The benefits can also be expected to trickle down to the poor and the very poor, allowing many to rise above basic subsistence and enabling reasonable access to basic services and utilities.

Kampala's rapid economic growth will serve to enable and significantly contribute to economic activity and growth on the national scale.

In this scenario Kampala's Space Economy will become more balanced. Whilst much economic activity will remain concentrated in the City Centre, a series of hierarchical centres and specialized elements can be developed throughout the city and the metropolitan area.

Whilst Kampala will still be characterised by significant income inequality this will be moderated in part by the relative size of large and growing middle and working classes and by trickle down impacts ameliorating poverty. The wealthy, the middle classes and the working classes can be expected to progressively improve their standards of living and the scale and depth of poverty should be reduced. Socio-economic mobility, together with relative scale of both the middle and working classes can be expected to ensure social stability and limit social malaise.

Significant investment in infrastructure, financed largely by local taxes and economic utility fees, can be expected to ensure that the large bulk of the population will enjoy sewage coverage, improved maintenance of roads, lighting, etc. and waste disposal services will be provided in all neighbourhoods.

Access to services will be wide, enabled by higher income levels, increased densities, appropriate distribution of services and affordable public transportation. Gaps in the standards of service can be expected to close progressively. Most of

the population should be able to pay for and enjoy modern commercial and personal services. Education and health services should be universal public services of reasonable standard with high standard services remaining as optional alternatives generally for the wealthy and upper middle classes. The poor should have access to reasonable public education and health services and the very poor, at subsistence level or below, should be provided similar services.

The wealthy and generally well-to-do middle classes will constitute a significant proportion of the population (~35%). They can be expected to enjoy reasonable to high standard housing, infrastructure and quality services. Issues of personal safety and security should be improved in relation to current standards. As such, housing and movement will be generally secure and relatively open.

The city will be populated by a very large class working population (~40%) enjoying improved to reasonable housing, infrastructure and services.

Housing standards for both the middle and working classes will change and improve with apartments, town-houses and row-housing becoming the norm.

Even under the best of circumstances Kampala will still house a large poor population but its scale and proportion can be expected to be more limited (15-20%) and the depths of poverty ameliorated by both trickle down impacts of growth and the provision of services. Many of the poor will be able to recognize reasonable opportunity for upward socio-economic mobility for their off-spring, if not for themselves.

Large slums will still be found in Kampala but of a more limited scale. Even these will reflect improvement including basic infrastructure and services and improved low cost housing solutions.

Major traffic and transport investments will provide reasonable access to employment, opportunity and services, based on an appropriate combination of Public Transport and Mass Transit. This, as prices affordable to the poor and complemented by NMT solutions on the local, neighbourhood level.

Environmental degradation can be expected to be significantly reduced. Investment in extensive sewage coverage, comprehensive sanitation waste disposal services and densification limiting the scale of human settlement will combine to significantly reduce pressures on the wetlands and on groundwater sources. Most remaining forests will be protected and complemented with large scale commercial forests, nature reserves, parks and gardens. Large tracts of agricultural land will still be intruded to absorb the population growth but on a far more limited scale.

In essence, in this scenario and subject to significant intervention and investment, the large bulk of the population will enjoy the benefits of a modern city and urban environment.

In short, with significant indeed drastic intervention, Kampala can develop as a **MODERN, FUNCTIONAL, BALANCED CITY IN A FUNCTIONAL, BALANCED METROPOLITAN SYSTEM.**



Figure 72: Images of a Modern, Balanced City in a Developing Context, Curitiba

4.2.4 Comparative Assessment of Development Scenarios

The alternative development scenarios can be assessed as below:

4.2.4.1 Primary Assumptions and Preconditions

The alternative development scenarios differ in their primary assumptions and preconditions as indicated in **Table 11** below:

Subject	Business as Usual 2040	Worst Case 2040	Best Case 2040
Population Growth	Ongoing demographic trends	Accelerated in migration	Reduced in migration
Administrative Reform	Ongoing	Ongoing	Ongoing
Structural Reform	Limited ongoing	Limited ongoing	Significant reform (land tenure, national urban development, economic development, etc.)
Infrastructural Development	GOU + Donor funded, partially supplemented by current utility fees.	GOU + Donor funded, partially supplemented by current utility fees.	GOU + Donor + Private Sector financed, significantly supplemented by local taxation and economic utility fees.
Settlement Pattern	Ongoing sprawl	Ongoing sprawl	Structured, partially balanced, densification.

Table 11: Primary Assumptions and Preconditions

4.2.4.2 Population and Households

The alternative development scenarios are projected to result in different scales of population and significantly different structures as indicated in **Table 12** below:

Assumptions and Projections	2011 Estimate	Business as Usual 2040	Worst Case 2040	Best Case 2040
Growth Assumption		Consistent 4.75%	Increasing to 6.5% by 2040	Reducing to 3.5% by 2040
Natural Growth Assumption		Reducing to 2.0% by 2040	Reducing to 2.0% by 2040	Consistent 2.25%
In-migration		Increasing to	Increasing to	Reducing to

Assumption		2.75% by 2040	4.5% by 2040	1.25% by 2040
Population	3,150,000	12,000,000	15,600,000	10,000,000
Kampala Born	45%	46%	39%	55%
Household Size	3.9	3.5	3.3	3.7
Households	800,000	3,430,000	4,730,000	2,700,000

Table 12: Population and Households by Scenario

In all circumstances Kampala is expected to develop into a Mega City of over 8 million population by 2030 (worst case scenario) to 2035 (best case scenario). By 2040 the variance between in the scale of population between the scenarios will exceed 50% - between the best case (10 million) and the worst case (over 15 million).

Not only will the scale of population differ but its structure will vary significantly regarding:

- Households - from an average 3.7 family oriented population (best case) to young single and couple dominated average of 3.3 (worst case);
- Age structure - assuming ongoing reduction in fertility from a relatively balanced best case to a young adult dominated worst case primarily as a result of reduced in-migration of young adults as well as reduced mortality rates under the best case scenario.
- Cultural orientation - from a distinct rural extraction majority of over 60% (worst case) to a distinct urban born and bred majority (best case).
- and more.

4.2.4.3 Economic Activity and Employment

The alternative development scenarios are projected to result in vastly different scales of economic and significantly different employment patterns as in **Table 13** to **Table 15** below.

In the economic field the variation between the alternative scenarios is enormous. Best case economic growth assumption is feasible and is to be found in a number of select urban centres, primarily in Asia. If achieved the best case scenario will place Kampala solidly in the middle income range bracket, with a local domestic product double what may be expected under the worst case scenario despite the larger population, primarily as a result of a projected productivity level 3 times higher than the worst case scenario.

Assumptions and Projections	2011 Estimate	Business as Usual 2040	Worst Case 2040	Best Case 2040
Annual per Capita Growth Assumption		3.0%	1.0%	5.0%
Per Capita Domestic Product	2,200	5,184	2,936	9,055

US\$				
GKMA Domestic Product (US\$ billion)	6.5	62.0	46.0	91.0

Table 13: Economic Activity by Scenario

The structure of the workforce under the various scenarios will be impacted by the differences in the age structure of the population. As such, variation in size of the labour force will be larger than the variation in the size of the population. However variation in the social and economic structure of the city will produce very different levels of economic participation and unemployment as reflected in **Table 14** below. As a result, the variation in the number of actively employed will be significantly smaller than the variation in population size between the alternative scenarios.

Assumptions and Projections	2011 Estimate	Business as Usual 2040	Worst Case 2040	Best Case 2040
Work Age Assumption	65%	65%	68%	60%
Labour Force	2,030,000	7,800,000	10,600,000	6,000,000
Economically Active	67%	68%	61%	75%
Unemployment	19%	17%	24%	10%
Employed	1,360,000	5,300,000	6,500,000	4,500,000

Table 14: Workforce and Employment by Scenario

The differences in the economic structure of Kampala under the various scenarios will be clearly reflected in the sectoral distribution of employment. This is most blatant in the differences between the formal and informal sectors and in manufacturing in the best and worst case scenarios as indicated in **Table 15** below.

Assumptions and Projections	2011 Estimate	Business as Usual 2040	Worst Case 2040	Best Case 2040
Agriculture	7.6%	3.5%	5.0%	2.0%
Building & Construction	3.9%	5.0%	4.0%	6.0%
Commercial (Formal)	12.7%	14.0%	12.0%	17.5%
Education	8.6%	9.0%	8.5%	10.0%
Domestic Service	8.4%	7.0%	8.5%	5.0%
Government	10.5%	9.5%	7.5%	10.0%
Home	2.4%	2.0%	2.0%	2.0%
Informal	21.0%	15.0%	27.5%	7.5%

Manufacturing	3.7%	12.5%	5.0%	18.0%
Other Public	4.1%	3.0%	4.0%	2.0%
Services (Private, Formal)	14.3%	16.5%	12.5%	17.5%
Transportation	2.8%	3.0%	3.5%	2.5%

Table 15: Sectoral Distribution of Employment by Scenario

4.2.4.4 Socio-Economic Structure

The divergent demographic and economic trends projected under the alternative development scenarios are expected to produce significantly different socio-economic structures in Kampala by 2040 as indicated in **Table 16** and **Table 17** below.

Whilst the scale (number) of both wealthy high income and low income working poor are projected to remain relatively similar in absolute numbers (though not in proportion), wide variation is projected in the size and scale of the middle classes and the very poor (subsistence or below) particularly between the best and worst cases. In effect the best case scenario projects a middle class dominant society whilst the worst case scenario projects predominant, all pervasive poverty. The business as usual scenario projects a similar socio-economic structure as is currently evident in Kampala today.

Assumptions and Projections	2011 Estimate	Business as Usual 2040	Worst Case 2040	Best Case 2040
High	4.5%	4.0%	3.0%	5.0%
Upper Middle	10.8%	10.0%	7.0%	15.0%
Lower Middle	14.5%	15.0%	10.0%	20.0%
Low (Poor)	36.1%	36.0%	30.0%	40.0%
Subsistence (Very Poor)	34.1%	35.0%	50.0%	20.0%

Table 16: Socio-economic Structure % by SEC and by Scenario

Assumptions and Projections	2011 Estimate	Business as Usual 2040	Worst Case 2040	Best Case 2040
High	140,000	480,000	470,000	500,000
Upper Middle	340,000	1,200,000	1,090,000	1,500,000
Lower Middle	460,000	1,800,000	1,560,000	2,000,000
Low (Poor)	1,140,000	4,320,000	4,680,000	4,000,000
Subsistence (Very Poor)	1,070,000	4,200,000	7,800,000	2,000,000

Table 17: Socio-economic Structure by SEC and by Scenario

SEC definitions reflect relative socio-economic status derived from household income and expenditure with only the very poor being defined by absolute income (subsistence) levels. The absolute income and expenditure levels will vary

significantly between the alternative development scenarios as indicated in **Table 18** below:

It must be noted that as the city grows living costs will inevitably rise, particularly for housing (scale of demand and limited supply) and food (scale of demand and distribution costs). Therefore, income levels need to rise simply to maintain current standards of living.

As such, the business as usual scenario, although accompanied by rapid economic growth, is expected to produce only a marginal improvement in living standards.

The worst case scenario is projected to result in stagnation and possibly even deterioration in living standards for all including the wealthy and middle classes with a very significant drop in living standards for the very poor (including widespread food insecurity).

In contrast the best case scenario projects a very significant rise in living standards for all, specifically including the poor and the very poor. In effect, if Kampala does develop as a modern, middle income city the primary beneficiaries will be the large middle and working classes, whilst even the very poor can be expected to rise above basic subsistence. Indeed under this scenario the large middle classes should be able achieve living standards of today's wealthy and the very large working classes the living standards of today's middle classes.

Assumptions and Projections	2011 Estimate (US\$)	Business as Usual 2040 (\$)	Worst Case 2040 (US\$)	Best Case 2040 (US\$)
High	24,000	56,000	32,000	98,000
Upper Middle	11,000	27,000	15,000	47,000
Lower Middle	7,000	16,000	9,000	28,000
Low (Poor)	4,000	9,000	5,000	16,000
Subsistence (Very Poor)	2,000	4,000	2,000	7,000

Table 18: Representative Household Income/Expenditure by SEC and by Scenario

4.2.4.5 Housing

Analysis of demand for housing based on the potential purchasing power of various segments of society indicates significant differences in the value and size of housing requirements under the various scenarios, as evident in **Table 20** to **Table 21** below.

Assumptions and Projections	2011 Estimate (m ²)	Business as Usual 2040 (m ²)	Worst Case 2040 (m ²)	Best Case 2040 (m ²)
High	40	50	50	50
Upper Middle	30	29	23	39
Lower Middle	15	21	14	28
Low (Poor)	12	13	9	17
Subsistence (Very Poor)	7	7	4	10

Table 19: Housing Demand m² per Capita by SEC and by Scenario

Assumptions and Projections	2011 Estimate (m ²)	Business as Usual 2040 (m ²)	Worst Case 2040 (m ²)	Best Case 2040 (m ²)
High	160	200	200	200
Upper Middle	115	115	90	150
Lower Middle	60	80	50	110
Low (Poor)	40	45	30	60
Subsistence (Very Poor)	18	18	10	25

Table 20: Representative size of Housing Unit m² by SEC and by Scenario

Assumptions and Projections	2011 Estimate (US\$)	Business as Usual 2040 (\$)	Worst Case 2040 (US\$)	Best Case 2040 (US\$)
High	99,000	234,000	132,000	408,000
Upper Middle	48,000	112,000	63,000	196,000
Lower Middle	28,000	67,000	38,000	117,000
Low (Poor)	16,000	38,000	21,000	66,000
Subsistence (Very Poor)	6,000	14,000	8,000	24,000

Table 21: Housing Demand Representative Values by SEC and by Scenario

The analysis indicates significant variation in the standards of housing to be expected between the various alternative scenarios for all except the wealthy. Housing demand is a function of financial capacity¹⁶ and hence restricted for all except the wealthy. Under the Business as Usual scenario little change is expected for most except the lower middle class who are expected to be able to escape the poorest neighbourhoods and upgrade to basic to reasonable housing. Under the Worst Case scenario housing standards are expected to deteriorate further for all except the wealthy. In contrast the Best Case scenario promises wide and

¹⁶ Calculated as a function of Household Income/Expenditure by SEC and by Scenario as defined in **Table 18** assuming housing expenditure will rise to a normative 25% for all SECs except Subsistence calculated at 20% and an average ROR of 6%.

significant improvement in housing for all sectors, except the wealthy who are not constrained in any of the scenarios (despite significant variance in residual land values).

As a result, the mix of housing solutions under the different scenarios varied widely as indicated in **Table 22** below.

Assumptions and Projections	2011	Business as Usual 2040	Worst Case 2040	Best Case 2040
High	Large Single Houses	Mix of houses, townhouses and exclusive apartments	Mix of houses, townhouses and exclusive apartments	Mix of exclusive houses, townhouses and apartments
Upper Middle	Single Houses, some apartments	Mix of houses, townhouses and apartments	Mix of houses and apartments	Balance of houses, townhouses & apartments
Lower Middle	Single & Semi-detached houses	Balance of houses and apartments	Mix of houses and apartments	Mix of apartments and houses
Low (Poor)	Mix of houses and Muzigo	Mix of houses and Muzigo	Mix of houses and Muzigo	Mix of houses & basic apartments
Subsistence (Very Poor)	Muzigo, degraded houses	Muzigo	Muzigo	Mix of Muzigo & low cost housing

Table 22: Representative Housing Typology by SEC and by Scenario

4.2.4.6 Scale of Landmass, Development and Construction

Analysis of the various scenarios indicates very significant differences in the scale of construction, as evident in **Table 23** and **Table 20****Table 24** below.

Analysis indicates that the best case scenario with the smallest population will generate demand for a significantly larger scale of construction and development - both new construction and redevelopment throughout the city. Even the business as usual scenario will generate demand significantly larger than generated by the worst case scenario, indicating the depth of poverty and deprivation to be expected under the worst case scenario.

In all cases, the scale of new construction required in Kampala is enormous, particularly for housing but not only. Under the best case scenario in particular the scale of construction and development required is extremely large. This will require the urgent development of a modern, efficient construction industry in Kampala which will in turn serve to further drive economic growth.

Assumptions and Projections	2011 Estimate (million m ²)	Business as Usual 2040 (million m ²)	Worst Case 2040 (million m ²)	Best Case 2040 (million m ²)
Total Residential	44.0	185.0	143.0	228.0
Total Employment	6.2	44.1	32.0	58.6
Total Institutional	6.0	30.0	30.0	40.0
Total Built	56.2	259.1	205.0	326.6

Table 23: Total Development and Construction (million m²) by Scenario

Assumptions and Projections	Business as Usual 2040 (million m ²)	Worst Case 2040 (million m ²)	Best Case 2040 (million m ²)
New Residential	155.5	103.4	206.0
New Employment	39.1	26.5	54.4
New Institutional	25.2	24.6	36.0
Total New Built	219.9	154.5	296.4

Table 24: New Development and Construction (million m²) by Scenario

To house this scale of construction and development the urban built footprint and gross landmass area of Kampala is projected to grow considerably as indicated in **Figure 73** below.

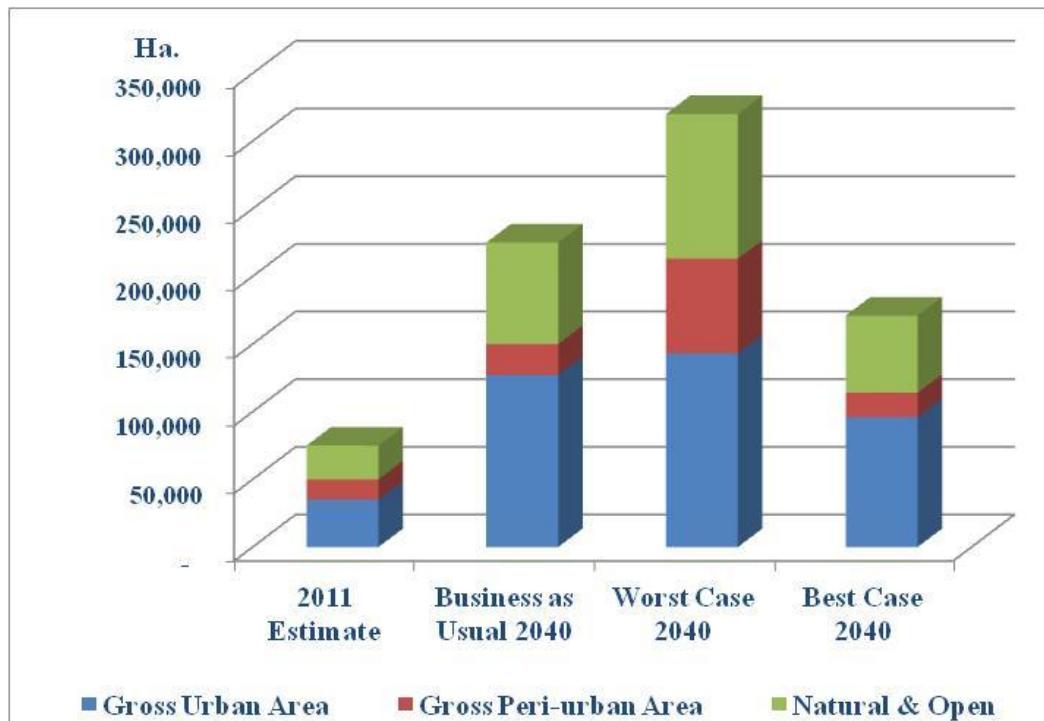


Figure 73: Scale of Built Footprint and Gross Area of Greater Kampala by Scenario

Given the differences of scale in population and economic activity, in the expected densities of development and in the relative attractiveness of the peri-urban areas under the different scenarios, the scale of the footprint and of the gross landmass area will diverge significantly. Indeed the worst case scenario is projected to produce a built footprint of over 2,000 km² (urban and peri-urban) in gross area of some 3,200 km², almost double that of the best case scenario with a footprint of some 1,150 km² in a gross area of approximately 1,700 km². The Business as Usual scenario is project to result in a footprint of 1,500 km² in a gross area of some 2,250 km².

In addition, the divergent scales of slums between the divergent scenarios is enormous as indicated in **Figure 74** below.

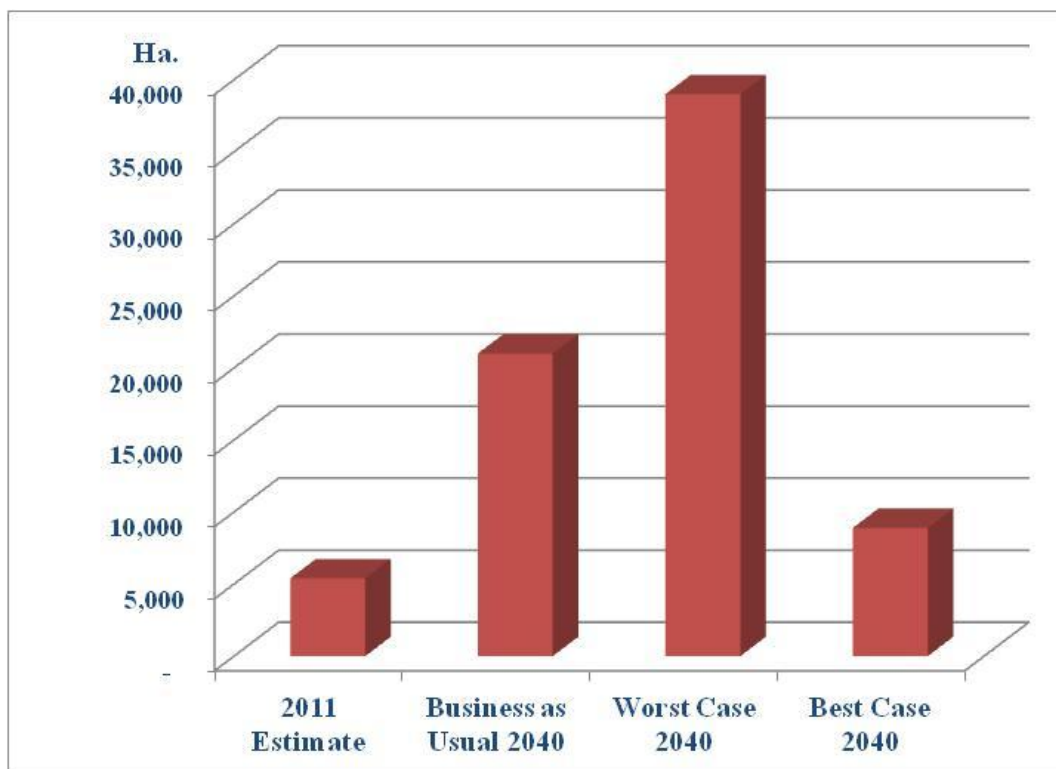


Figure 74: Projected Scale of Slums by Scenario

It must be stressed that even the best case scenario evidences a city of an enormous scale, presenting an enormous challenge to ensure its balanced development and to enabling its management and the provision of services.

Whether the Business as Usual can actually function as a sustainable urban system it is more than questionable.

The worst case scenario is clearly totally unsustainable and dysfunctional.

4.2.4.7 Residual Land Values

The residual land values for housing were calculated for each scenario. Findings indicate that much to the projected economic growth will accrue in the revaluation of land in the city with major variation between the different scenarios.

Calculation of residual residential land values is based on:

- Findings and data detailed in **Sections 4.2.4.4 and 4.2.4.5**;
- Estimated average values of built stock as indicated in **Table 25** below:

Assumptions and Projections	2011 Estimate (US\$)	Business as Usual 2040 (\$)	Worst Case 2040 (US\$)	Best Case 2040 (US\$)
High	500	800	600	1,000
Upper Middle	400	600	500	800
Lower Middle	300	450	450	550
Low (Poor)	200	400	350	450
Subsistence (Very Poor)	100	250	200	300

Table 25: Average Values of Built Residential Stock per m² by SEC and by Scenario

Calculation of residual residential land values indicates:

- The current residual land value of residential property in Greater Kampala is estimated in the range of some US\$ 7 billion.
- Under the Worst Case scenario, although living conditions are projected to worsen in this scenario, residual land value of residential property in Greater Kampala is projected to increase 6-7 fold (as opposed to 5 fold population growth) and reach some US\$ 45 billion. This given the scarcity of land retaining access to employment, opportunity and services and the resultant overcrowding of built residential space.
- Under the Business as Usual scenario residual land value of residential property in Greater Kampala is projected to increase some 11 fold (as opposed to 4 fold population growth) and reach some US\$ 75-80 billion. This indicates significant betterment as a result of growth and investment under this scenario.
- As expected, the Best Case scenario, is projected to result in very significant betterment with residual land value of residential property in Greater Kampala projected some 20 fold (as opposed to 3 fold population growth), widely distributed throughout the metropolitan area, reaching over US\$ 140 billion.

It must be stressed:

- All values are at current (2012) US\$ values.
- The projections are estimates of scale to 2040 based on the assumptions and products of the analysis for each scenario.
- The estimates relate only to residential land. Betterment is to be expected for industrial, commercial and office properties in similar proportion, albeit on a smaller scale.
- For working purposes the Consultant assumes total betterment (residential and commercial) on the scale of some US\$ 45 billion for the Worst Case scenario, some US\$ 100 billion for the Business as Usual scenario and over US\$ 175 billion for the Best Case scenario.
- All projected betterment is dependent upon the growth, investment and infrastructural development assumptions.
- The projected betterment under the Business as Usual and Best Case scenarios indicates that such investment can largely be financed on an economic basis if, and only if, a reasonable portion of the betterment is “captured” and invested in development.
- Inversely, if a reasonable portion of the betterment is not “captured” and invested in development the Business as Usual and Best Case scenarios cannot come to fruition and a larger or smaller version of the Worst Case scenario is inevitable.

4.2.5 Findings and Implications

The Best Case scenario is by definition the preferable scenario however its fruition is the least likely as it is dependent on large scale investment in infrastructure, drastic reform (in land tenure, local taxation and finance, administration and more) and intervention on the national scale (urban-rural development).

The Worst Case scenario is by definition undesirable but it remains a very real, feasible path for Kampala. Indeed, there many signs indicative of this path are to be found in the city today. Analysis indicates that the outcomes of the fruition of this scenario are even worse than might initially be expected. The scale of growth, the levels of dysfunction, the depths of poverty and the social and environmental maladies projected will make Kampala a totally unsustainable, unmanageable, unserviceable city - in effect an unlivable city. As such this path is to be avoided at all costs.

Analysis of the Business as Usual scenario indicates ongoing growth and development leading to improved living conditions, appears to present a readily feasible, reasonable alternative to the Best Case scenario in the event that the preconditions are not met. However, given the projected scale and rate of growth,

the analysis indicates that its feasibility is in doubt and its fruition will require most of the preconditions defined in the Best Case scenario.

Kampala today is at a critical crossroad. Steering Committee direction and Stakeholder and Civil Society feedback clearly indicates the need and desire to adopt the Best Case scenario as the direction for Kampala's development, conscious and supportive of the need to meet the essential preconditions for its implementation.

The challenge is to enable a new, modern, urban future; ensure and protect future options for the coming generation and provide them the opportunity to achieve their goals and dreams. For, if not, the social and economic costs will be irreversible. The opportunities will not return.

5 Planning Vision and Development Strategy

This section presents the Consultant's proposed Vision and Development Strategy.

5.1 Vision for Kampala's Long Term Development

The proposed vision for Kampala's long term development is based on:

- National Policy and Vision as defined in the NDP;
- KCCA's Strategic Vision;
- The opportunities and constraints for future development as identified in KPDP SR;
- Stakeholder and Civil Society feedback as detailed in **Appendix D**;
- Steering Committee direction as detailed in **Appendix c**.

The NDP defined the national long term Vision as “**a transformed Ugandan Society from a peasant to a modern and prosperous country within 30 years**” i.e. by 2040.

Towards this end the NDP Theme was defined as “**Growth, Employment and Socio-Economic transformation for prosperity**”.

The NDP was adopted and approved by the GOU and serves to guide the definition of the planning and developmental vision for Kampala.

The recently adopted KCCA Mission and Vision define KCCA's mission and vision as below:

- Mission Statement: **To Deliver Quality Service to the City;**
- Vision Statement: **To be a Vibrant, Attractive and Sustainable City.**

With due consideration of the above Visions and the current and projected developmental needs of Kampala, the proposed Vision for the long term development of Kampala, is that of

A Modern, Functional, Balanced City and Metropolitan System:

- Driving Uganda's Growth, Transformation and Modernisation; and**
- Ensuring Kampala's future as a Vibrant, Attractive and Sustainable City.**

5.2 The Role and Function of Kampala

Kampala serves multiple roles and functions of critical importance to Uganda as a whole, to the City itself and to its inhabitants. These roles and functions have directly influenced the City's development, indeed dictated its direction as detailed in the KPDP SR.

The desired long term future roles and functions of Kampala are defined with due consideration for the current developmental conjuncture, primary development trends, Vision as above and Stakeholder and Civil Society perceptions and interests, as indicated in **Appendix D**.

They are:

- **Hub of an integrated, balanced Urban System in Uganda;**
- **Engine of Growth for Uganda, enabling and driving prosperity;**
- **The “Garden City of Africa” - the Gateway to and Showcase of Uganda;**
- **Capital City and Seat of Government;**
- **Leading Cultural and Educational Centre of East and Central Africa;**
- **Centre of the Buganda Kingdom;**
- **Quality Home and Living Environment for its residents;**
- **Tourism Destination and Hub.**

These primary roles and functions and their implications are presented below.

5.2.1 Urban Hub

Kampala currently retains distinct primacy in most fields, serving as the centre of administration, services, commerce, finance, education, culture, sport, *et al* for the entire country, as detailed in KPDP SR. Whilst primacy grants Kampala significant relative advantage in almost all fields, economic, social, cultural, services, etc., it comes at a considerable price, including mass rural in-migration and excessive burdens on its service systems. This is detrimental to the City itself, coming at the expense of developing higher order, specialized services and to the country as a whole.

As indicated in the scenario analysis in **Section 4.2** above, ongoing in-migration at current rates threaten Kampala's future development. As such it is essential that Kampala's role be balanced by an appropriate hierarchy of Urban Centres on the national scale, providing employment, opportunity and services of adequate standard and scale, to the large majority of Uganda's population and absorbing the bulk of rural migration before it reaches Kampala.

This is equally true on the metropolitan scale wherein the City Centre and Inner City need to be balanced and complemented by a comprehensive, sustainable urban system incorporating a series of distinct, viable, interlinked and mutually

complementary Urban Centres providing a wide range of employment, opportunities, services and amenities to their local residents and wider metropolitan target populations.

Kampala, in turn, can and must contribute to the development of both balanced national urban system and a balanced metropolitan by:

- Serving as the Hub of a balanced system on both the national and metropolitan scales;
- Forgoing many of the lower and some of the middle order ranges of services and activities whilst specialising in the higher levels;
- Developing tools and capacities and supporting their distribution, serving as a showcase for efficient, modern urban and municipal systems.

5.2.2 Engine of Growth for Uganda

Kampala has played this role for a century. As detailed in the KPDP SR this function is evident in a wide range of fields but is severely constrained today by the structural imbalance of the local economy.

Kampala's role as the Engine of Growth for Uganda's future development becomes even more essential in the light of the rate of population growth in the country (amongst the highest in the world) and the ambitious goals set in the NDP. Indeed, NDP goals cannot be achieved without Kampala's critical contribution.

As such, Kampala's own economic growth is of national importance and needs to be assured. However, even if achieved, this in its own will not be adequate to enable national economic growth without the development of a comprehensive, integrated national urban system, itself based on and enabling rapid rural development throughout much of the country.

As such, it is essential that Kampala:

- Develops rapidly, significantly outpacing its own demographic growth;
- Develops a balanced, diversified and efficient Economic Structure within a balanced, sustainable Space Economy;
- Puts in place the necessary infrastructure and support services necessary to enable ongoing, balanced Economic Growth;
- Puts emphasis on creative, high added-value productive and indeed innovative sectors;
- Positions itself on the regional (East and Central African) market, building on existing relative advantages (location, scale, natural values, etc.), identifying and developing appropriate new relative advantage (infrastructure, services,

professional skilled workforce, regulatory environment, financial system, etc.) to ensure competitive advantage;

- Brands itself accordingly;
- Serves as the test laboratory for new technologies, services and systems for the national and the regional markets;
- Educates and trains a professional skilled workforce to serve not only the City itself but the country and indeed much of the region;
- Provides the highest order of services, particularly specialist professional and business services to the national and regional markets, to international standards;
- Serves as an efficient transportation and communications hub for Uganda and much of East and Central Africa; and more.

5.2.3 The “Garden City of Africa” - Uganda’s Gateway and Showcase

Kampala serves as the primary gateway to and showcase of Uganda as detailed in the KPDP SR. Moreover, Kampala historically was known as the “Garden City of Africa” and the natural preconditions for this branding remain intact.

The image and brand of the “Garden City” is based on but not limited to natural and developed and maintained “green” systems and conjures up images of a “flowering” and “blooming” city, the image and brand appropriate to Kampala’s Vision and to Kampala’s young dynamic population.

However, image and brand is not endowed by vision or preference. It needs to be acquired on the basis of “facts on the ground” which are then branded. The “Garden City of Africa” has to be based on:

- The provision of a comprehensive, accessible, protected and well maintained “green” system incorporating its myriad natural assets and values including Lake Victoria and its expansive Lakeside, the wetlands, hill-tops, forests and natural foliage complemented by public open space, boulevards, shaded roads and pedestrian paths, sports facilities, parks and gardens and more; and their appropriate utilisation for recreation, tourism, popular and competitive sports and the general amenity of the population;
- The protection, preservation and rehabilitation of its cultural and historic assets; and their appropriate utilisation for recreation, tourism, culture and amenity;
- Application of appropriate standards of development and construction protecting and ensuring adequate private open space (gardens, courtyards, playgrounds, etc.);

- The provision of a comprehensive, appropriately distributed, accessible and balanced network of cultural, sports and recreational facilities meeting the needs of the various sectors of society and visitors to the city;
- The provision of a comprehensive, appropriately distributed, accessible and balanced network of hostelries and tourism facilities meeting the needs of the diverse target markets;
- The provision of appropriate, reasonably priced access to and from Kampala on the national, regional and international scales; and more.

In so doing, Kampala will acquire and use its image and brand to ensure relative competitive advantage for itself and for Uganda; serving as the country's gateway and attractive showcase; providing an attractive environment and serving as a destination in its own right; attracting students, visitors, business and investment on the national, regional and international scales.

5.2.4 The Capital City and Seat of Government

Kampala serves as the Capital City and Seat of Government of Uganda. Its status is enshrined in the Constitution and assured by the centralised nature and structure of government in Uganda.

As detailed in KPDP SR the impacts of government on Kampala are myriad and evident throughout the City. In many ways central government dominates the City. In effect, Kampala as a city is dependent on government. But the relationship is symbiotic with government equally dependant on the City. All the City's shortfalls and problems impact the functioning of government directly and indirectly.

The GOU cannot function or provide services without the appropriate infrastructure and services provided by Kampala. Hence, the development of Kampala is as essential to the GOU as it is to the City's inhabitants.

To ensure appropriate development GOU dominance of the City needs to be balanced by a vibrant, independent, competitive Private Sector and by a empowered, capable local government, mandated to protect the City's interests and further its development.

As such, GOU, its various institutions arms and bodies, needs to be subject to integrated planning directives of the City and its use of land in the City needs to be rationalized. Without such significant reform Kampala cannot develop in a balanced, organised manner; much of its development potential will be squandered and government itself will "pay the price", both financially and functionally, for these shortcomings.

In filling its role as the nation's Capital City Kampala needs to:

- Function efficiently as a city providing appropriate quality infrastructure and services to ensure the efficient operation of government;
- House the assorted institutions of State and national cultural institutions to a standard and quality becoming of a Capital City of a modern and prosperous country as envisioned in the NDP;
- House the assorted arms of government and provide the requisite facilities effectively and reasonably distributed over the city and the metropolitan region;
- Provide adequate housing and services for government personnel; and more.

As the nation's Capital City and one of the "Big 3" East African metropolitan regions, Kampala can and should host major Regional and possibly International Institutions; providing the requisite land, infrastructure and services to attract and retain such institutions; reflecting Uganda's position and role in the Region.

A number of stakeholders brought up the issue of the establishment of an alternative Capital City. The issue reportedly arises from time to time as a potential solution to Kampala's problems. The Consultant has assessed the issue and recommends against such an approach:

- Kampala today still battles to achieve high order thresholds in many fields - technological, professional, commercial, tourism, services, etc. Government serves, directly and indirectly, as a primary source of demand for such services. Relocation of government would distinctly detract from the City's potential for many years, further degrading services and extending poverty.
- In the present conjuncture, government is the primary employer of professionals in the country and in the city, attracting, at least at the beginning, the "best and brightest". Relocation of government would inevitably produce selective negative out-migration of the strongest sectors of society. As such, their relocation would negatively impact the City on a significant scale.
- Development of a new Capital City would require significant investment of scarce resources - financial, professional and more. These would have to be allocated, at least in part, at the expense of Kampala, further detracting from the City's development.
- Whilst development costs for a new Capital City would expected to be reduced by the availability of cheap land (at least in theory as land speculation can be expected to precede decision-making), development would be "from scratch" and the option of utilising Kampala's existing, albeit limited, infrastructure and services would be foregone. This would probably make the development of such a city prohibitively expensive when all direct and indirect costs are factored in.

- It cannot be assumed that a New Capital City will be devoid of the intrinsic structural problems inflicting Kampala. And if these can be resolved for a New Capital City then they should be resolvable for Kampala itself. Hence, the emphasis ought to be placed on resolving the structural constraints and shortcomings of Kampala for the benefit of the City, its inhabitants and for government.
- In addition, recent examples of new Capital City development have not been particularly successful, e.g. in Tanzania many organs of government remain in Dar-e-Salaam despite the development of Arusha and in Sri Lanka a similar situation has developed with Colombo and Sri Jayawardenapura Kotte.

This however does not detract from the option, indeed the necessity, of redistributing government institutions and facilities throughout Metropolitan Kampala. Indeed, many of the city's and the metropolitan region's problems can be attributed to the over-concentration of government in the City Centre and Inner City. The rational redistribution of such activities across the metropolitan area can and should contribute significantly to the balanced development of Greater Kampala.

5.2.5 Leading Cultural and Educational Centre of East and Central Africa

Kampala hosts the country's primary cultural institutions and serves as the centre of Uganda's educational system on all levels. Moreover, the City enjoys elements of relative advantage in the education field on a regional (East and Central Africa) scale attracting growing numbers of foreign, largely East African, students.

These elements can and need to be significantly strengthened to allow Kampala to fill its role on the national scale and to develop as a leading Cultural and Educational Centre of East and Central Africa. This by:

- Developing and hosting Africa's first "Knowledge Precinct".
- Hosting and offering a wide range of Tertiary Education Institutions including Academic Institutions of high international standard, including cutting-edge technologies; attracting and serving local, national, regional and international students and academics;
- Hosting and supporting creative sectors in the arts and music;
- Providing primary and secondary education for its inhabitants to a standard appropriate to a modern and prosperous society as envisioned in the NDP;
- Providing a comprehensive range of cultural, recreational and sports institutions, facilities and activities;
- Protecting its cultural heritage, preserve its historic buildings and institutions and ensuring their accessibility to the resident population and visitors alike;

- Initiating and/or attracting and hosting appropriate international institutions and events in both the cultural and sports fields; and more.

5.2.6 Seat of the Buganda Kingdom

Kampala historically served and to continues to serve as the Seat of the Buganda Kingdom.

The Kingdom's role and status provides the City and its habitants much value including distinct, ethnically inclusive, identity, culture, music, art, fashion and values - in all a heritage to pass on to future generations. It further contributes significantly to social cohesion and stability amidst the poverty. Public participation processes indicate a clear desire, on the part of both stakeholders and civil society, to preserve and enhance these roles as an integral part of Kampala's identity and culture.

Moreover, the kingdom can and should constitute a major tourism attractor. This by protecting, preserving, where relevant restoring and opening up its facilities to the wider public and tourists alike.

Indeed, Kampala's role as the Seat of the Buganda Kingdom constitutes a significant element in Kampala realizing its role as a leading Cultural Centre of East and Central Africa.

5.2.7 Quality Home and Living Environment

Kampala serves as the Home and provides the Living Environment for its current and will continue to fill this role for its future population. The City provides the framework, infrastructure and services wherein the population lives its daily life; works or seeks employment; studies; finds shelter and feeds itself or goes hungry; travels; interacts within the household and socially; prays, exercises and plays; develops goals and dreams which are either achieved in whole or in part or are shattered; nurses its young, its elderly and the ill (or fails to do so); and much more.

In this role, as detailed in the KPDP SR, the City fails miserably. It generally provides a very low Standard of Living, with a low Quality of Life, with very limited amenity and service to the bulk of its population.

As a modern, functional, balanced City and Metropolitan System as envisioned Kampala needs provide a reasonable to high Standard of Living, a high Quality of Life, a Quality Environment, extensive amenity and quality services to its population by:

- Providing a wide range of appropriate, accessible employment opportunities offering reasonable to high remuneration;
- Providing a range of appropriate, affordable housing options to the various sectors of society;

- Protecting, enhancing and/or rehabilitating both the natural and the built environment;
- Proving a wide range of accessible services, both public and private, of appropriate standard;
- Proving and maintaining accessible, widely distributed, properly maintained facilities;
- Ensuring comprehensive, appropriately distributed, infrastructure and utilities;
- Ensuring the compatibility of the educational system to the requirements of the Local Economy;
- Providing a comprehensive, integrated, affordable and reliable Public Transport system, ensuring wide access to housing, employment, points of economic opportunity, services, facilities and amenities;
- Developing and enhancing Kampala’s image and branding as the “Garden City of Africa”;
- “Greening” Kampala; and more.

5.2.8 Tourism Hub

The vast bulk of tourists and visitors to Uganda travel through Kampala, generally staying in the City for a given period of time. Apart from the business sector they are not attracted to Kampala itself but rather to the country’s natural assets (foreign tourists), by religious and/or humanistic motivation (foreign volunteers and private donors) or by familial and cultural links (diaspora).

The tourism potential of Uganda and Kampala is significant but entire potential markets are not catered for and its tourism infrastructure is very limited.

Kampala can and should develop as a Tourism Destination and Hub by:

- Catering and marketing to new expanded international and tourism markets;
- Developing its tourism infrastructure, complemented with its branding;
- Developing as the leading Cultural and Educational Centre of East and Central Africa; and more.

5.3 Development Strategy

The long term Vision of Kampala, as defined above, presents challenge of a generational scale. The preconditions for such development have to be set in place before Kampala can begin to develop into the City its decision-makers and residents desire. These preconditions need to be met largely over the coming decade, the defined planning horizon of the KPDP.

However, Greater Kampala currently houses a population over 3 million and is growing rapidly. The current population cannot and should not be required to

sacrifice their basic requirements solely to enable future growth and prosperity. They too need to be catered for, albeit within the limits of reasonable feasibility.

Hence, the Consultant recommended a dual development strategy as indicated in **Figure 75: Dual Development Strategy 2012-22** below, incorporating:

- “Laying the Foundations” for future growth - resolving structural constraints, putting essential infrastructure in place, enabling and directing future growth;
- “Getting the Basics Right” as soon as possible - rationalizing and upgrading services; creating opportunities and enabling entrepreneurship; improving in as much as possible services, utilities and housing from inadequate to basic standards, from basic to reasonable standards and from reasonable to high standard.



Figure 75: Dual Development Strategy 2012-22

This dual strategy is designed to introduce greater balance in Kampala’s development whilst at the same time contributing to the improvement of the Quality of Life of the resident population; thereby establishing the platform for Kampala’s future development as a modern, vibrant and sustainable City.

5.3.1 “Laying the Foundations” for Sustainable Development

5.3.1.1 National Level Intervention

To enable Kampala’s balanced development a number of issues need to be resolved and/or assured at the national level as indicated in **Figure 76** below. Indeed, these are prerequisites for Kampala’s development.

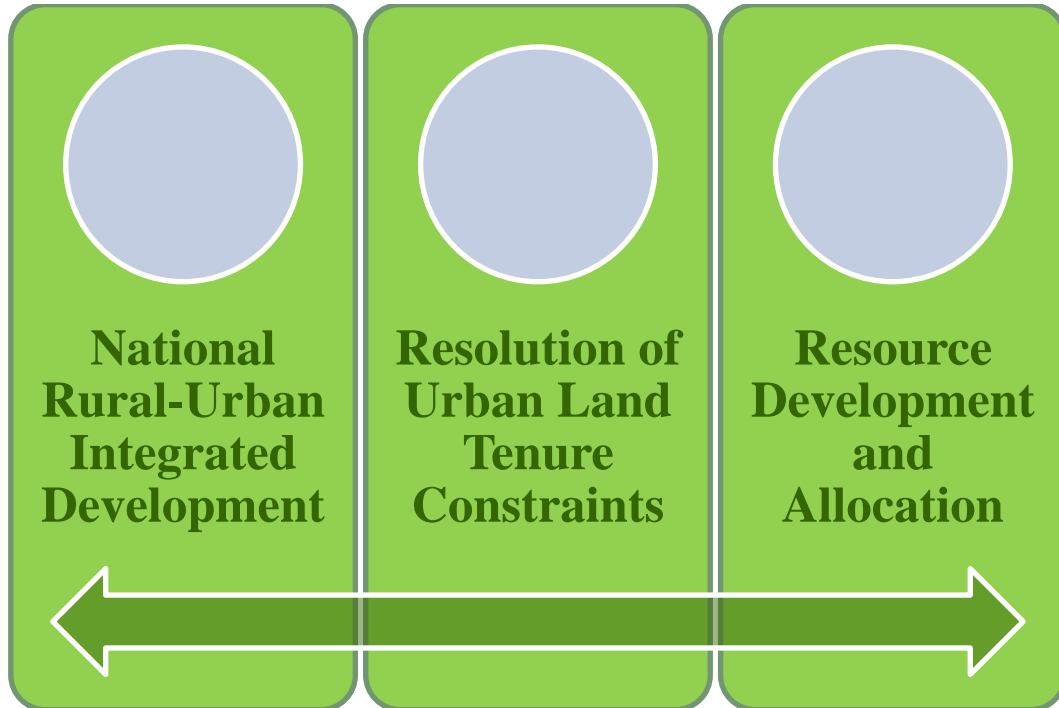


Figure 76: National Level Intervention for Kampala's Development

Essential national level intervention includes:

- **National Rural-Urban Integrated Development** to meet the bulk of the mounting demand for employment, education and services of Uganda’s rural youth in their home regions, in part a product of the success of educational reform. These needs and demands need to be catered for by both urban and rural development in the rural hinterland. If the needs and demands of these rural young adults are not met locally, their migration to Kampala is inevitable and the City will be swamped with in-migrants on a scale and at a rate which it simply cannot absorb.

This intervention needs to be prioritized to enable the development of a more balanced national urban system capable of mediating and moderating migration to Kampala.

- **Resolution of Urban Land Tenure Constraints** is essential to enabling the property market to function efficiently to meet projected scale of demand for housing and for employment facilities to the requisite standard and in the shortest possible time. Whilst advances have been achieved in the field of land regularisation and administration, the “dual tenure” systems and the arising

structural constraints have to be resolved to enable essential redevelopment, densification and upgrading of the built stock in Kampala and to enable appropriate large scale new developments to house and service the rapidly growing population. Otherwise, uncontrolled sprawl will continue apace, with all the attendant social and economic costs.

- **Resource Development** is essential to allow both the public and the private sectors to respond to needs and to demand on the scale required. The public sector requires an appropriate, dynamic tax base and a functional, efficient collection system. The private sector requires appropriate, accessible, affordable financing for developers, investors and home buyers. These need to be enabled by the GOU.
- Appropriate **Resource Allocation** by GOU to finance and/or participate in the financing of the relevant infrastructure and service facilities in Kampala, with due recognition of the City's role as Capital City and its central role in driving development on the entire country. In many cases Kampala's needs are unique and these need to be met over and above standard budgetary formulae (e.g. adjustments for higher standards and for higher costs, etc.).

5.3.1.2 Metropolitan and City Intervention

To enable Kampala's future development intervention is needed at the metropolitan and city scales as indicated in **Figure 77** below. Indeed, these too are prerequisites for Kampala's future balanced development.

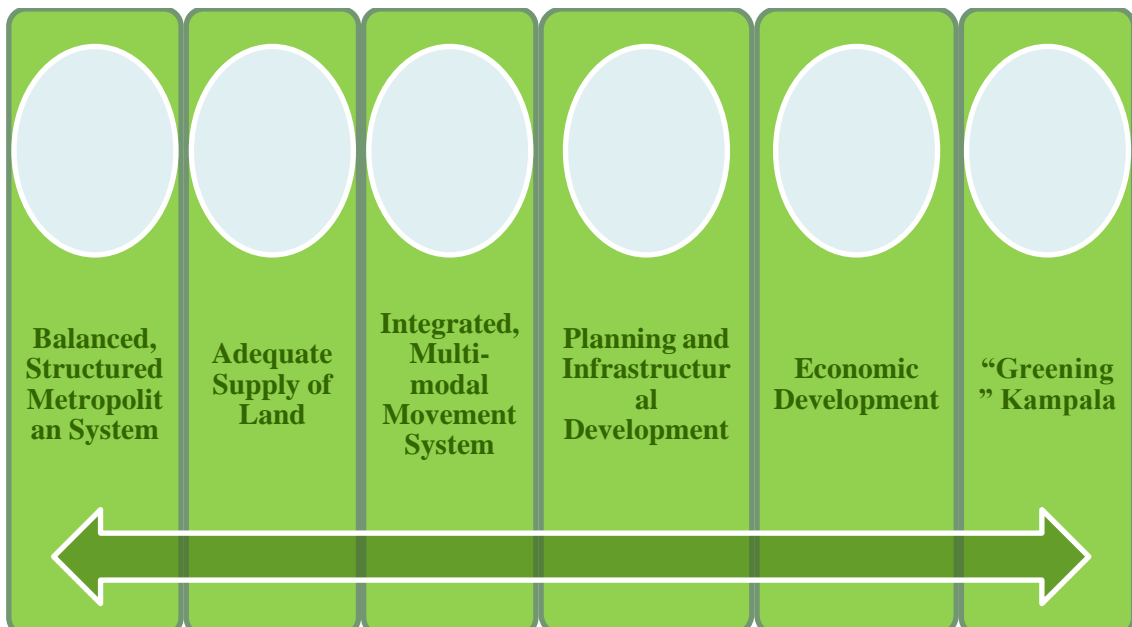


Figure 77: Metropolitan and City Scale Intervention for Kampala's Development

Essential metropolitan and city level intervention includes:

- **Balanced, Structured Metropolitan System** as detailed in **Section 7**.

- **Adequate Supply of Land** as detailed in **Section 6.2**.
- **Integrated, Multi-modal Movement System** as detailed in **Section 117**.
- **Systematic, Integrated Planning** as detailed in **Section 7**.
- **Comprehensive Infrastructural Development** as detailed in **Section 12**.
- **Economic Development** as detailed in **Section 6.4**.
- **“Greening” Kampala** as detailed in **Section 6.7**.
- **Resource Development** as to be detailed in the Final Report.

5.3.2 “Getting the Basics Right”

To improve the living conditions of Kampala’s population and provide short term Basic and medium term Reasonable Quality of Life a number of fundamental issues need to be tackled as indicated in **Figure 78** below.

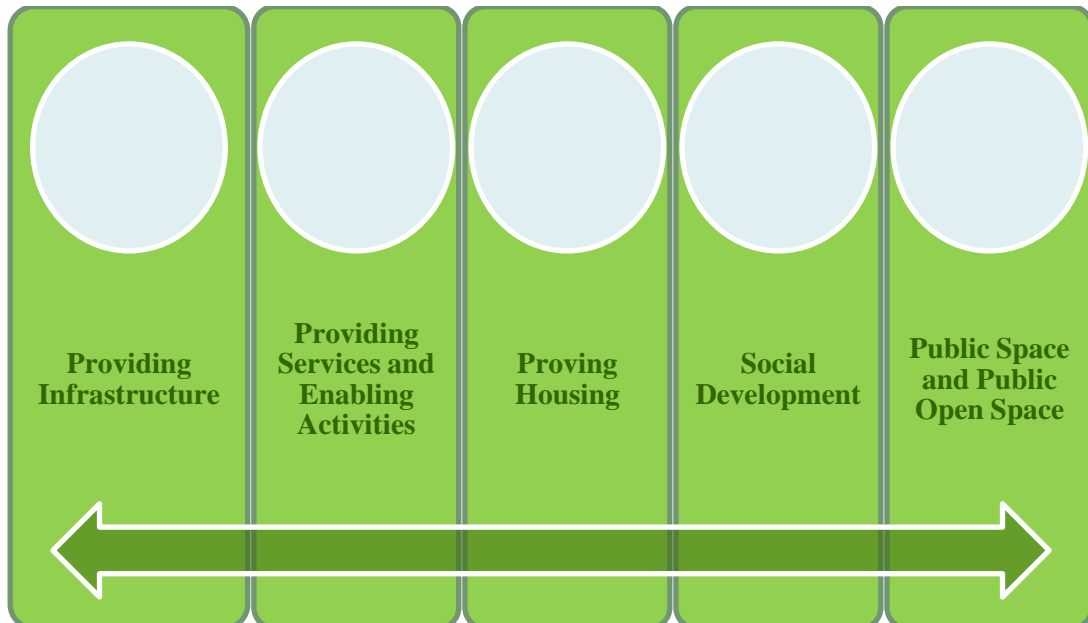


Figure 78: "Getting the Basics Right"

Essential metropolitan and city level intervention includes:

- **Providing Infrastructure** as detailed in **Section 12**.
- **Providing Services and Enabling Activities** as detailed in **Section 0**.
- **Providing Housing** as detailed in **Section 6.6**.
- **Social Development** as detailed in **Section 6.5**.
- **Public Space and Public Open Space** as detailed in **Section 10.7**.
- **Providing Services** as detailed in **Section 0**.
- **Resource Development** to be detailed in the Final Report.

6 Development Goals, Targets and Policy

To bring Vision to fruition requires concrete actions in a wide range of fields. To this end specific targets and goals need be set and appropriate policies defined, adopted and implemented. This presents the Consultant's proposals for developmental targets, goals and policy in the following fields:

- Population;
- Built Areas and Supply of Land;
- Densities and Intervention Approach;
- Economic Development;
- Social Development;
- Housing;
- Environment.

Proposals regarding the Spatial, Transportation and Infrastructural spheres are detailed in depth in **Sections 7-9, 11 and 12**.

6.1 Population Targets

Extrapolation of current trends indicates that Greater Kampala will house some 5.0 million persons by 2022 and some 5.8 million by 2025. To compensate for possible inaccuracies in base data and to account for exigencies the Consultant recommends that planning for 2022 be based on a target population of 5.8 million. In the worst case planning for this target will allow Kampala to partially cope with accelerated in-migration and, in the best case, would allow Kampala to plan and develop "ahead of the curve".

The carrying capacity of the extended GKMA was calculated on the following basis:

- Built urban areas will be limited to 45% of the total land-mass area with approximately 15% being wetlands, 5% natural and commercial forests, 3% undevelopable steep slopes and the balance (38%) remaining rural agricultural or becoming peri-urban in part.
- Gross densities as detailed in Table 29 below.

The calculated theoretic carrying capacity of the GKMA is some 11 million. However, in practice theoretic carrying capacities are unrealizable, even in the long term, given issues of tenure (even assuming significant reform), owner preference, financing constraints and existing built stock. The effective carrying capacity was therefore calculated with the following realisation factors:

- Inner City - 60%,

- Outer Suburbs and Peripheral Towns - 70%;
- New Towns - 80%.

The GKMA effective carrying capacity is estimated at some 8 million persons (the capacity of the transport system to serve this population is very questionable). Kampala is projected to reach this target by 2032 assuming ongoing trends, 2030 assuming accelerated in-migration or 2035 assuming reduced in-migration (in all cases assuming reduced fertility rates¹⁷).

The population targets are presented in **Table 26** below.

Table 26: GKMA Population Targets

Population & Households	2011	2022 Projection	2022 Target	Long Term Target
Population	3,150,000	5,000,000	5,800,000	8,000,000
Household Size	3.9	3.8	3.8	3.6
Households	800,000	1,300,000	1,500,000	2,200,000

Note: Rounded figures.

The projected distribution of the population in the GKMA is presented in **Table 27** below and detailed in **Section 8.2.3**.

Table 27: Projected Population Distribution

Population & Households	2011	2022 Target	Long Term Target
KCCA	1,750,000 (55%)	2,850,000 (49%)	3,150,000 (40%)
KMTC	1,425,000 (45%)	3,000,000 (51%)	4,850,000 (60%)

Note: Rounded figures.

6.2 Built Areas and Supply of Land

Even assuming significant rationalization of the Urban Structure and densification of development, both residential and commercial, significant additional built areas are required. These are indicated in **Table 28** below.

Table 28: GKMA Scale of Built Area (Ha.)

Extended GKMA Area	2011	2022 Target	Long Term Target
Built	35,500 (24%)	48,500 (33%)	65,500 (45%)
Natural, Peri-Urban and Rural	109,500 (76%)	96,500 (67%)	79,500 (55%)

Note: Rounded figures.

¹⁷ Adopting the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects 2010 Median Variant.

The projected growth of the various land uses in the built areas is indicated in **Figure 79** below.

It may be noted that the scale of residential areas is projected to grow at a significantly lower rate than that of the population. This, assuming significant densification of both built areas (densification and infill) and new developments (higher density).

It may also be noted that given current shortfalls, in addition to the need to absorb new populations, the scale of land to be allocated to both formal employment (particularly industry) and public use (particularly public open space) needs to significantly exceed population growth rates.

In small part some of the requirements will be met by the utilisation of inner vacant land. Depending on type, location and ownership some will be utilised for construction and development and others for public open space. Some will remain vacant given either tenure issues or owner preference.

There is an urgent need to ensure the adequate supply of land for infrastructure, public facilities and public open space to meet the requirements of the long term demand and not merely the short to medium term requirements to meet demand to the planning horizon (2022). Land in any given location is a unique asset and land within any given area is limited. As growth occurs and land is developed the available supply of vacant land declines and its value increases. As a result, the feasibility of acquiring land for public use in a particular location or area declines in proportion to the scale of growth and the cost increases exponentially. As such, all land requirements are defined to meet long term demand.

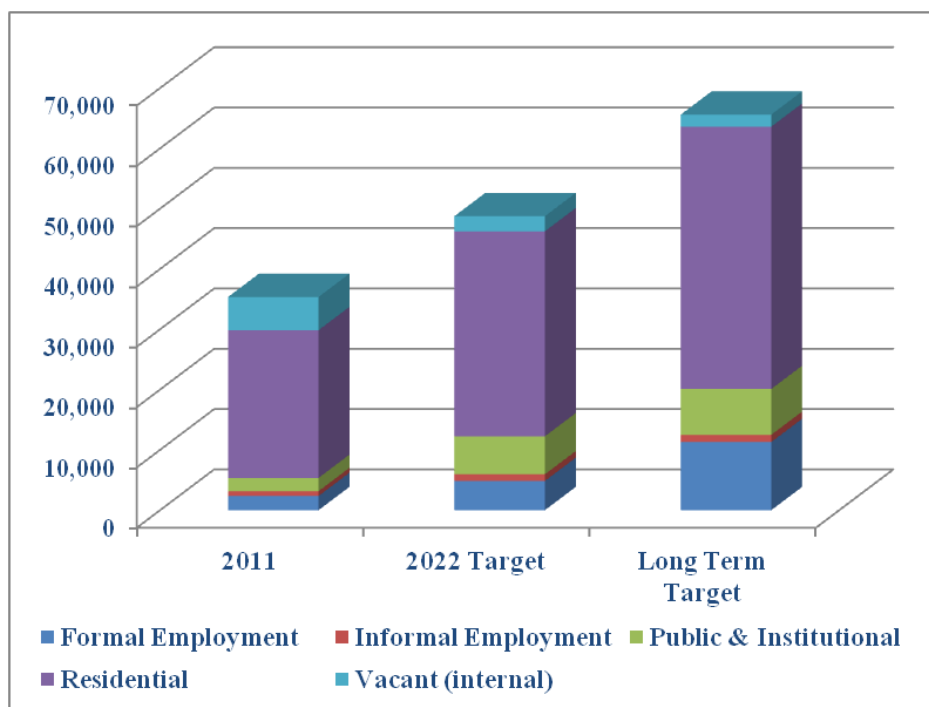


Figure 79: Land Use Targets

To ensure the adequate supply of developable land on the scale indicated above will require, *inter alia*, the following intervention:

- **Resolution of Land Tenure (MLHUD);**
- **Land Regularisation (MLHUD);**
- Systematic integrated planning for **Infrastructural Development**, with emphasis on Infrastructural Corridors to limit the scale of requisite and to pool resources for land acquisition (KCCA, LAs, UNRA, Utilities);
- Preparation and implantation of a **“Compact” for the planning, management and development of all Public Lands** (Uganda Lands Commission, Land Boards including Buganda Land Board, KCCA and KMTC Local Authorities);
- Introduction and implementation of an effective, economic **Land Acquisition System for Public Projects (MLHUD);**
- Introduction and implementation of **Land Readjustment and/or Land Swap mechanisms** to provide access to essential land required to enable upgrading and redevelopment including infrastructure and public facilities (MLHUD);
- **Systematic Land Acquisition**, registration and protection of acquired land (KCCA, LAs, UNRA, Utilities);
- **Protection of public lands; demarcation (where possible with trees), systematic enforcement (KCCA, LAs, UNRA, Utilities);**
- **Utilisation of taxation to “bring land onto the market” (KCCA, MOLG. MOF).**

6.3 Densities and Intervention Approach

To constrain the scale of the built area priority needs to be given to the densification of the existing built areas and to ensuring future development occurs at the requisite density. The recommended Long Term Gross Density Targets are indicated in **Table 29** below.

Table 29: Average Gross Density Targets by Location

Location	Long Term Target (Persons/Ha.)
City Centre (residential neighbourhoods)	>200
Inner City	200
Outer Suburbs	120
Peripheral Towns	100
New Towns	120
Rural	35

The average projected gross densities by socio-economic category, and hence type of neighbourhood, are presented in **Table 30** below.

Table 30: GKMA Average Projected Gross Densities by SEC

Socio-Economic Category	2011 (Persons/Ha.)	Long Term Target (Persons/Ha.)
High	30	50
Upper Middle	40	70
Lower Middle	60	70
Low	120	150
Subsistence	200	225

To achieve this, the Consultant recommends the following density guidelines for downstream planning as detailed in **Table 31** below.

Table 31: Density Targets and Intervention Approach by Location

Location/ Landuse	Estimated Gross Density 2011	Gross Built Area Capacity	Indicative Nett Development Rights	Intervention Approach
CBD				
Commerce Small Scale & Informal	49%	60%	80%	Upgrade (markets)
Formal Commercial And Offices	95%	150%	200%	Upgrade and Densification
Government	116%	150%	200%	Upgrade and Densification
Transport	30%	50%	50%	Upgrade and Public Services
City Centre Frame				
Commerce Small Scale & Informal	49%	90%	120%	Upgrade Markets 60% / Redevelop other 120%
Formal Commercial And Offices	99%	120%	160%	Upgrade and Densification
Industrial	58%	120%	160%	Upgrade / Redevelopment
Transport	48%	50%	50%	Upgrade and Public Services
Utilities	20%	20%	25%	Upgrade and Public Services
Apartments	100%	120%	180%	Upgrade and Densification
High Income	21%	120%	180%	Densification
Middle Income	24%	100%	150%	Upgrade and Densification and New Development
Low Income	21%	120%	180%	Redevelopment
Very Low Income	51%	120%	180%	Redevelopment
Inner City				
Commerce Small Scale & Informal	44%	90%	120%	Upgrade Markets 50% / Densification or Redevelop & other 120%
Formal Commercial	53%	90%	120%	Upgrade and Densification

Location/ Landuse	Estimated Gross Density 2011	Gross Built Area Capacity	Indicative Nett Development Rights	Intervention Approach
and Offices				
Government	39%	90%	120%	Redevelopment
Industrial	41%	90%	120%	Upgrade and Densification
Quarry	7%	90%	120%	Rehabilitation & Redevelopment
Transport	25%	50%	50%	Upgrade and Public Services
Utilities	14%	20%	25%	Upgrade and Public Services
Apartments	16%	100%	150%	Upgrade and Densification
High Income	20%	50%	75%	Infill and Densification
Middle Income	25%	70%	105%	Infill and Densification and New Development
Low Income	22%	100%	150%	Upgrade and Densification
Very Low Income	26%	70%	100%	Slum Avoidance/Upgrading
Outer Suburbs				
Commerce Small Scale & Informal	33%	90%	120%	Upgrade Markets 50% / Densification or Redevelopment other 120%
Formal Commercial and Offices	34%	90%	120%	Upgrade and Densification / Redevelopment
Government	15%	90%	120%	Redevelopment
Industrial	33%	60%	80%	Upgrade and Densification
Quarry	7%	60%	80%	New Industrial Development
Utilities	10%	20%	25%	Upgrade and Public Services
Apartments	13%	100%	150%	Densification
High Income	19%	40%	60%	Infill and Densification
Middle Income	16%	50%	75%	Infill and Densification and New Development
Low Income	18%	70%	100%	Upgrade and Densification and New Development
Very Low Income	18%	70%	100%	Slum Avoidance/ Upgrading & New Development
Peripheral Towns				
Town Centre		100%	140%	Extension Upgrade and Densification / Redevelopment
Precinct Centres & Corridors		90%	120%	New Development / Redevelopment
Neighbourhood Centres		70%	100%	New - Markets 50% / Other 100%
Government		90%	120%	New Development / Redevelopment
Business Parks		90%	120%	New Development
Industrial		60%	80%	New Development
Quarry		60%	80%	New Industrial Development
Utilities		20%	25%	New Development /

Location/ Landuse	Estimated Gross Density 2011	Gross Built Area Capacity	Indicative Nett Development Rights	Intervention Approach
				Redevelopment
Apartments		90%	140%	Infill, Upgrade and Densification
High Income		40%	60%	Infill, Upgrade and Densification
Middle Income		50%	75%	Infill, Upgrade and Densification and New Development
Low Income		70%	100%	Infill, Upgrade and Densification/Redevelopment and New Development
Very Low Income		70%	100%	Slum Avoidance/ Upgrading/ Redevelopment & New Development
New TownS				
Town Centre		120%	160%	New Development
Precinct Centres & Corridors		90%	120%	New Development
Neighbourhood Centres		70%	100%	New - Markets 50% / Other 100%
Government		90%	120%	New Development
Business Parks		90%	120%	New Development
Industrial		60%	80%	New Development
Quarry		60%	80%	New Industrial Development
Utilities		20%	25%	New Development
Apartments		100%	150%	New Development
High Income		50%	75%	New Development
Middle Income		70%	105%	New Development
Low Income		70%	100%	New Development
Very Low Income		70%	100%	New Development

6.4 Economic Development

The scale of the challenge facing Kampala is indicated by the size of the projected labour force as below.

Table 32: GKMA Workforce

Indicator	2011	2022 Target	Long Term Target
Workforce	2,150,000	3,950,000	5,300,000
Economically Active	1,400,000 (66%)	2,600,000 (66%)	3,500,000 (67%)

Note: 1. Rounded figures.

The challenge is not merely to provide basic employment but to ensure appropriate employment on the appropriate scale and at the appropriate locations to pull the bulk of the City's population out of poverty whilst enabling Kampala to develop and function in an organised, efficient manner.

Kampala's future balanced and sustainable development is preconditioned on accelerated, balanced economic development. The Consultant's recommended, achievable albeit challenging, targets and goals are presented in **Table 33** below:

Table 33: GKMA Economic Activity Targets

Indicator	2011	2022 Target	Long Term Target
Per Capita Domestic Product \$	2,100	3,050	5,450
GKMA Domestic Product (\$ billion)	6.6	17.5	43.5

Note: 1. Rounded figures.

2. Local Domestic Product calculated including value of use of owner-occupied homes.

3. Assuming per capita growth of 3.5% per annum 2011-2022 and 4.5% 2023-35 (2011 \$ values).

Achieving will require significant intervention to restructure both the workforce and the local economy. The recommended targets and goals are presented in **Table 34** and **Table 35** below. This, with the intention to systematically reduce unemployment, extend education and training and expand the productive and the formal sectors - "creating the wealth" necessary to provide proper housing, infrastructure and services and to enable consumption, savings and investment.

Table 34: GKMA Workforce Structure Targets

Economic Activity	2011	2022 Target	Long Term Target
Full-time employment	50%	49%	51%
Part-time employment	8%	9%	10%
Daily labour	9%	8%	6%
Homemaker	4%	3%	2%
Others (including study)	10%	15%	18%
Retired	1%	1%	1%
Unemployed	19%	16%	12%

Note: 1. Rounded figures.

Table 35: GKMA Sectoral Structure Targets

Sector	2011	2022 Target	Long Term Target
Agriculture	8%	4%	2%
Building & Construction	4%	7%	6%
Commercial (Formal)	13%	14%	16%
Education	9%	9%	10%

Domestic Service	8%	7%	7%
Government	11%	9%	8%
Home	2%	2%	2%
Informal	21%	18%	11%
Manufacturing	4%	6%	14%
Other Public	4%	4%	4%
Services (Private, Formal)	14%	16%	16%
Transportation	3%	3%	3%

Note: 1. Rounded figures.

The primary projected and recommended growth sectors in the GKMA are:

- **Commerce** (formal);
- **Services** (formal);
- **Manufacturing** (primarily food processing, timber processing and other water extensive sectors);
- **Logistics and Transport** (formal);
- **Communications**;
- **Education, Culture and Arts**;
- **Tourism**;
- **Finance and Business Services**;
- **Construction**;
- **Commercial Agriculture and Forestry** (in GKMA and hinterland).

To cater for the projected growth and allow the City to function reasonably there is a need to redistribute, inasmuch as possible, the distribution of employment opportunities across the GKMA. Whilst the City Centre will inevitably remain the focal of the local, regional and national economies, it needs to be complemented and balanced by significant employment centres in the KCCA and in the GKMA. Indeed this is essential for the development of City Centre as it is for the neighbouring divisions and towns. If more and more lower level economic activity is concentrated in the City Centre it will not be able to serve higher order function properly and will rapidly reach gridlock, making all activity in the centre highly inefficient. The proposed targets are presented in **Table 36** below detailed in **Section 8.2.3**.

Table 36: GKMA Distribution of Employment

Persons Employed	2011	2022 Target	Long Term Target
KCCA	950,000 (67%)	1,575,000 (60%)	1,750,000 (50%)
KMTC	475,000 (33%)	1,050,000 (40%)	1,750,000 (50%)

Note: Rounded figures.

Formal employment on the scale envisaged will require significant construction to meet projected demand. Projected demand for built space in employment centres is presented in **Table 37** below.

Table 37: Projected Demand for Built Space in Employment Centres

Persons Employed	2011	2022 Target	Long Term Target
Employment Centres (Ha.)	2,400	3,100	4,200
Built Space (m ²)	8,150,000	18, 50,000	32,350,000

Notes: 1. Rounded figures.

2. Employment zones include CBD, Frame, Industrial Zones, Business Parks, Towns Centres, Local Centres, Corridors, Markets and Quarries.

The proposed distribution of employment in KCCA and the GKMA is

This will require, *inter alia*:

- **Extension of the CBD;**
- Extension of **mixed-uses in the City Frame** including redevelopment of City Centre slums;
- Upgrading of the **Central Industrial Zone to mixed Employment Zone;**
- Development of three **new Primary Industrial Zones** (500-600 Ha. including the new Industrial and Business Park currently under development in Nantabulirwa) and three new **Secondary Industrial Zones** (200-300 Ha. including future reserves);
- Development of a specialized **Airport Industrial and Business Zone** in Entebbe (200 Ha. including future reserves);
- Development of three specialized **Hi-Tec Business Parks** in Makerere University, Kyamboga University and Entebbe (15 Ha. each);
- Upgrading of **KMTC Town Centres** and development of **New Town Centres;**
- Developing a set of **Employment sub-Centres** (~ 20 Ha. each) located at **high access points** along the movement system;
- Mixed Business-Commerce-Residential **Urban Centres and Corridors;**
- **Neighbourhood scale** commercial centres (markets, services).

The proposed distribution of employment in the KCCA and GKMA is detailed in **Section 8.2.3.**

In addition to the requisite land allocations and detailed planning to enable the development of these elements, significant intervention is required including:

- Preparation and implementation of **Metropolitan Economic Development Plan** including:

- * Long Term Strategic Development Plan;
 - * Action and Investment Plans 2022;
 - * Extensive sectoral participation;
 - * Resolution of administrative and bureaucratic competitiveness constraints;
 - * Coordination of supply of appropriately trained professionals, technicians and tradesmen
 - * Marketing strategies and structures; and more.
- Ensuring appropriate **financing**;
 - Prioritisation of **infrastructural development and service provision**;
 - Ensuring appropriate capacity of the construction industry to meet demand in terms of scale, time and standard;
 - Establishment and operation of **“One Stop” Investment Centres** for the KCCA and for each primary industrial zone;
 - **Restructured Markets System** including:
 - * Establishment of Wholesale Markets in appropriate Industrial Zones;
 - * Extension, upgrading and establishment of Commercial Markets in Residential Zones, integrated with the transport system;
 - * Specialised Markets in Centre.
 - Extending, upgrading and developing new **Tourism Attractors and Facilities** including:
 - * Historic Mengo;
 - * Old Kampala;
 - * Specialised Tourism Routes as Natural, Historic-Traditional and Religious;
 - * Sports facilities and events;
 - * The Islands and Self-contained Resorts;
 - * Congress facilities and events;
 - * Medical facilities and services.

This, whilst ensuring marketing, the adequate scale and range of hostelrys and support services (transportation, eateries, commercial, information etc.) and security to:

- * Attract tourists including new markets;
- * Extend periods of stay in Kampala;
- * Increase expenditure (entrance fees, purchases of goods and services, etc.).

6.5 Social Development

Kampala's future balanced and sustainable development is dependant, inter alia on its capacity to absorb the scale and rate of rural in-migration, to facilitate the modernization and integration of the migrants whilst ensuring the upward socio-economic mobility of its current population and social stability. This is no mean task and requires coordinated, integrated intervention on a large number of fields.

To meet these challenges the Consultant recommends priority be given to:

- **Education** for the City's population from early childhood to adult education as detailed in **Section 10.2** below;
- Provision of and access to **services** as detailed in **Section 0** below;
- Provision of appropriate **employment** opportunities, as detailed in **Section 6.4** above, whilst ensuring effective access, both physical and vocational, to such opportunities;
- Provision of appropriate **housing** solutions as detailed in **Section 6.6** below;
- **Tackling poverty**, as detailed in **Section 6.5.2** below, and Slums, as detailed in **Section 6.5.3** below;
- **Community Development** as detailed in **Section 6.5.4** below.

6.5.1 Socio-Economic Mobility

Upward socio-economic mobility is the product of rising real incomes, education and social awareness (itself a function of education and exposure). The key to upward socio-economic mobility is therefore the acquisition of appropriate knowledge and skill sets, the further acquisition of appropriate experience and its application to attain access to higher income employment or business opportunities.

The ongoing reform in the education system in Uganda and its application in Kampala serves as the keystone for future upward socio-economic mobility. However, this in itself is not enough and the education system needs to rapidly upgrade, extend as planned universal access to S6-S7, extend tertiary education and adjust to increased scale and emphasis on both vocational and technological education (particularly the applied sciences).

In parallel, the local economy requires significant restructuring to provide higher remuneration employment opportunities.

The goal is therefore to extend the Middle Classes and the Working Classes and their income levels whilst reducing the scale and proportion of the population suffering dire poverty. If this is achieved, and the rate of rural in-migration mitigated, the socio-economic structure of Kampala's population can be projected as follows:

Table 38: GKMA Projected Socio-Economic Structure

Socio-Economic Category	2011	2022 Target	Long Term Target
High	5%	5%	5%
Upper Middle	11%	12%	15%
Lower Middle	15%	16%	20%
Low (Working Class)	36%	37%	40%
Subsistence or below	34%	30%	20%

Note: Rounded figures.

6.5.2 Poverty Reduction and Mitigation

As detailed in the KPDP SR, the burden of poverty in Kampala today is overwhelming for both the City and the bulk of its population. Large segments of Kampala's population have effectively exchanged Rural subsistence for Urban subsistence, having worsened their objective situation for the "promise" of future opportunity. Where the "promise" is achieved, even in part, the move to the City may well be fortuitous. However, where the "promise" has not materialized, as is the case for the bulk of the population, the future is bleak for both the individuals and the City as a whole.

Particular risk lies in the rapidly increasing numbers of 2nd and 3rd generation poor slum dwellers, "streetwise" and unencumbered by traditional mores and norms of their rural migrant parents and grandparents. Facing unemployment and under-employment, suffering deep poverty and observing ever growing income and lifestyle disparities vis-à-vis the wealthy and middle classes, they face a very bleak future. They are at risk (alcohol, drugs, teen pregnancy, crime, violence and more) and they constitute significant risk to safety and social stability in the City.

The preconditions for tackling poverty in Kampala are mitigated in-migration rates, appropriate, high standard education and appropriate employment. In addition, appropriate housing needs be provided (see **Section 6.6** below) and services delivered (see **Section 0** below).

Special priority needs to be given to pro-poor intervention including:

- **Distribution of services**, particularly education and health, to the neighbourhood level ensuring NMT access;
- Appropriate, locally accessible **education** with special emphasis on the provision of appropriate **vocational training** to the children of the poor and the very poor;
- Provision of appropriate **vocational and skills training** to the adult poor and the very poor;
- **Job-seeking and micro-business management training** and support;

- **Redistribution of markets** to the neighbourhood level, limiting the need for and costs of expensive PT trips to the City Centre and rationalizing the food distribution system reducing consumer costs;
- **Community development** in the slums and “at risk” informal settlements;
- Introduction and provision of an efficient, reliable and **affordable PT system** (see **Section 11.4**) enabling access to employment and opportunity;
- Development and maintenance of an appropriate **NMT network** (see **Section 11.5**) enabling access to local services, employment and opportunity;
- **Coordinated intervention** on the City scale and at the local neighbourhood level to ensure pooling of resources, optimal utilisation of facilities and community participation; and to avoid duplication, conflicts and unattainable expectations.

6.5.3 Slums

The scale, distribution and characteristics of Kampala’s slums are detailed in the KPDP SR. In the light of the findings and proposed development strategy the Consultant recommends the following approach:

- **Reduction of demand for basic shelter** by:
 - * Mitigating in-migration;
 - * Enabling higher income levels (economic development and appropriate employment opportunities; education and vocational training; job-seeking and micro-business management training);
 - * Provision of alternative affordable low-cost basic housing.
- **Slum avoidance** by:
 - * Giving priority to the upgrading of “at risk” informal settlements, particularly those adjacent to existing slums (detailed planning, community development, infrastructure and service provision);
 - * Strict enforcement of planning law and existing construction codes to preclude any further construction of *Muzigo* in Kampala, particularly in the KCCA;
 - * Strict enforcement of planning and environmental law to preclude any further wetlands intrusion and/or land invasions;
 - * Provision of alternative improved affordable low-cost basic shelter on a limited and controlled manner (see policy proposals in **Section 6.6** below). Whilst low-cost basic shelter solutions will themselves inevitably contribute to “slums” the recommended constraints on their size, standards and distribution will limit their concentration and their impact and at the same time ensure minimal standards (size of units, utilities, safety, etc.).
- **Redevelopment** of high density slums in and around the City Centre for residential or mixed use by:

- * Systematic community development and leadership training;
 - * Systematic planning and implementation with intensive community participation;
 - * Urgent provision of lighting and “on-the-beat” policing of public areas;
 - * Provision of alternative improved affordable low-cost basic shelter and/or high density basic housing both in proximity to current location and in proximity to new employment centres (as per resident’s individual household preference and capacity);
 - * Staged redevelopment with appropriate infrastructural and service provision.
- Systematic **upgrading** of medium to high density slums (largely in the Inner City and Peripheral Town Centres):
 - * Systematic community development and leadership training;
 - * Systematic planning and implementation with intensive community participation;
 - * Urgent provision of lighting and “on-the-beat” policing of public areas;
 - * Drainage and flood protection where relevant (existing wetlands intrusion);
 - * Provision of accessible public services within or in close proximity to the neighbourhood;
 - * Provision of free prototype designs and professional direction for low-cost housing reconstruction;
 - * Proactive “out-reach”, guidance and support for low-cost housing projects by “block” or plot including adjacent public space and allocation for infrastructural provision.
- Systematic **infill and upgrading** of emerging currently lower density slums (largely in the Outer Suburbs and Peripheral Towns):
 - * Systematic community development and leadership training;
 - * Systematic planning and implementation with intensive community participation;
 - * Urgent provision of lighting and “on-the-beat” policing of public areas;
 - * Drainage and flood protection where relevant (existing wetlands intrusion);
 - * Systematic designation, acquisition and protection of requisite public space (service facilities, roads, paths and public open space);
 - * Provision of accessible public services in the neighbourhood;
 - * Provision of free prototype designs and professional direction for low-cost housing reconstruction;
 - * Systematic provision of infrastructures;
 - * Proactive “out-reach”, guidance and support for low-cost housing projects by “block” or plot including allocation for infrastructural provision.

6.5.4 Community Development

As Kampala's population modernizes, traditional norms and structures inevitably lose their sway over the younger generation. Social support networks are weakened over time and social constraints on aberrant behaviour are increasingly limited in their impact. As such, community structures, on the neighbourhood and block scales, become essential for ensuring social stability and personal safety in the City.

In addition, the City's poor are already characterized by high residential mobility, moving home on average every 4 years in response to changes in employment, undermining community stability and cohesion. Ongoing in-migration and growing socio-economic mobility can be expected to further increase residential mobility, further challenging community cohesion.

The public services do not fill a compensatory role, lacking facilities and concentrating their meager resources on "high risk" populations (such as disabled persons, senior citizens, sick, "at risk" children, and single mothers).

The ecumenical structures today fill the primary role in providing community identification and cohesion, with the Buganda Kingdom serving as a social "umbrella". However, Kampala's population is multi-denominational and increasingly multi-ethnic (tribal). Historically the various denominations were geographically concentrated, each with its own hill. However, as the city sprawled out and migrants flooded in, the population became increasingly mixed denominationally and tribally. Hence, whilst the Buganda Kingdom's "umbrella" identity encompasses the entire metropolitan area, ecumenical community identity increasingly lacks spatially continuity and communities are somewhat parsed in their neighbourhoods.

To ensure community identity, stability and support, on the neighbourhood and block scales, there is need for comprehensive intervention including:

- Preparation and implementation of a city-scale Community Development Plan, integrated with and preferably prepared together with a city-scale Education Development Plan¹⁸;
- Allocation of land (see **Section 10.5**) and resources for the construction of a widely distributed hierarchy of community centres, where possible integrated with and sharing facilities and resources with educational institutions (schools and academic institutions);
- Ongoing participatory planning and coordination of community activities, including NGO/CBO projects, on the neighbourhood scale;
- Systematic ongoing community leadership training and support;

¹⁸ With similar plans in the KMTC towns.

- Proactive “out-reach” for voluntary mutual support and “self-help” projects and activities on the neighbourhood and block scales; and more.

6.5.5 Education

Kampala retains the capacity to serve as the leading Cultural Centre of East and Central Africa and thereby to drive the social and economic development of the nation.

To this end the education system of Kampala requires significant upgrading and extension, building on the remarkable achievements in universal education to date. Given these achievements, the challenge now is to extend the scope of education in Kampala whilst consistently improving pedagogic and physical standards to acceptable international norms, leading Uganda and East and Central Africa.

Extension of education needs to concentrate on provision of:

- Full universal secondary education;
- Extensive, accessible and affordable pre-school education;
- Vocational training (including adult vocational training); and
- Technical (academic) training.

The recommended short term goals for tertiary education in Kampala include:

- Average annual growth of some 8% per annum in total enrolment including 10% annual growth in foreign enrolment;
- Systematic extension and upgrading of vocational training institutions, specialising in fields relevant to economic development (as construction, transportation, water intensive industries, tourism, IT, etc.) with growth targets at an average annual rate of 20%;
- Systematic extension and upgrading of the sciences, applied sciences and technological faculties with growth targets at an average annual rate of 20%;
- Establishment and extension of technological and applied sciences research institutes;
- Leveraging Makerere’s position, role, faculty and facilities, to enable the establishment of a Hi-tech Business Park within its campus; and together with Mulago Hospital to establish Africa’s first Knowledge Precinct.

The recommended long term goals for tertiary education in Kampala include:

- Entrenching Makerere’s position and role as one of the 10 leading universities in Africa and upgrading its international status to at least top 500;
- Upgrading Kyambogo University to top 10 African and top 1,000 international status;

- Upgrading two more major universities (one in Entebbe and one in Mukono) to top 20 African and top 2,000 international status;
- Establishment of large universities in each of the major towns in the KMTC;
- All large universities to serve student bodies of over 20,000 in a wide range of faculties, specifically prioritising the sciences, applied sciences and technological faculties. All major universities to provide mutually complementary specialised post-doctoral research opportunities; and host at least one major research institute.

To these ends there is a very clear need for a comprehensive KCCA Education Master Plan, incorporating community services and sports, coordinated with similar plans in the KMTC towns, based on KPDP population projections and quantitative programmes.

There is a clear need for:

- Adequate allocation of land for educational facilities in the City to meet long term needs, as detailed in **Section 10.2**.
- Ensuring the balanced distribution of educational facilities on the metropolitan scale and city scales, as detailed in **Section 10.2**;
- Prioritising provision of and enrolment in local schools and pre-schools whilst ensuring easy NMT access and promoting community, efficiency and economy, in detailed local physical planning;
- Standards and mechanisms to extend the range of educational facilities and services (e.g. pre-schools, sports and extramural activities, youth centres, multi-functional community centres for enrichment and recreation, etc.) at the parish or neighbourhood scale, as detailed in **Section 10.2**;
- Initiating and supporting the relocation of some City Centre schools to residential areas enabling improved access to the schools and releasing significant inner-city land reserves for appropriate development and use, including public open space;
- Directions and outline mechanisms to ensure adequate integration of technical and vocational educational institutions in appropriate industrial zones;
- Incorporation of Kampala's history and assets (natural, built and cultural) in the education curriculum, including field trips and site visits, in all schools in the GKMA.

6.5.6 Health

As indicated in the KPDP SR, health issues in Uganda are best summated by a single statistic, life expectancy of a little over 50 years as compared with expectancies in the late 70s and even early 80s in the developed countries.

Life in Kampala is fraught with health risks:

- Endemic diseases associated with the wetlands, malaria in particular but also bilharzias and diarrhea;
- Contagious diseases associated with poor sanitary conditions compounded by the warm climate;
- Road safety and work related accidents;
- HIV-AIDS;
- and more.

The social and economic impacts of this are significant on the individual, family, community and city scales. The health of Kampala's population needs to be greatly improved and life expectancy (and with it working age) significantly extended. This by:

- Systematic intervention in the **prevention of illness** including:
 - * Rapid extension of the sewage network as detailed in **Section 12.4.9**;
 - * Ensure basic standards in all new housing development and upgrade the existing housing stock to basic standards in as detailed in **Section 6.6**;
 - * Systematic infill, drainage and flood protection for existing housing in wetlands;
 - * Stringent protection of enforcement of development restrictions on all other wetlands;
 - * Systematic upgrading of the markets, specifically enabling refrigeration, and strict enforcement of hygienic standards for all non-durable food products;
 - * Appropriate road safety measures and rigorous enforcement;
 - * Education and awareness.
- Providing **improved, accessible health services** in a hierarchy of health centres as per the Health Master Plans currently under preparation on the national and city scales;
- Adequate and appropriately located **land allocations** for the provision of accessible health services as detailed in Section 6.5.6.

6.5.7 Cultural Preservation and Enhancement

Kampala retains a wealth of cultural values which, if preserved and enhanced, can serve to leverage it into the leading Cultural Centre of East and Central Africa and a major tourist destination.

This requires, *inter alia*:

- **Planning and preparation of Historic Mengo and Old Kampala** for recognition as a **World Heritage Site**.
- **Preservation and rehabilitation of historic buildings and sites** by:
 - * Preparation and implementation of guidelines for the preservation and/or rehabilitation of buildings and sites of historic, cultural and architectural value;
 - * Field survey, assessment of preservation and/or rehabilitation requirements and declaration of all known buildings of historic and architectural value (see KPDP SR) as preservation sites with appropriate directions for their preservation and/or rehabilitation, as relevant;
 - * Requiring all detailed Local Physical Development Plan in the KCCA and the GKMA to include mapping of all historic buildings (based on field survey), assessment of preservation needs and appropriate directions for preservation and/or rehabilitation, as relevant.
- Definition and implementation of appropriate **mechanisms for preservation and rehabilitation** including:
 - * Adaptation and utilisation as public facilities (museums, art galleries, libraries, community centres, etc.) with adequate finance and conditional on preservation and/or rehabilitation;
 - * Long term lease to appropriate state institutions, selected NGOs/CBOs, and selected private sector actors (e.g. financial institutions) with adequate finance, conditional on preservation and/or rehabilitation and ensuring public access to the building or the grounds as appropriate;
 - * Acquisition of historic buildings and sites (purchase or land exchange);
 - * Preferential Development Rights Swap mechanisms to finance preservation and/or rehabilitation;
 - * Establishing a Heritage Conservation Unit providing professional support services and where necessary enforcement;
 - * Appropriate legislation for preservation and/or rehabilitation;
 - * Proactive enforcement.
- Planning and development of **new cultural, sporting and recreational facilities** as detailed in **Section 10.4** below:
- **Cultural Events, Awareness and Public and Tourist Exposure** by:
 - * Ensuring wide public access to historic buildings and sites;
 - * Upgrading, extending, commercialising where appropriate and marketing existing cultural events (traditional, religious, cultural, etc. to appropriate local and regional markets and to tourists);
 - * Initiating, planning, marketing and running new cultural and sporting events (arts, performing arts, music, parades, competitions, etc.) appealing to specific targeted local, regional and international markets;

- * Incorporation of Kampala’s history and assets (natural, built and cultural) in the education curriculum, including field trips and site visits, in all schools in the GKMA;
- * Identifying, developing and marketing tourism routes and tours (traditional, religious, cultural, natural, etc.).

6.5.8 Gender

Whilst significant progress has been made in the fields of gender equality and female empowerment in Uganda as a whole and in Kampala in particular, significant gaps and constraints remain. Single mothers in particular often face exceptional hardship with single parent households generally being concentrated in slums and/or emergent slums.

Hence, special emphasis needs be placed on:

- Provision of appropriate basic affordable shelter and low cost basic housing with priority and support for single parent households;
- Ensuring the interests of women in general and single women in particular in the resolution land tenure issues;
- Family planning education and support;
- Provision of accessible service, including specialist services for women and children, within or in close proximity to slums and poor informal settlements;
- Location of basic produce and commercial markets within or in close proximity to slums and poor informal settlements;
- Introduction and provision of efficient, reliable and affordable PT services to slums and poor informal settlements;
- Development and maintenance of NMT infrastructure in and to slums and poor informal settlements;
- Priority in and financial support for vocational, skills, job-seeking and micro-business training for single mothers;
- Development and provision of appropriate, affordable pre-school and day-care services to enable mothers to enter and remain in the job market, and subsidised services for single mothers;
- Development and maintenance of appropriate, accessible playgrounds, parks and gardens in all neighbourhoods and particularly high density neighbourhoods, slums and poor informal settlements;
- Ensuring the physical safety of women, particularly at night, with lighting and “on-the-beat” policing; and more.

6.6 Housing

6.6.1 Scale and Segmentation

The scale of the housing challenge facing Kampala is enormous as indicated in **Table 39** below, particularly given the existing shortfall in housing in the City as detailed in the KPDP SR.

Table 39: GKMA Housing Targets

Indicator and Standard	2011	2022 Target	Long Term Target
Residential Units	800,000	1,500,000	2,200,000
Average Residential Unit (m ²)	55	70	78
Housing Welfare Standard (m ² /capita)	14	19	22
Built Residential Floor Space (m ²)	45,000,000	112,000,000	173,000,000

Note: Rounded figures.

Assuming economic growth as defined in **Section 6.4** above is achieved, the demand for housing in Kampala can be segmented by standard¹⁹ as per **Table 40** below:

Table 40: GKMA Projected Housing Demand by Market Segment

Socio-Economic Category	2011	2022 Target	Long Term Target
High Standard	35,000	70,000	110,000
Reasonable Standard	85,000	200,000	325,000
Improved Housing	115,000	300,000	475,000
Basic Housing	290,000	550,000	850,000
Basic Shelter	275,000	380,000	440,000

Note: Rounded figures.

The representative unit size by standard is presented in **Table 41** below:

Table 41: Representative Unit Size by Market Segment

Socio-Economic Category	2011	2022 Target	Long Term Target
High Standard	> 150	> 150	> 150
Reasonable Standard	115	125	150
Improved Housing	80	90	110
Basic Housing	45	50	60
Basic Shelter	18	19	22

Notes: 1. Rounded figures.

2. Representative house sizes for improved to high standard, apartments will generally be smaller.

¹⁹ See definitions in KPDP SR.

6.6.2 New Housing

To cater for this demand whilst meeting density targets defined in **Section 6.6** above there is a need for a fundamental shift in the housing typology from current practice.

Essentially emphasis needs to be placed on the construction of new:

- **Multi-unit apartment blocks:**
 - * High and reasonable standard, of varying size from 40 m² studios to >200 m² penthouses and duplexes, generally in the 80-140 m² range, for upper end (High and Upper Middle SEC) market segments;
 - * Improved basic standard of varying size (generally 60-80 m² with predesigned improvement and extension possibilities) for mid range segments (Lower Middle SEC);
 - * Minimum basic standard, including unfinished shells²⁰, of limited size (minimum 40 m² to 60 m² with predesigned improvement possibilities including compulsory laying of foundations to enable future unit expansion) for lower range market segments (Working Class);
 - * Minimum plot size of 600 m² and maximum built footprint of 40% (including pre-designed expansion)²¹;
 - * Primarily single or twin blocks on small (1/4-1/2 acre) plots in the Inner City;
 - * Small apartment complexes on medium size (1-5 acre) plots in the Outer Suburbs and Peripheral Towns and Inner City redevelopment projects;
 - * Larger complexes, integrated with Town-houses, including local services and amenities²², on appropriate residual Inner City land reserves and/or redevelopment projects, in the Peripheral Towns and the New Towns;
 - * Primarily 3-4 storey “walkups” to avoid the costs of elevators except in the upper segments of the market;
 - * Compulsory pre-design of “walk-ups” in the Inner City and KMTC Town Centres, for future extension and upgrading (including compulsory laying of foundations to enable future unit expansion), addition of 2-4 floors and installation of elevators and emergency exit stairs (internal or external);
 - * Multi-storey apartment building and complexes, generally 8-12 storey on minimum ½ acre plots to appropriate standard (including underground parking, 2-3 elevators²³, (emergency exit stairwells, backup power and

²⁰ As per the model of Singapore basic housing projects providing exterior shells, toilet and utility connections allowing occupant to complete interior finish by themselves and at their capacity.

²¹ Unless otherwise defined in approved detailed Local Physical Development Plans.

²² As neighbourhood commercial centres, schools, clinics, community facilities, community sports facilities, etc.

²³ 2 elevators for 8 storeys and 1 additional elevator for each additional 4 storeys (all rounded upwards).

water supply, fire extinguishing provision on every floor, etc.) in the City Centre (extended CBD and Frame) and in KMTC Town Centres.

- * Provision of free prototype designs and professional direction for low-cost housing projects;
 - * Proactive “out-reach”, guidance and support for low-cost housing projects;
 - * “Finish your home” training;
 - * Appropriate management provision - owner management for rental blocks, condominium management for owner-occupied blocks - predefined in construction licensing.
- **Multi-unit Town-house Complexes:**
- * Primarily of reasonable to high standard for upper market segments;
 - * Generally double storey larger units (generally 120-160 m²) with expansion possibilities (3rd floor tiled attic);
 - * Minimum plot size of 180 m² per unit and maximum built footprint of 50% (including pre-designed expansion)⁶;
 - * Primarily on small (1/2-1 acre) plots in the Inner City;
 - * Small complexes on medium size (1-5 acre) plots in the Outer Suburbs and Peripheral Towns and Inner City redevelopment projects;
 - * Larger complexes, integrated with apartment blocks, including local services and amenities, on appropriate residual Inner City land reserves and/or redevelopment projects, in the Peripheral Towns and the New Towns;
 - * Appropriate management provision - owner management for rental, condominium management for owner-occupied units - predefined in construction licensing.
- **Multi-unit Row-houses:**
- * Primarily of basic²⁴ to reasonable standard for lower to mid range segments;
 - * Low-cost housing design and construction methods for improved basic units;
 - * Generally single storey “starter” units (40-60 m²) and double storey intermediate size units (80-100 m²) pre-designed for future expansion (including compulsory laying of foundations for the addition of 3rd floor);
 - * Provision of free prototype designs and professional direction;
 - * Proactive “out-reach”, guidance and support for implementation;
 - * “Finish your home” training;
 - * Minimum plot size of 120 m² per unit and maximum built footprint of 50% (including pre-designed expansion)⁶;
 - * Primarily on small (1/4-1/2 acre) plots in the Inner City;

²⁴ Compulsory in-house utility connections, in-house or shared kitchen and toilet (1 each per 2 units) but pre-designed for future separate kitchen and toilet, compulsory external finish but can be unfinished internally (owner occupied) or minimal interior finish (rental).

- * Small complexes on medium size (1-5 acre) plots in the Outer Suburbs, Peripheral Towns and New Towns and in Inner City redevelopment projects;
- * Large complexes, integrated with other housing types, in Peripheral Towns and New Towns (no stand-alone large complexes).
- **Higher density Single and Semi-detached Houses:**
 - * High and reasonable standard, of varying size (generally >120 m²) for upper end (High and Upper Middle SEC) market segments;
 - * Improved basic standard of varying size (generally 80-120 m² with predesigned improvement and extension possibilities) for mid range segments (Lower Middle SEC);
 - * Minimum basic standard²⁵, including unfinished shells, of limited size (minimum 60 m² with predesigned improvement possibilities for lower range market segments);
 - * Compulsory pre-designed with foundations laid for double storey with 3rd floor tiled attic.
 - * Minimum plot size of 250 m² per unit and maximum built footprint of 50% (including pre-designed expansion)⁶;
 - * Minimum density of 20 housing units of average 100 m² built residential space per Ha. (equivalent to 20% of net plot size) in all delimited residential zones within KCCA and urban areas in the GKMA enforced with appropriate local taxation, construction licensing and utility connection fees (to avoid effective regressive cross-subsidisation of low density development for the wealthy by high density development by the poor).
 - * Low-cost housing design and construction methods for improved basic units.
 - * Provision of free prototype designs and professional direction;
 - * “Build your own home” training;
 - * Proactive “out-reach”, guidance and support.
- **Basic shelter solutions** as detailed in **Section 6.6.4** below.

6.6.3 Existing Housing Stock

Of equal importance is the densification and upgrading of the existing housing stock, including:

- **Densification of low density, reasonable and high standard single and semi-detached house plots:**
 - * By subdivision and/or addition of residential units on the plot;
 - * Where relevant upgrading infrastructure (sewage, roads, lighting, etc.);

²⁵ Compulsory in-house utility connections, in-house (single detached) or shared kitchen and toilet (semi-detached but pre-designed for future separate kitchen and toilet), compulsory external finish but can be unfinished internally (owner occupied) or minimal interior finish (rental).

- * Enforcement with appropriate local taxation, construction licensing and utility connection fees (to avoid effective regressive cross-subsidisation).
- **Densification of low density, basic or lower standard single and semi-detached house plots:**
 - * By subdivision and/or redevelopment (town-houses, row-houses, apartments) and/or upgrade (rehabilitation, extension, addition of second and third floors).
 - * Providing and/or upgrading infrastructure (water, sewage, electricity, roads, lighting, etc.);
 - * Provision of free prototype designs and professional direction;
 - * Proactive “out-reach”, guidance and support for implementation;
 - * Where possible block or neighbourhood scale intervention for upgrade and redevelopment;
 - * Enforcement with appropriate local taxation, construction licensing and utility connection fees (to avoid effective regressive cross-subsidisation).
- **Upgrade and densification of medium density, reasonable and high standard single and semi-detached house plots:**
 - * By addition of residential units on the plot and/or second and third floors;
 - * Where relevant upgrading infrastructure (sewage, roads, lighting, etc.).
 - * Enabling designs, guidance and support for implementation.
- **Upgrade and/or redevelopment of medium to high density, basic or lower standard single and semi-detached house plots:**
 - * By redevelopment (town-houses, rowhouses, apartments) and/or upgrade (rehabilitation, extension, addition of second and third floors).
 - * Providing and/or upgrading infrastructure (water, sewage, electricity, roads, lighting, etc.);
 - * Provision of free prototype designs and professional direction;
 - * Proactive “out-reach”, guidance and support for implementation;
 - * Where possible block or neighbourhood scale intervention for upgrade and redevelopment;
 - * Enforcement with appropriate local taxation, construction licensing and utility connection fees (to avoid effective regressive cross-subsidisation).
- **Tenements (*Muzigo*)** as detailed below.

6.6.4 Basic Shelter

Large sections of Kampala’s population are currently housed in *Muzigo* which provide inadequate, often inappropriate for human habitation, basic shelter (see KPDP SR).

Whilst one of the primary goals of the KPDP is to reduce the scale of demand for basic shelter and enable access to, at least, basic housing to the vast bulk of the

City's population, residual demand of significant scale for basis shelter is inevitable.

This needs to be met by *inter alia*:

- Development of new and upgrading of existing multi-unit **Hostels**::
 - * To provide basic interim, rental only, housing for students, interim service staff (as police) and/or new adult in-migrants and to provide alternative accommodation for slum Muzigo residents in redevelopment and upgrade projects;
 - * Minimum unit size of 20 m², electricity connection in each unit, shared toilets (minimum 1 cubicle per 4 units), shared kitchen and fire extinguishing provision on every floor;
 - * “Walk-ups” to maximum 4 floors;
 - * Compulsory pre-design to enable future conversion to basic apartment units;
 - * Minimum plot size of 600 m² and maximum built footprint of 40% (including pre-designed expansion);
 - * Primarily on individual small (1/4-1/2 acre) plots in the Inner City and Town Centres, within institutions and within a 2 km radius of major employment centres;
 - * Small complexes on medium size (1-5 acre) plots only in or near (500 m radius) large institutions (education, health, police, etc.), only if developed and managed by or on behalf of the institution;
 - * No large stand alone complexes, compulsory integration with other housing types (total plot size no more than 20% of total net area for development);
 - * No adjacent hostel plots;
 - * Minimum distance of 100m between hostel plot boundaries.
 - * Provision of free prototype designs and professional direction;
 - * Proactive “out-reach”, guidance and support for implementation;
 - * Appropriate management provision predefined in construction licensing.
- Development of new **Improved Basic Shelter** solutions::
 - * To provide basic interim, rental only, housing including alternative accommodation for slum Muzigo residents in redevelopment and upgrade projects;
 - * New tenements (*Muzigo*) and alternative basic shelter designs and construction techniques;
 - * Pre-designed to enable future expansion and upgrade to basic housing (generally row-housing);
 - * Enforcing minimum standards including maximum built footprint (50% of net plot area including planned future expansion), minimum size (20 m² per unit), on-plot water supply, shared toilets (minimum one cubicle per 3 units) and shared sheltered kitchen (minimum 1 per 3 units);
 - * Providing and/or upgrading infrastructure (water, sewage, electricity, roads, lighting, etc.);

- * Conditional construction licensing ensuring minimum standards, construction to approved design and provision for future expansion and upgrade in the initial construction:
- * Provision of free prototype designs and professional direction for construction and provision of future expansion and upgrade.
- **Development of new Core Housing and Site & Service projects::**
 - * To provide basic interim shelter with expansion and upgrade options for owner-occupants;
 - * Primarily in Outer Suburbs, Peripheral and New Towns but also utilising infill and redevelopment reserves within the Inner City (see KPDP SR);
 - * Pre-designed to enable future expansion and upgrade to basic housing (generally row-housing);
 - * Enforcing minimum standards including maximum built footprint (50% of net plot area including planned future expansion), minimum size (20 m² per unit), on-plot water supply, shared toilets (minimum one cubicle per 2 units) and shared sheltered kitchen (minimum 1 per 2 units);
 - * Providing and/or upgrading infrastructure (water, sewage, electricity, roads, lighting, etc.);
 - * Provision of free prototype designs and professional direction for construction and provision of future expansion and upgrade;
 - * Conditional construction licensing ensuring minimum standards, construction to approved design and provision for future expansion and upgrade in the initial construction:
 - * “Build your own home” training;
 - * Proactive “out-reach”, guidance and support from project inception to full occupation including structured Community Development.
- **Redevelopment of existing *Muzigo* in City Centre and Inner City Slums:**
 - * Systematic, staged neighbourhood redevelopment (primarily apartments and/or mixed use);
 - * Providing and/or upgrading infrastructure (water, sewage, electricity, roads, lighting, etc.);
 - * Demand moderation by relocation of low valued-added economic activities (produce markets, workshops, labour intensive industry, etc.) to more peripheral locations;
 - * Development of alternative affordable low-cost housing adjacent or near to relocated employment;
 - * Construction of appropriate basic shelter (generally hostels) to provide alternative, improved housing alternatives in proximately to or with ready PT access to employment locations;
 - * Strict enforcement to ensure no new construction of *Muzigo* in the City Centre and Frame or in Town Centres;

- * Ongoing, intensive proactive “out-reach”, guidance and support for implementation.
- **Redevelopment and Upgrading of existing *Muzigo* in Outer Suburb and Peripheral Town Slums:**
 - * Systematic, staged neighbourhood redevelopment (town-houses, rowhouses, apartments) and/or upgrade (reconstruction and extension including addition of second and third floors);
 - * Enforcing minimum standards including minimum size (20 m² per unit), on-plot water supply, toilets (minimum one cubicle per 4 units) and sheltered kitchen.
 - * Providing and/or upgrading infrastructure (water, sewage, electricity, roads, lighting, etc.);
 - * Provision of free prototype designs and professional direction for redevelopment and upgrade;
 - * Proactive “out-reach”, guidance and support for implementation.
- **Redevelopment of existing “Backyard” *Muzigo* in informal neighbourhoods:**
 - * Systematic, staged plot-by-plot redevelopment (town-houses, rowhouses, apartments) and/or upgrade (reconstruction and extension including addition of second and third floors);
 - * Enforcing minimum standards including minimum size (20 m² per unit), on-plot water supply, toilets (minimum one cubicle per 4 units) and sheltered kitchen.
 - * Providing and/or upgrading infrastructure (water, sewage, electricity, roads, lighting, etc.);
 - * Provision of free prototype designs and professional direction for redevelopment and upgrade;
 - * Proactive “out-reach”, guidance and support for implementation.

6.6.5 Housing Types

Combined these will allow Kampala to achieve a long-term fundamental shift of housing types as indicated in **Table 42** below

Table 42: Primary Housing Types by Standard and SEC

Standard / Socio-Economic Category	2011	Long Term Target
High Standard / High & Upper Middle SEC	Large Single Houses	Mix of large houses, top end townhouses and exclusive apartments
Reasonable Standard / Upper & Lower Middle SEC	Single Houses, some apartments	Mix of single & semi-detached houses, townhouses, apartments and top end row-houses
Improved Housing / Lower Middle and Low (Working Class) SEC	Single & Semi-detached houses	Mix of single & semi-detached houses, row-houses and apartments
Basic Housing / Low (Working Class) SEC	Mix of houses and <i>Muzigo</i>	Mix of low-cost houses, row-houses, and apartments (hostels for students and service providers as interim housing).
Basic Shelter / Subsistence SEC	<i>Muzigo</i> , some houses	Mix of <i>Muzigo</i> and improved basic shelter (primarily hostels).

6.6.6 Towards Implementation

Demand needs to be met primarily by the private sector. Effective timeous supply is dependant, *inter alia*, on:

- Adequate supply of both large scale and single plot (re)developable land itself dependent upon intervention as detailed in **Section 6.2** above, particularly resolution of land tenure constraints;
- Appropriate design solutions and construction technologies;
- Development of an effective, Construction Industry with adequate capacity and finance;
- Appropriate Sectional Title legislation and administrative systems;
- Development of an Mortgage System providing adequate, accessible finance at economic rates.
- Public Sector initiative and support, including:
 - * Systematic detailed planning;

- * Providing and/or upgrading infrastructure (water, sewage, electricity, roads, lighting, etc.);
 - * Construction of service facilities and provision of services;
 - * Pilot projects;
 - * Provision of free prototype designs and professional direction;
 - * Proactive “out-reach”, guidance and support for implementation Enabling infill and densification;
 - * Finance based on an appropriate taxation system;
 - * Appropriate service and utility fees and their effective collection.
- Public Sector Capacity, in the KCCA and in KMTC LAs, to:
 - * Undertake, oversee and administer planning;
 - * Provide prototype designs and professional support;
 - * Initiate and administer pilot projects;
 - * Provide “build your own home” and “finish your own home” training;
 - * Undertake active “out-reach” and provide requisite support;
 - * Efficiently administer construction licensing;
 - * Effectively regulate construction and development and enforce planning and environmental legislation and planning guidelines;
 - * Effectively collect local taxes.

6.7 Environment

Kampala’s natural environment is one of the City’s greatest strengths, under constant threat and pressure but still retaining immense value and potential. On the other hand, the City’s built environment is one of its greatest weaknesses and constitutes a dire and growing threat to Kampala’s sustainable development.

6.7.1 Lake Victoria Ecosystem

At the outset the Consultant stresses that the primary threat to Kampala’s valuable ecosystem is the absence of an appropriate sewage system to deal with the effluent produced by human habitation, resulting in degradation of the wetlands and associated ecosystems and contamination of Lake Victoria and groundwater.

As indicated in **Section 12.4.8** a city of 5-8 million population, and certainly its core, cannot develop sustainable nor reasonably function without a comprehensive piped sewage system. Indeed, high density housing of even basic standard, and certainly all multi-storey housing, even 3-4 storey walk-ups, have to be connected to an appropriate piped sewage system. From Roman times on, it is recognised that the first key to a sustainable city is its water and sewage system.

The implications of adopting any alternative approach (as sludge collection) is to develop Kampala as “wall to wall” *Muzigo*. See **Section 12.4.9** for Consultant’s recommendations regarding the provision of sewage and wastewater treatment.

6.7.2 Wetlands

The wetlands retain significant ecological value. However Kampala's wetlands have been abused for over a century and consequently have been significantly degraded, constituting serious health risks to the City's population and as well as severe environmental and aesthetic detriments. Even if rehabilitation were a viable option, itself in serious doubt, requisite the costs are prohibitive to simply restore them to their natural state without any additional social benefit. Indeed, the wetlands constitute the only potential land reserves of significance in the City to "regreen" the City, provide adequate public open space and sports facilities and to reconstitute the "Garden City of Africa".

There is therefore a clear need to adopt an appropriate, implementable policy to the protection and rehabilitation of Kampala's wetlands as:

- Rehabilitated public open space and/or sports facilities for degraded wetlands within the urbanised built areas;
- Preserved natural wetlands, as yet non-degraded, beyond the urbanised, built areas.

The recommended policy for non-degraded wetlands beyond currently urbanised areas is to ensure their conservation, in view of the key roles that they play in drainage, biodiversity, and absorption of pollutants and economic activities such as fishing and livelihoods for the rural poor. To this end, the following are recommended:

- Development of comprehensive sewage systems in the peripheral towns built areas (current and planned);
- Effective constraint of unplanned, unserviced peri-urban areas;
- The MoWE delineation and gazetting of wetland boundaries beyond current urbanised areas should be supported by strict and effective development control by the relevant LAs, with adequate manpower to be allocated for this critical issue, and in coordination with local and international NGO's and donors;
- Residents of wetland areas in peri-urban and rural which have been the subject of incursion should be offered opportunities for relocation to areas with proper services and/or to urban areas;
- There should be sensitisation of communities to the problems of living in wetlands, including health risk avoidance, difficulties of providing adequate services and the benefits of conservation and rehabilitation;
- There should be coordination between relevant LAs, MoWE and the water and electricity utilities that services such as water, electricity etc will not be supplied where those activities are illegally located in wetlands.

In addition there is an urgent need to drain and flood protect residential areas intruding into wetlands whilst effectively restricting any further intrusion, including the use of drainage channels and flood barriers as access barriers.

The only other exception to be made is for essential infrastructural development (e.g. highways, railways, infrastructural corridors, water and sewage plants) where no reasonable alternatives are available, subject to prior impact assessment and mitigation;

6.7.3 Flora and Fauna

The recommended policy in respect to flora is to:

- Strictly conserve and actively protect all natural forests;
- Restock and protect indigenous foliage in the *Lubiri* and Kasubi Tombs grounds;
- Develop and maintain woodlands, tree lined parks, indigenous gardens, tree lined avenues and boulevards throughout the City;
- Incorporate trees and indigenous gardens on the grounds of public institutions;
- Support the incorporation of trees, particularly fruit trees, and indigenous flora in private plots;
- Actively initiate and enable commercial forestation of large sections of the rural areas of the GKMS and in hinterland of the City.
- Promotion of electrification and reduction of charcoal for household energy needs;
- Participation in the global carbon credit market to support financing of tree planting.

The recommended policy in respect to fauna is to restock and protect herbivorous indigenous fauna, particularly impala, in inner city nature reserves in the *Lubiri* and Salaama Island.

6.7.4 Climate Change

While Uganda can also make its contribution to the minimisation of climate change by changes in energy sources (e.g. from charcoal to hydro-electricity and solar power) the primary policy is to reduce the vulnerability of KCCA and its population to the impacts of climate change. The following strategies are therefore recommended:

- Planning of urban development to take account of more extreme climatic events leading to greater flooding in the future, specifically ensuring all new development along the coastline and in the inner city is located at least 2 meters above current water levels;

- Relocation of residents and community facilities in low lying areas, starting with the lowest-lying;
- Construction of infrastructure that is appropriately located for, or less vulnerable to, impacts of floods;
- Carry out more detailed analysis of flood plains.

6.7.5 Groundwater Quality

In the case of groundwater, the thrust of the recommended policy is to both end degradation of groundwater sources and to reduce, and in time eliminate, the use of groundwater for domestic (and commercial and industrial purposes) because of problems with the quality thereof and the limitations of aquifers. The following strategies thus overlap with others discussed here and in **Section 12.3**:

- Develop a comprehensive piped sewage system for all urban areas (existing and planned);
- Ensure that there is a sufficient and timely supply of clean water from Murchison and Katosi Bays;
- Ensure that piped water networks are upgraded and/or developed in time to cater for population and spatial growth;
- Provide water at an economic price;
- Manage an environment which will allow use of unpolluted springs, but only in peripheral sparsely populated areas, as an interim means of supply.

6.7.6 Lake Water Quality and Levels

For lake water quality the recommended policy is to maintain that quality through prevention of pollution and prevention of an oversupply of nutrients. For lake levels the policy is that water levels which change as a result of hydroelectricity generation be carefully managed and that mitigation measures be instituted when changing lake levels are a result of climate change. Specific strategies include:

- Tackling of the multiple sources of lake pollution – inadequate drainage, sewerage and solid waste systems, as is detailed in **Section 12**;
- Sensitisation of the population to the impacts of pollution on their quality of life;
- Mitigation of low lake levels for economic activities on the lake shore.

6.7.7 Air Pollution

The recommended policy for air pollution is to ensure that greater use is made of cleaner sources of energy and that existing sources of pollution are properly managed. Therefore the following strategies are recommended:

- The planting of trees as detailed in **Section 6.7.3** above;
- The use of electricity be widened by a more reliable supply of hydroelectricity (particularly instead of charcoal for cooking) at economic connection fees and consumption charges;
- Avoidance of burning of solid waste by better collection and disposal practices as detailed in **Section 12.5**;
- Reduction of vehicle emissions by a switch from private to public transport, more efficient public transport, traffic management and improvement of roads so as to reduce traffic congestion.

6.7.8 Built Environment

The upgrading of Kampala's built environment will involve, *inter alia*:

- Upgrading of the housing stock as detailed in **Section 6.7.3**
- Upgrading and maintenance of Public Institutions and Facilities as detailed in **Section 6.7.3**
- Upgrading and maintenance of roads and sidewalks as detailed in **Section 6.7.3**
- Systematic preservation and restoration of the City's historic landmarks and buildings as detailed in **Section 6.7.3**
- The planting of trees and green elements as detailed in **Sections 6.7.3**;
- The protect and utilisation of the City's natural landscape as detailed in **Section 6.7.3**
- Systematic collection, conveyance and treatment of solid waste as detailed in **Section 6.7.3**
- Systematic, efficient street and sidewalk cleaning and maintenance of street furniture;
- Prohibition of inappropriate and/or intrusive functions in residential areas (manufacturing, logistics and warehousing, liquor outlets, petrol stations, etc.);
- Definition, adoption and enforcement of construction site requirements including aesthetic fencing, safety regulations and traffic arrangements.

7 Physical and Spatial Planning of Kampala

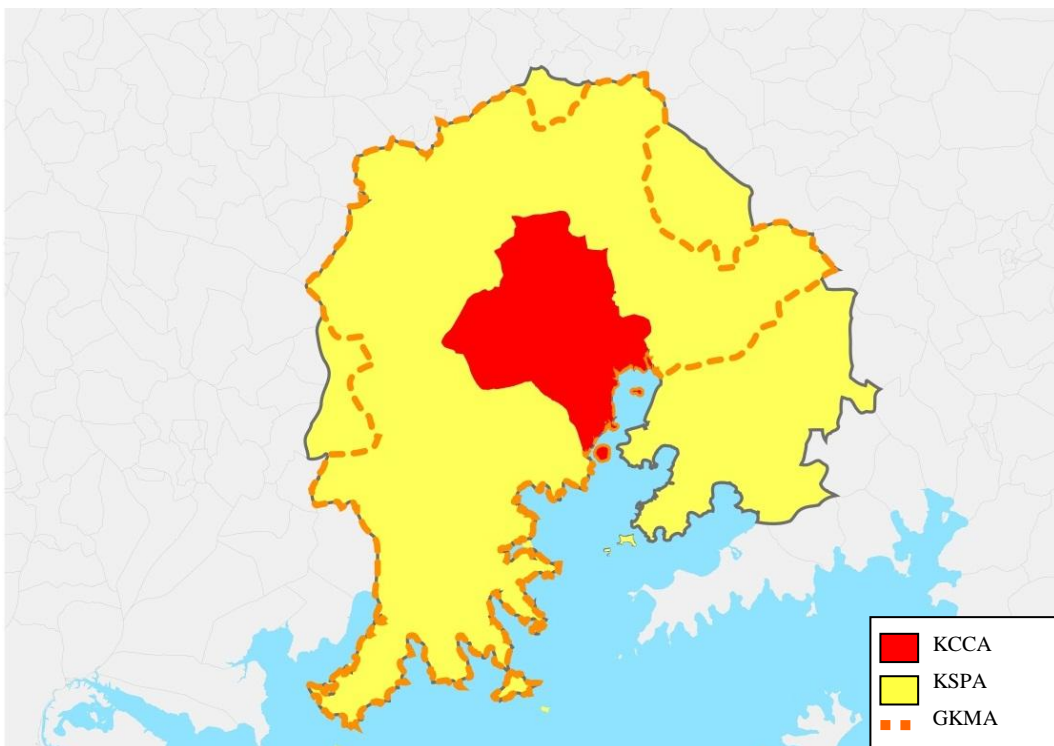
7.1 Introduction

The purpose of the following sections of the report is to present the Physical Vision for Kampala and the actions required in order to achieve this vision. The consultant addressed both the metropolitan scale of the GKMA and the city scale of the KCCA to create a comprehensive vision for the future development of the area.

The planning was conducted on two levels of hierarchy:

1. The Kampala Physical Development Framework (KPDF) for the GKMA metropolitan area,
2. The Kampala Physical Development Plan (KPDP) for the KCCA.

Accordingly, the report is divided into two parts, the Physical Development Framework and the Physical Development Plan. The Physical Development Framework deals with the conceptual structure of the metropolitan area and presents guidelines for large scale planning and development. The Physical Development Plan deals with the city itself and presents a long term city structure plan, and operational targets and goals for planning and development in the near future. The KPDF and the KPDP complete each other to construct a full and comprehensive development and planning strategy for the Kampala metropolitan area. The following map presents the area of treatment of the KPDF and KPDP.



Map 34: KPDP and KPDF Treatment Areas

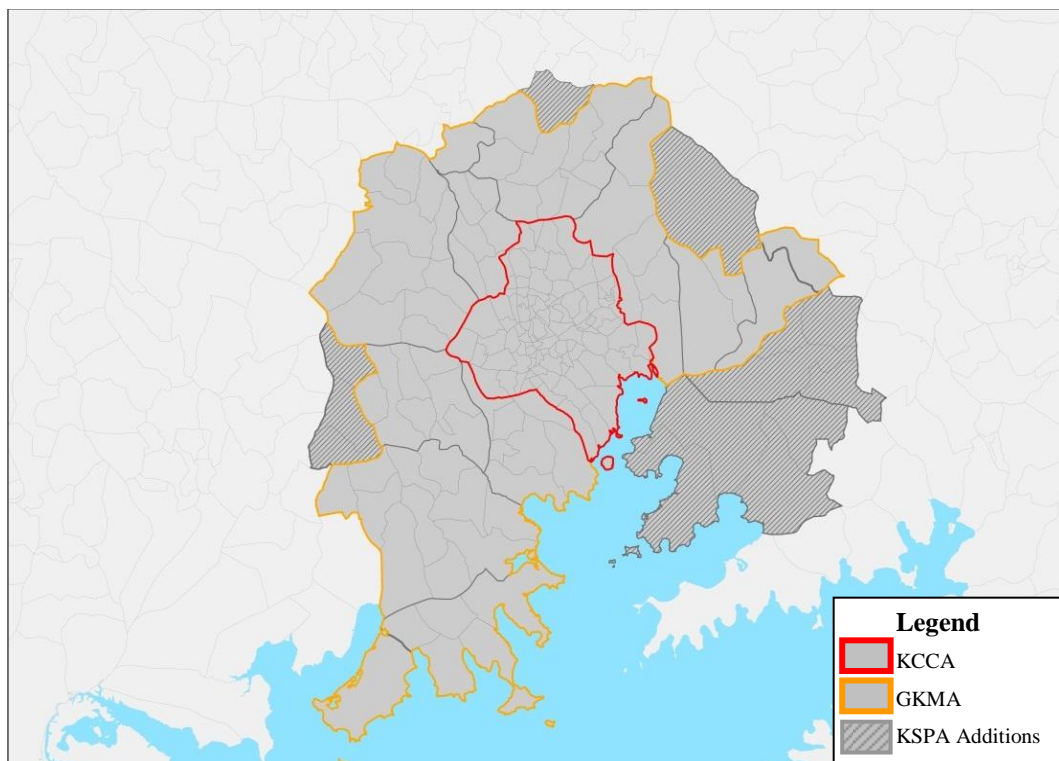
7.1.1 Special Planning Area (KSPA)

As detailed in **Section 2.3.3** the consultant recommended an expansion of the TOR planning area boundaries to include areas outside of the GKMA. The decision to go beyond the boundaries of the GKMA was a result of the consultant's analysis and understanding of the needs, constraints and potentials of the Kampala area as arose during the first stages of the work. The consultant proposed declaring a Special Planning Area (KSPA) which will in practice form the metropolitan area of Kampala. The KSPA boundaries constitute a formal framework for the KPDP and KPDP and overlap the two treatment areas. The KSPA was presented to the Steering Committee in March 2012 and received the official approval of the Steering Committee. The KSPA is to be gazetted and acknowledged as a project of national importance.

7.1.2 Special Planning Area (KSPA) Boundaries

The consultant recommends an expansion of the TOR boundaries beyond the GKMA to include the following districts and parishes (see following map):

- Nakisunga: Kyetume, Namuyenje, Namaiba, Kyabalogo
- Ntenjeru: Mpatta, Ssaayi, Bugoye, Kabanga
- Nsangi: Katereke, Maya, Nanziga
- Goma: Bukerere, Misindye, Nyenje
- Busukuma: Magigy



Map 35: Special Planning Area (KSPA)

The rationale behind the expansion of the TOR boundaries is that the importance of Kampala in the Ugandan context requires considerations which go beyond the GKMA boundaries. The expansion of the planning area to include additional parishes will allow creating a more comprehensive structural plan for the entire area.

7.1.3 Planning Hierarchy of the Special Planning Area (KSPA)

The KSPA was divided into four levels of planning: 1. Metropolitan Structure Plan, 2. KCCA and Metropolitan Zone Structure Plans, 3. KCCA Quarters and Precinct/Neighborhoods Physical Development Plans (PDP), 4. Site Development Plans (SDP). The first level deals with the conceptual structure of the KSPA which includes the expanded GKMA area. The KSPA was divided into planning zones, which will be elaborated upon later on. Accordingly, the KSPA conceptual plan was broken down to three type of planning zones: Existing Urban Cores, New satellites, and the KCCA. Within these three types of planning zones the KCCA received special attention and was addressed in a more comprehensive manner in the KPDP. The KCCA was divided into quarters and precincts/neighborhoods which act as planning units. Within the KCCA quarters City Centre Components were identified. Finally specific sites receive development plans. The following flowchart illustrates the KSPA planning hierarchy.

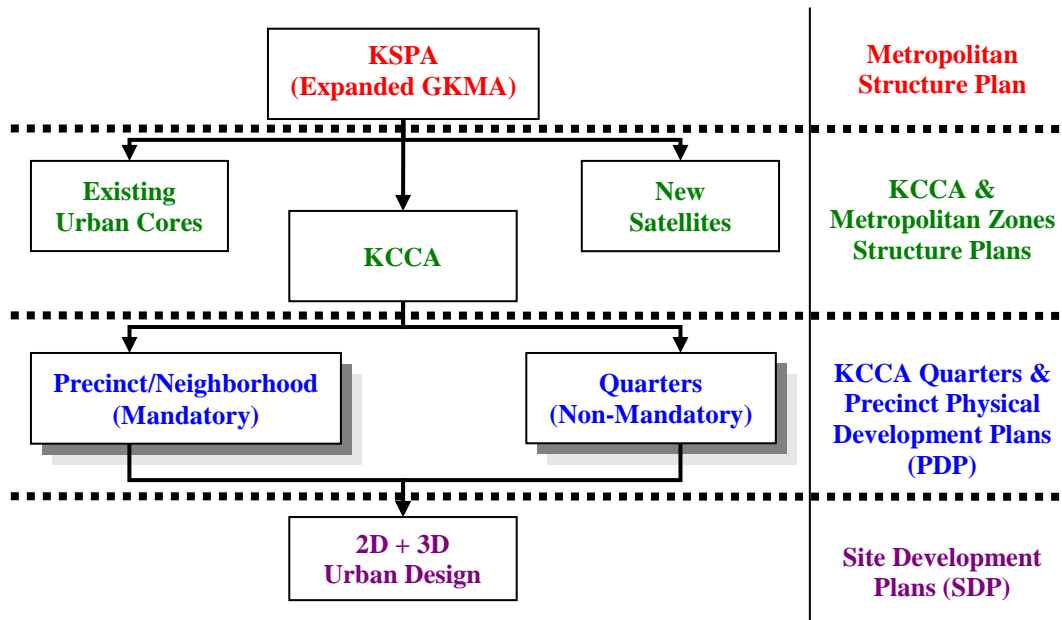


Figure 80: Planning Hierarchy

7.2 Conceptual Structure of GKMA

The Physical Development Framework addresses the Metropolitan Structure Plan and constitutes the first level of the KSPA planning hierarchy, as illustrated in the following flowchart. This section deals with the conceptual structure of the KSPA with emphasis on the GKMA and KCCA. The section begins with the spatial analysis of the existing situation in the GKMA and examines possible future scenarios. Next the potentials of the GKMA are examined, and finally a Physical Vision is constructed for the metropolitan area.

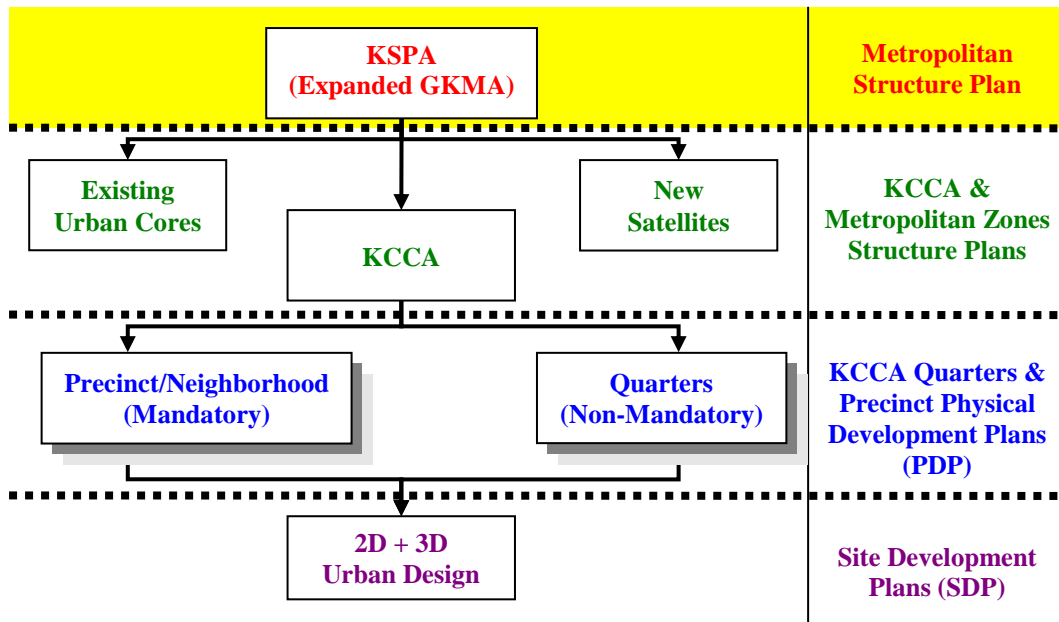


Figure 81: KSPA in the Planning Hierarchy

7.2.1 Spatial Analysis of existing situation in the GKMA

The spatial analysis of the GKMA in its current state is necessary in order to understand the present and future development scenarios. The spatial analysis, as opposed to other types of analyses, focuses on the spatial and physical aspects of the existing situation.

7.2.2 In-migration

Kampala nowadays accommodates 3,150,000 residents, a number which doubles during the day as millions flood the city from the surrounding settlements. As the city continues to attract migrants from all corners of the country, a population growth is predicted in the short and long term. Forecasts for future scenarios regarding in-migration will be discussed in detail later on. Increased in-migration has different implications on the functioning of the KCCA and metropolitan area such as employment, transportation, housing etc. Considering the physical aspects of the metropolitan area, the increased in-migration will have a major effect on the structure of the urban tissue.

7.2.3 Urban Sprawl

Kampala today is characterized by extensive urban sprawl. The urban sprawl extends beyond the boundaries of the KCCA into the peri-urban and rural areas of the KMTCC. Three smaller additional urban centres exist outside of the KCCA boundaries: Wakiso-Nansana, Mukono-Goma-Kira and Entebbe. Though these centres are disconnected from the KCCA, they are linked and dependant on the KCCA for services, employment, etc. The areas between these centres and the KCCA are littered with disorganized settlements along the roads, which form the urban sprawl. The density in these areas is extremely low in comparison to the KCCA average. The result of this situation is disjointed and incremental growth. These settlements burden the existing infrastructure of the GKMA, and the KCCA in particular, as many flood the city daily in search of employment and services. This causes major traffic conjunction in the city and along its access routes. The following figure illustrates the existing urban sprawl.

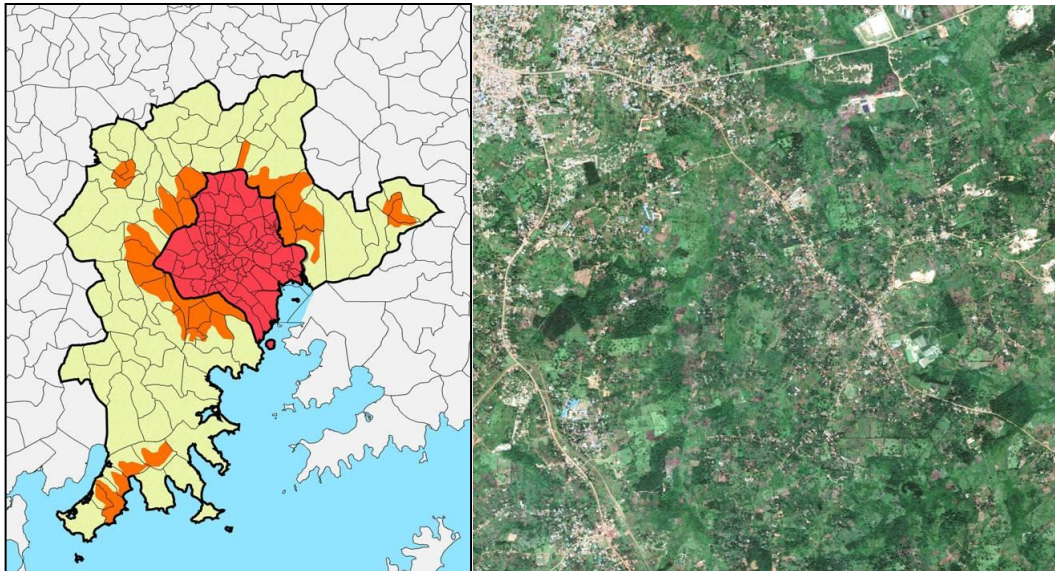


Figure 82: Existing Situation. Left: GKMA and KCCA Urban Tissue. Right: Low-Density Urban Sprawl.

7.3 Future Growth Scenarios

Several possible future scenarios for the GKMA were constructed in order to assess the future needs and constraints which will affect the future of the metropolitan area. The scenarios take into account three possible courses of future development based on different in-migration rates and policies:

- Business as Usual - no regulation of migration
- Worst Case scenario - accelerate migration
- Best Case scenario - regulated and decreased migration rate

The scenarios were constructed for two timeframes: 1. Short term - 10 years, 2. Long term (e.g. 2040). Forecasts indicate that in a "Business as Usual" scenario the city will house 5,000,000 people by 2022 and 12,000,000 by 2040. According to the "Worst Case" scenario of accelerated migration, the city will have a population of 6,000,000 by the year 2022 and over 15,000,000 by the year 2040. Through measures of migration control it is possible to reach the goal of the "Best Case" scenario of 4,800,000 by 2022 and 10,000,000 by 2040.

Table 43: Future Growth Scenarios

Scenario / Timeframe	2011	Short Term (2022)	Long Term (2040)
Business as Usual	3,180,000	5,000,000	12,000,000
Worst Case	3,180,000	6,000,000	15,000,000
Best Case	3,180,000	4,800,000	10,000,000

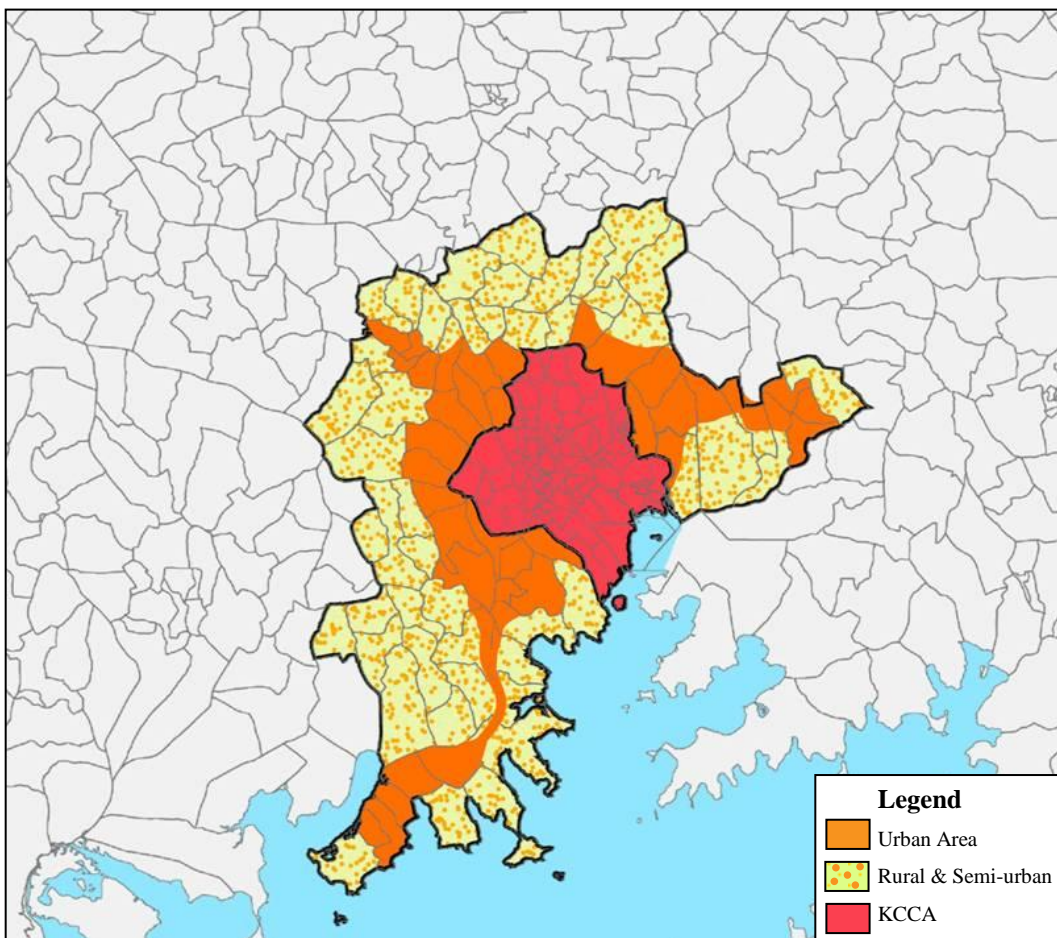
The long term development scenarios have been analysed and assessed by the Consultant, see **Section 4.2** above.

The following images illustrate the different growth scenarios as they may manifest in the physical space.

7.3.1 Business as Usual / Worst Case scenario Short Term (2022):

Population: 5,000,000 - 6,000,000 inhabitants.

Both the Business as Usual and the Worst Case scenarios predict approximately the same structure of urban sprawl for the short term future (2022). According to these scenarios the current sprawl thickens, fully surrounding the KCCA and connecting it to Wakiso, Mukono and Entebbe. A continuous urban tissue is created and the surrounding peri-urban and rural areas densify. At this point the growing population can still be accommodated within the GKMA boundaries. The following map illustrates the urban sprawl according to these scenarios.

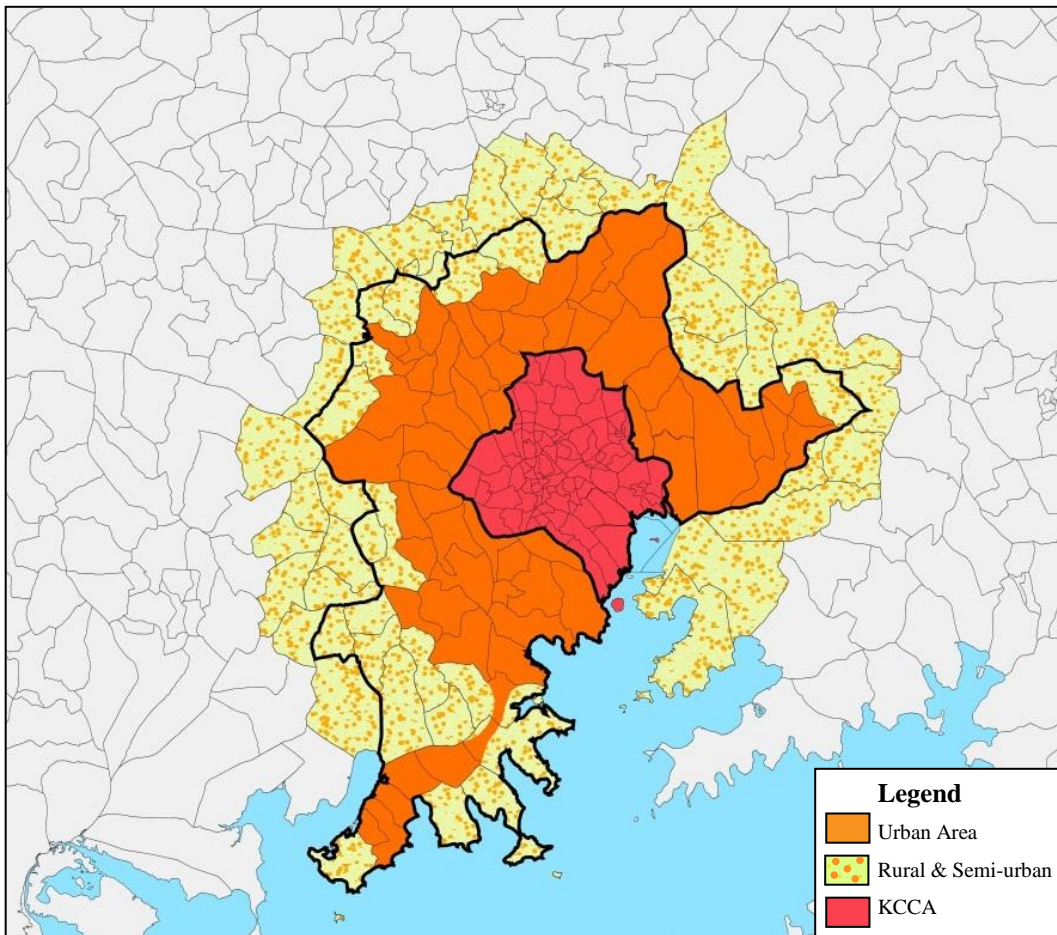


Map 36: “Business as Usual” / Worst Case Scenario 2022

7.3.2 Best Case scenario Long Term (2040):

Population: 10,000,000 inhabitants.

Without organized planning and development, even according to the best case scenario the population growth will over spill the GKMA boundaries by 2040. In this scenario nearly the entire GKMA is covered by urban sprawl which engulfs formally peri-urban and rural areas. The overspill beyond the GKMA boundaries is densified peri-urban and rural settlements. The following map illustrates the urban sprawl according to this scenario.

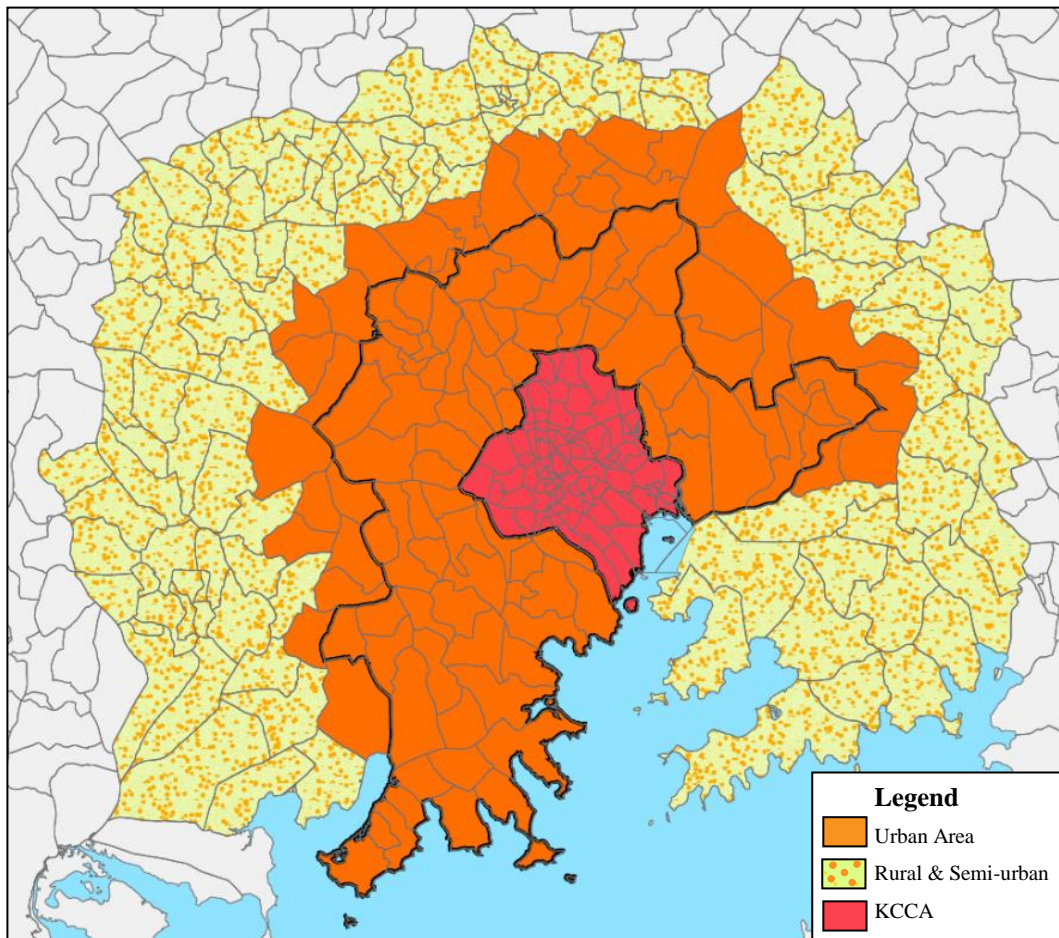


Map 37: Best Case Scenario 2040

7.3.3 Worst Case scenario Long Term (2040):

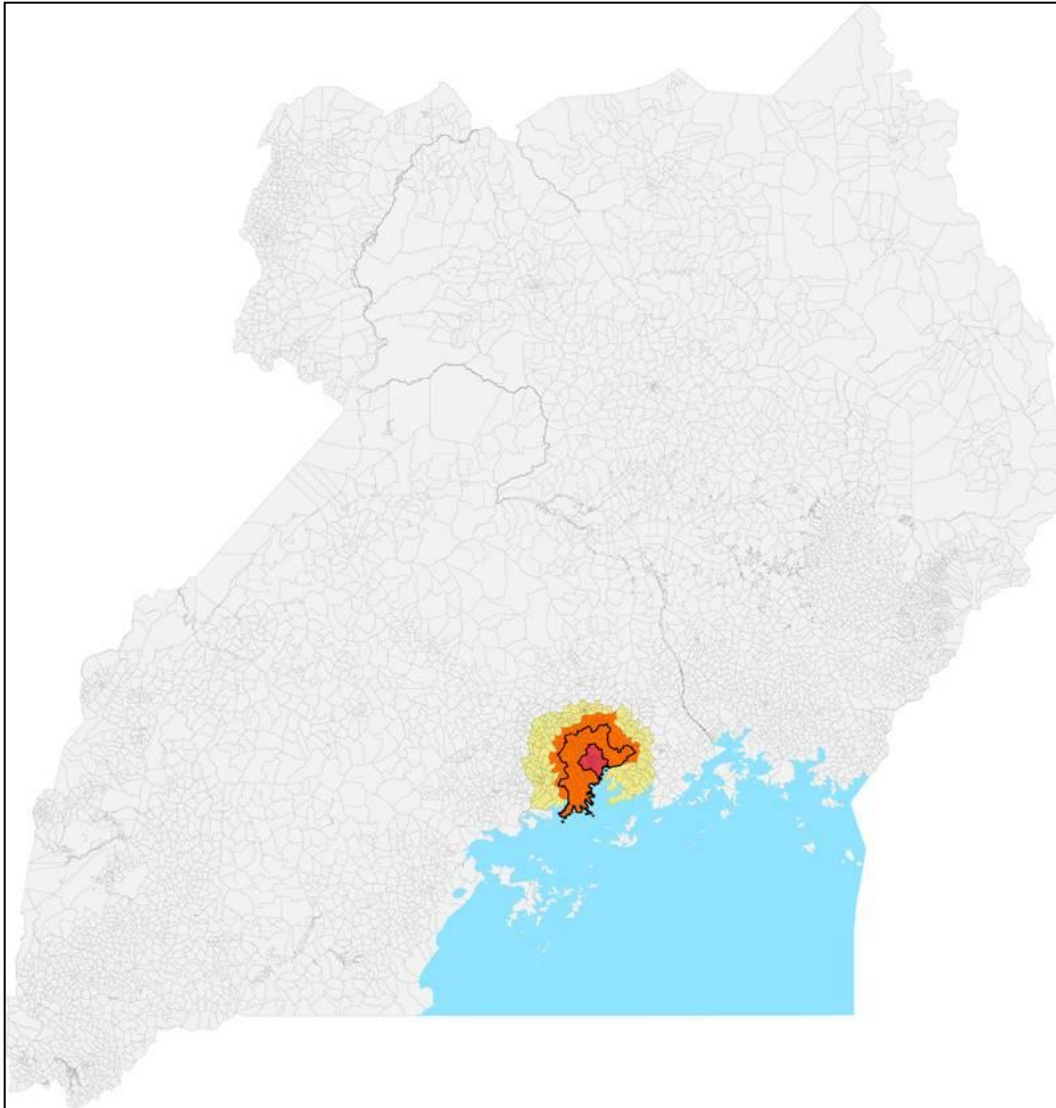
Population: Over 15,000,000 inhabitants.

According to the worst case scenario of accelerated migration and unplanned, low-density development, the area required for accommodation of all inhabitants will be more than twice the size of the GKMA today. The entire GKMA and beyond will be covered by urban sprawl while the surrounding densified peri-urban and rural areas will stretch out far beyond the GKMA boundaries. The following map illustrates the urban sprawl according to this scenario.



Map 38: Worst Case Scenario 2040

The Kampala metropolitan area will cover a noticeable part of Uganda with a disjointed and incremental tissue, as seen in the following image. The area will be impossible to manage and provide services for as existing infrastructures will be stretched thinner over a growing area and population.



Map 39: Worst Case Scenario 2040, Full Context

7.3.4 Threats and Implication

Continued unplanned growth holds several dangers to the future of the city:

- Further burdening existing infrastructure
- Poor functioning of metropolitan systems
- Decreasing quality of life and living conditions
- Destruction of urban economy
- Damage to ecological system
- Blocking modern development

The implications of the unbalanced growth and unplanned urban development pose an **existential threat to Kampala and must be avoided at all costs.**

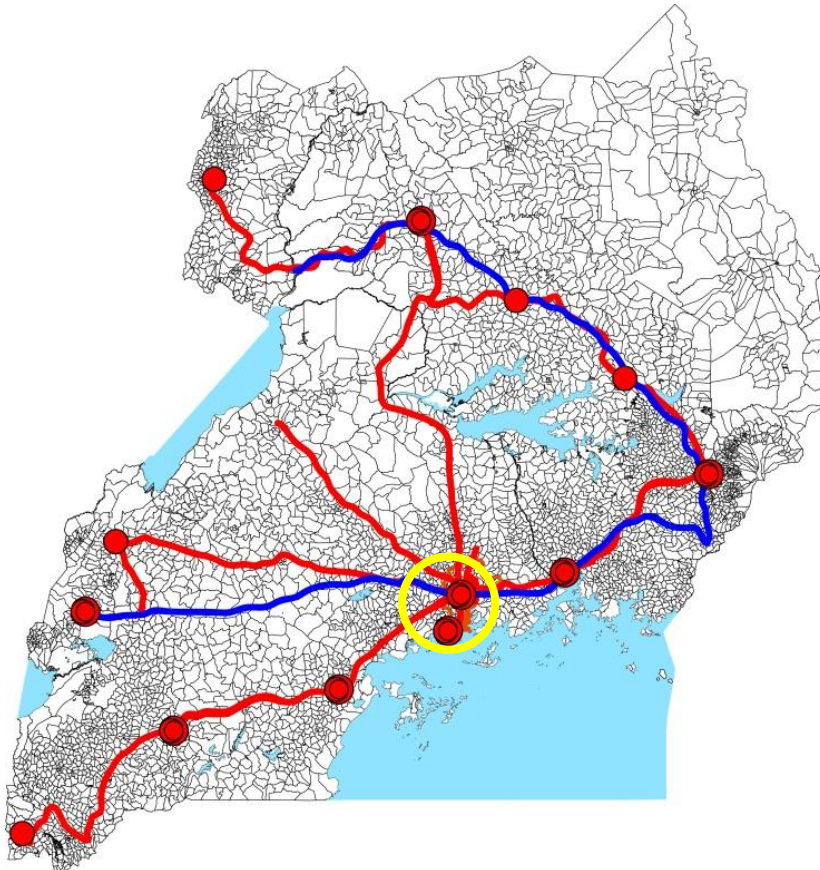
7.3.5 Spatial Planning Strategy

The only course of action which can eliminate the threats of the continued unplanned and disorganized growth is to form a Planning Strategy capable of addressing the sources of the above threats. Based on the analysis of the future scenarios and threats the consultant composed a Planning Strategy which guided the creation of the KPDF and KPDP:

- A new Physical Vision for Kampala will guide the development of the city and metropolitan area in a **planned and organized manner**.
- A **National Comprehensive Urbanization Policy and Physical Plan** will boost the development of existing and new towns.
- Strengthening existing and new urban centres will **ease the pressure on KCCA infrastructure and services**, allowing the city future development.
- A planned metropolitan structure will **eliminate unbalanced sprawl**.
- Sustainable development which **protects the most important existing natural resources** will ensure the future of Kampala as a modern and quality city for future generations.

7.4 Conceptual (Topological) Spatial Models

In the creation of a KPDF, it is important to consider the GKMA and KCCA in the greater context of the entire country. As seen in the following image, Kampala is based in the central-south side of Uganda, near Lake Victoria.



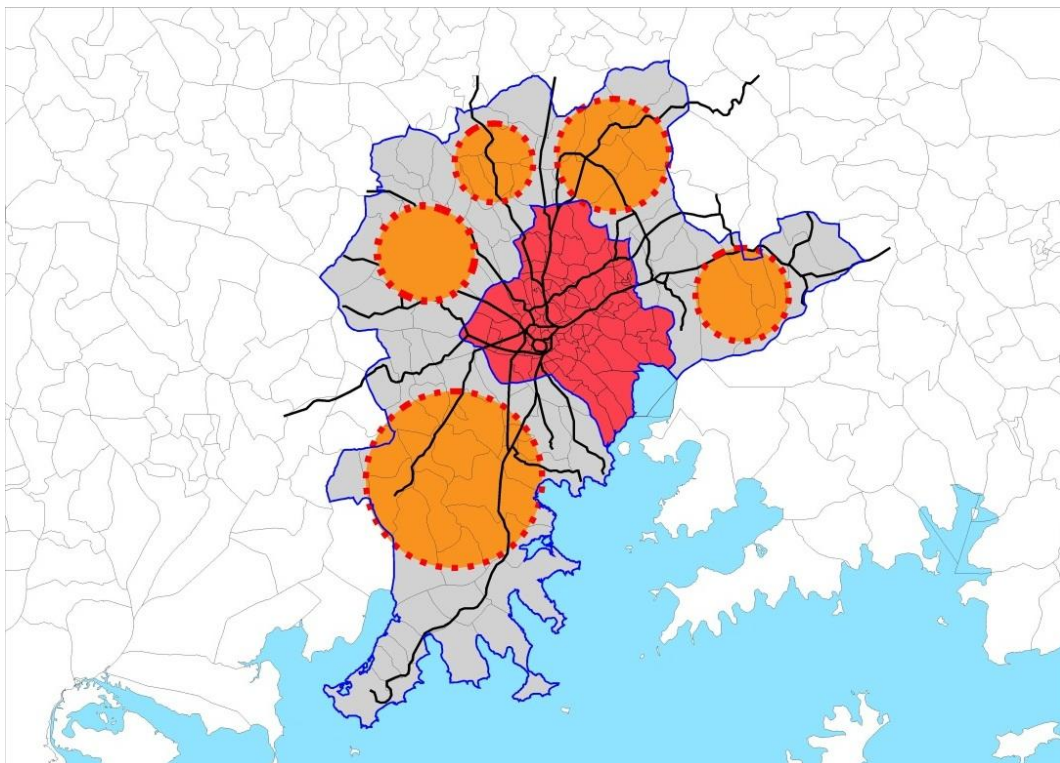
Map 40: Uganda Cities and Road System

Kampala is located on the intersection of many main roads and railways and acts as a main focal point in Uganda. Being such, the structure of the GKMA and relation to the KCCA must take into consideration the implications such a structure will have beyond the GKMA boundaries.

In the analysis of the current situation and potentials the consultant examined several metropolitan planning models for the future development of the GKMA. The examined models are based on existing models of town planning from around the world. The models were adjusted to match the conditions of the specific situation of the Kampala metropolitan area. These models constitute potential Conceptual Topological Schemes for the long term development of the GKMA area.

7.4.1 The “Independent Satellite Cites” Model:

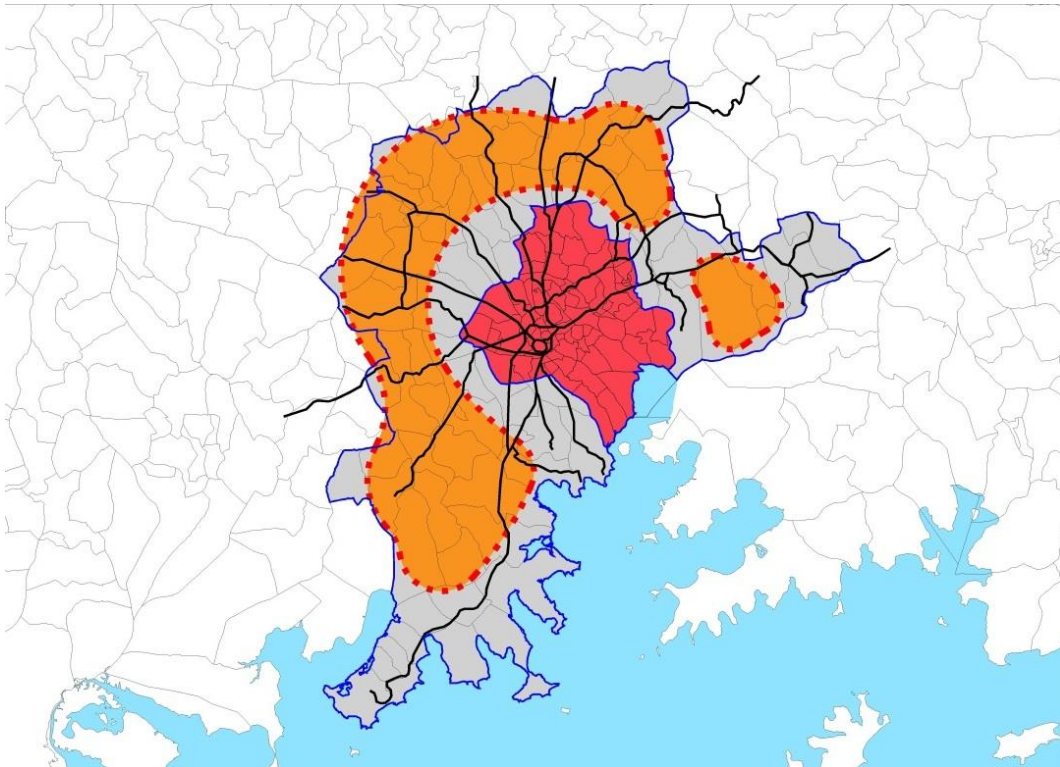
The “Independent Satellite Cites” Model suggests creating independent regional centres surrounding the KCCA metropolitan centre. The benefits of this model are that it creates new focal points outside the KCCA thus reducing the pressure on the KCCA's infrastructure and services and offers migrants further urban alternatives to Kampala itself. The proposed satellites will be either based on the existing centres of Wakiso and Mukono, or new development in areas in which there building is scarce. The satellites will be connected to the KCCA through a system of metropolitan roads, both existing and new. The following map illustrates the urban development according to the “Independent Satellite Cites” Model.



Map 41: The “Independent Satellite Cites” Model

7.4.2 The "Urbanized Belt" Model:

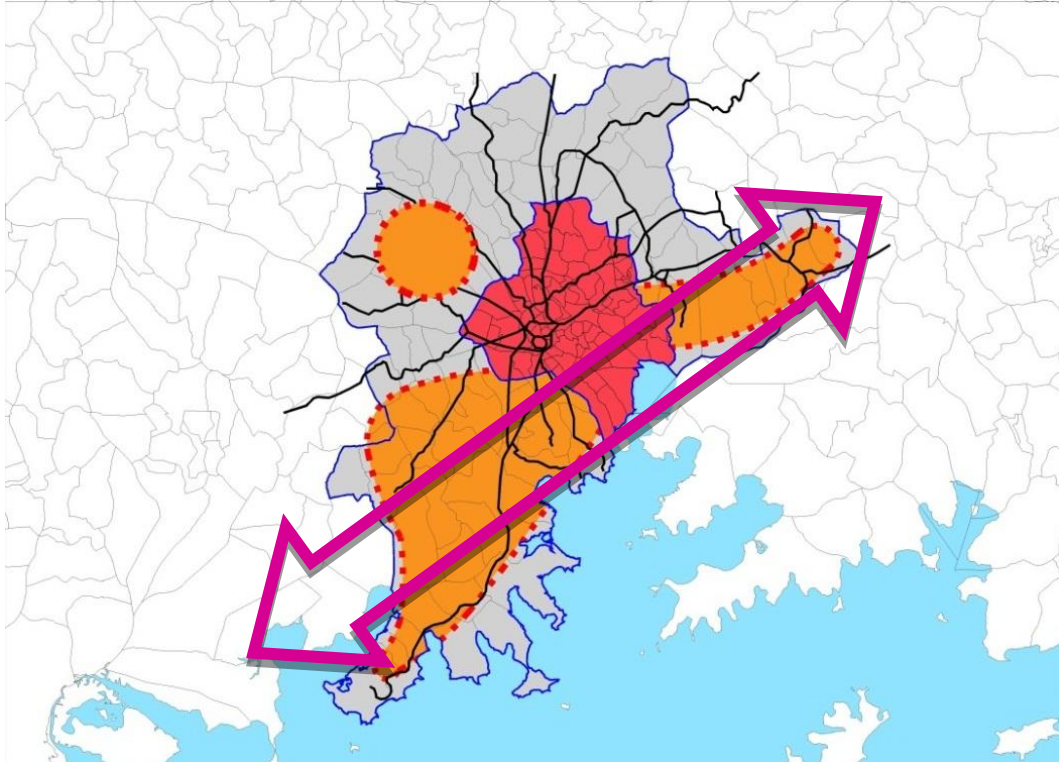
The "Urbanized Belt" Model suggests creating a belt of continuous development around the KCCA with a buffer zone dividing the KCCA from the outside development. The benefit of this model is that it limits KCCA's sprawl as the buffer zone prevents further expansion of the city. In this model the existing centres will be incorporated into the belt. The belt will be connected to the KCCA through a system of metropolitan roads, both existing and new. The following map illustrates the urban development according to the "Urbanized Belt" Model.



Map 42: The "Urbanized Belt" Model

7.4.3 The "East-West Corridor" Model:

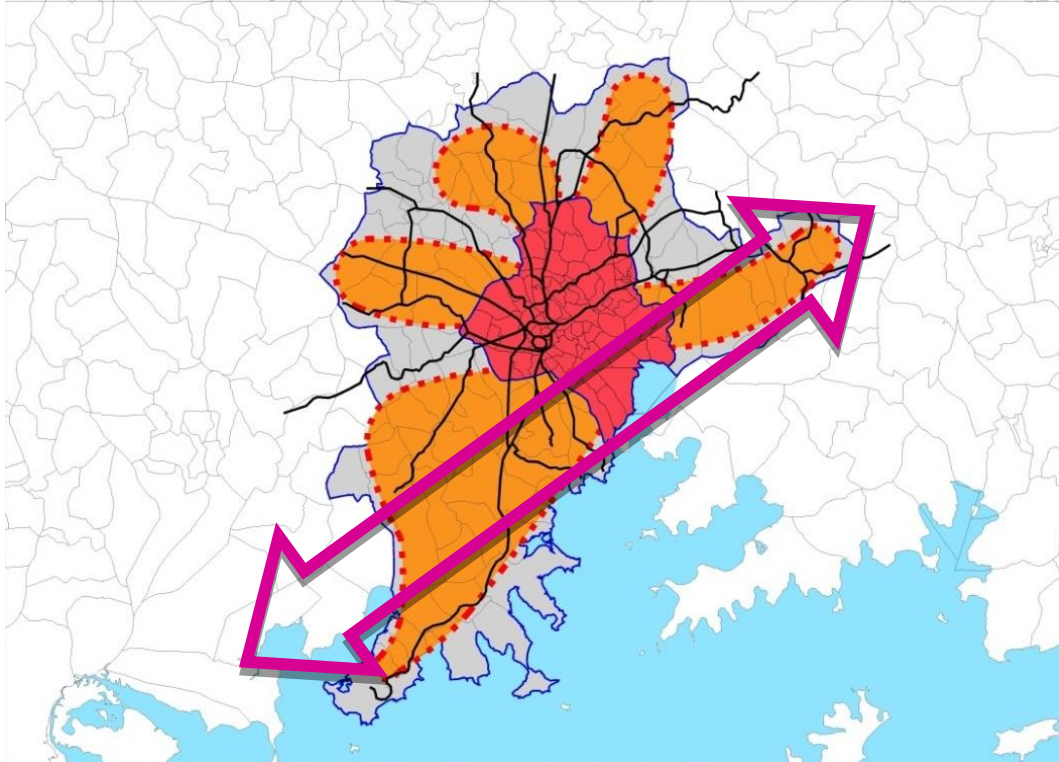
The "East-West Corridor" Model suggests creating regional centres connected to the KCCA metropolitan centre through corridors with emphasis on development of the east-west direction. The benefits of this model are that it allows connecting the Mukono and Entebbe existing centres and creating a strong lakefront. Furthermore, this direction relates to the extended large-scale system which follows Lake Victoria from Kenya to Rwanda. The following map illustrates the urban development according to the "East-West Corridor" Model.



Map 43: The “East-West Corridor” Model

7.4.4 The "Radial Integrated" Model of Satellite cities and East-West Corridor Models:

The “Radial Integrated” Model is an integration of the “Independent Satellite Cities” Model and the “East-West Corridor” Model. The model suggests creating regional centres connected to the KCCA metropolitan centre through corridors and surrounding the KCCA radially. The benefits of this model are that it takes into account the existing situation of the GKMA in which building stretches out along the roads from the KCCA and outwards, with emphasis on the significant East-West direction. As in the “East-West Corridor” Model, the Entebbe and Mukono centres are connected to create a strong lakefront. The corridors branch from the KCCA along existing and new roads thus creating centres with buffer zones in-between them. The following map illustrates the urban development according to the “Radial Integrated” Model.



Map 44: The "Radial Integrated" Model

7.4.5 Summary

This section examined conceptual spatial models for the GKMA. A total of four models were examined:

- The "Independent Satellite Cities" Model
- The "Urbanized Belt" Model
- The "East-West Corridor" Model
- The "Radial Integrated" Model of Satellite cities and East-West Corridor Models

Each model has strengths and weaknesses, and offers different potentials in the GKMA context. In order to assess the suitability of each model and choose the most suitable spatial model for the GKMA, a suitability analysis was conducted. The suitability analysis is presented in the following section.

7.5 Spatial Suitability Analysis

The evaluation of metropolitan planning models was conducted through a Location Analysis and Spatial Suitability Analysis process. Through this process different aspects of the GKMA were examined and mapped: Natural assets, Public open spaces, Topography, Towns and settlements, Industrial sites, Public services, Urban Centres and business cores, Metropolitan public transportation (BRT and other modes). The aim of this analysis was to scan the areas of GKMA, subdivided into cells (parishes, districts, etc.) and to identify potentials and suitability for development based on future growth forecasts. The output of the Spatial Suitability Analysis was a Spatial Suitability Map which integrated the different aspects of the metropolitan area. The Suitability Map was integrated with the Topological Schemes of the possible metropolitan planning models to create a Physical Vision for the GKMA area's long term spatial form which will be discussed in detail later on.

The Suitability Analysis was conducted on two levels: The entire metropolitan area and specific sites which were identified as having greater potential. During the first stage an Ortho photo mapping of the GKMA area and additions was created in order to constitute a basis for analysis and mapping of functions and development areas. A vector map of the division to parishes was also created and used as a base map to which additional information was attached (e.g. density, capacity, etc.). A detailed mapping and analysis was conducted of land uses in the GKMA area out of which were extracted restricted areas and open areas for potential development. An analysis of topography and a slope analysis were also conducted in order to identify area suitable for development. During the second stage the selected sites were examined according to predefined criteria: Permitting terrain, Connection to urban structure, Low density and Vacant land, and Large available area.

7.5.1 Spatial Suitability Analysis Layers

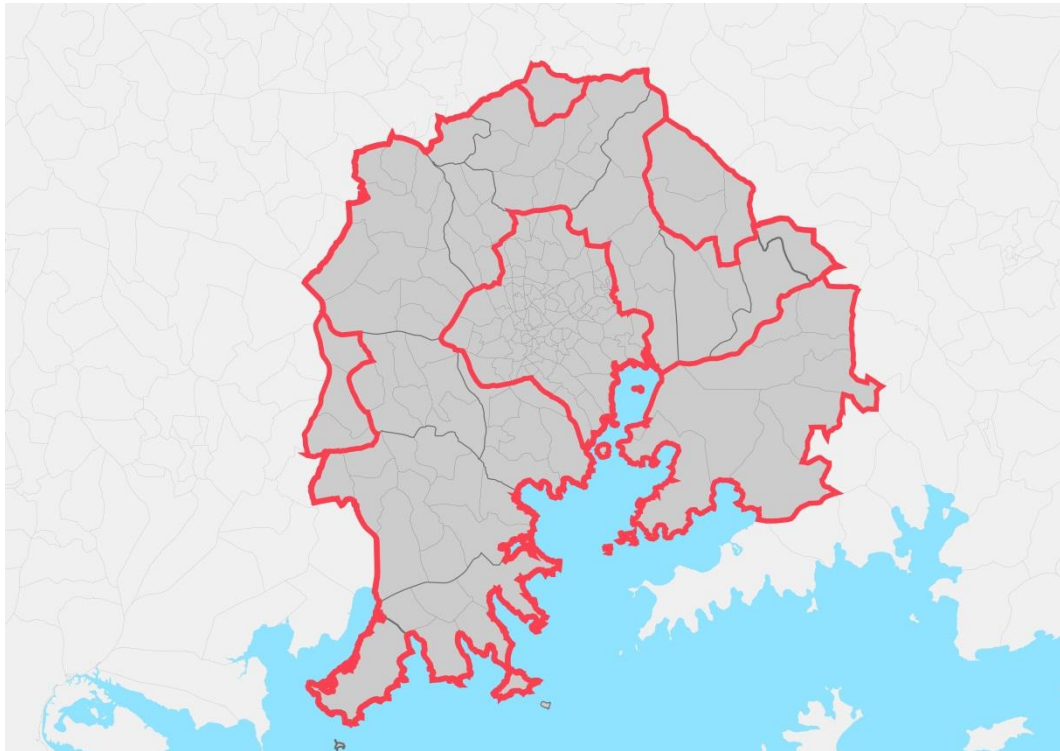
The Spatial Suitability Analysis included mapping the GKMA area and analysis of existing potentials. The Spatial Suitability Analysis included the following layers:

- Orthophoto
- GKMA Administrative Boundaries
- GKMA Densities
- Open and Restricted Areas
- Topography and Slope Analysis
- GKMA Landuses

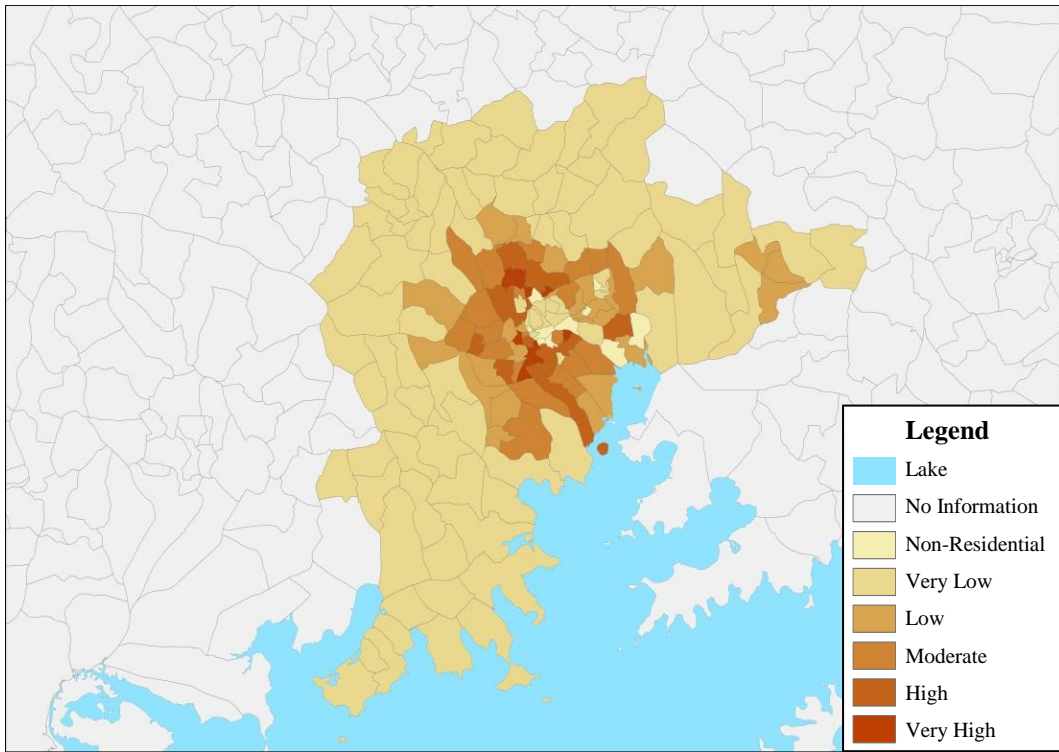
Following are presented the Spatial Suitability Analysis layers.



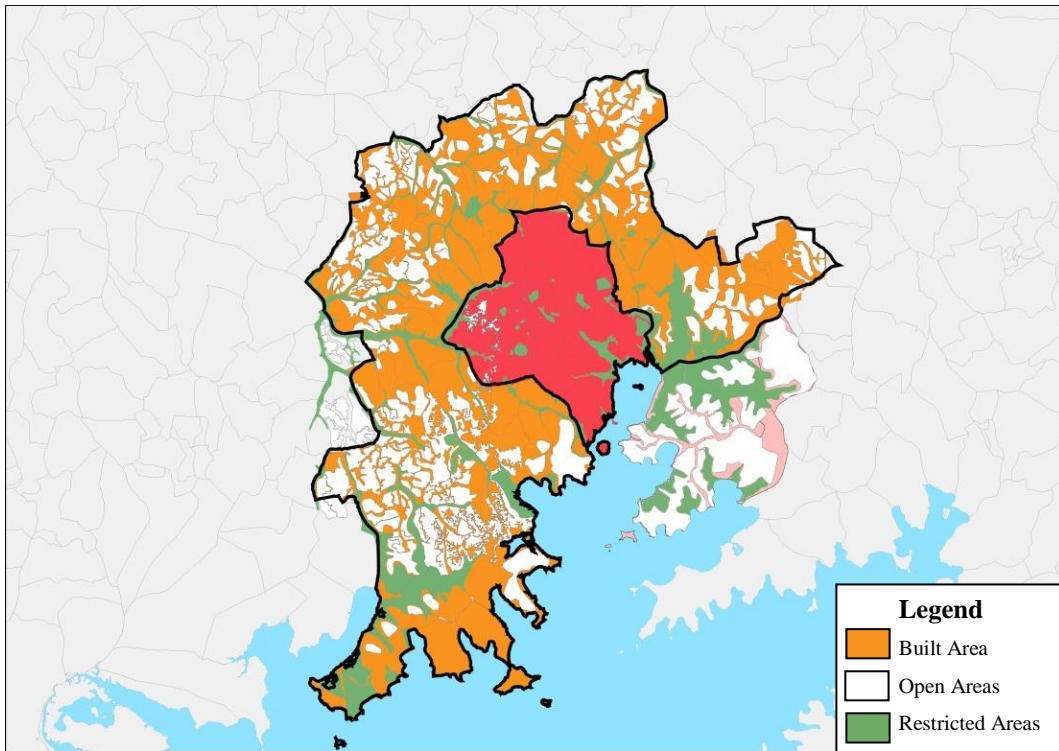
Map 45: GKMA Orthophoto



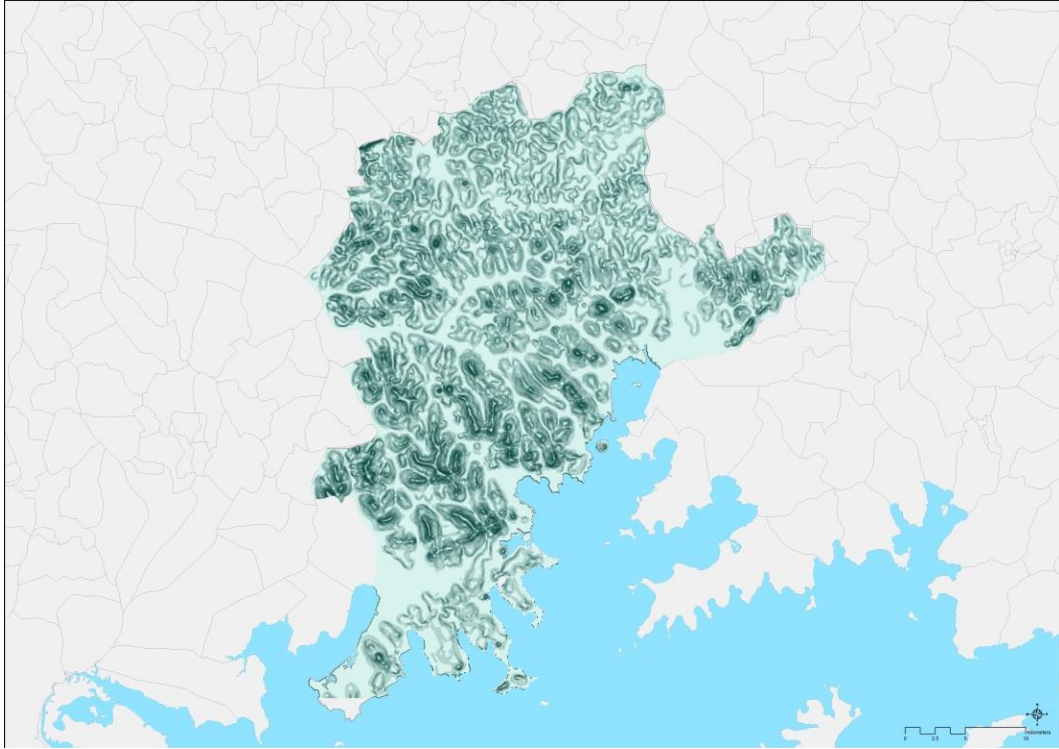
Map 46: GKMA Administrative Boundaries



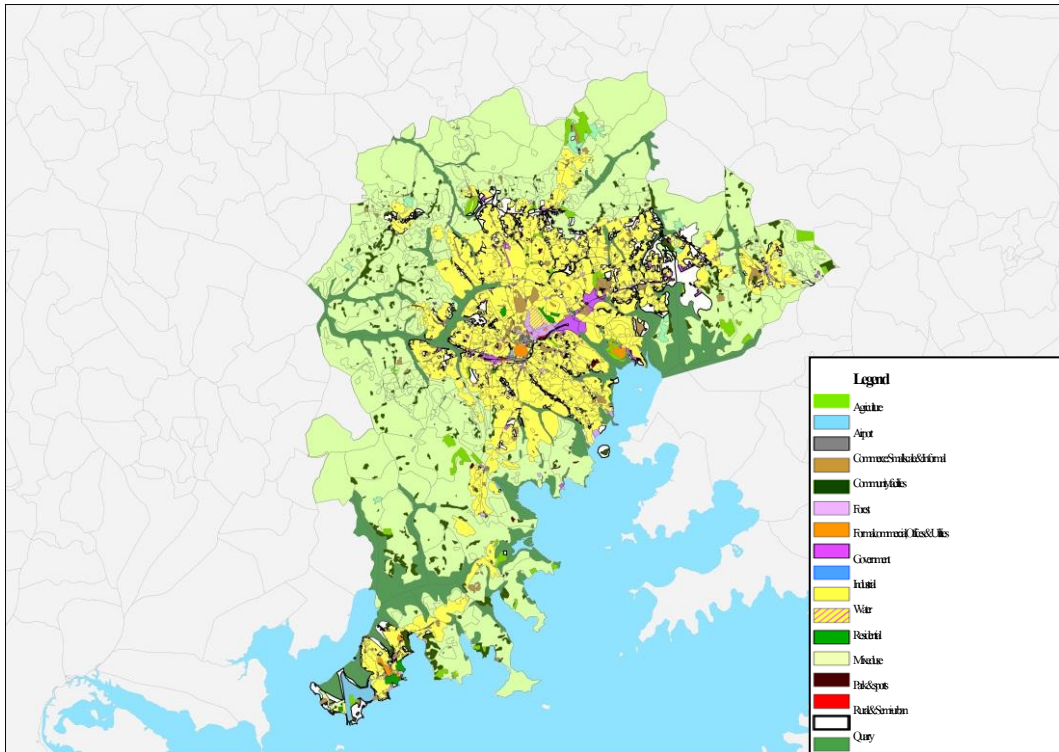
Map 47: GKMA Densities



Map 48: Open and Restricted Areas



Map 49: Topography and Slope Analysis



Map 50: GKMA Landuses

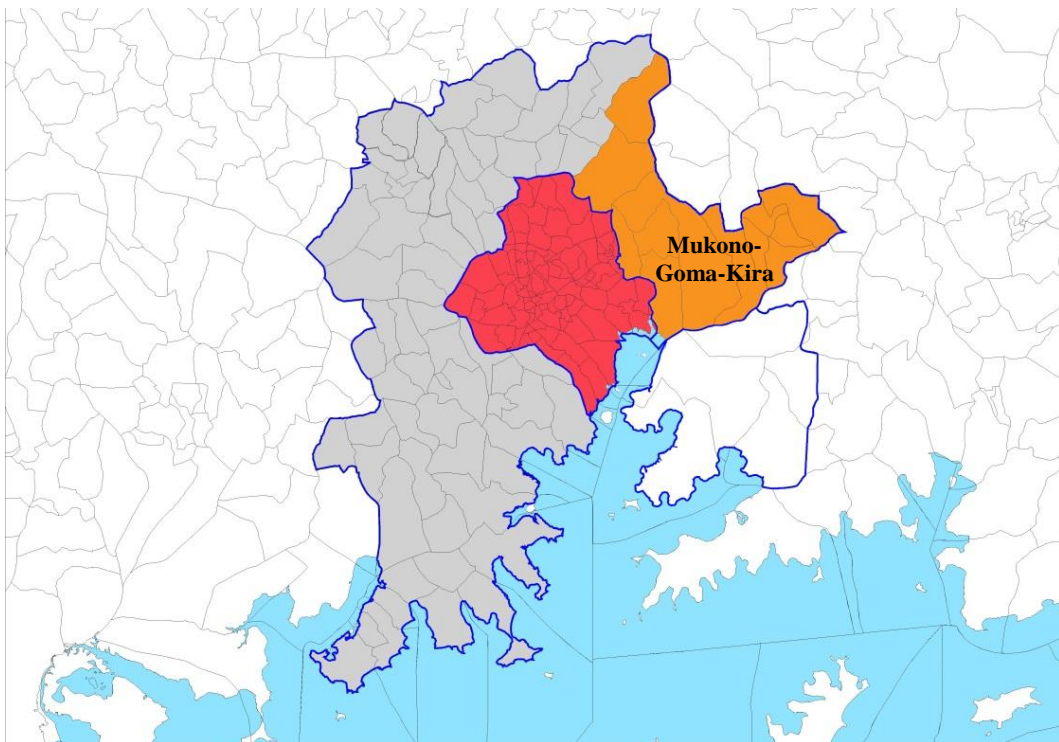
The first stage of the Suitability Analysis pointed to four potential areas for development within the KSPA boundaries: 1. Mukono-Goma-Kira, 2. Wakiso-Nansana, 3. Ssisa-Nsangi, 4. Nakisunga-Ntenjeru. A Detailed Sites Analysis was conducted for these areas.

7.5.2 Detailed Sites Analysis

The following stage in the Suitability Analysis included specific analysis of the potential development areas mentioned above. Each area was examined according to four criteria and given a score which indicated its suitability for development according to examined criterion. The examined criteria are: 1. Permitting terrain, 2. Connection to urban structure, 3. Low density and vacant land, 4. Large available area. The score was summarized in a Spatial Suitability balance sheet and the total score calculated to reveal the areas with highest potential for new development and for strengthening of existing core.

7.5.2.1 Mukono-Goma-Kira

The Mukono-Goma-Kira area was examined and found to have permitting terrain and to be very well connected to the existing urban structure (see following images). However, the Mukono-Goma-Kira area was also found to be too densely populated and with insufficient available areas in order to be able to suitable for large scale new development. This area was found to be more suitable for strengthening of the existing core which already includes an active centre.



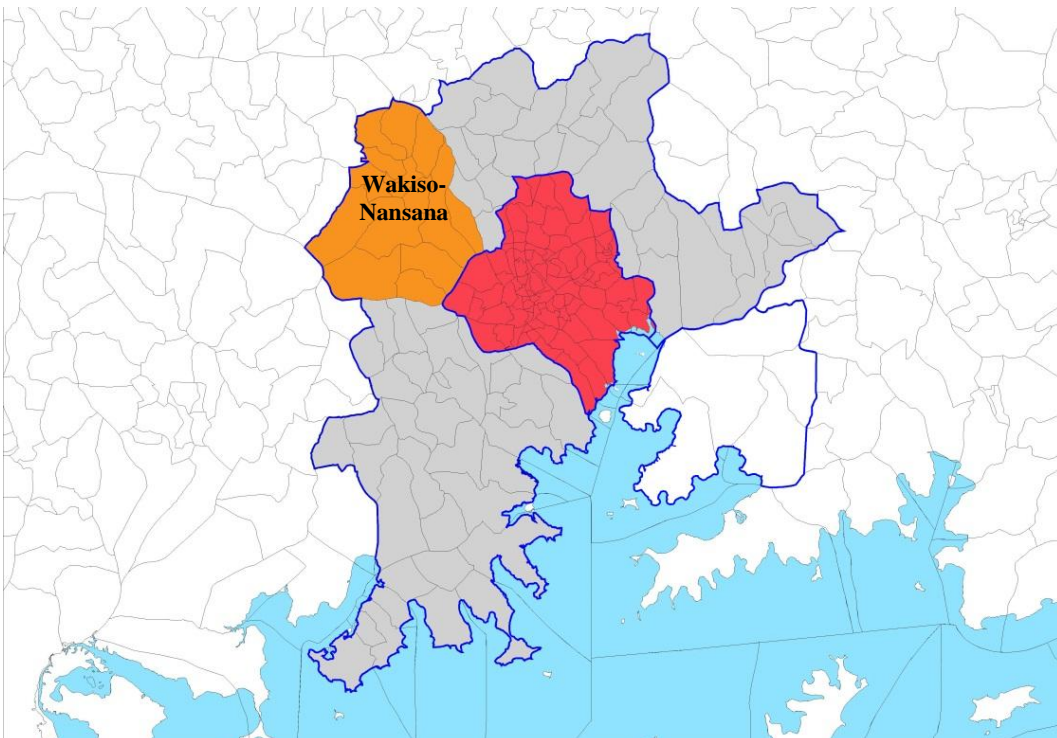
Map 51: Mukono-Goma-Kira Area



Figure 83: Building Patterns in Mukono-Goma-Kira

7.5.2.2 Wakiso-Nansana

The Wakiso-Nansana area was examined and found to have permitting terrain and to be very well connected to the existing urban structure (see following images). However, similarly to the Mukono-Goma-Kira area, the Wakiso-Nansana was also found to be too densely populated and with insufficient available areas suitable for large scale new development. This area was found to be more suitable for strengthening of the existing core which already includes an active centre.



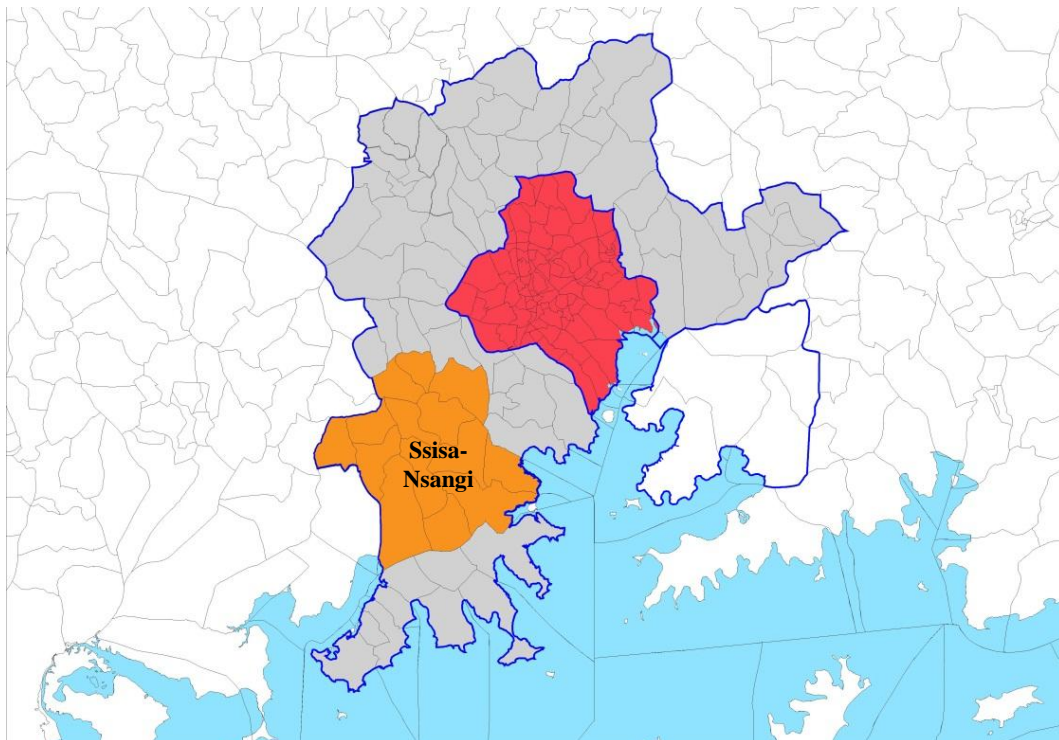
Map 52: Wakiso-Nansana Area



Figure 84: Building Patterns in Wakiso-Nansana

7.5.2.3 Ssisa-Nsangi

The Ssisa-Nsangi area was examined and found to have permitting terrain and to be very well connected to the existing urban structure (see following images). Furthermore, the area was found to have a very low density and available and vacant lands in abundance. These criteria make the Ssisa-Nsangi a prime location for new, large scale development.



Map 53: Ssisa-Nsangi Area



Figure 85: Building Patterns in Ssisa-Nsangi

7.5.2.4 Nakisunga-Ntenjeru

The Nakisunga-Ntenjeru area was examined and found to have permitting terrain and to be well connected to the existing urban structure (see following images). Furthermore, the area was found to have low density and a large amount of available and vacant lands. These criteria make the Nakisunga-Ntenjeru a very good location for new, large scale development.



Map 54: Nakisunga-Ntenjeru Area



Figure 86: Building Patterns in Nakisunga-Ntenjeru

7.5.2.5 Summary of Suitability Analysis

The potential areas for development characteristics were examined according to the criteria mentioned above and given a score from -1 to +3 indicating their suitability for development according to each criterion. The following table summarizes the score given to each of the potential areas for development according to the four criteria.

Table 44: Spatial Suitability Balance Sheet

Criteria / Area	Mukono-Goma-Kira	Wakiso-Nansana	Ssisa-Nsangi	Nakisunga - Ntenjeru
Permitting terrain	+2	+2	+2	+2
Connection to urban structure	+3	+3	+3	+2
Low density and Vacant land	-1	-1	+3	+2
Large available area	0	0	+2	+2
Summary	+4	+4	+10	+8

Another potential area for development pointed to by the suitability analysis was the Entebbe area (see following map). Due to Entebbe's status as an independent town and municipality, combined with its location as most distant from the KCCA, Entebbe was considered a potential for strengthening of the existing structure only, and was not included in the detailed site analysis.

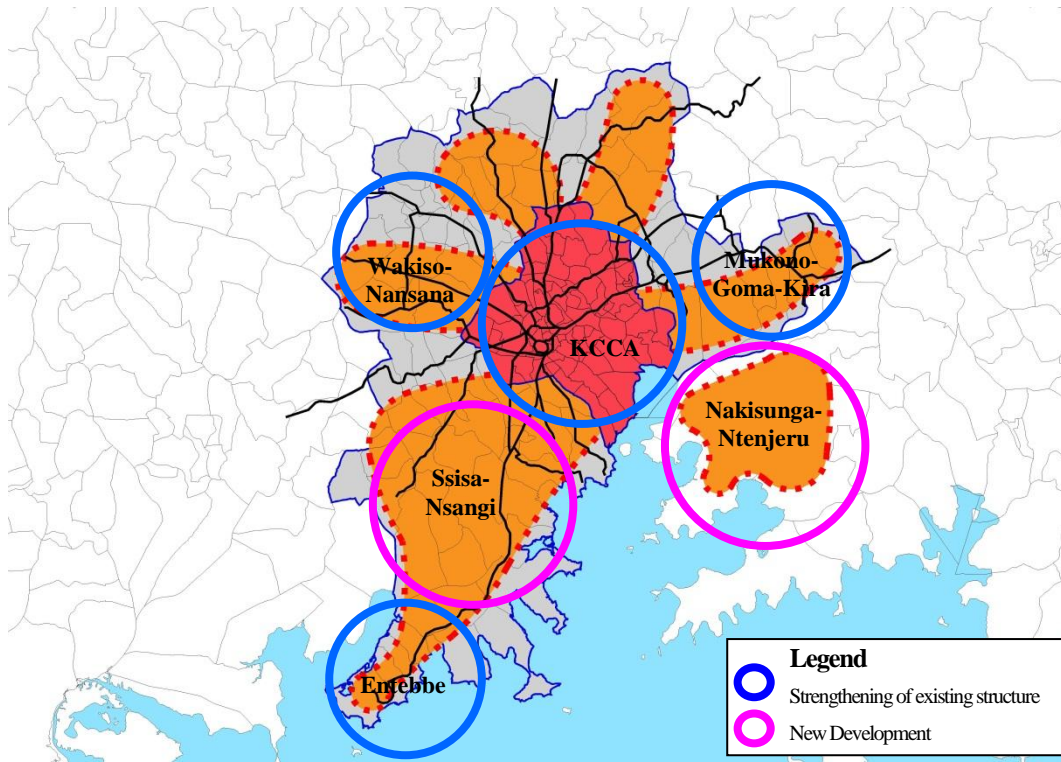
The following map summarizes the areas examined and found suitable for development according to the Spatial Suitability Analysis.



Map 55: Suitability Analysis Summary Map

7.6 Conceptual Scheme & Suitability Analysis Integration

Cross referencing of the Suitability Map with the possible Conceptual (Topological) Schemes presented earlier in section 7.4 reveals that the most suitable model is an integration of the “Radial Integrated” Model (section 7.4.4) adjusted according to the Suitability Map. The combination of the two creates a hybrid model which best represents the existing situation in the GKMA and the potentials for the metropolitan area. This model, presented in the following scheme, gives special importance to the East-West direction and suggests a corridor system which flows from Mukono in the east to Entebbe in the south-west. The addition of the Ssisa - Nsangi development area into the scheme strengthens the east-west direction and ensures an organized and effective corridor system, as opposed to the unplanned and disorganized structure developing nowadays. The Wakiso-Nansana and Nakisunga-Ntenjeru areas will function as satellites of the KCCA, connected to it but not a part of the corridor system.



Map 56: The “Radial Integrated” Model combined with Suitability Map Conclusions

7.7 Proposed Conceptual Structure Scheme

Following the analysis presented in previous sections hereby are the consultant's recommendations for the KSPA metropolitan structure:

- Adaption of the “Radial Integrated” Model as a structural model for the KSPA.
- Strengthening the existing centres of Wakiso, Mukono and Entebbe.
- Development of new centres in the Ssisa-Nsangi and Nakisunga-Ntenjeru area.
- Further development of the KCCA as the heart of the metropolitan area.

The above recommendations act as guidelines for the Physical Vision and Policy of the KSPA and a basis for the operational KPDF.

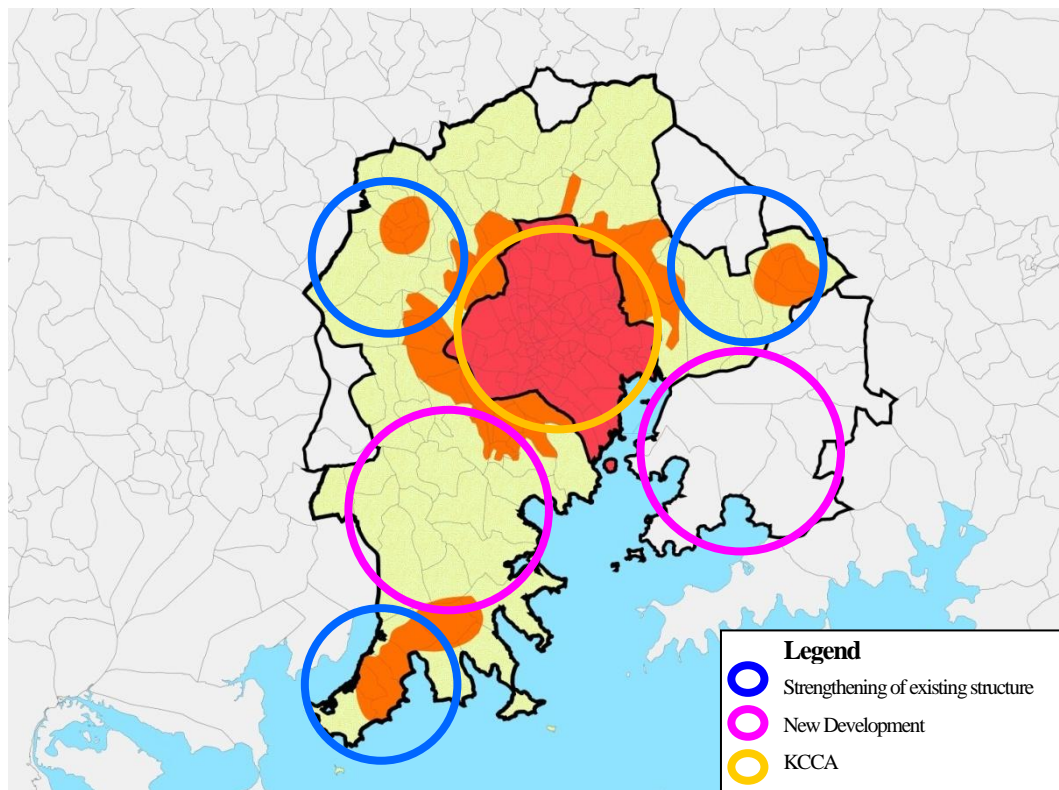
7.8 GKMA Physical Vision and Policy

The integration of the Conceptual (Topological) schemes and Suitability Map led to the crystallization of a Physical Vision and Development Policy for the Kampala metropolitan area. The Development Policy is aimed at carrying out the Physical Vision of Kampala to create a well-organized and modern urban metropolitan system.

The Development Policy is composed of four operations:

- Strengthening existing cores
- Developing new satellite towns
- Development of the KCCA
- Construction of a Metropolitan Road System

The Physical Vision and Development Policy point to a system of Action Areas which will each be developed according to a unique policy. **Map 57** summarizes the Metropolitan Action Areas.



Map 57: Action Areas in the KSPA

7.8.1 Strengthening Existing Cores

The selected areas for widening and strengthening of existing cores are Wakiso, Mukono and Entebbe as existing centres outside of the KCCA area. The widening and strengthening of the towns will include the creation of employment, education, health and services centre, as well as organized residential areas.

7.8.2 Developing New Satellite Towns

Ssisa-Nsangi and Nakisunga-Ntenjeru are chosen sites for new satellite towns aimed at easing the pressure on the KCCA as a sole main service centre of the GKMA. The new towns will be planned and developed according to modern standards, creating organized and sustainable satellite towns capable of accommodating a large amount of inhabitants in a quality environment. The new towns will offer services such as employment, education, health and services and will become a focal point outside of the KCCA. This will allow the development and growth of the KCCA.

7.8.3 Development of the KCCA

The KCCA will undergo extensive planning and development following the Physical Development Plan (KPDP) which will be explained in detail later on. The KPDP will address issues such as transportation within the city, employment, services etc.

7.8.4 Construction of a Metropolitan Road System

The metropolitan road system will serve and connect the different centres in the KSPA. The road system will be an improved radial road system based partially on the existing system but expanding it for better connectivity within the GKMA and beyond. The main components of the road system are an east-west urban freeway passing through the KCCA centre and ring road. The ring roads system will be achieved through the completion of the Northern Bypass to a complete ring passing through Kira and Ntenjeru in the east and Ssabagabo-Makindye in the west with a bridge connecting the two through the island of Murchison Bay. A further expansion of the road system includes another ring road following the edge of the urban tissue.

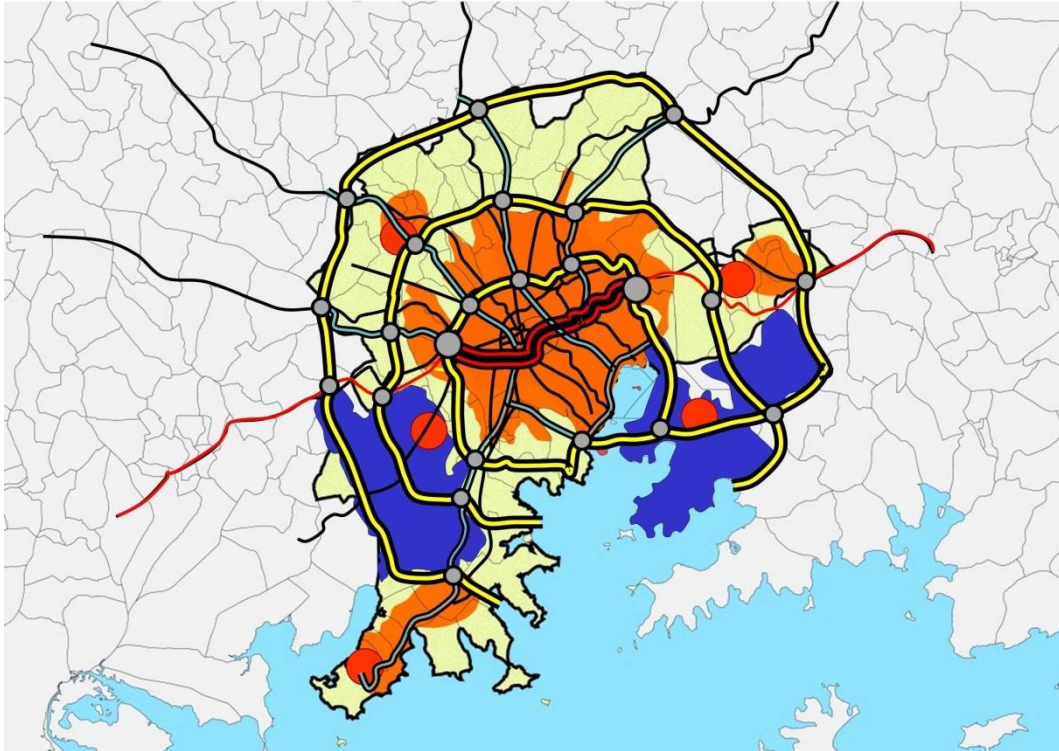
7.8.5 Summary

The following scheme summarizes the Physical Vision and Development Policy for the Kampala metropolitan area. The scheme presents the conceptual scheme for the GKMA with the four recommended operations:

- Strengthening existing cores
- Developing new satellite towns
- Development of the KCCA

- Construction of a Metropolitan Road System

The conceptual scheme constitutes the base for the more detailed and operation-oriented KPDP.



Map 58: KSPA Physical Vision and Conceptual Structure

8 Physical Development Framework (KPDF)

The previous section addressed the metropolitan structure on a conceptual and strategic level. This section addresses the elements of the framework in greater detail and is operation-oriented. The Physical Development Framework is consisted of several layers which each deals with a different aspect of the metropolitan framework. This section addresses the Metropolitan Structure Plan and completes the first level of the KSPA planning hierarchy, as illustrated in the following flowchart.

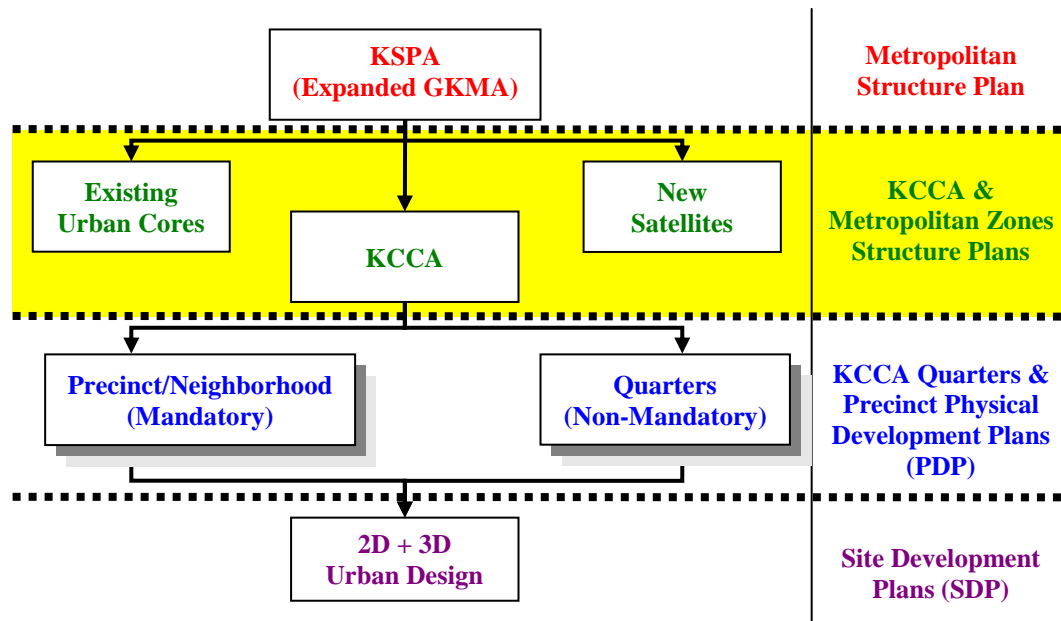


Figure 87: KPDF in the Planning Hierarchy

8.1 KPDF Planning Components

The KPDF includes three planning components:

- A Physical Development Framework for the long term development of the KSPA based on the Physical Vision.
- Long term targets and goals for KSPA development.
- Suggestions for short term (2022) action areas, targets and goals for GKMA development.

8.2 Structural Layers of the KPDF

The GKMA Physical Development Framework covers several aspects of metropolitan organization. The different aspects are summarized as four levels of the metropolitan structure:

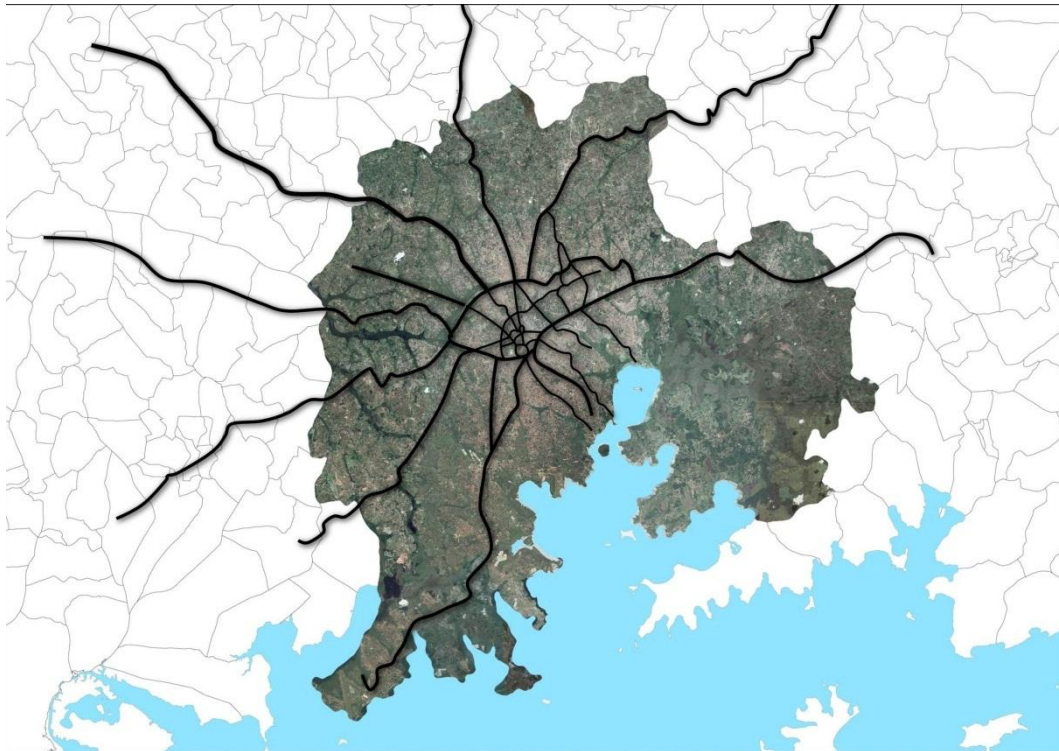
- Transportation System
- Metropolitan Planning Zones

- Population Distribution
- Metropolitan Services Hierarchy

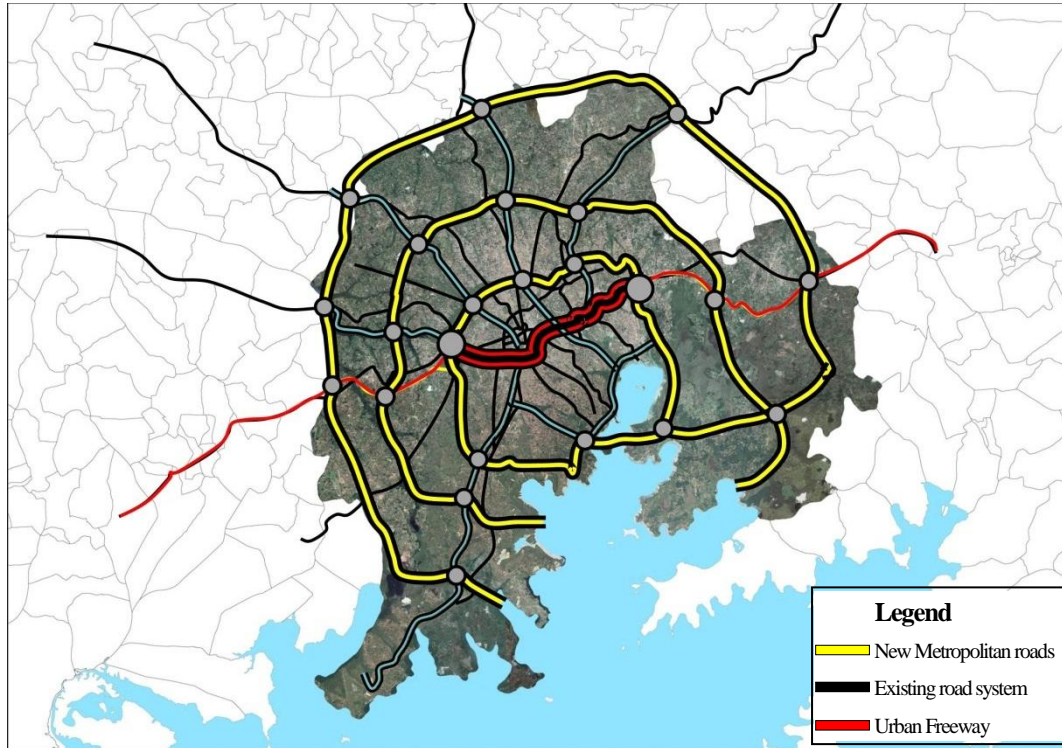
A metropolitan framework which addresses these four levels constitutes a full and comprehensive physical framework. The following sections will elaborate on the four levels.

8.2.1 Layer 1: KPDF Metropolitan Transportation Plan

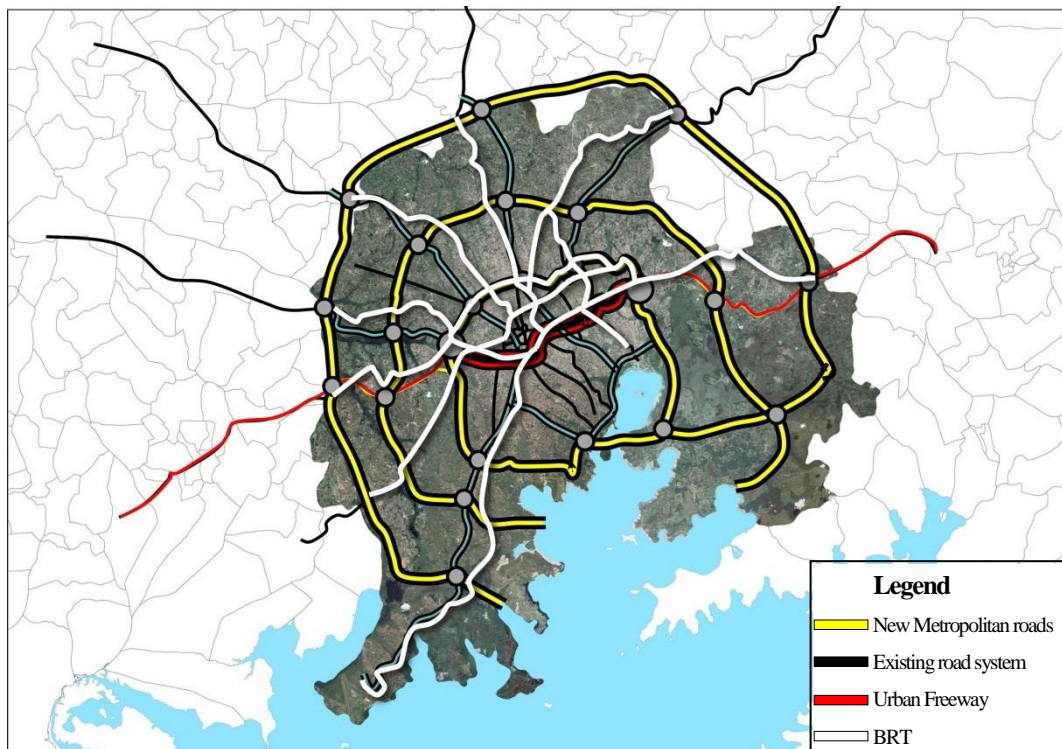
As part of the restructuring of the GKMA and KCCA area the consultant proposes a new metropolitan-scale road system which will complement the existing structure. The new metropolitan transportation plan incorporates the existing roads system as a local system which passes through and serves the existing and new urban organs. The new roads are located in presently vacant areas and will serve as a highway system for rapid transport. An extensive BRT system will pass along the existing roads and routes, reaching the centres of population and moving them in and out of the KCCA. BRT stations will be distributed along the routes in a manner which allows easy access to the BRT. Stations will be located within a 2km walking distance throughout the KSPA creating a pedestrian catchment area of a 2 km radius for maximum accessibility (see following maps).



Map 59: Existing Metropolitan Road System



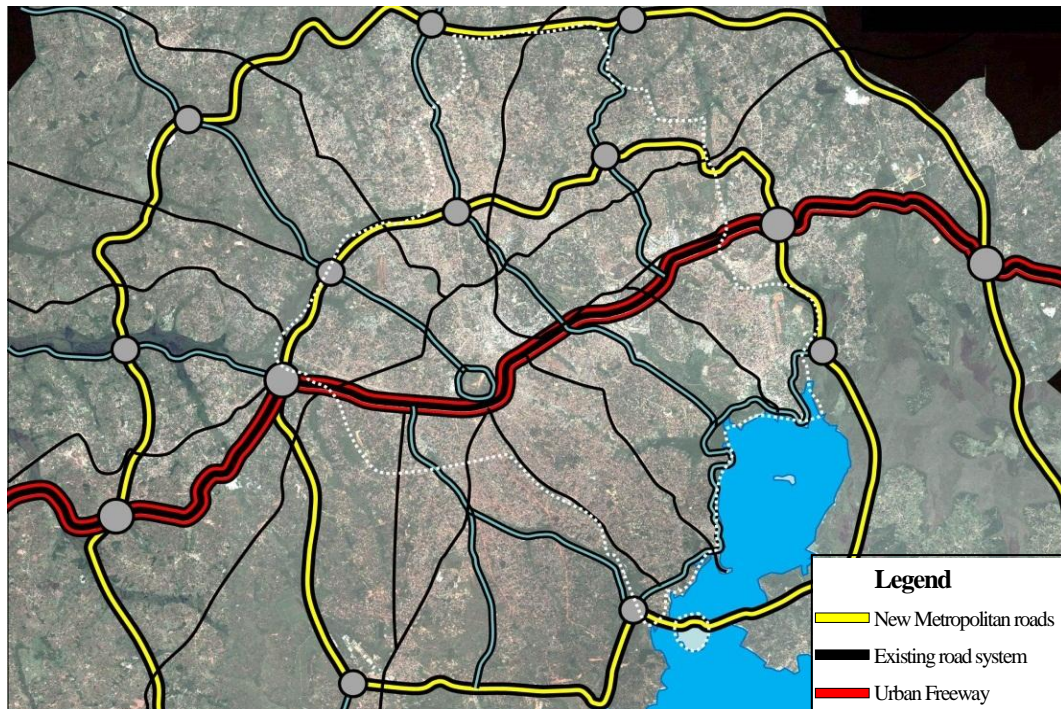
Map 60: Proposed Metropolitan Road System



Map 61: BRT and Metropolitan Road System

The metropolitan transportation plan is based on a radial structure combining radial highways and concentric ring roads which together create an efficient and coherent structure. The new radial roads are oriented similarly to the existing

roads, yet pass through different routes allowing the development of quality roads without damaging the existing tissue and with minimum disruption of the existing settlements. The most important of the radial roads is an urban freeway which runs along an east-west axis. This main route runs along the existing railway system coming from the east just south of Mukono, passes through the centre of the city almost parallel to Kampala Rd., Queen's Way, and Sembule Rd., and breaks south-westwards after intersecting with the Northern Bypass.

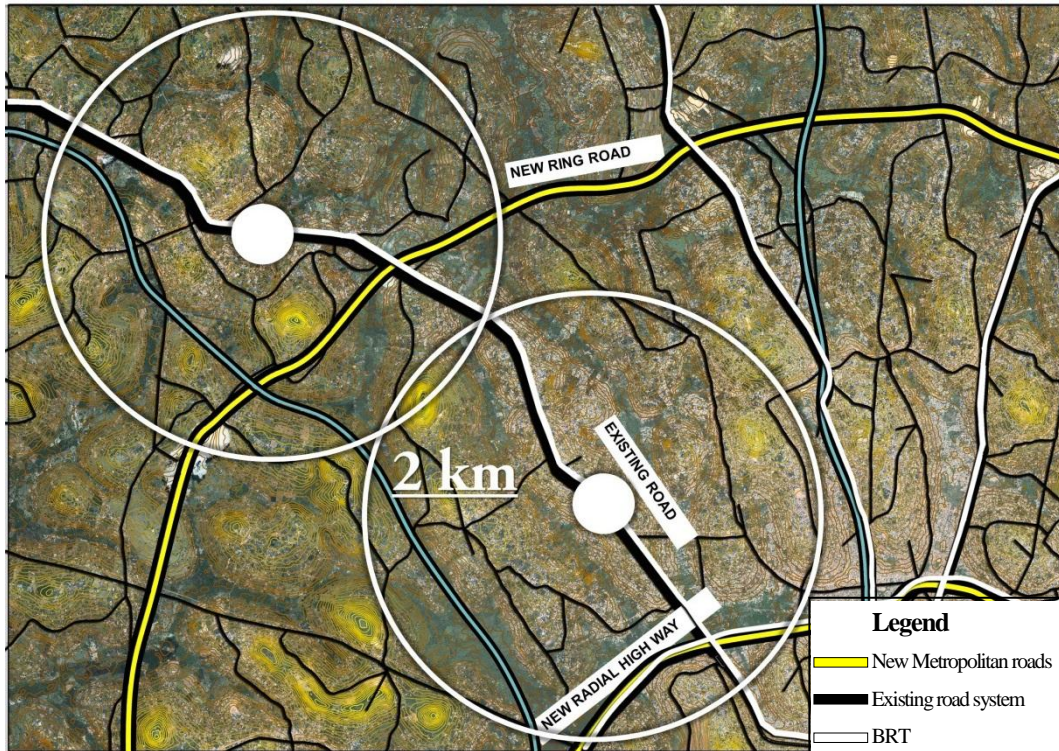


Map 62: Urban Freeway

The ring-roads system is divided into three rings: 1. Inner ring, 2. Mid ring, 3. Outer ring. The inner ring is based in its northern part on the Northern Bypass which is closed to a ring which captures most of the urban sprawl to the south of the KCCA. The Mid ring passes through vacant areas along the edges of the urban sprawl to the north of KCCA, passing near Wakiso, Kira and Mukono, and through the areas for new development Ssisa-Nsangi and Nakisunga-Ntenjeru. The outer ring passes along the edges of the GKMA allowing east transport from the very edges of the GKMA to anywhere within the metropolitan structure. The three rings can also be divided into three development stages, the Inner ring being the first stage, the Mid ring the second, and the Outer ring the last stage.

The new metropolitan road system hierarchy is demonstrated for the Wakiso-Nansana area. The existing Namirembe Rd. and Bombo Rd. passes through Wakiso and Kawempe respectively, and along them the BRT route. BRT stations are located along the routes and their pedestrian catchment area represented as a 2 km radius. A new highway passes to the south of Nansana and Wakiso. Another new highway splits from Bombo Rd and continues north. The Inner ring, following the Northern Bypass route in this area, is connected to the Mid ring by

these four main roads, two local roads and two highways. The Mid ring passes between Nansana and Wakiso and on the outer edges of the continuous urban tissue. The following map illustrates the metropolitan road system hierarchy for the Wakiso-Nansana area.

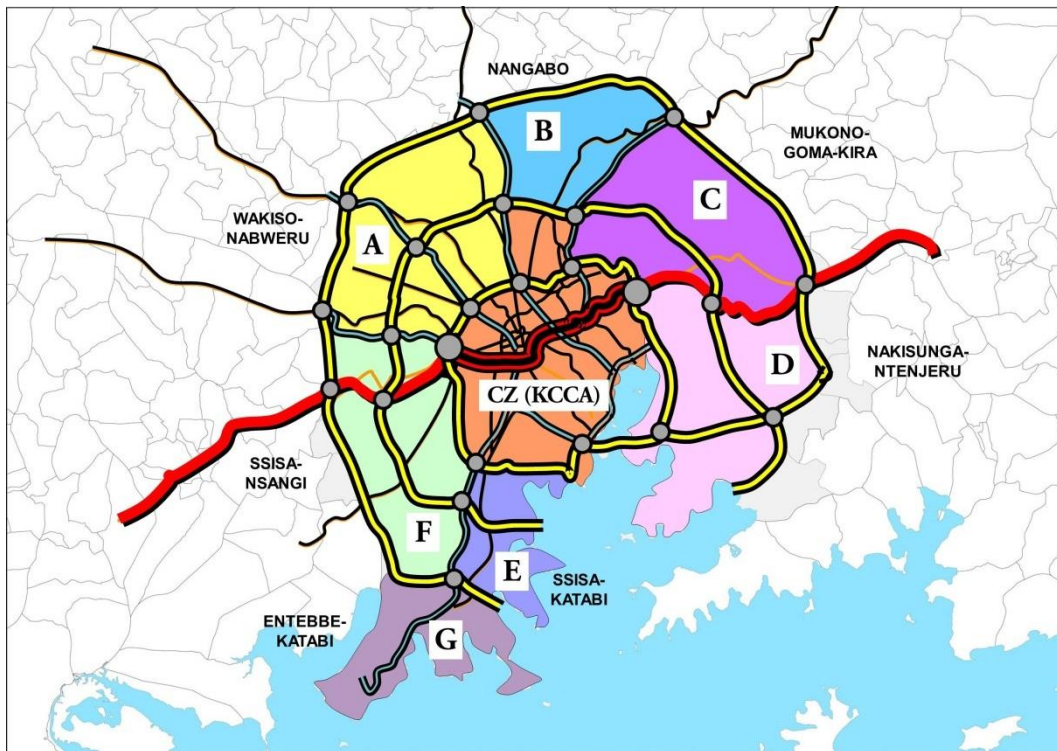


Map 63: Wakiso-Nansana in the Metropolitan Road System

8.2.2 Layer 2: KPDF Metropolitan Planning Zones

Based on the new metropolitan transportation system, a new division into Planning Zones (PZ) was constructed. The GKMA and the additional planning areas supplemented to it were divided into eight Planning Zones (see following image). The division was made in such a manner that there is a Centre Zone (CZ) located within the Inner ring and covers most of the KCCA and Ssabagabo-Makindye districts, and a small part of the Nsangi district. The CZ is surrounded by seven metropolitan Planning Zones: Wakiso-Nabweru (A), Nangabo (B), Mukono-Goma-Kira (C), Nakisunga-Ntenjeru (D), Ssisa-Katabi (E), Ssisa-Nsangi (F) and Entebbe-Katabi (G). The seven zones are located between the Inner and Outer rings and separated from one another by the new radial metropolitan roads. Each of the Planning Zones is to be planned as a functional unit with its own service centres according to the metropolitan service centre hierarchy which will be elaborated upon later. See following figure for metropolitan planning zone division.

The following sections will elaborate on the structural components derived from the metropolitan planning zone structure.



Map 64: KSPA Metropolitan Planning Zones

8.2.3 Layer 3: KPDF Population and Employment Distribution

The following section addresses the Metropolitan Zones Structure Plans and constitutes the second level of the KSPA planning hierarchy, as illustrated in **Figure 87** above. Following the Suitability Analysis and the division into metropolitan planning zones, two strategies for population distribution are addressed: Widening Existing Cores and Development of new Regional Towns. Each of the areas will receive treatment according to a unique policy chosen for the area in question.

Each of the zones is sub-divided into quarters and precincts which form planning units on their own account.

The following table summarizes the existing population in each PZ (2011) and the zones' long term capacity.

Table 45: Population by Planning Zone

Planning Zone	Area (Ha)	2011	2022 Target	Long Term Target
Central Zone	25,300	1,960,000	3,240,000	3,630,000
A - Wakiso-Nabweru	21,600	380,000	580,000	810,000
B - Nangabo	12,200	70,000	160,000	460,000
C - Mukono-Goma-Kira	20,400	330,000	630,000	880,000
D - Nakisunga-Ntenjeru	28,700	120,000	470,000	1,040,000
E - Ssisa-Katabi	7,000	60,000	120,000	150,000
F - Ssisa-Nsangi	20,100	120,000	400,000	750,000
G - Entebbe-Katabi	9,700	140,000	240,000	300,000
Total	145,000	3,175,000	5,850,000	8,000,000

Note: Rounded data.

The following tables summarize existing employment and targets in each PZ.

Table 46: Employment Targets by Planning Zone (Employees)

Planning Zone	2011	2022 Target	Long Term Target
Central Zone	940,000	1,540,000	1,835,000
A - Wakiso-Nabweru	120,000	200,000	275,000
B - Nangabo	20,000	60,000	125,000
C - Mukono-Goma-Kira	90,000	275,000	375,000
D - Nakisunga-Ntenjeru	30,000	140,000	325,000
E - Ssisa-Katabi	20,000	40,000	50,000
F - Ssisa-Nsangi	40,000	130,000	250,000
G - Entebbe-Katabi	60,000	120,000	150,000
Beyond GKMA	70,000	110,000	150,000
Total	1,390,000	2,600,000	3,525,000

Note: Rounded data.

Table 47: Employment Built Space Targets by Planning Zone (m²)

Planning Zone	2011	2022 Target	Long Term Target
Central Zone	6,825,000	12,625,000	16,625,000
A - Wakiso-Nabweru	380,000	900,000	2,300,000
B - Nangabo	75,000	350,000	1,175,000
C - Mukono-Goma-Kira	425,000	2,550,000	5,000,000
D - Nakisunga-Ntenjeru	75,000	375,000	2,950,000
E - Ssisa-Katabi	80,000	150,000	200,000
F - Ssisa-Nsangi	50,000	425,000	2,850,000
G - Entebbe-Katabi	325,000	775,000	1,300,000
Total	8,250,000	18,150,000	32,400,000

Note: Rounded data.

8.2.4 Existing Cores

As indicated in the Suitability Analysis, there are three areas which are suitable for strengthening and widening of existing cores: 1. Mukono in the Mukono-Goma-Kira area, 2. Wakiso in the Wakiso-Nansana area, and 3. Entebbe in the Entebbe-Katabi area. As part of the development of these PZs the existing cores can and should be expanded to a level in which they can serve the inhabitants of the PZ independently of the KCCA.

8.2.4.1 Mukono-Goma-Kira

The town of Mukono accommodates 45,000 inhabitants today (2011). The existing centre can be expanded in a planned manner to accommodate and serve 150,000 inhabitants by 2022 and 200,000 in the long term.

In the near proximity to Mukono a new industrial zone and commercial area are planned being developed presently. This industrial zone has great potential to become a major employment and economic centre in the eastern part of the GKMA. Located on the junction between the Kampala-Jinja Rd. and the Mukono-Kayunga Rd. Mukono is currently a rising centre with potential of becoming a focal spot in the GKMA. The large open spaces and rural areas in the Mukono area offer potential for future development.

8.2.4.2 Wakiso-Nansana

The town of Wakiso accommodates 15,200 today (2011). The existing centre can be expanded in a planned manner to accommodate and serve 100,000 inhabitants by 2022 and 200,000 in the long term.

Wakiso is located along Namirembe Rd. in close proximity to the KCCA making it a natural dormitory town. The vast open and rural areas surrounding Wakiso

and easy access to the KCCA make Wakiso a promising location for development. Widening and strengthening the existing Wakiso core will allow it to develop as more than a dormitory town and become a centre on its own account, serving the west side of the GKMA.

8.2.4.3 Entebbe-Katabi

The town of Entebbe accommodates 75,000 today (2011). The existing centre can be expanded in a planned manner to accommodate and serve 150,000 inhabitants by 2022 and 200,000 in the long term.

One of Entebbe's most prominent advantages is the international airport located within the town. Other important sites include the State House (President's Residence), Botanic and Zoological Gardens, historic schools, hospitals and churches, hotels and beach resorts, a golf club, etc. Furthermore, Entebbe's location on a natural peninsula makes it a potential tourist attraction. The strengthening of Entebbe as an international city will contribute to the entire metropolitan area and to the Entebbe-Katabi Planning Zone in particular.

Beyond the expanding of the existing cores one must also consider a minimal sprawl of 2,000,000 inhabitants which will no doubt still take place, and the growth of the KCCA area from 1,750,000 inhabitants today (2011) to 2,750,000 in the long term. The total growth of existing cores can accommodate 5,350,000 inhabitants in the long run, nearly half of the 10,000,000 inhabitants goal.

8.2.5 New Regional Towns

As mentioned earlier in section 7.8.2, two new satellite towns are proposed in the KSPA: in the Ssisa-Nsangi area and in the Nakisunga-Ntenjeru area. The addition of the new towns will ease the pressure on the KCCA as the main and sole major service centre in the area, and assure the containment of urban sprawl and the sustainable and modern development of the GKMA.

8.2.5.1 Ssisa-Nsangi

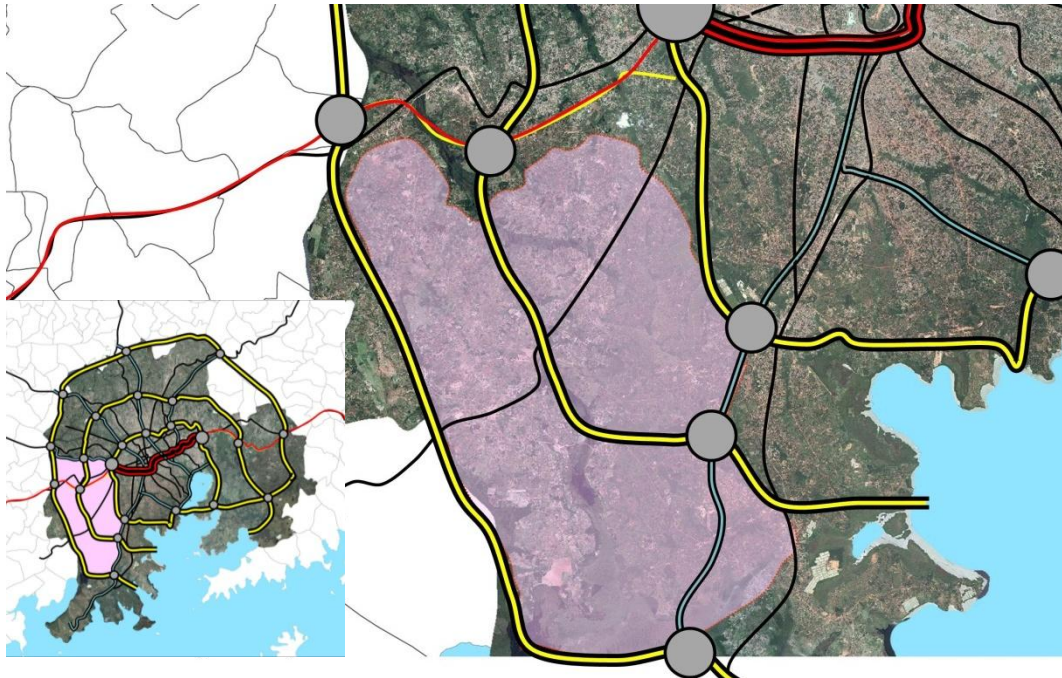
The Ssisa-Nsangi area was indicated as suitable for new development according to the Spatial Suitability Analysis (see section 7.5.2). The Ssisa-Nsangi area was found to have permitting terrain and to be very well connected to the existing urban structure.

The Ssisa-Nsangi zone is located in the south-west part of the GKMA. According to the metropolitan transportation plan and the division to zones, the Ssisa-Nsangi zone is bounded by the Inner ring to the east, the Outer ring in the west and south-west, by radial a metropolitan road in the north, and by the planned Entebbe toll road in the south-east (see following images). The new urban freeway passes through the northern part of the PZ from east to west, and the Mid ring passes through its centre from north to south. The location of the zone and connection to

both the KCCA and Entebbe combined with its existing low density offer great potential as a new satellite town.

The size of the Ssisa-Nsangi zone is approximately 18,500 Ha, out of which the site for the new town covers approximately 12,800 Ha. The entire zone accommodates 150,000 inhabitants today (2011) while its potential capacity is in effect much higher. Assuming a density of 40 HH/Ha in a modern in planned manner, the area can accommodate approximately 1,500,000 inhabitants.

The new town will include its own service centres, planned according to the service centre hierarchy, offering the zone opportunities for employment, education, health services, open spaces, sport facilities, etc. The town will form part of western part of the east-west corridor and will offer migrants from an alternative to the KCCA as a quality town.

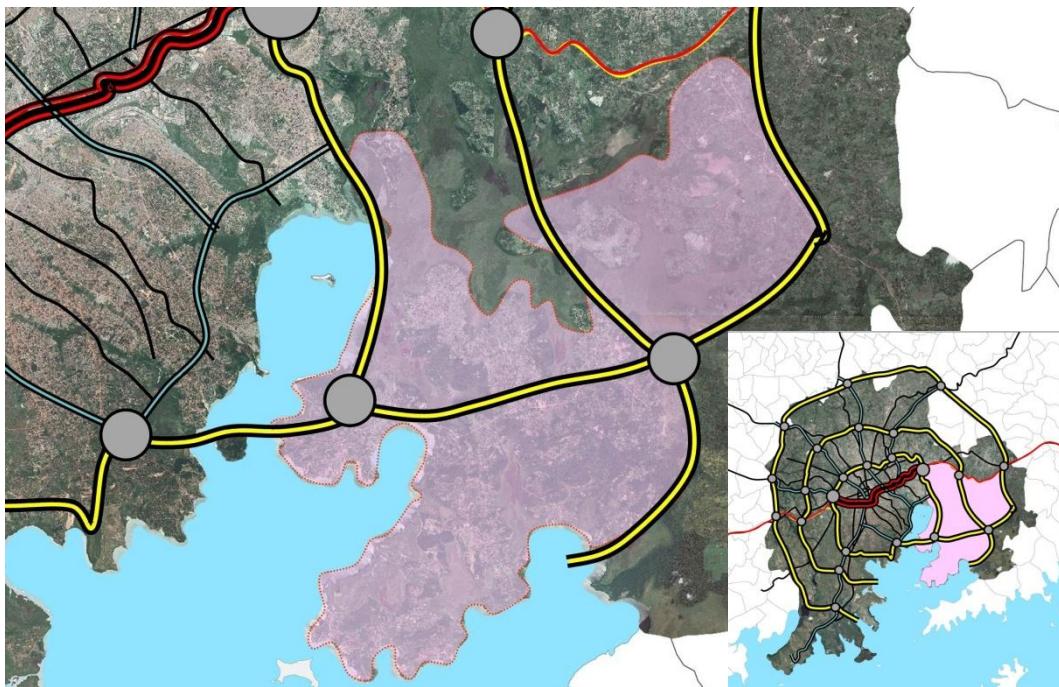


Map 65: Ssisa-Nsangi Planning Zone

8.2.5.2 Nakisunga-Ntenjeru

The Nakisunga-Ntenjeru area was indicated as suitable for new development according to the Spatial Suitability Analysis (see section 7.5.2). The Nakisunga-Ntenjeru area was found to have permitting terrain and to be well connected to the existing urban structure. Nakisunga-Ntenjeru zone is located outside of the GKMA to the east of the KCCA. According to the metropolitan transportation plan and the division to zones, the Nakisunga-Ntenjeru zone is bounded by Lake Victoria in the west and south, the Outer ring in the east, and the new urban freeway in the north (see following images). The Inner ring passes through the west side of the zone, near the shoreline, and the Mid ring passes through the centre of the zone from north to south. The new transportation system connects the zone to the GKMA and KCCA in a manner that makes it accessible, as opposed to the situation nowadays. The location of the zone and connection to both the KCCA and Mukono combined with its existing low density offer great potential as a new satellite town. Furthermore, the location of the zone on the shoreline of Lake Victoria offers great potential for the development of an active lakefront.

The size of the Nakisunga-Ntenjeru zone is approximately 20,500 Ha, out of which the site for the new town covers approximately 11,700 Ha. The entire zone accommodates 76,000 inhabitants today (2011) while its potential capacity is in effect much higher. Assuming a density of 40 HH/Ha in a modern in planned manner, the new town can accommodate approximately 1,500,000 inhabitants. The new town will include its own service centres, planned according to the service centre hierarchy, offering the zone opportunities for employment,



Map 66: Nakisunga-Ntenjeru Planning Zone

education, health services, open spaces, sport facilities, etc. The town's lakefront, along with the KCCA lakefront (presented in detail later on), will form a substantial tourist and economic centre which will benefit the town and area. The town will thicken the eastern part of the part of the east-west corridor and will offer migrants from an alternative to the KCCA as a quality town.

8.2.5.3 Impacts of New Towns

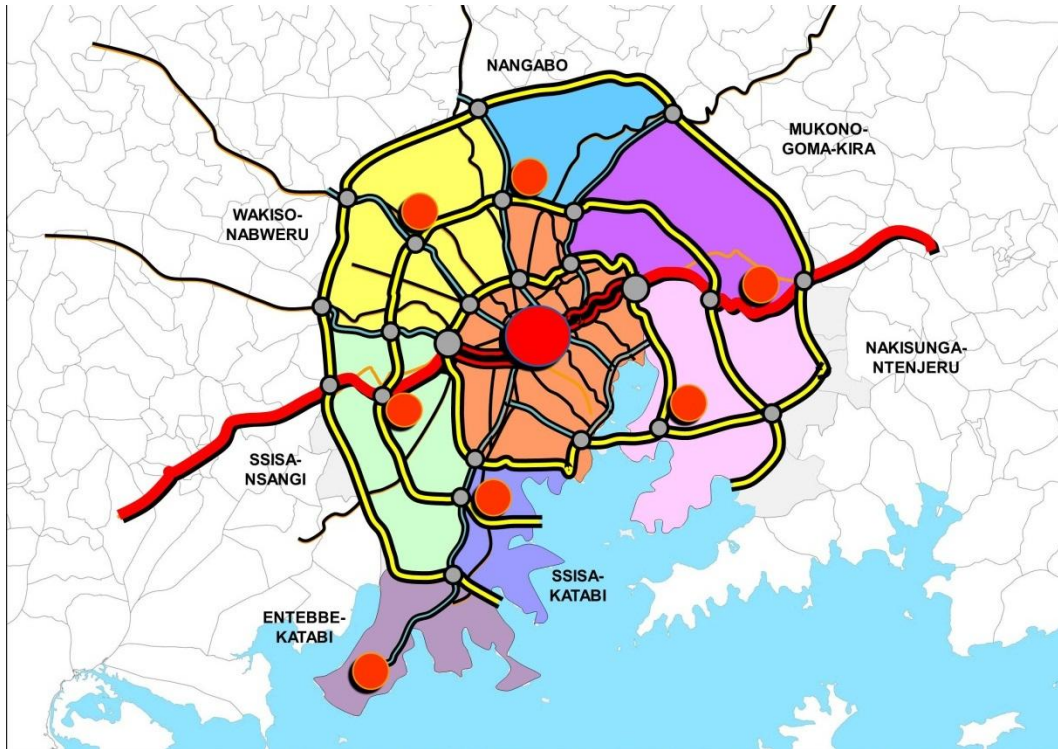
The addition of the new satellite towns will increase the KSPA's capacity by 3,000,000 inhabitants. Combined with the growth of the KCCA and the Wakiso, Mukono and Entebbe cores estimated at 5,350,000 the total capacity of the area rises to 8,350,000. While the capacity still is insufficient to accommodate the predicted 10,000,000 inhabitants of the long term prediction, it is a vast improvement in comparison to the other scenarios presented earlier in Section 7.3.

8.2.6 Layer 4: KPDF Metropolitan Service Centres Hierarchy

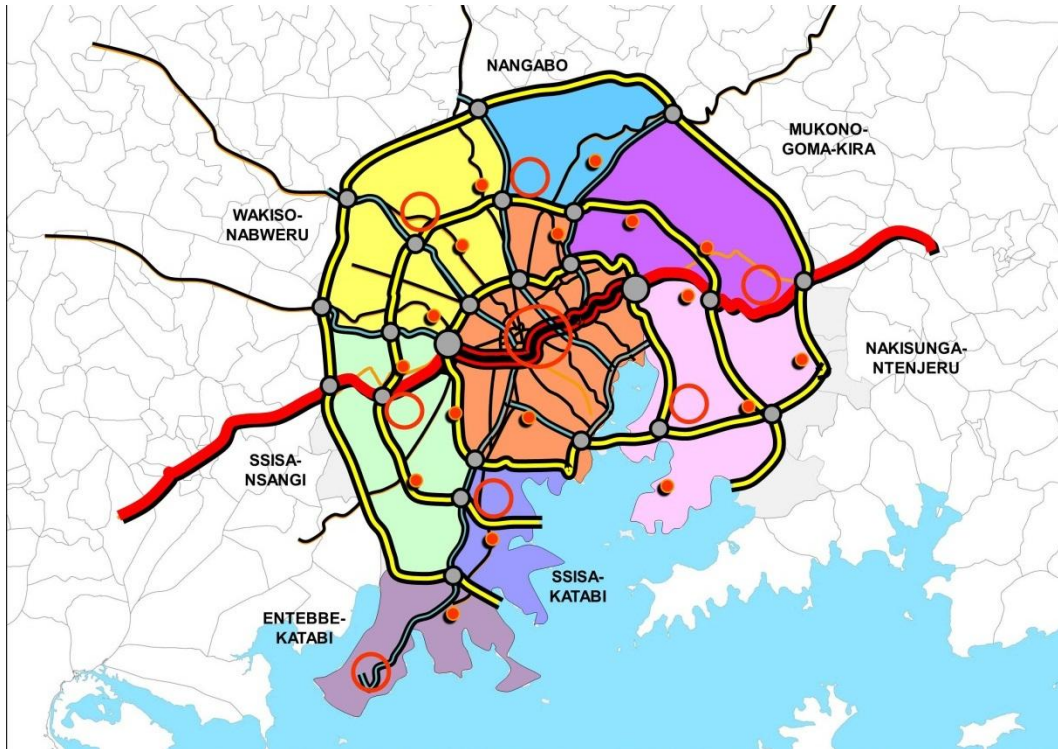
As mentioned earlier, the PZs are to be planned according to the metropolitan service centre hierarchy. This hierarchy refers to a system of centres which are composed of different functions needed by the population. The functions include: Commerce, Employment, Health, Sports, Community Services and Emergency and Police. Another important need refers to open space which is not necessarily part of the service centres but is required within each PZ.

There are four levels of service centres in the metropolitan service centres hierarchy: 1. Central zone (CZ), 2. Metropolitan Zone (MZ) Centres, 3. Quarter Centres, 4. Local Centres. The CZ is the largest of all centres and it serves the entire metropolitan area. The next level of centres is the MZ centres which serve each its own MZ. Each zone is also served by a system of Quarter centres and Local centres according to the division of the zone into quarters and precincts. The purpose of the centres is to organize the services and commerce which is currently spread along the existing road system in a form of linear sprawl. Concentration of the service and commerce centres will help eradicate the sprawl phenomena. The following images and diagram illustrate the hierarchy between the centres.

As the needs of each of the PZs will be provided for within the PZ boundaries, the need for travel to the city in search of services of employment opportunities will decrease. This will help solve some of the problems of the city of Kampala such as traffic conjunction and burdening the city's infrastructure.



Map 67: CZ and MZ Service Centres



Map 68: Local Service Centres

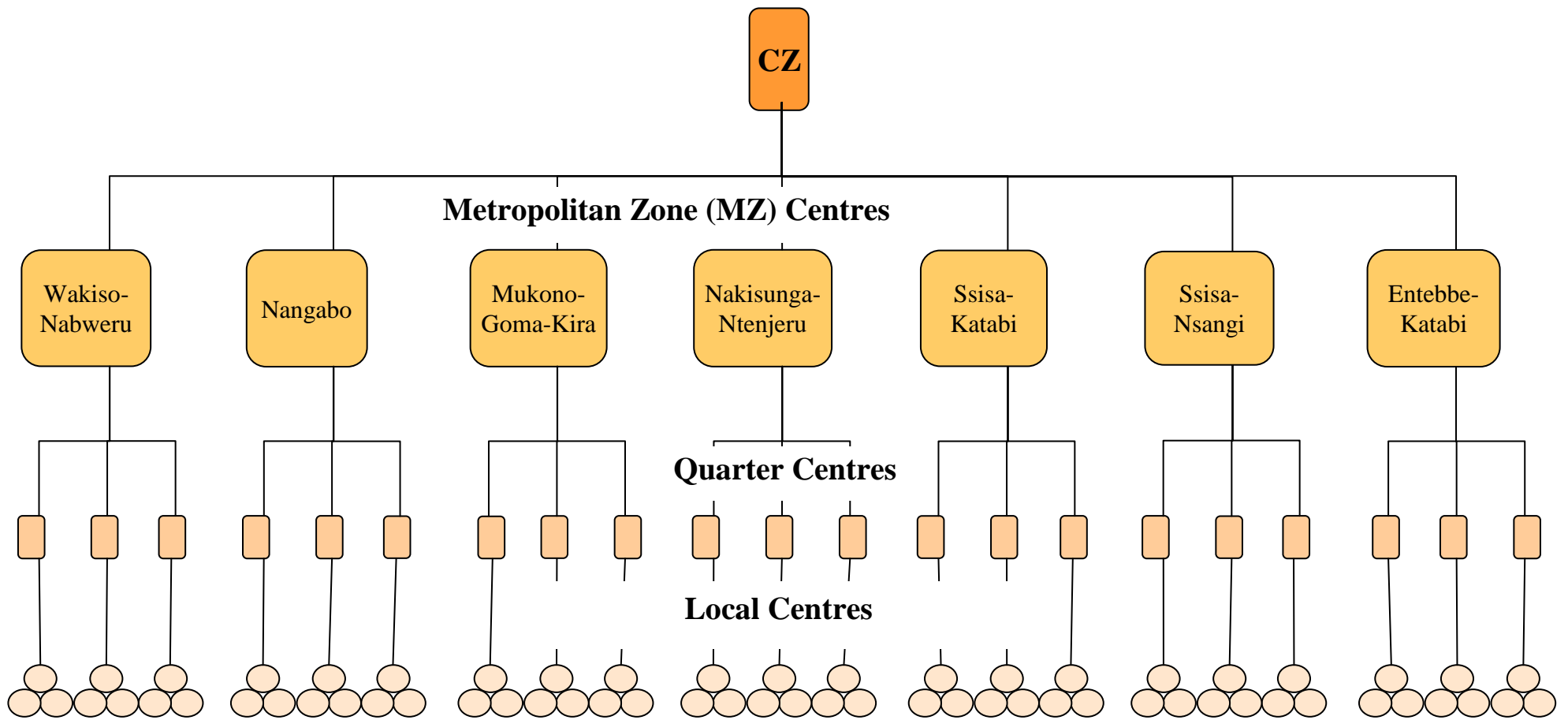


Figure 88: Proposed Service Centres Hierarchy

8.3 KPDF summary

The planning of the GKMA metropolitan area was conducted in two parts:

- **Conceptual Structure of the GKMA** – Includes spatial analysis of existing situation and future scenarios. The Conceptual KPDF concludes with recommendations for a metropolitan spatial structure and a Physical Vision and Policy for the KSPA.
- **Physical Development Framework (KPDF)** – Based on the Conceptual KPDF, and includes the organization of the KSPA according to structure layers. The structure layers cover all planning aspects for the future development of the KSPA and presents guidelines for smaller scale physical planning.

Following are the consultant's recommendations for the KSPA Physical Development Framework:

- **KSPA Structural Model**: The KSPA will be developed according to the East-West Corridor Model.
- **Transportation System**: A compressive transportation system will be developed and will include upgraded existing roads, construction of new metropolitan roads, and development of a BRT system. The transportation system will be a radial system with three ring roads (Inner, Mid and Outer rings), a system of metropolitan radial highways, and an Urban Freeway which passes through the city centre.
- **Metropolitan Planning Zones**: The KSPA is divided into eight metropolitan planning zones based on the new transportation system – Central Zone (CZ), Wakiso-Nabweru (A), Nangabo (B), Mukono-Goma-Kira (C), Nakisunga-Ntenjeru (D), Ssisa-Katabi (E), Ssisa-Nsangi (F) and Entebbe-Katabi (G).
- **Metropolitan Service Centres Hierarchy**: Service centres will be distributed in the KSPA according to a hierarchy- 1. Central zone (CZ), 2. Metropolitan Zone (MZ) Centres, 3. Quarter Centres, 4. Local Centres. The functions supplied will include Commerce, Employment, Health, Sports, Community Services and Emergency and Police.
- **Central Zone**: The KCCA area will be re-structured and developed as the central zone and heart of the metropolitan area.
- **Development of Existing Cores**: Wakiso, Mukono and Entebbe will be developed and strengthened as existing cores and centres of their planning zones.
- **New development**: The Ssisa-Nsangi and Nakisunga-Ntenjeru areas will be developed as new satellite towns contain their planning zone's service and employment centres.

9 Physical Development Plan (KPDP): KCCA

The Physical Development Framework for the KSPA is a broad plan for the entire metropolitan area which proposes a new division of the KSPA into functional zones and planning areas. According to the conceptual KPDP the KCCA area was identified as an individual planning zone of special importance. The KCCA boundaries, however, were found by the consultant to be insufficient in describing the functional area of the metropolitan centre. As the city of Kampala grows beyond the KCCA boundaries, additional areas became a functional and continuous part of the urban tissue. Therefore, the consultant proposes the expansion of the Central Zone to include areas beyond the KCCA boundaries which should be regarded as part of the metropolitan centre and receive a unique planning status accordingly. This section addresses the KCCA as a main component in the Metropolitan Zones Structure Plans and completes the second level of the KSPA planning hierarchy, as illustrated in the following flowchart.

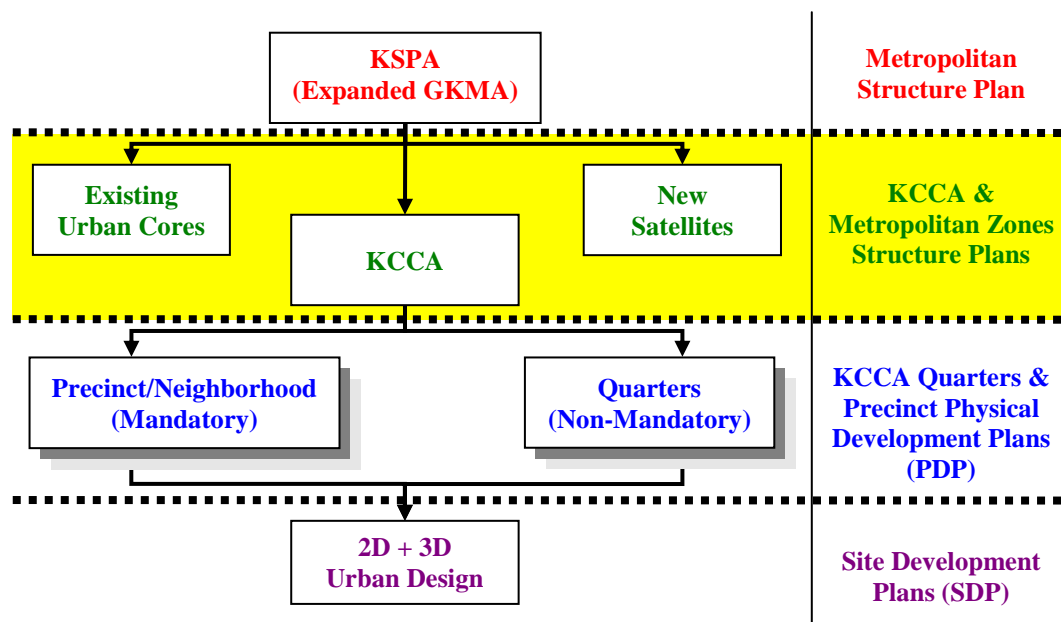
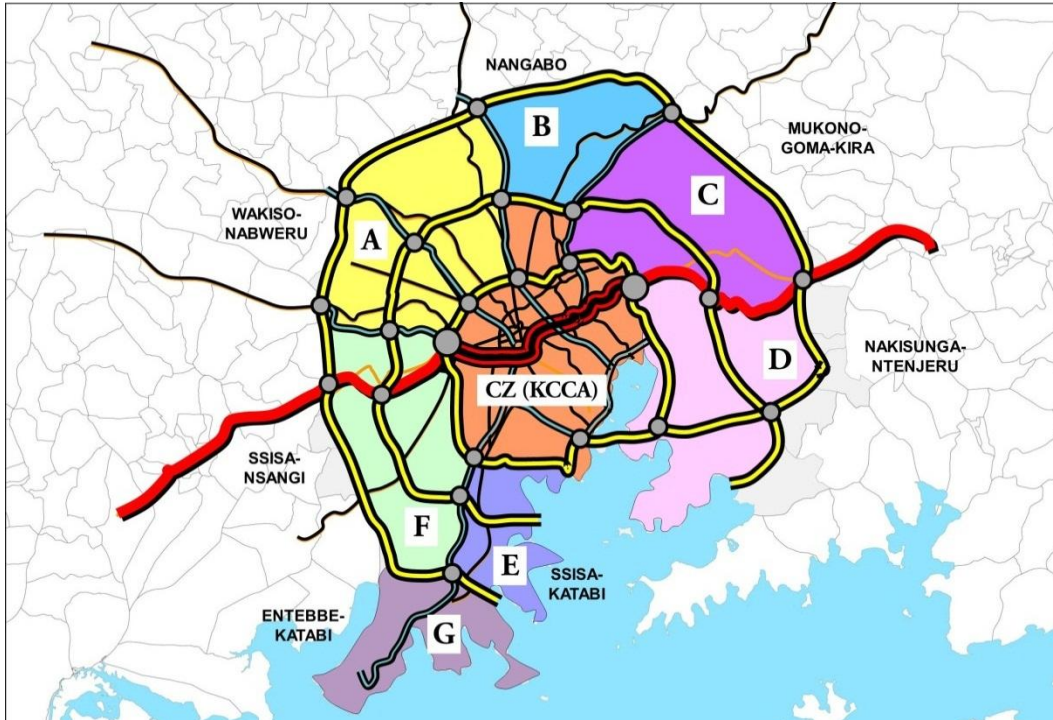
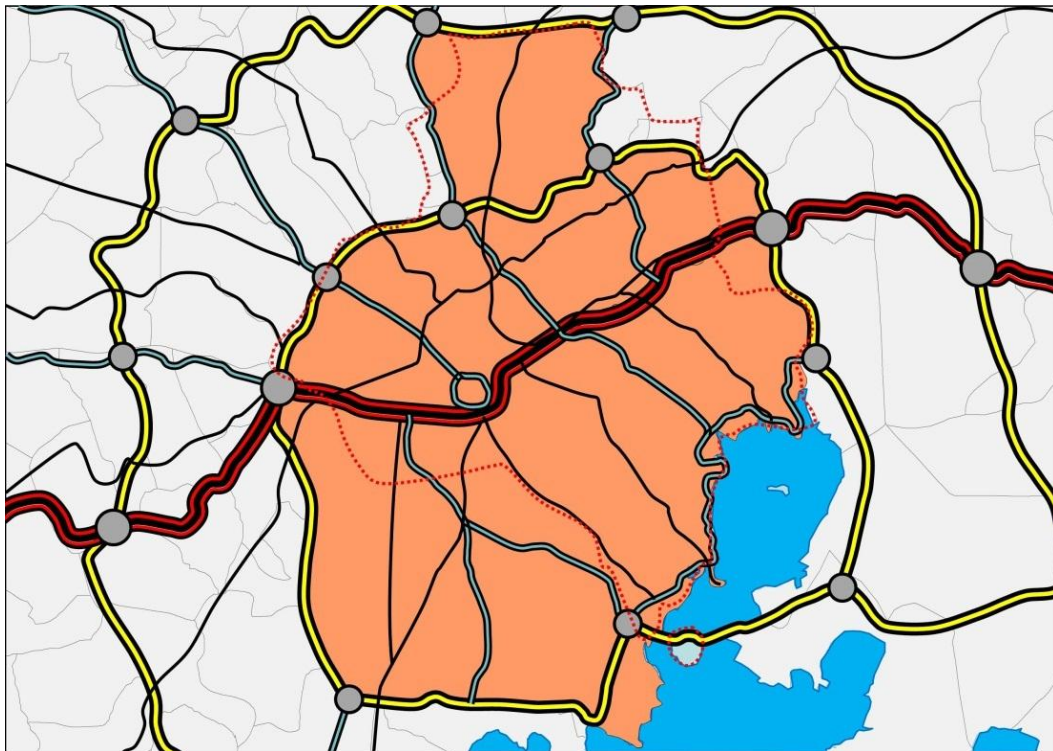


Figure 89: KPDP in the Planning Hierarchy

The area defined as the Central Zone (CZ) is based on the metropolitan road system and includes the entire area confined within the Inner Ring, described earlier in the Metropolitan Transportation Plan, along with a northern addition in the Kawempe-Kanyaya area. The northern addition is confined by two metropolitan roads and the Mid Ring. In effect the CZ contains the KCCA area with some additions in the south and some subtractions in the northern and eastern sides of the KCCA. The following images present the Planning Zones division and the CZ boundaries.



Map 69: KSPA Metropolitan Planning Zones



Map 70: Central Zone and KCCA Boundaries

9.1 KPDP Planning Goals

The consultant has identified ten planning goals which should serve as 'Ten commandments' for the planning of Kampala:

1. To create a **Multifocal and Multifunctional City Centre** composed of special components of metropolitan importance.
2. To **enlarge and extend the CBD**.
3. To construct an **Urban Freeway** for better accessibility to employment and businesses.
4. To develop Kampala as a **Lakefront city** and to connect the lake to the Inner City.
5. To change the attitude towards wetlands within the city and develop them to become lively, healthy and functional **Central Parks of the city**.
6. To create a **new hierarchy of service centres and sub-centres** and to stop the endless linear sprawl of shops and public services.
7. To crystallize a **new spatial system, as part of the city centre, for cultural activities, recreation and tourism**.
8. To develop the **hill tops for public use, recreation and tourism**.
9. To define and designate new **Urban Quarters and Precincts** as planning entities for better control, management and development.
10. To encourage **new housing models**, including affordable housing, in future design of quarters and precincts.

These ten planning goals will be realized in the physical plans for the KCCA area, and will be addressed in detail later on in this report.

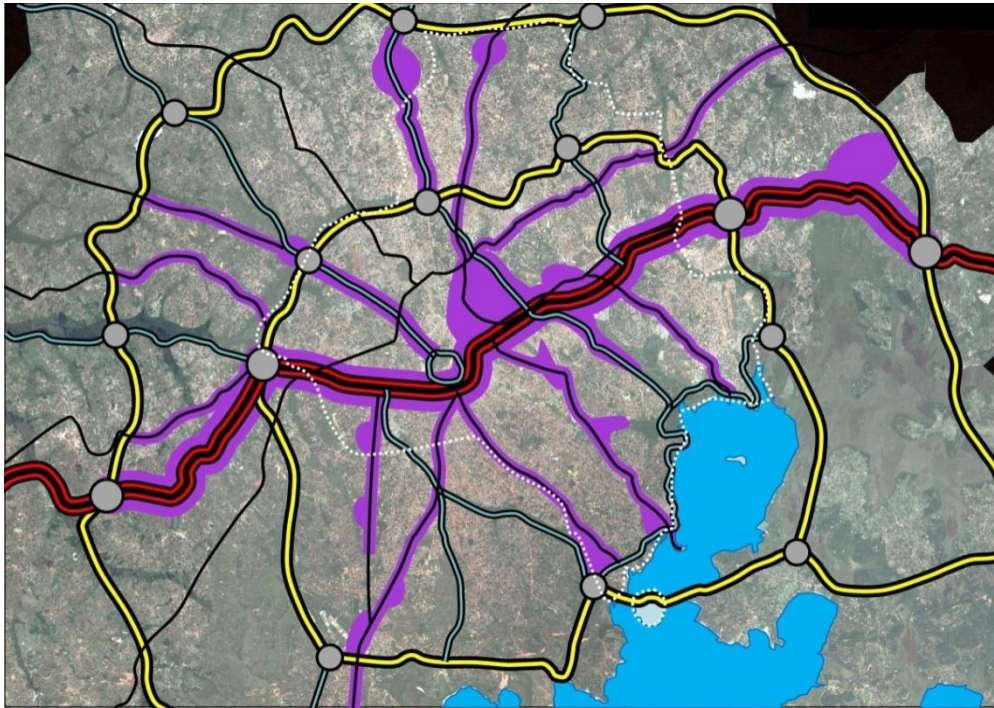
9.2 Structural Alternatives for the KCCA

The consultant examined several planning models for the future development of the KCCA. The examined models are based on existing models of town planning from around the world. The models were adjusted to match the conditions of the specific situation of the Kampala urban area.

9.2.1 The "Ribbon Development" Model

According to the Ribbon Development Model, the city services are developed along the existing roads in a manner resembling the existing urban structure. In this model the CBD forms a significant service centre which grows and expands organically beyond its existing boundaries. The ribbon development occurs along the roads which branch out from the CBD area and the main East-West corridor along the Urban Freeway. Each of the ribbons forms a narrow strip of services along a road with an occasional concentration where the built area and terrain

permit. The following map illustrates the urban development according to the Ribbon Development Model.



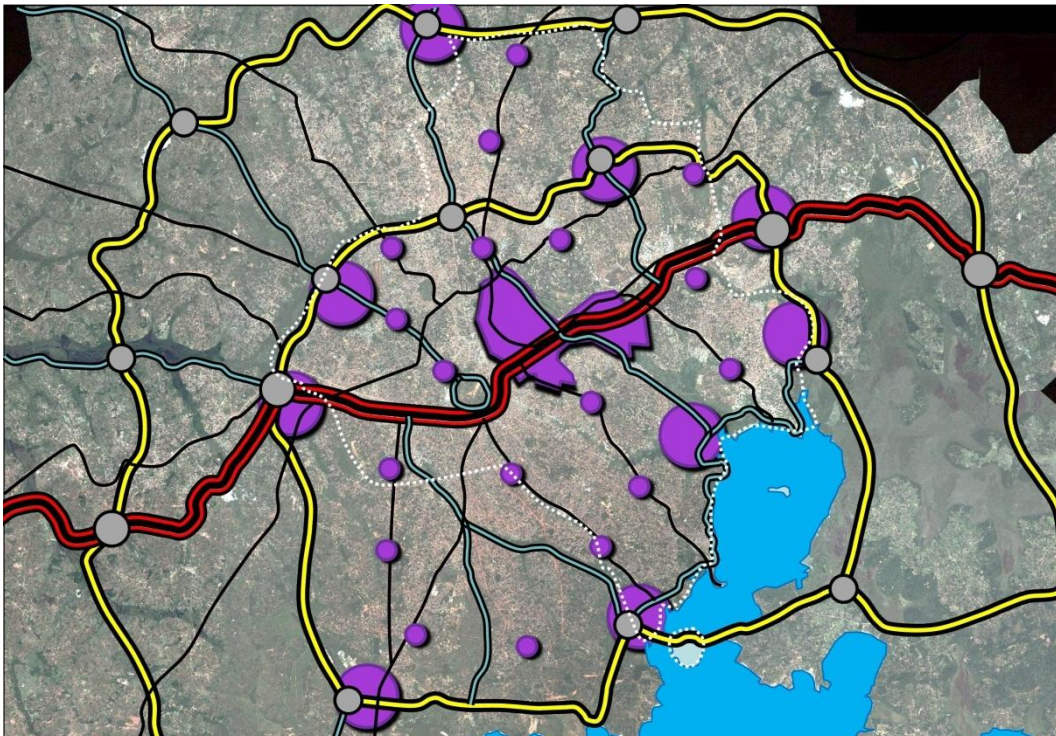
Map 71: Ribbon Development Model

The advantages of this model are that it is based on the existing infrastructure and urban links. As the main roads which support the services pass through the neighbourhood, they make the services highly accessible to residents of the surrounding neighbourhoods. This model strengthens the existing transportation system which passes through the city's neighbourhoods and central areas.

The disadvantages of this model are that it does not allow reconstruction of the city structure in a manner which will allow future development. This type of development is a continuation of the existing structure of sprawl which was already analysed and found to be inappropriate for creation of a modern and sustainable city and metropolitan area. The development along the roads offers only a limited solution for distributing services throughout the city and does not create a strong enough pull from the CBD to different areas in the city. In effect, the ribbons will not create less conjunction in the city centre as traffic will still run along the same routes in a similar manner. Another disadvantage of the Ribbon Development Model is that it does not ensure the future preservation of the wetlands as natural resources of the city and metropolitan area. The wetlands nowadays are under the constant threat of encroachment. As the Ribbon Development Model does offer a method of limiting the development to certain areas, it does not guarantee that the wetlands will not be encroached as part of the future development.

9.2.2 The "Focal Centres" Model

According to the Focal Centres Model, the city services are concentrated into specifically located centres. The centres are distributed throughout the KCCA forming a hierarchy of service centres which includes the CBD, Quarter service centres and Local service centres. The CBD is confined to predefined borders in manner that does not permit the growth of the centre beyond reasonable proportions. The Quarter service centres are located along the new Ring roads (most along the Inner Ring) which make them accessible both from within and outside the KCCA. The Local service centres serve the residents of the KCCA and are distributed throughout the KCCA so that they are accessible by car, by public transportation and by foot as the distance between the centres is defined as no larger than 2km. The Local service centres are located near either existing or new roads making them highly accessible. The following map illustrates the urban development according to the Focal Centres Model.



Map 72: Focal Centres Model

The advantages of this model are that it allows calculated and organized development. By concentrating the development in specific locations it is possible to focus the existing resources and efforts instead of spreading them out thinly across a large area. This will ensure better infrastructure for the new centres and thus allow them to better serve the inhabitants. The calculated distribution of the centres and the services offered in each centre allows access to services in a more organized and comfortable manner. The large Quarter service centres reduce the need to arrive at the CBD in order to access services and find employment opportunities. The location of the Quarter service centres in the outer edges of the CZ in strategic locations along the new Ring roads and the radial metropolitan

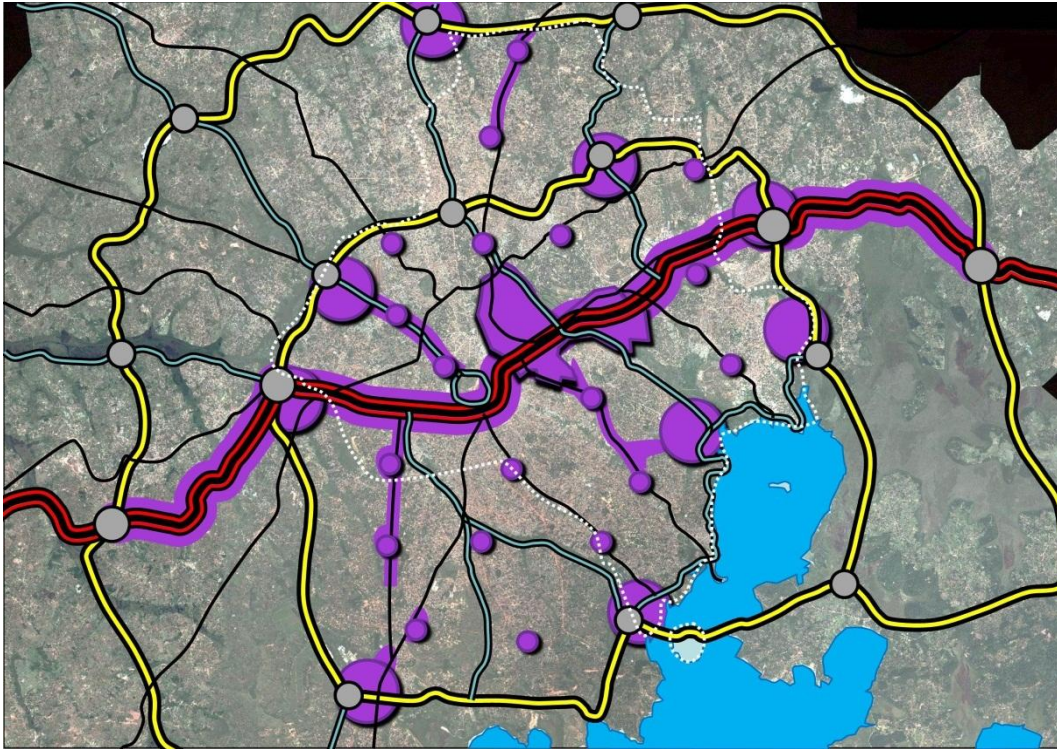
roads makes them focal points outside the CBD, effectively reducing the ingoing traffic into the city and decreasing conjunction within the city. Another advantage of the Hierarchy Model is that the concentrated and well planned centres will not endanger the preservation of the wetlands as natural resources. By constructing well-structured centres, the need for wetland encroachment will be limited and the wetlands preserved.

The disadvantage of this model is that it too idealistic and cannot truly be implicated in the Kampala situation. The model assumes that there is no corridor or ribbon development within the KCCA and that all development is concentrated in the new centres. The situation in Kampala today is that such ribbon development already exists along several of the city's existing roads. It is unlikely to assume that all existing services along the roads will be relocated to the new centres making the Focal Centres Model inapplicable in the Kampala case.

9.2.3 The Integrated Model

Based on the advantages of the two previous models, an Integrated Model is suggested by the consultant. The Integrated Model combines the advantages of the two models without their disadvantages. The Integrated Model proposes using the idealistic Focal Centres Model as a base for the structure and refining it using elements from the Ribbon Development Model. The Integrated Model is composed of the three hierarchy levels of service centres: the CBD, Quarter service centres and Local service centres, which are combined with ribbon elements along the Urban Freeway and between some of the new Local service centres. The Integrated Model is formed of a strong and well defined CBD which is strengthened by a well-structured corridor along the Urban Freeway. The Quarter and Local service centres are distributed in a similar manner to that of the Focal Centres Model, with the exception of having some of the Local centres connected to form a ribbon. The difference between the ribbons of the Integrated Model and the Ribbon Development Model is that the Integrated Structure's ribbons are planned, structured and defined so that they do not form unorganized sprawl but rather an organized and comprehensive structure. The following map illustrates the urban development according to the Integrated Model.

The advantages of this structure are that it offers a well-structured and well-organized pattern for development which takes into account both the existing situation and future potentials. The distribution of service centres is most efficient in reducing traffic to the city centre, assuring high accessibility to services, and allowing the preservation of the wetlands as natural resources.



Map 73: Integrated Model

9.2.4 Summary

Three structural alternatives for the KCCA were examined for future development of the KCCA:

- The “Ribbon Development” Model
- The “Focal Centres” Model
- The Integrated Model

The Integrated model was chosen as most favourable in the KCCA context. This model will form the basis for the KPDP and a guideline for detailed planning in the KCCA.

In order to address the different aspects of the KPDP for the KCCA area the KPDP was divided into structural layers. These layers are based on the Integrated Model and are presented in detail in the following section.

9.3 Structural Layers of the KPDP

The KCCA Physical Development Plan covers several aspects of the city structure. The different aspects can be summarized as levels of the city structure:

- Transportation System
- Landscape Resources
- City Planning Zones
- Population Distribution
- City Services Hierarchy
- City Centre Components
- Residential Area Planning

By considering the different levels of the physical planning individually and as an integrated whole a comprehensive and coherent city structure can be developed. The following sections elaborate the structural levels.

9.3.1 Layer 1: KPDP Transportation System

The KCCA's transportation system is the heart and source of the metropolitan radial road system. As such, it is crucial to operate and improve the inner road structure of the KCCA as an integrated part of the metropolitan road system. As part of the analysis of the KCCA the consultant examined the existing road system and identified potentials for a reconstructed road system.

9.3.1.1 KCCA Road system

The purpose of the new road system is allowing better connectivity within the city and to the metropolitan road system. This connectivity is achieved by both construction of new roads and the upgrade of existing roads. The consultant identified within the existing system several roads which serve today as main transportation routes or which can serve as such under appropriate upgrading to urban highways. In several occasions, however, the consultant found no existing roads which could serve as appropriate urban highways. In such cases the consultant proposes construction of new roads in available areas.

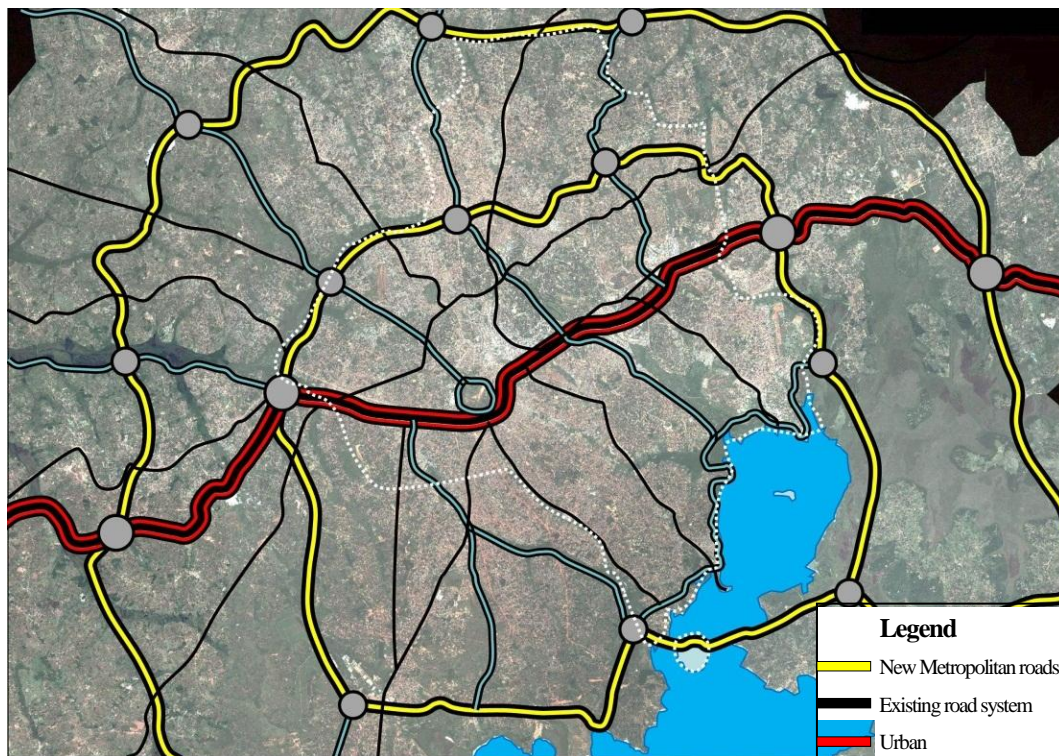
The new KCCA road system is composed of four types of roads of different hierarchy:

- The Urban Freeway which passes through the centre of the city from east to west (elaborated in section 8.2.1 regarding the metropolitan road system).
- Urban Highways which are either upgraded existing roads or newly constructed roads. These roads include partially radial roads which branch out

from the Urban Freeway, and a Lakefront road which passes along the Lake Victoria shore.

- Existing major roads which are not upgraded to Urban Highways, but which remain significant in the road system as they connect different areas in the city. Examples of such roads are Kampala Rd., and Old Kira Rd. and Makerere hill Rd.
- Existing minor roads which do not have a significant role in KCCA connectivity.

The following map illustrates the components of the KCCA road system.

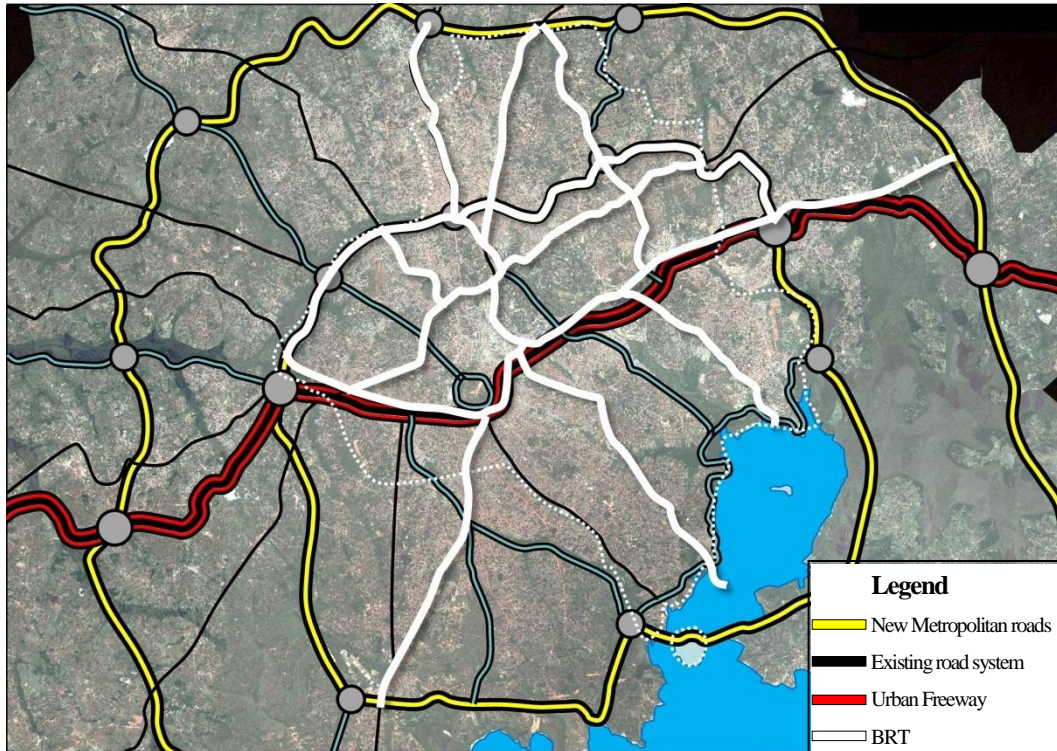


Map 74: Road System and Urban Freeway

9.3.1.2 KCCA BRT system

The transportation system for the KCCA includes an extensive BRT system based on the existing road network. As the existing road network is the base for the development of the city's residential areas, the BRT system is planned to pass along the existing network as it will best serve the city residence in this manner.

The BRT system will be able to pickup people from within their neighbourhood and to transport them to important locations within and outside of the KCCA. The following map shows the planned BRT system. See **Section 11.4** for elaboration.



Map 75: BRT System

9.3.2 Layer 2: KPDP Landscape Resources

Kampala holds several landscape resources which are significant in the city's structure and character. These landscape resources also hold great potential for future development in the city in the fields of tourism, economy and green systems.

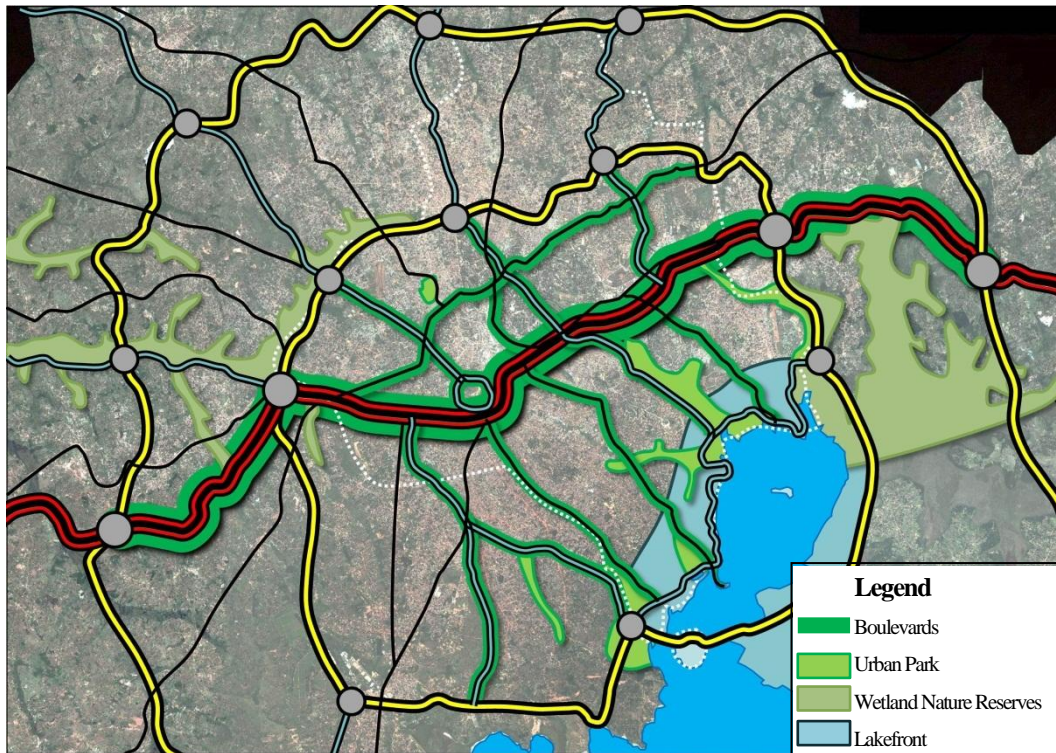
9.3.2.1 KCCA Topography

Kampala is located on a hilly topography and the hills are significant in the Kampala landscape and inner structure. Kampala's topography is also very significant in the city's functionality as it in many ways determines the distribution of landuses and accessibility in the city.

The area defined as the CZ is composed of approximately 30 hills. Each of the hills has different characteristics and holds various functions such as residence, religious centres, community facilities, infrastructure, etc. The hilltops are especially important as they offer great potential for development as a system of tourist and recreational areas. The following map presents the Kampala topography and hills.

9.3.2.3 Lakefront

One of Kampala's landscape resources with the greatest unfulfilled potential is the lakefront on the shores of Lake Victoria. The lakefront holds vast potential as a recreation area as well as a business and service centre. Development of the lakefront through proper drainage and design will help protect the lakeshore and stop encroachment. The lakefront also has a strong relation to the wetlands and together they form a continuous natural system from the lake into the city centre. The development of the lakefront will strengthen the urban park system as it will connect the park system to a linear lakefront system which follows the shoreline. The lakefront has unique potential as it forms a link between the city and its natural setting and can offer both urban and natural focal points. The following map presents the open spaces, parks and lakefront.



Map 77: Green System and Lakefront

9.3.3 Layer 3: KPDP City Planning Zones

As explained earlier, the KCCA area was granted a special status among the other metropolitan planning zones as the Central Zone (CZ). It is important to stress out that there is no 100% correlation between the KCCA boundaries and the CZ boundaries as the two are based on different systems. The KCCA boundaries are based on an administrative division into parishes and divisions while the CZ boundaries are based on functional planning considerations. This section addresses the Quarters and Precinct/Neighborhood sub-division as part of KCCA Quarters and Precinct Physical Development Plans and constitutes the third level of the KSPA planning hierarchy, as illustrated in the following flowchart.

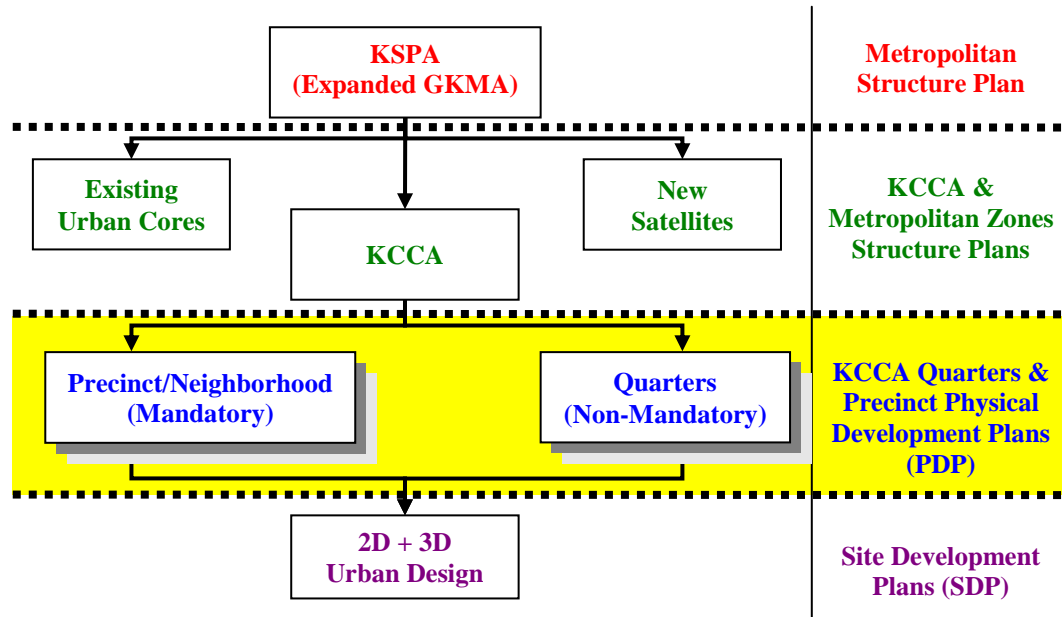


Figure 90: Planning Zones in the Planning Hierarchy

9.3.3.1 KCCA Quarter and Precinct/Neighborhood Sub-Division

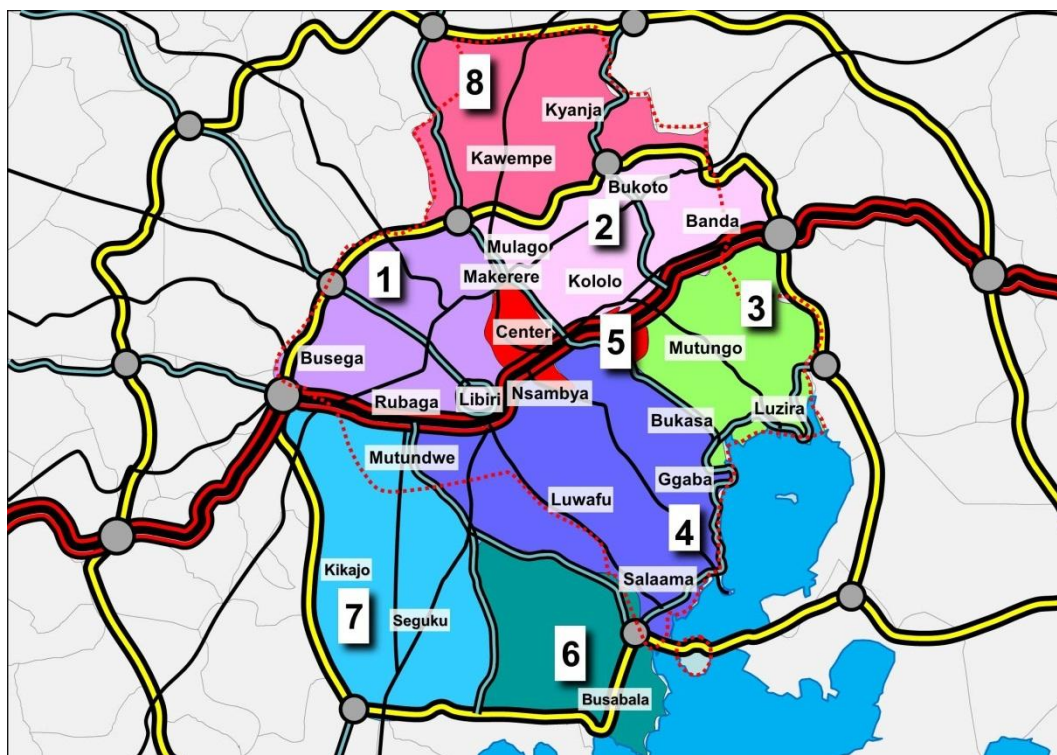
The CZ was sub-divided into Quarters and Precincts/Neighborhoods which act as functional planning units according to the city's internal structure. Following functional considerations the CZ area is divided into eight Quarters which were then divided into 29 Precincts.

The division to quarters is based on the existing and proposed road system as well as on landuse considerations. Quarters are mostly defined by metropolitan roads and CZ main roads, either existing or new, as defined by the CZ Transportation System. The metropolitan roads which define the quarter division are the same which define the CZ area – the Inner and Mid ring, and the radial roads. The CZ roads which define the quarters are the Urban Freeway, the existing-upgraded highways and the new highways. Among the eight quarters, five (1-5) have been

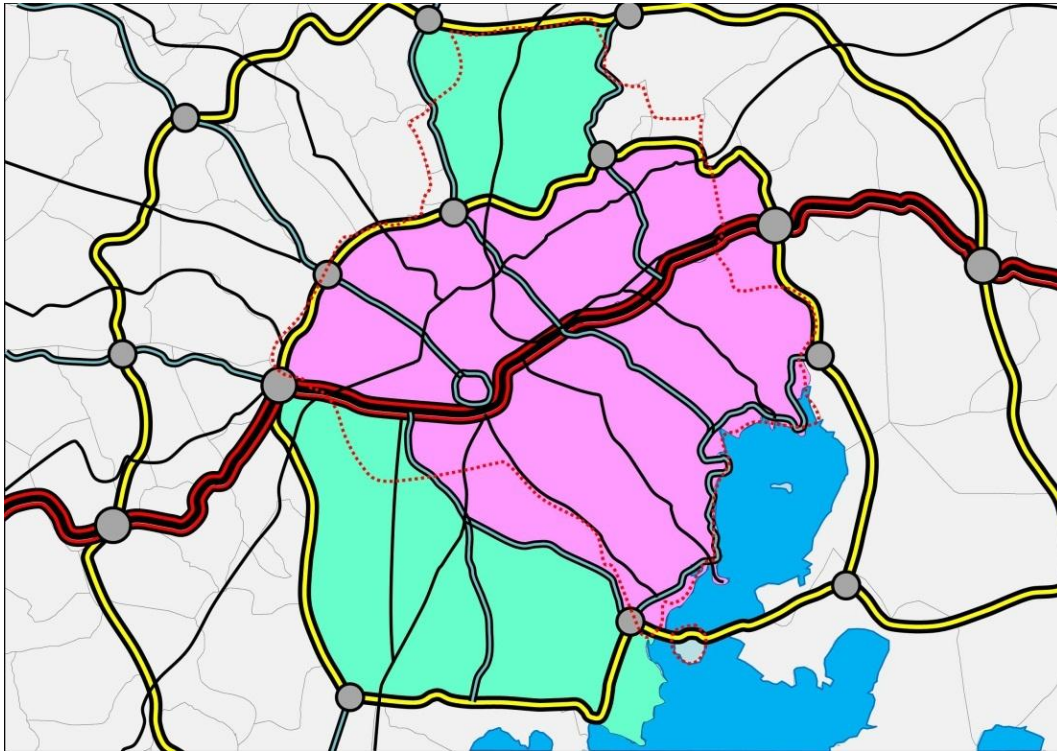
define as Inner City Quarters which contain special characteristics of the city (the CBD, universities, cultural centres etc.) which will be elaborated later on. The other three quarters (6-8) have been defined as Peripheral Quarters as they are not physically part of the city centre. Each quarter is defined as a planning unit which can and should be analysed and planned according to its potentials, constraints and needs.

The Precinct/Neighborhood structure was determined following an analysis of neighbourhood units in the city based on function, landuse and topography. As mentioned earlier, the hills of Kampala have a significant presence in the city's landscape and structure. This significance is reinforced by the division to precincts which boundaries are greatly based on the topography. The division of the quarters into precincts allows creating more specified plans on a smaller scale than the entire quarter.

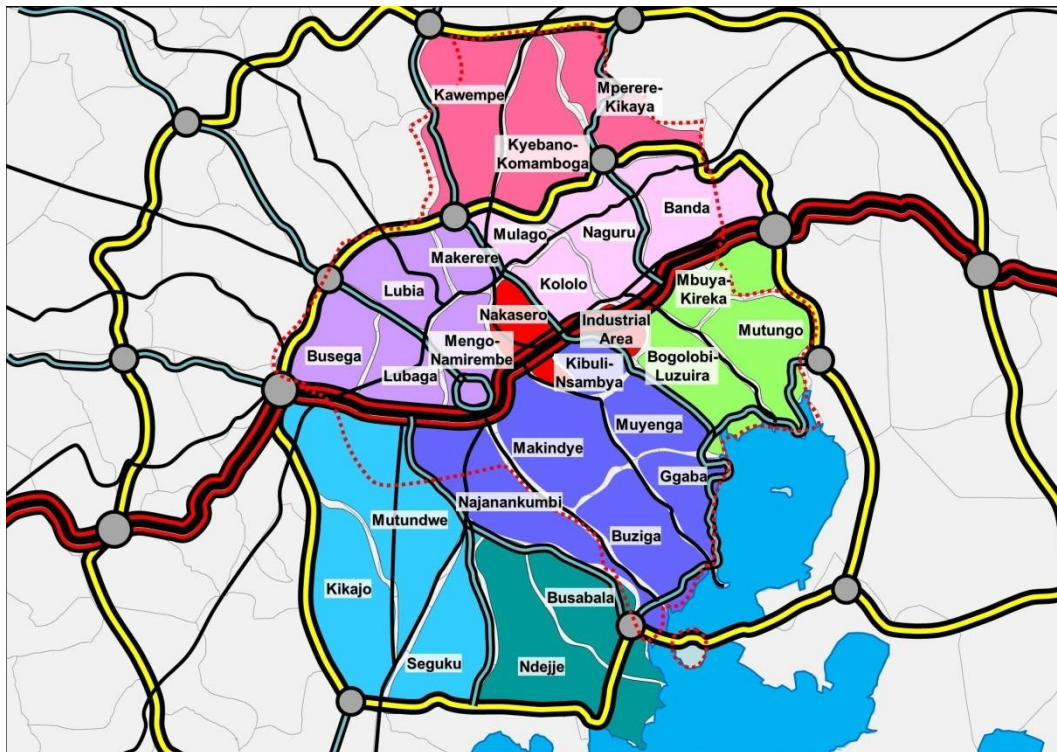
The following images present the division to quarters, inner city and peripheral quarters, and precincts.



Map 78: Quarter Sub-division



Map 79: Inner City and Peripheral Quarters



Map 80: Precinct Sub-division

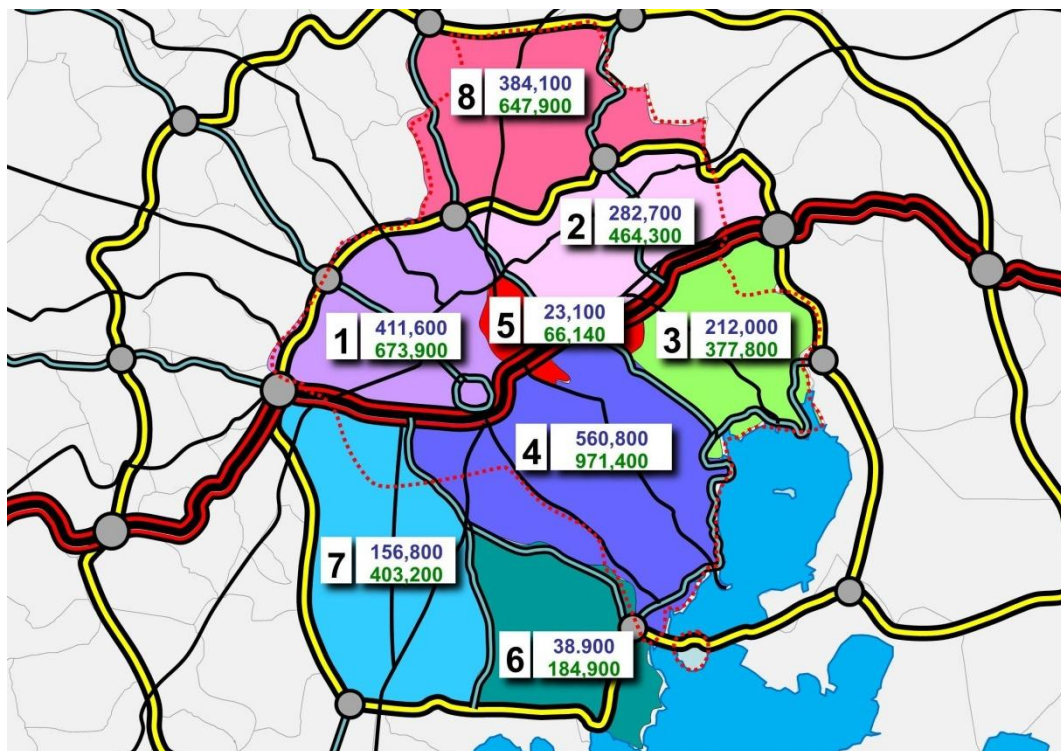
9.3.4 Layer 4: KPDP Population and Employment Distribution

The definition of the city quarters as planning units makes it possible to examine each of the quarters' potentials. Each of the quarters was analysed according to its size, current population density and its short and long term capacity. The following tables and map summarize the analysis for each quarter, precinct and the CZ total.

Table 48: Projected Population by Quarter

Quarter	Area (Ha)	2011	2022 Target	Long Term Target
1	3,478	411,612	662,774	673,976
2	3,008	282,790	412,430	464,359
3	2,669	212,806	346,887	377,879
4	5,304	560,809	877,418	971,419
5	772	23,118	45,305	66,140
6	2,724	38,915	106,811	184,927
7	4,607	156,877	340,409	403,276
8	3,679	384,130	605,593	647,972
Total	26,242	2,071,057	3,397,626	3,789,949

Note: Rounded data.



Map 81: Population Distribution by Quarter (Rounded)

Table 49: Projected Population by Precinct

Quarter	Precinct	Area (Ha)	2011	2022 Target	Long Term Target
1	1. Busega	831	82,245	135,146	135,146
	2. Lubaga	679	66,345	125,809	125,844
	3. Mengo-Namirembe	758	86,626	114,943	121,034
	4. Lubia	863	133,261	220,687	220,687
	5. Makerere	346	43,136	66,188	71,264
2	6. Mulago	342	74,162	93,852	96,691
	7. Kololo	494	13,738	16,748	45,382
	8. Naguru	902	86,892	148,160	160,174
	9. Banda	1,283	108,768	151,235	159,678
3	10.Mbuya-Kireka	707	82,292	123,786	130,015
	11.Mutungo	1,041	86,079	143,914	143,914
	12.Bogolobi-Luzira	909	43,666	81,622	106,385
4	13.Kibuli	343	68,481	97,256	97,317
	14.Muyenga	641	61,913	106,607	106,607
	15.Ggaba	595	30,309	60,193	60,193
	16.Makindye	1,155	187,332	306,785	316,208
	17.Buziga	1,061	50,949	85,810	139,758
	18.Najanankumbi	1,509	161,825	220,766	251,335
5	19.Nakasero	378	14,395	16,826	33,778
	20.Nsambya	139	5,050	22,946	23,520
	21.Industrial Area	255	3,672	5,533	8,842
6	22.Busabala	978	10,879	20,174	65,348
	23.Ndejje	1,746	28,035	86,637	119,579
7	24.Mutundwe	2,221	118,120	233,161	236,552
	25.Seguku	1,100	26,272	71,954	79,765
	26.Kikajo	1,286	12,485	35,295	86,960
8	27.Kawempe	1,882	241,662	332,937	375,317
	28.Kyebano-Komamboga	856	106,195	196,972	196,972
	29.Mperere-Kikaya	941	36,273	75,683	75,683
Total		26,242	2,071,057	3,397,626	3,789,949

Note: Rounded data.

Table 50: Employment Targets by Quarter and Precinct (Employees)

Quarter	Precinct	Area (Ha)	2011	2022 Target	Long Term Target
1	1. Busega	831	27,536	59,195	67,667
	2. Lubaga	679	42,184	62,361	75,696
	3. Mengo-Namirembe	758	85,490	147,393	128,441
	4. Lubia	863	33,480	53,141	58,980
	5. Makerere	346	12,526	27,979	46,901
2	6. Mulago	342	20,392	27,397	29,691
	7. Kololo	494	54,401	62,079	83,673
	8. Naguru	902	41,249	83,713	104,044
	9. Banda	1,283	54,765	94,744	115,869
3	10.Mbuya-Kireka	707	23,441	46,024	64,833
	11.Mutungo	1,041	23,995	45,918	56,137
	12.Bogolobi-Luzira	909	29,366	71,409	89,307
4	13.Kibuli	343	58,132	75,179	89,395
	14.Muyenga	641	19,690	41,470	45,142
	15.Ggaba	595	15,333	29,453	33,320
	16.Makindye	1,155	49,321	79,697	94,176
	17.Buziga	1,061	17,203	30,879	46,752
	18.Najanankumbi	1,509	52,733	80,134	101,723
5	19.Nakasero	378	119,977	167,364	188,179
	20.Nsambya	139	70,376	78,188	79,225
	21.Industrial Area	255	13,965	22,765	18,888
6	22.Busabala	978	2,464	10,187	24,327
	23.Ndejje	1,746	7,646	24,476	30,755
7	24.Mutundwe	2,221	33,195	71,294	85,593
	25.Seguku	1,100	7,055	20,942	23,729
	26.Kikajo	1,286	3,294	9,782	18,824
8	27.Kawempe	1,882	62,286	94,622	110,593
	28.Kyebano-Komamboga	856	22,002	38,910	47,415
	29.Mperere-Kikaya	941	11,932	26,178	26,149
Total		26,242	1,015,430	1,682,875	1,985,425

Note: Rounded data.

Table 51: Employment Built Space Targets by Quarter and Precinct (m²)

Quarter	Precinct	Area (Ha)	2011	2022 Target	Long Term Target
1	1. Busega	831	115,490	414,816	607,588
	2. Lubaga	679	409,045	624,492	907,321
	3. Mengo-Namirembe	758	733,936	1,347,035	1,621,882
	4. Lubia	863	75,424	119,349	140,411
	5. Makerere	346	34,665	166,954	328,769
2	6. Mulago	342	24,068	37,329	43,828
	7. Kololo	494	976,610	1,115,850	1,377,682
	8. Naguru	902	267,210	678,319	906,107
	9. Banda	1,283	451,453	892,755	1,179,769
3	10.Mbuya-Kireka	707	106,864	369,280	667,201
	11.Mutungo	1,041	46,037	225,953	372,363
	12.Bogolobi-Luzira	909	279,329	789,398	1,034,201
4	13.Kibuli	343	987,491	1,194,896	1,479,236
	14.Muyenga	641	57,745	224,268	263,845
	15.Ggaba	595	84,284	164,268	281,302
	16.Makindye	1,155	184,788	342,394	404,221
	17.Buziga	1,061	72,475	178,778	234,443
	18.Najanankumbi	1,509	271,992	523,682	616,096
5	19.Nakasero	378	1,491,452	2,344,730	3,175,211
	20.Nsambya	139	594,239	756,311	1,049,826
	21.Industrial Area	255	138,295	186,393	264,342
6	22.Busabala	978	2,459	84,416	205,196
	23.Ndejje	1,746	32,329	68,700	80,824
7	24.Mutundwe	2,221	148,419	415,282	595,508
	25.Seguku	1,100	31,896	67,779	79,739
	26.Kikajo	1,286	9,438	20,056	23,596
8	27.Kawempe	1,882	246,620	461,239	671,487
	28.Kyebano-Komamboga	856	30,001	55,198	64,938
	29.Mperere-Kikaya	941	54,148	125,914	147,324
Total		26,242	7,958,200	13,995,835	18,824,254

Note: Rounded data.

9.3.5 Layer 5: KPDP Services Hierarchy – Focal Crystallization

As explained earlier in regard to the city's structural alternatives and the Integrated Model proposed, the city's service centres are organized in a hierarchy of CBD, Quarter service centres and Local service centres. The purpose of the centres is to supply necessary employment, education, health and services centre for the inhabitants of the city. The focal crystallization offers an alternative to the existing sprawl of service and commerce along main roads. This will allow supplying the inhabitants of the city with organized and accessible services (see following figures).

The city scale service centres, or the CBD, are located in the Inner City, and beyond serving the Inner City they are aimed at serving the entire city and metropolitan area as well. The Quarter and Local service centres are distributed within the quarters and aimed mainly at serving the inhabitants of each quarter. The Quarter and Local service centres are located along main roads with a planned BRT route, when available. The centres are spread out in such a manner that the entire KCCA has efficient coverage by service centres located within a 2 km walking distance from any point in the KCCA. The centres are located where a sufficient amount of available space allowed development and building.

As opposed to the Local service centres which are designed to serve the inhabitants of the quarters and precincts only, the Quarter service centres are also aimed at serving inhabitants of PZs outside the CZ. As explained earlier regarding the Integrated Model of the KCCA, the Quarter service centres are located along the Inner and Mid Rings in proximity to metropolitan highways in order to allow easy access to the centres from the entire metropolitan area. The purpose of this is creating focal points for services and employment outside of the Inner City thus reducing traffic conjunction and unnecessary burdening of infrastructures within the city.

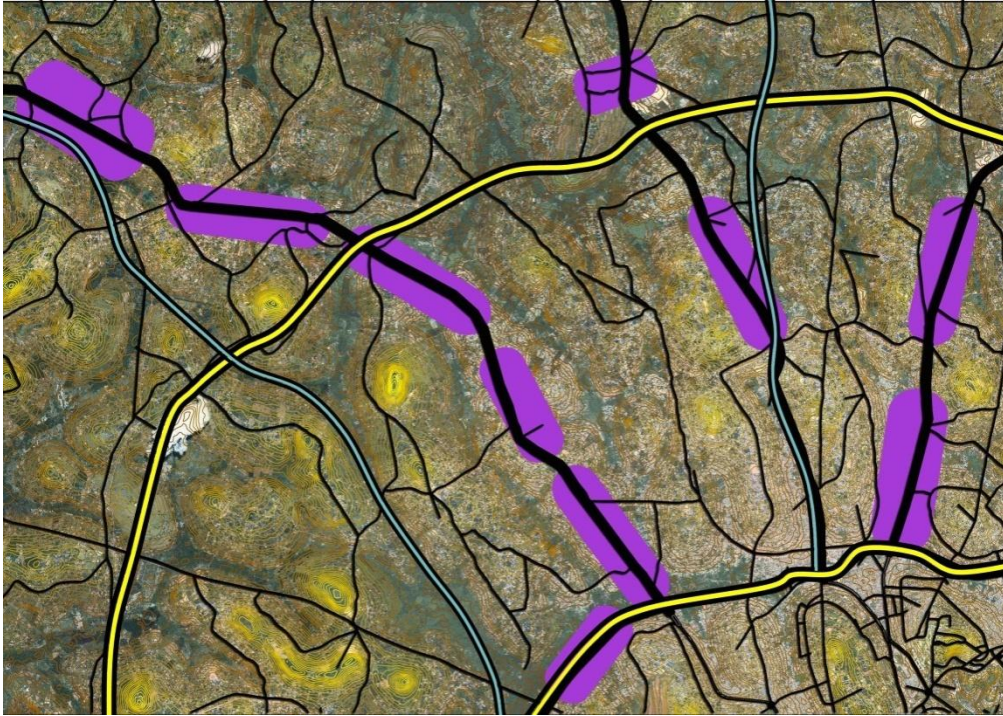


Figure 91: Existing Sprawl of Services and Commerce

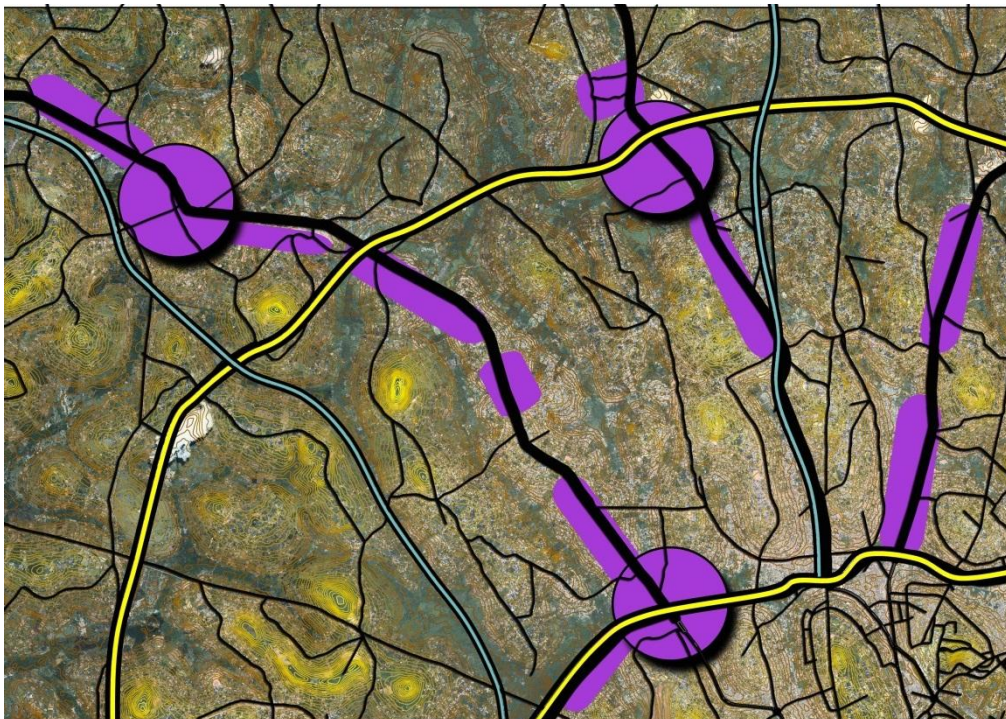


Figure 92: Focal Crystallization of Services and Commercial Centres

9.3.6 Layer 6: KCCA City Centre Components

The quarters defined as the Inner City hold the majority of the special elements in the city. These elements include cultural facilities, health services, educational facilities, the CBD and industrial site. These elements are unique in the KCCA and have both functional and conceptual significance. The collection of these elements defines the area of the functional city centre. Furthermore, these elements offer potential for future development of the city in the fields of tourism, economy, education, etc. These components are crucial and main elements in precincts, dictating the development of the entire precinct. This section addresses the City Centre Components as part of the Precinct/Neighborhood Physical Development Plans in the third level of the KSPA planning hierarchy, as illustrated in the following flowchart.

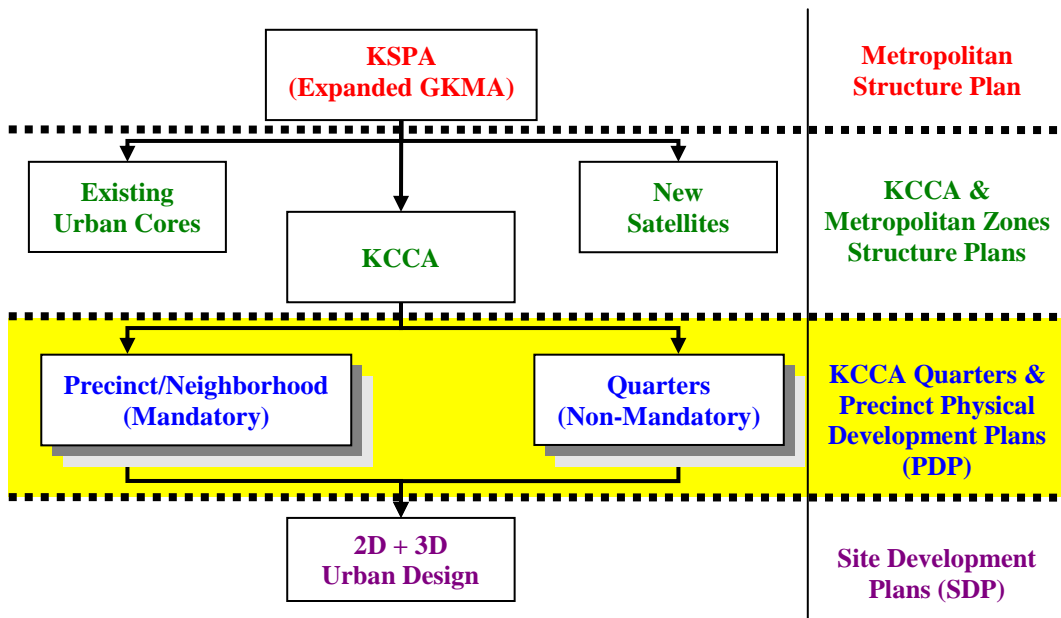
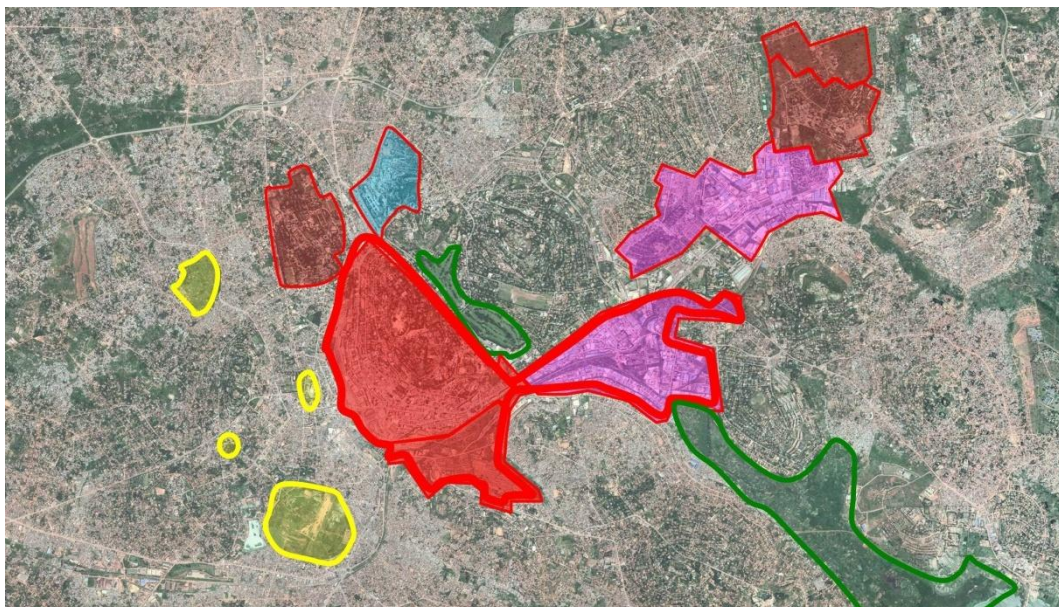


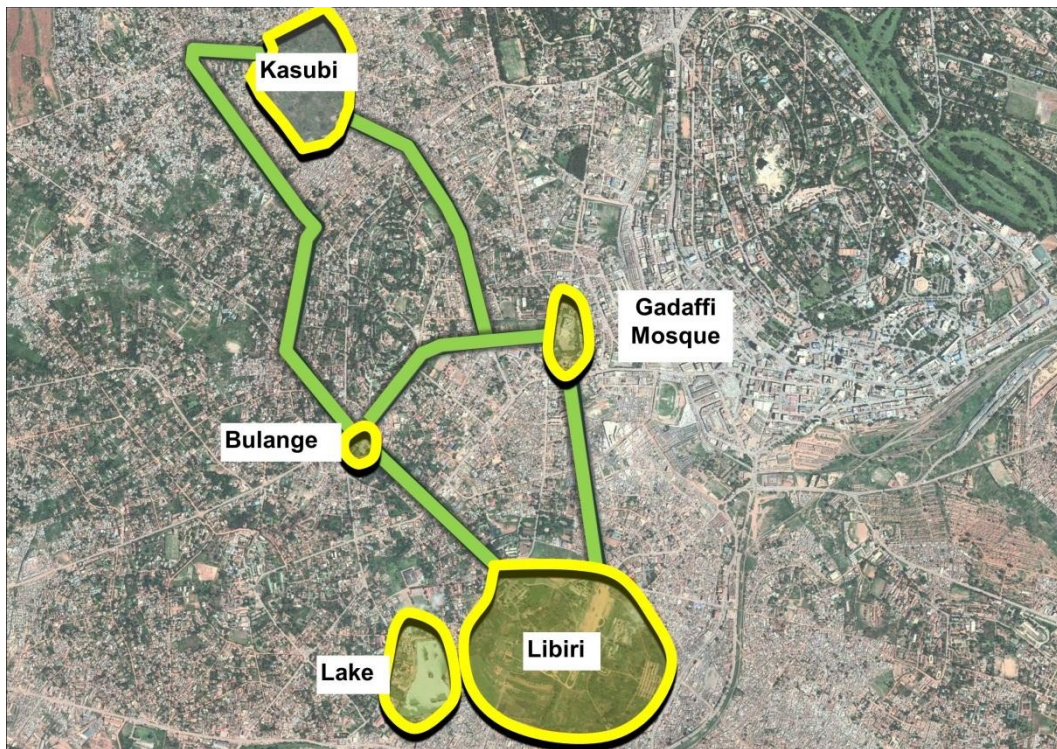
Figure 93: City Centre Components in the Planning Hierarchy



Map 82: City Centre Components

9.3.6.1 Cultural facilities

The main cultural facilities are located in Quarter 1 and include Libiri, Kabaka's Lake, Bulange, Kasubi, the Gadaffi Mosque, and the Rubaga Cathedral. These facilities are significant landmarks in the Kampala's culture and history. The proximity of these sites to each other creates a sort of cluster of culturally significant sites and gives a unique character to the entire area (see following map). Thanks to the location of this cluster not far from the CBD it is characterized by high viability and accessibility, making it a potential culture, tourism and recreation area.



Map 83: Cultural Landmarks

9.3.6.2 Health services

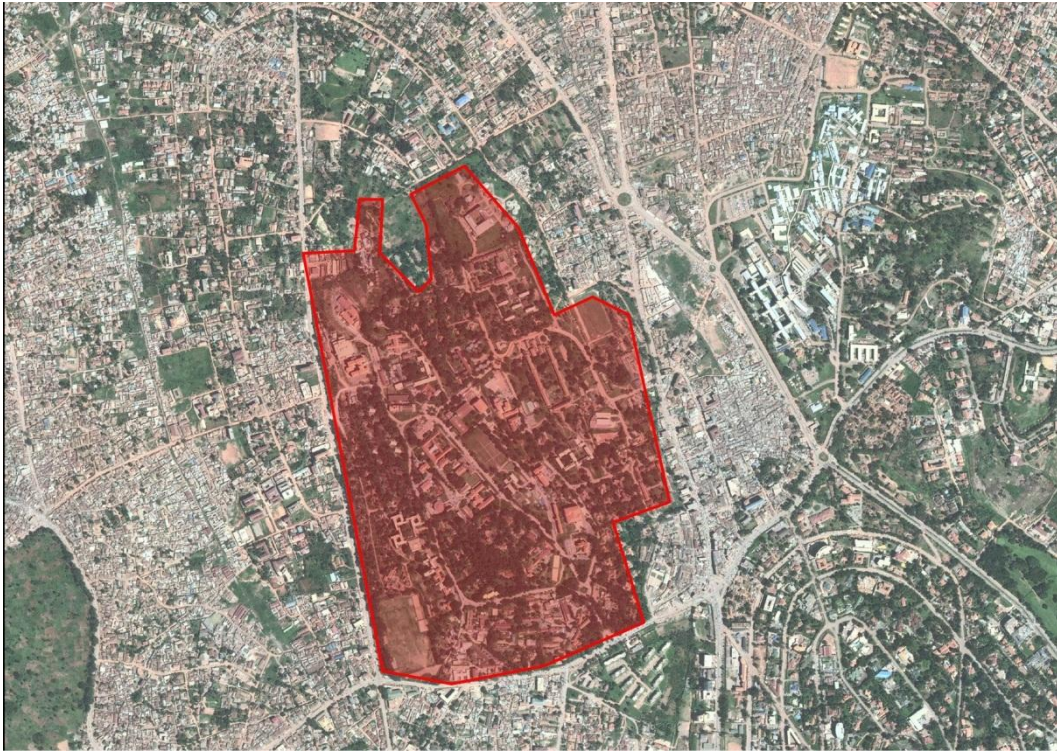
One of Kampala's most important health centres, the Mulago Hospital, is located in Quarter 2 (see following map). This hospital, which also serves as an extension of the Makerere University and houses its Medical School, is an important part of the city centre. Beyond its important role in the Kampala community, the Mulago Hospital can be developed as an academic and research centre, as explained below.



Map 84: Mulago Hospital

9.3.6.3 Educational facilities

Two important Educational facilities exist within the KCCA boundaries – the Makerere University and the Kyambogo University. The Makerere University is located in Quarter 1, near the Mulago Hospital, and the Kyambogo University is located to the east of Quarter 2 (see following maps). These two facilities can be regarded as knowledge centres which have the ability of gathering knowledge based industries around them. Makerere University's proximity to Mulago Hospital creates a potentially powerful combination which may be developed into an academic and research centre. The Kyambogo University also has potential to expand and be developed as a research and development centre, especially thanks to the vacant area to the north of the complex.



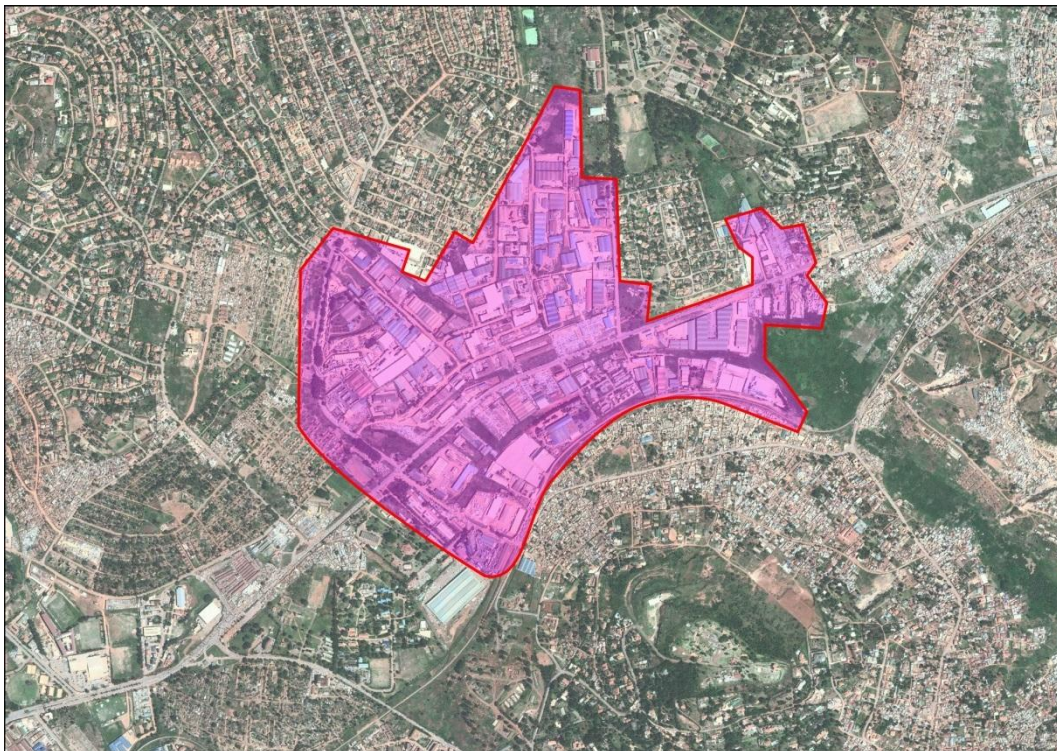
Map 85: Makerere University



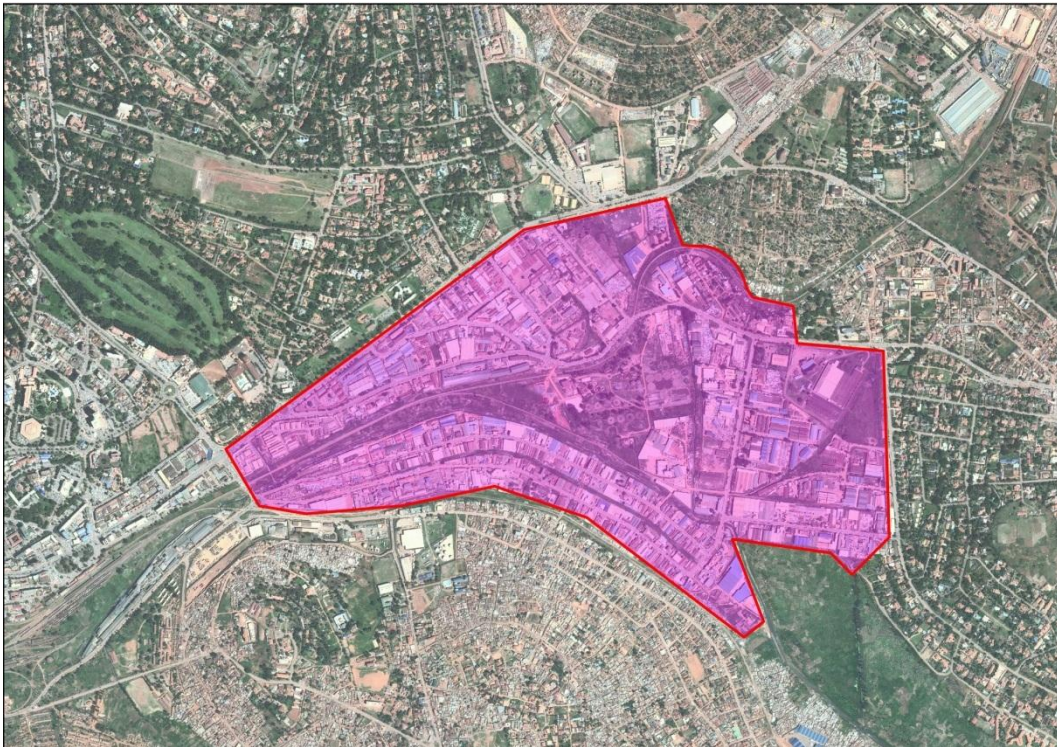
Map 86: Kyambogo University

9.3.6.4 Industrial sites

Both Quarters 2 and 5 contain industrial sites which are located along the route of the planned Urban Freeway. These two industrial sites are located in the heart of Kampala city and do not realize their full potential as residential, business, and employment centres. The industrial site in Naguru in Quarter 2 is also not far from the Kyambogo University mentioned above (see following maps). This proximity can prove significant if the industrial site were to be developed as a centre for knowledge based industries and become an extension of the Kyambogo University development. The industrial site in Bogolobi in Quarter 5 is part of the City Centre Quarter and very close to the city's CBD which makes it a potential site for CBD expansion, as elaborated below.



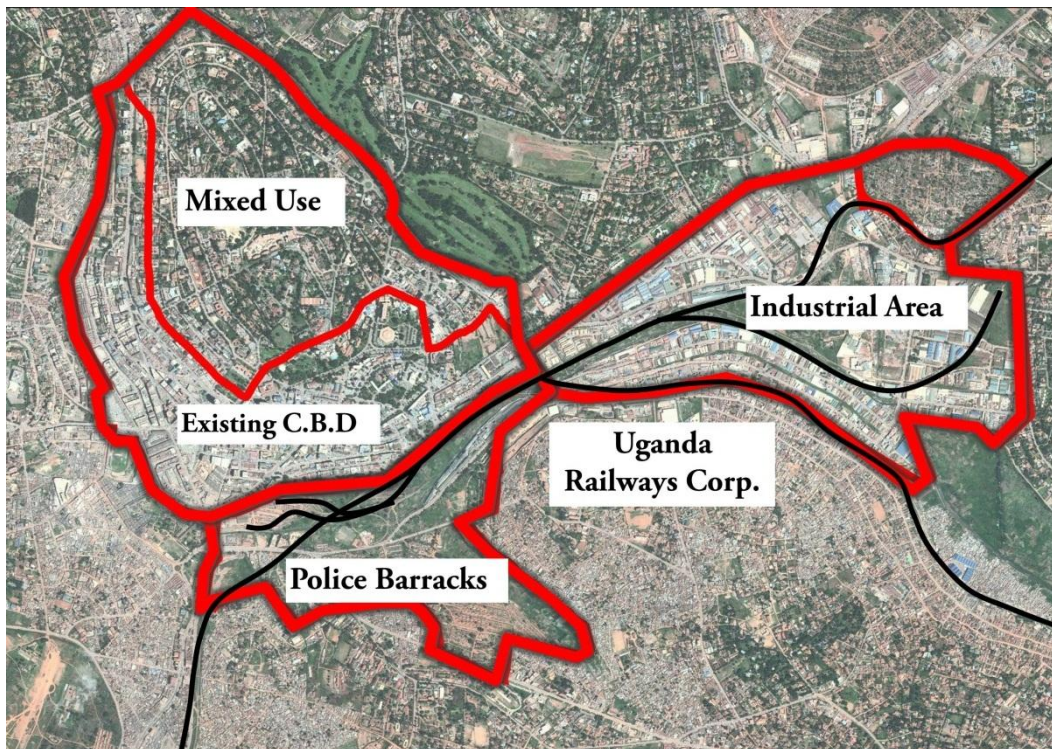
Map 87: Naguru Industrial Site



Map 88: Bogolobi Industrial Site

9.3.6.5 CBD

Kampala's CBD is of particular interest and importance due to its role in Kampala's everyday life. The CBD includes a variety of mixed uses such as commerce, transportation, government and financial services. The problem of the existing CBD is that it has very little opportunities for growth within its boundaries which effectively blocks the development of the CBD. The development of the CBD, therefore, depends on its ability to broaden its borders. Since most of the area surrounding the CBD is already occupied there is a need for redevelopment of built areas near the CBD. Two appropriate sites were located along the Urban Freeway not far from the CBD – an industrial site to the south-east of the CBD (mentioned earlier) and the police barracks directly to the south of the CBD (see following map). The incorporation of these two sites into a new plan for the CBD has great potential in substantially upgrading the existing CBD and transforming it into a well-organized and modern city centre. The Extended CBD is defined as a Quarter or its own – the City Centre Quarter (Quarter 5).



Map 89: Existing CBD and Extention

The consultant proposes an urban design scheme for the extended CBD area. The urban design scheme includes restructuring the road system in the CBD area into a modern and organized grid system. The grid system divides the sites into fairly evenly sized and easily accessed plots. The new local road system is incorporated into the city road system with the Urban Freeway and highways. The Urban Freeway passes from east to west through the extended CBD, and Yusuf Lule Rd. passes through it from north to south. The road and plot systems are complemented by an urban green system which connects the existing nearby wetlands and golf course to create a healthy and vibrant living and working environment.

As part of the consultant's analysis of the CBD potential the urban scheme was developed both as 2D and 3D. The 3D scheme presents a vision for the extended CBD area including a schematic development of the area as a modern business area with a variety of building types, including high-rise buildings and complexes, a freeway combined with a railway and train station, a BRT system, a large scale urban square, as well as local plazas, a system of open spaces, and an urban park. This urban scheme may serve as a guideline for future detailed planning of the Extended CBD area. See section 13.2 for additional simulations of the potentially new CBD.



Map 90: Extended CBD Urban Design Scheme

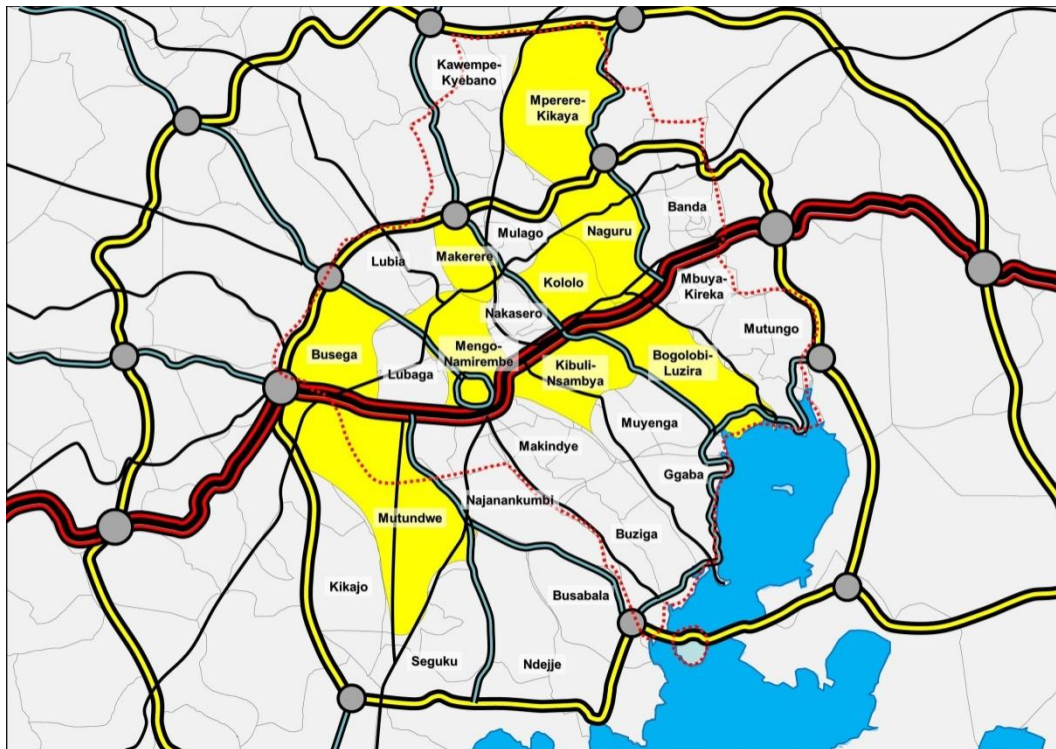


Figure 94: Extended CBD Urban Design Scheme Perspective

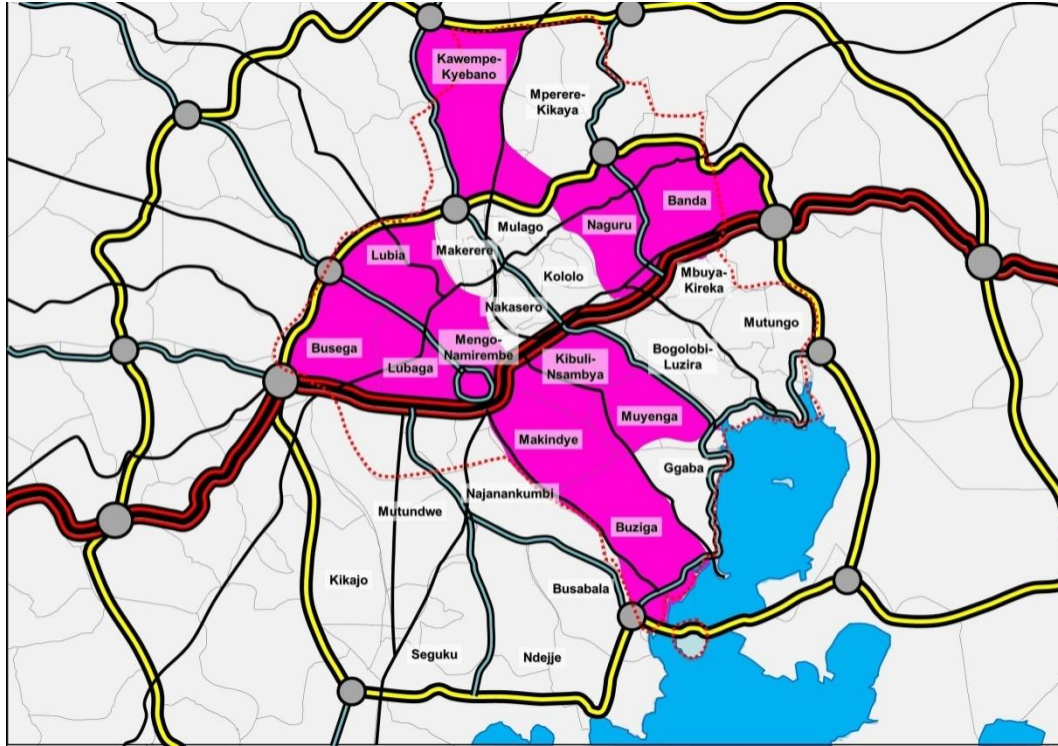
9.3.7 Layer 7: KPDP Residential Area Planning – Intervention Approaches

The development processes the city of Kampala must go through include raising the overall density of residential areas in the city. Densification is necessary in order to prevent the continuous sprawl which threatens the future of the city. Densification can be achieved by applying several intervention approaches to new and existing urban tissues. The intervention approaches include: Preservation, Redevelopment, Infill and Densification, Slum Avoidance and Upgrade, and New Development.

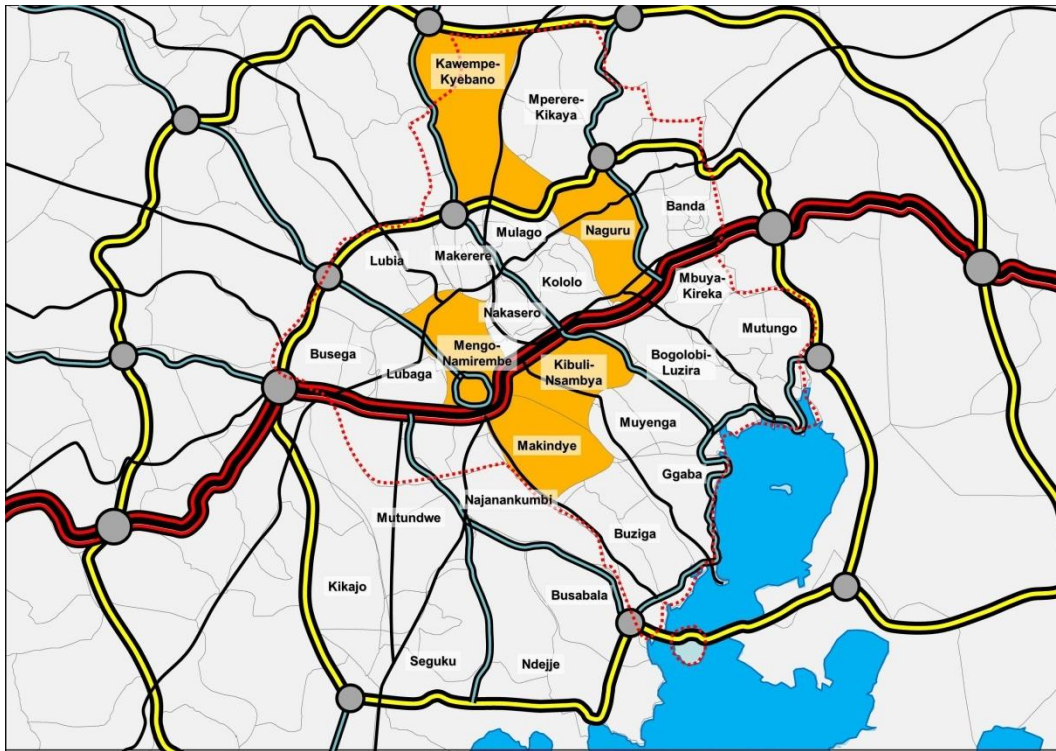
Analysis of the existing situation of residential areas in the KCCA was conducted in order to establish the appropriate approach for each area. The precincts were examined in regard to each intervention approach and labelled as either High, Moderate or Low priority for that intervention approach considering the precinct's existing state, capacity and potentials. The Preservation intervention approach concerns preservation of specific buildings and requires a survey of existing buildings to be conducted in the future. The following maps present the precincts with potential for redevelopment, infill and densification, slum avoidance and upgrade, and new development. These intervention approaches should be prioritised in downstream planning. Note most precincts retain potential for more than one intervention approach and these should be integrated in the planning.



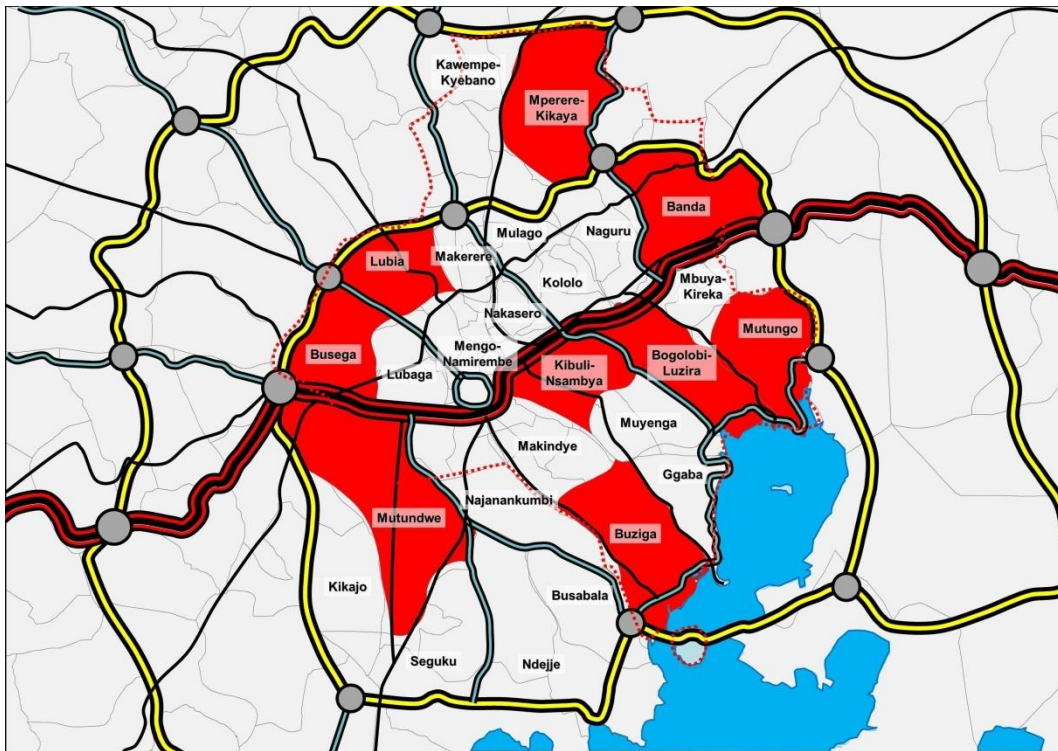
Map 91: Precincts for Redevelopment Planning



Map 92: Precincts for Infill and Densification Planning



Map 93: Precincts for Slum Avoidance and Upgrade Planning



Map 94: Precincts for New Development Planning

9.3.8 Summary

This section presented the analysis and development potential of the different layers of the KCCA. The layers discussed in this section are structural layers which should be considered in every detailed plan in the KCCA area. The structural layers are as following:

- Transportation System
- Landscape Resources
- City Planning Zones
- Population Distribution
- City Services Hierarchy
- City Centre Components
- Residential Area Planning

The following section will address the threats and obstacles which stand in the way of successful development of the KCCA according to the presented layers. A case study for planning KCCA quarters is presented later on in this report in which planning according to these layers is demonstrated (see section 9.5).

9.4 Threats and Obstacles

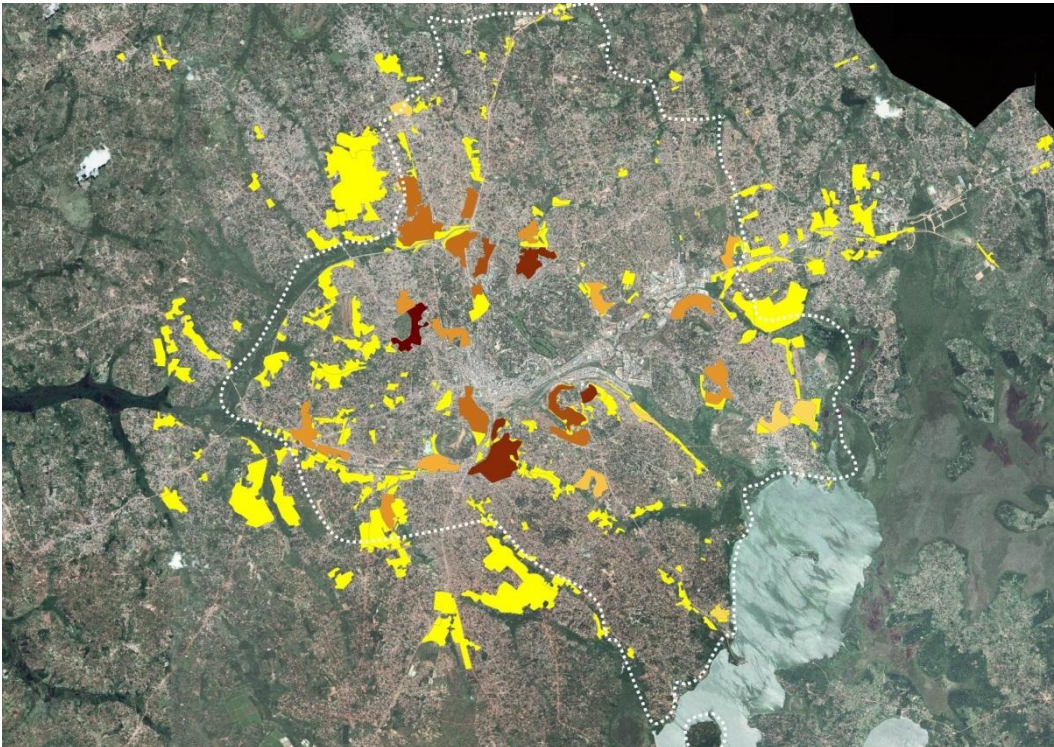
The successful restructuring and transformation of Kampala's Inner City is dependent on the ability to face and overcome certain threats and obstacles. Some of these threats and obstacles were already mentioned earlier in different sections of the situational and preliminary reports.

9.4.1 Slums

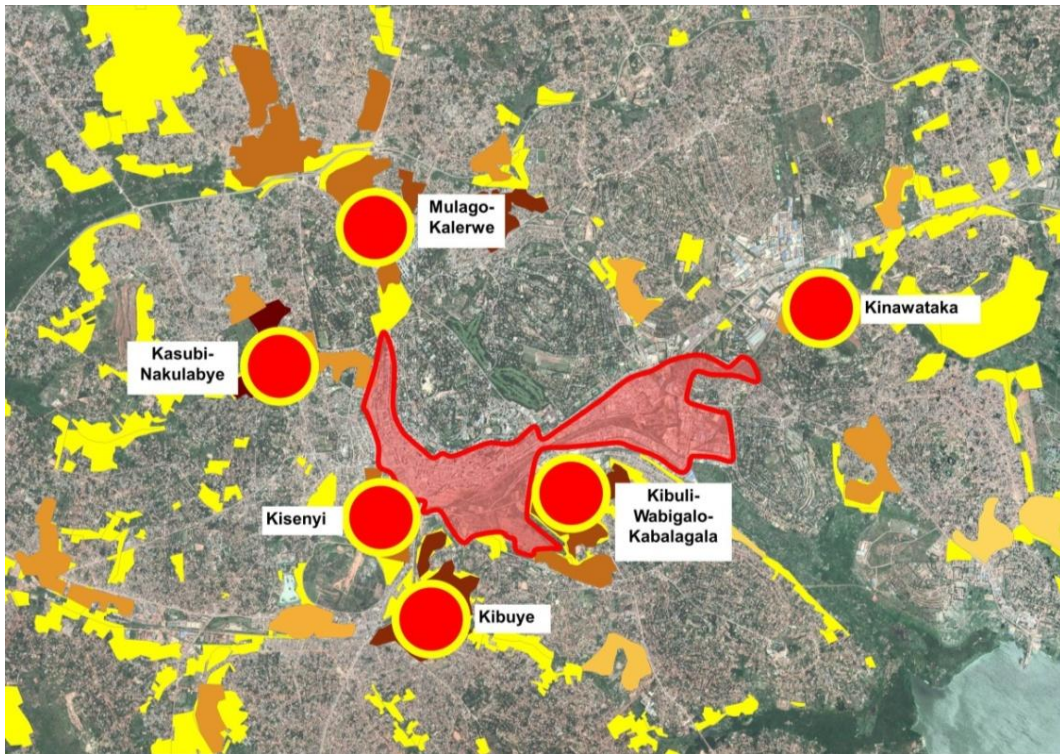
The slums and low income residential areas were discussed in length earlier; therefore this section will deal only with the immediate threats to the development of the Inner City. The presence of slums in close and immediate proximity to the various special city elements discussed in the previous section forms a major threat to the development of these areas and sites. The following map points to the location of these slums and low income residential areas.

The main threat presented by the location of the slums is the growth of the slum into the site for development making it difficult to redevelop the area. Another threat to future development is concerned with the image of the new development areas. If Kampala wishes to portray an image of a modern, balanced and attractive city it cannot allow for slums to exist and grow in its most important and central location.

As part of the development of the Inner City the consultant proposes immediate management of the following slums in order to guarantee the future development of the city centre: Mulago-Kalerwe, Kasubi-Nakulabye, Kisenyi, Kibuye, Kibuli-Wabigalo-Kabalagala, Kinawataka (see map).



Map 95: Slums and Low Income Residential Areas



Map 96: Slums for Management in the Inner City

9.4.2 Wetland encroachment

The issue of wetland encroachment in Kampala has many implications. One of the implications on the future development of the city is the threat of losing precious natural resources. As explained earlier, the wetlands may be transformed into a



Map 97: Wetlands in the KCCA

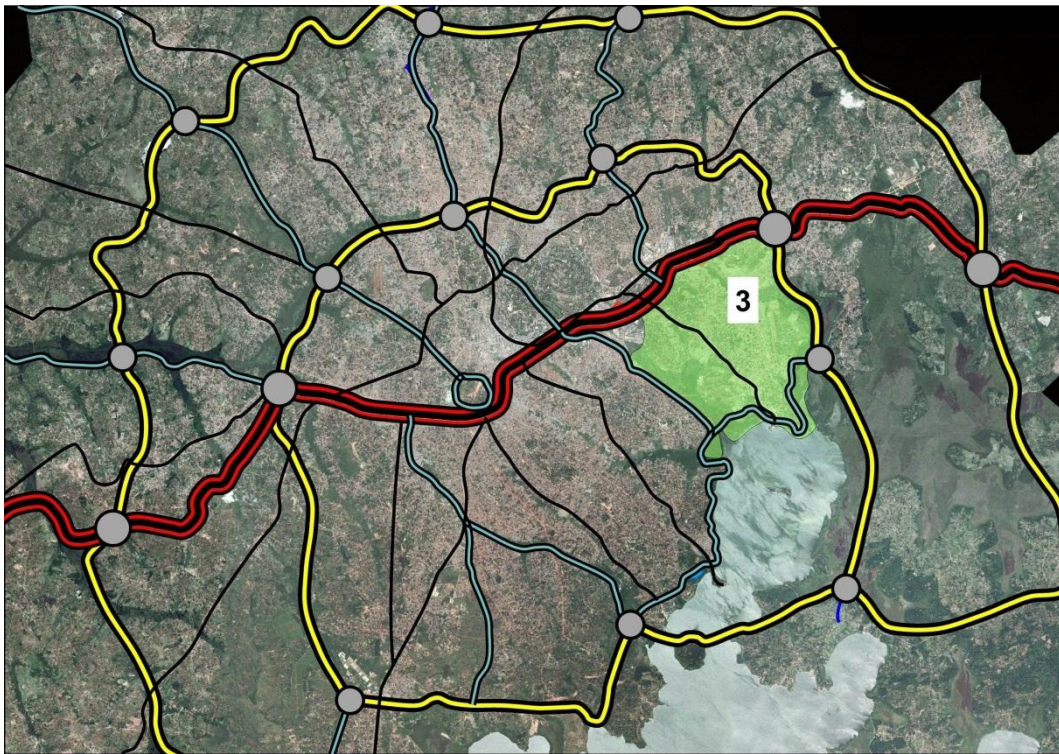
system of urban parks which will benefit the inhabitants of the city. Encroachment of the wetlands will eliminate all possibility of developing substantial open green spaces inside the city (see following map).

9.4.3 Preservation of Transportation options

With the rapid development of the city it will become ever harder to locate new areas in the city for future development. One of the most important aspects of the future city structure will be its transportation system. The transportation system nowadays already suffers from overload. As the city continues to develop there will be an increasing need for new and upgraded roads. This need must be taken into account at the present time in order to ensure the preservation of reserves for the transportation system.

9.5 KCCA Quarter Structure - Quarter 3 Case Study

The division of the CZ into Quarters is aimed at creating planning units that can be planned individually. While the city structure and systems dictates the overall approach for planning, each quarter should receive its own plan according to its



Map 98: Quarter 3 Boundaries and Location in KCCA

needs and potentials. It is important to note that while Quarter Physical Development Plans (QPDP) are not mandatory (as opposed to Precinct/Neighborhood Physical Development Plans which are mandatory) it is recommended that each Quarter receive its own plan. Similarly to the KCCA structure, the quarter structure is composed of several layers: Transportation, Landscape Resources, Land Use, Open Space and Green Potential, Special

Characteristics, Development Potentials, Public Service, Residential Area Intervention.

The consultant presents the analysis and structure plan for Quarter 3 as a case study for the planning of the quarters. Quarter 3 is the most eastern quarter of the KCCA, located in the southern half of the Nakawa Division. The purpose of this case study is not to offer a full and comprehensive plan for this quarter, but rather present a systematic approach for analysis and planning which should be used as guidelines for future detailed planning. This section demonstrates city quarter planning as part KCCA Quarters Structure Plans and completes the third level of the KSPA planning hierarchy, as illustrated in the following flowchart.

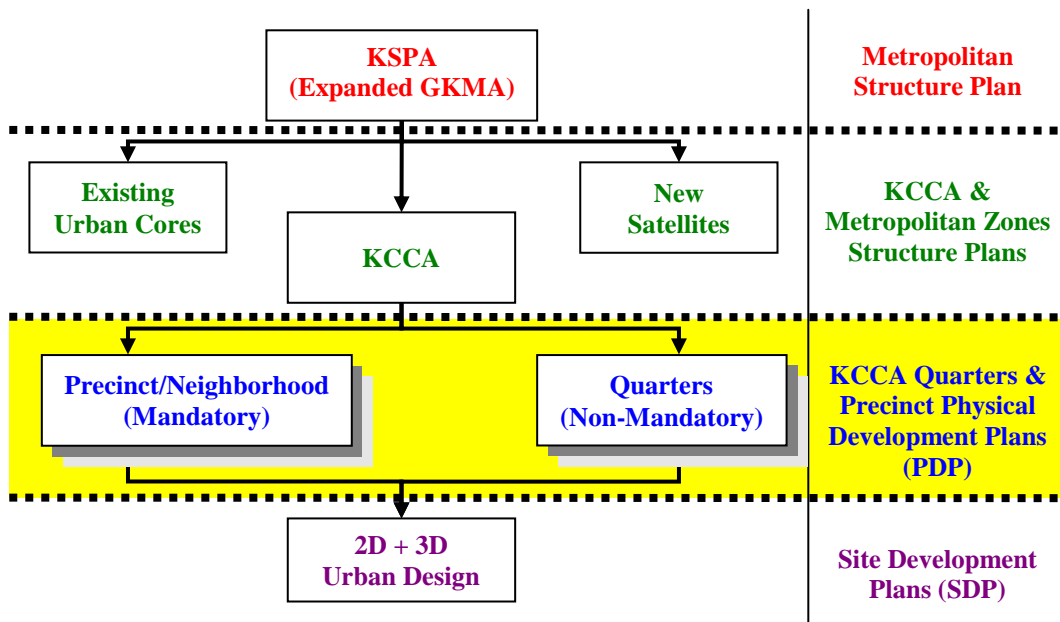
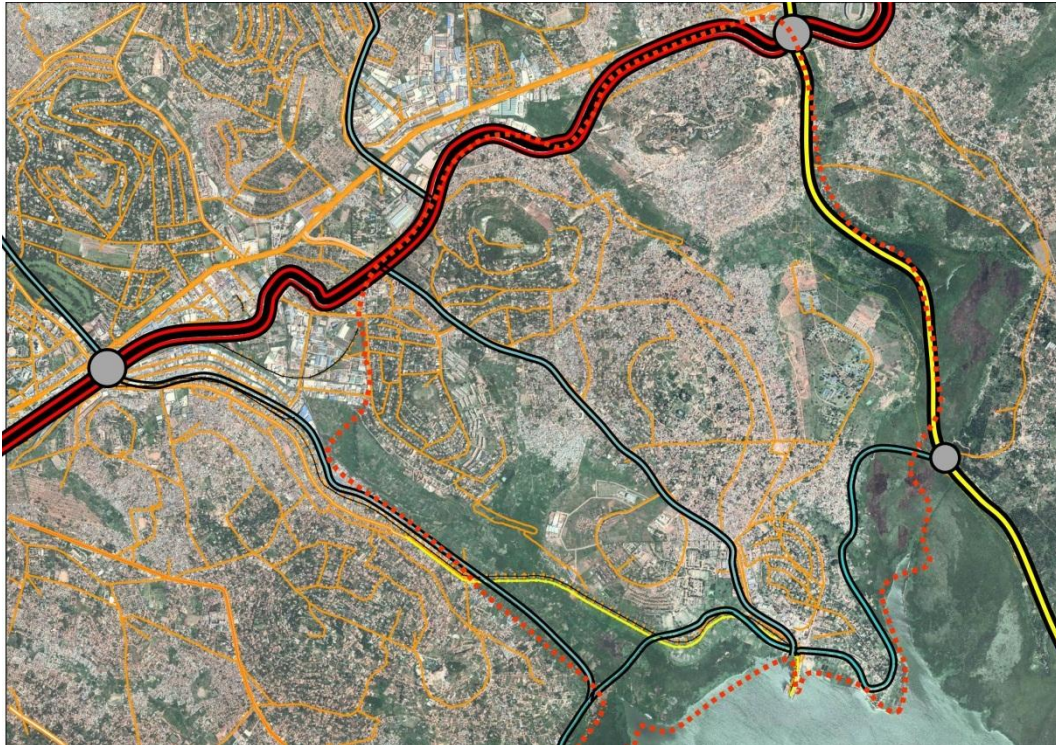


Figure 95: Planning Quarters in the Planning Hierarchy

9.5.1 Quarter 3 Transportation

Quarter 3 is defined by three major roads: The Inner Ring from the east, the Urban Freeway from the north, a new highway along the Port Bell railway and adjacent wetland to the west, and by Lake Victoria to the south. Other important roads in Quarter 3 are the new Lakefront highway and the existing Port Bell Rd. the remaining roads in the quarter are of lower significance as they are local to the quarter only (see map).

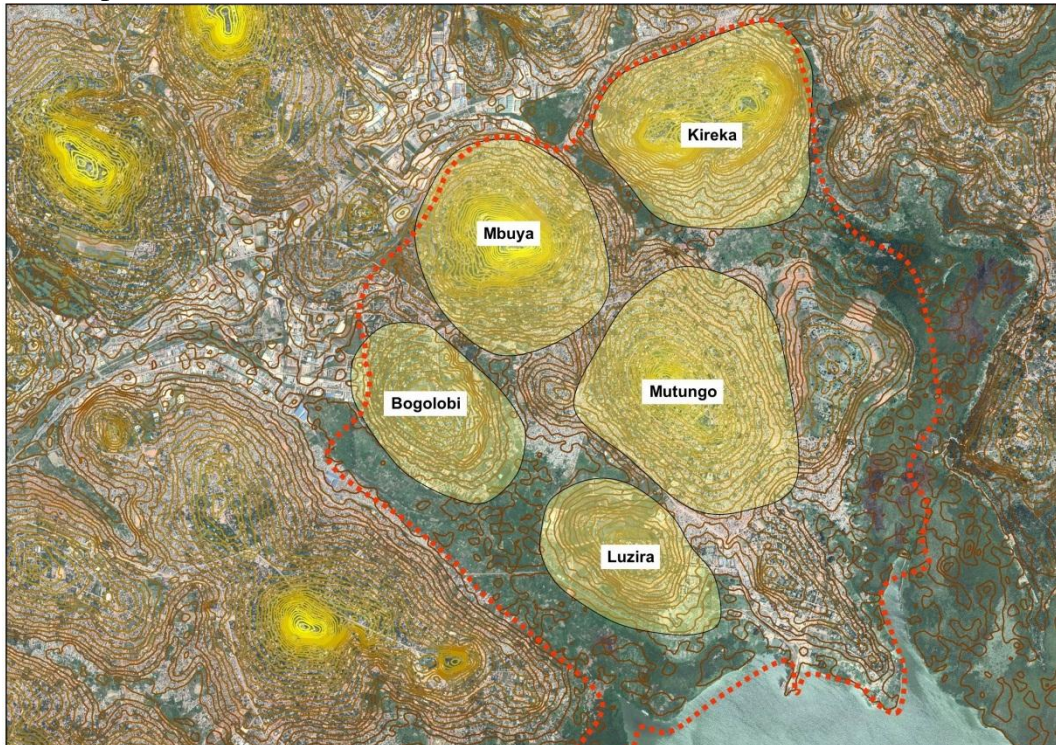
A BRT route is planned to pass along Port Bell Rd, passing through the quarter from north to south to its very edge along the Lake Victoria shoreline, and connecting the quarter to the city centre. As mentioned, the existing Port Bell railway passes through the quarter and, when developed, may serve as another mode of transport into the city centre.



Map 99: Quarter 3 Road System

9.5.2 Quarter 3 Landscape Resources

Quarter 3's landscape resources are fairly diverse. The quarter includes three main hills – Kireka, Mbuya, and Mutungo, and two smaller hills – Bogolobi and Luzira (see map below).



Map 100: Quarter 3 Topography

The quarter includes two areas of wetlands, one to the south-west, and one to the east which is only partially within the quarter boundaries. Besides these two large open spaces there are very little green open spaces in the quarter. The wetlands offer great potential as part of the city's green structure, either as urban parks or as nature reserves (see following map).

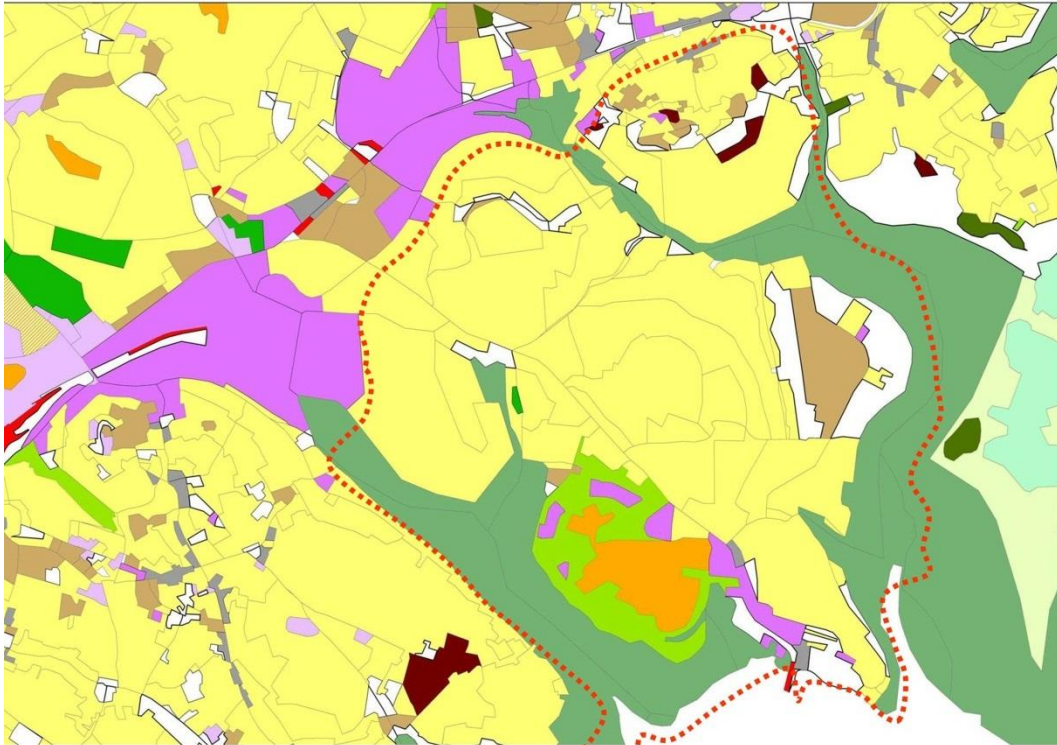
The Lake Victoria lakefront is very significant in Quarter 3 as the quarter's buildings are built up to the shoreline. The Port Bell industrial zone is also located near the shoreline and port (see following map).



Map 101: Quarter 3 Green Potential and Lakefront

9.5.3 Quarter 3 Land Use

Most of the quarter is residential of high, middle and low income, as well as some pockets of very low income housing near the wetlands. A large industrial zone is located in the north-western corner of the quarter. The Butabika Hospital is located in the eastern side of the quarter, and the Luzira Prisons, surrounded by informal agriculture, are located to the south-west (see map).



Map 102: Quarter 3 Landuses

9.5.4 Quarter 3 Special Characteristics

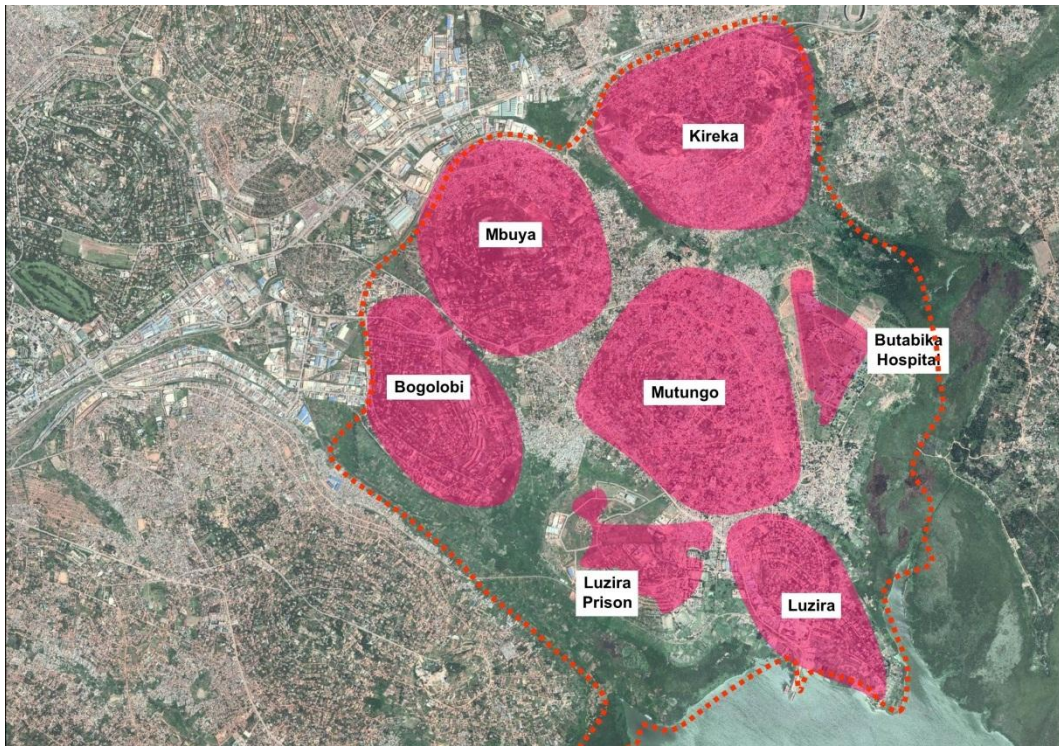
Based on the analysis in the previous sub-sections special characteristics of the quarter were identified (see map).

Natural Characteristics:

The quarter has five hills - Kireka, Mbuya, Mutungo, Bogolobi and Luzira. It is surrounded from two sides by wetlands and reaches the Lake Victoria shoreline on one side.

Facilities:

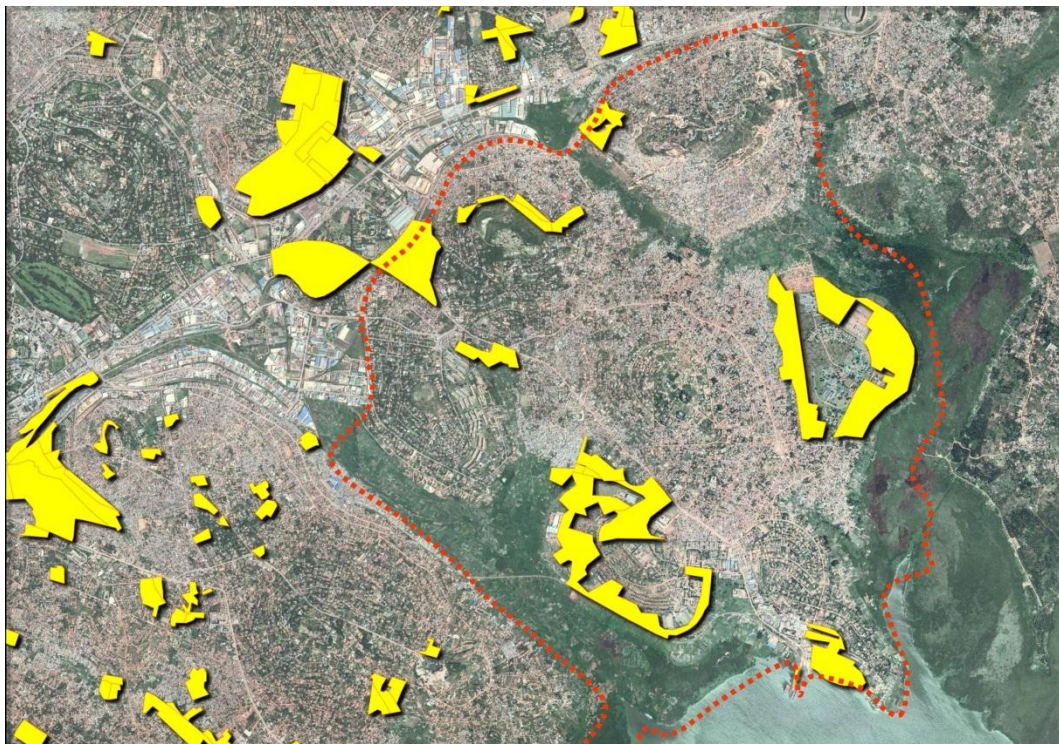
A small industrial zone is located near the Port Bell port. The quarter also contains the Butabika Hospital and Luzira Prisons.



Map 103: Quarter 3 Special Characteristics

9.5.5 Quarter 3 Development Potentials

Based on the landuse analysis potential areas for development were identified in the quarter. These areas, of various sizes and locations, are areas for potential development and new construction within the quarter (see following map).



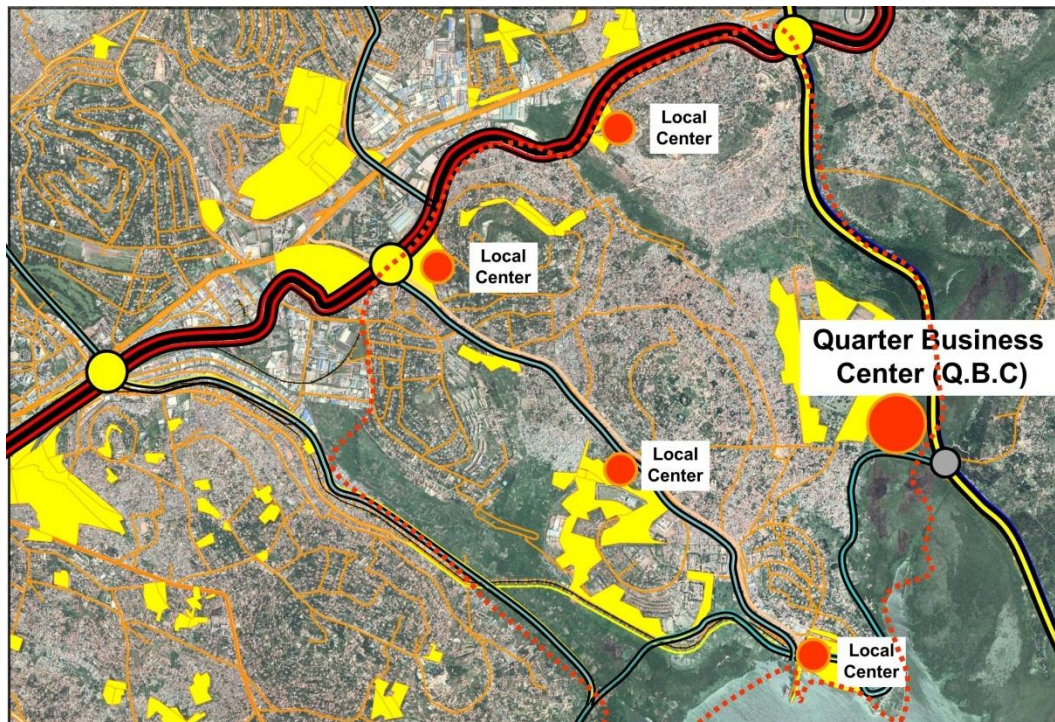
Map 104: Quarter 3 Vacant Areas

9.5.6 Quarter 3 Public Service Centres

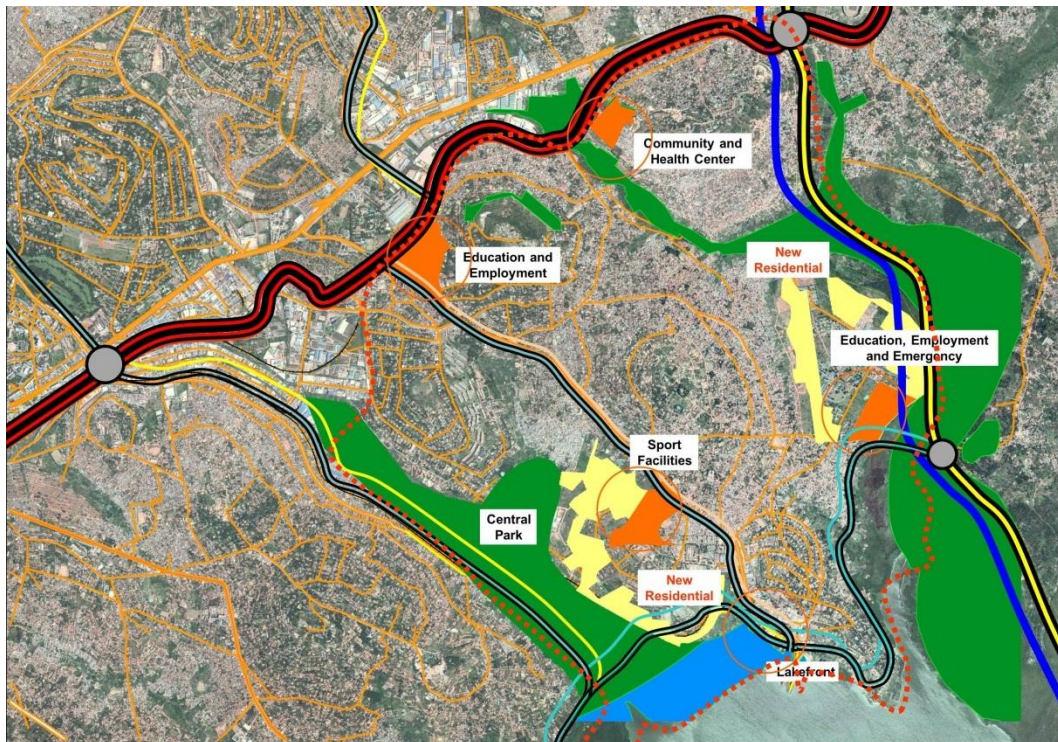
Based on the Service Centre Hierarchy explained earlier, and based on the analysis of development potentials, Local service centres were distributed in the quarter. The service centres were located in vacant areas which are accessible by car, BRT and by foot. The sizes of the service centres were defined according to the long term program for the quarter based on the forecast for required Educational, Health, Sports, Community and Emergency and Police services. See following maps for distribution of public service centres.

The wetlands within the quarter boundaries will be transformed into urban parks which will both protect the quarter's natural resources and offer green open space for the inhabitants of the quarter and city.

The portion of the wetlands which meets the lake shore will be developed as part of the Lakefront along the Lake Victoria shoreline. The Lakefront will combine nature and public services and form a link between the natural and the urban.



Map 105: Quarter 3 Service Centre Hierarchy

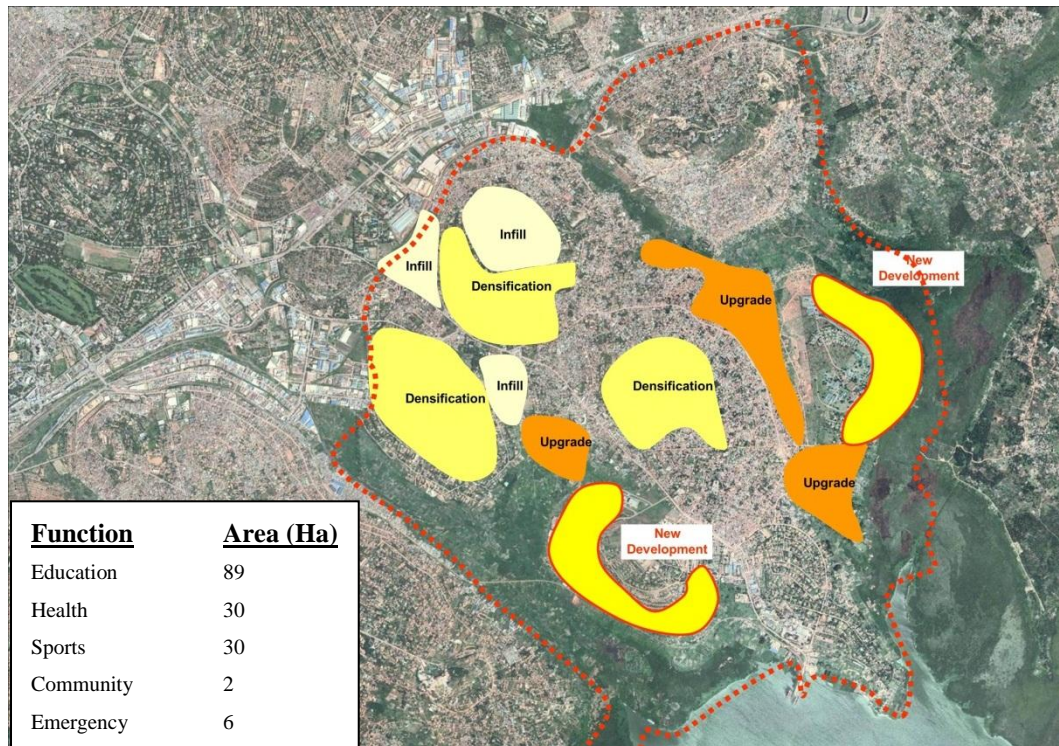


Map 106: Quarter 3 Elements

9.5.7 Quarter 3 Residential Area Intervention

Based on the Intervention Approaches Map presented earlier, a quarter-specific intervention map was composed. This Quarter Intervention Approaches Map takes into account the recommendations for the quarter precincts and offers more detailed recommendations for interventions. In Quarter 3 there were found three sites for densification, three sites for infill, three sites for upgrade, and two sites for new development (see map).

As explained earlier, the purpose of this case study was not to present a complete plan for the quarter, but rather to offer a method of approaching the planning of a quarter. Future detailed planning will require further analysis of the quarter, and crystallization of specific planning approaches, e.g. density in new development areas, methods of infill and densification, and approach towards the preservation of historic buildings.



Map 107: Quarter 3 Residential Area Intervention

9.6 KPDP Summary

The KPDP focuses on the KCCA and immediately adjacent areas which form the Central Zone of the metropolitan area. Following are the consultant's recommendations for the KPDP:

- **KCCA structural model**: The KCCA will be developed according to the Integrated Model combining the benefits of the Ribbon & Focal Centres Models.
- **Transportation system**: A compressive transportation system will be developed and will include upgraded existing roads and construction of new city highways, and development of a BRT system. The transportation system located within the boundaries of the Inner Ring will be reconstructed according to a hierarchy which will allow comfortable mobility within the city and connection to the metropolitan transportation system.
- **Quarters and Precincts**: The CZ is into eight quarters based on the new transportation system. The five central quarters are defined as Inner City Quarters, and the remaining three defined as Peripheral Quarters. The quarters are sub-divided into 29 precincts.
- **Service Centres Hierarchy**: Service centres will be distributed in the KCCA following the hierarchy developed for the KSPA in the KPDP. Local centres will be distributed in the KCCA area based on a 2km pedestrian catchment area in a manner which will allow access to all. Focal crystallization will help limit sprawl of service and commerce along the roads. Functions will include Commerce, Employment, Health, Sports, Community Services & Emergency and Police.

- Landscape Resources: The KCCA will fulfil the potentials offered by its landscape resources including topography, open spaces and wetlands, and lakefront. Hilltops will be developed as tourist and recreation centres. Wetlands and the lakefront will be developed as open green areas.
- City Centre Components: Identified Cultural facilities, Health services, Educational facilities, Industrial sites and the CBD will receive special attention as part of the City Centre and developed accordingly. The CBD is a top priority for development to be planned according to the proposed Urban Design Scheme.
- Residential Area Intervention: Existing residential areas will undertake upgrade, densification and infill according to each area's potential and capacity. New residential areas will be developed according to modern planning and design.
- Threats and Obstacles: The slums, wetland encroachment and encroachment of potential transportation land reserve pose threats and obstacles for the development of Kampala. These threats must be controlled in order to ensure potential future development.
- Quarter 3 Case Study: Quarter 3 was chosen to serve as a case study for quarter planning. The planning is based on structure layers: transportation, landscape resources, landuse, special characteristics, development potentials, public service centres and residential area interventions.

10 Public Institutions, Facilities and Services

To develop as a modern, balanced, sustainable City, to fill its role on the local, national and international scales and to provide its residents Quality of Life, Kampala needs to develop and host an appropriate hierarchy of institutions and facilities and provide a wide range of appropriate, accessible services as detailed below.

This section presents the Consultants recommendations for the establishment, preservation and distribution of institutions and facilities and land allocation standards and requirements for services in the following fields:

- Major Public Institutions;
- Education;
- Health;
- Sports and Recreation;
- Markets;
- Community Services and Facilities;
- Public Open Space;
- Emergency Services.

10.1 Major Public Institutions

As becoming the Capital City, a National Hub and home to millions of residents, Kampala hosts a wide range of major institutions. However it lacks a large number of complementary major institutions and facilities. Below the Consultant's recommendations:

Table 52: Major Public Institutions

Institution	Recommended Intervention
Parliament	<ul style="list-style-type: none"> ▪ Preservation (all additions and changes to be consistent with and complement existing building); ▪ Maximal visibility (subject to security requirements); ▪ Access for handicapped; ▪ School field visits; ▪ Underground or alternative parking.
State House Kampala	<ul style="list-style-type: none"> ▪ Preservation (all additions and changes to be consistent with and complement existing building); ▪ Maximal visibility to public (subject to security requirements);

Institution	Recommended Intervention
	<ul style="list-style-type: none"> ▪ School field trips.
State House Entebbe	<ul style="list-style-type: none"> ▪ Preservation (all additions and changes to be consistent with and complement existing building); ▪ Maximal visibility to public (subject to security requirements).
The <i>Kabaka's</i> Residence	<ul style="list-style-type: none"> ▪ Preservation (all additions and changes to be consistent with and complement existing building); ▪ Maximal visibility to public (subject to security requirements).
Court Houses	<ul style="list-style-type: none"> ▪ Historic buildings for Preservation and Renovation (all additions and changes to be consistent with and complement existing building); ▪ Access for handicapped; ▪ Maximal visibility, where possible grounds open to public (subject to security requirements); ▪ Underground or alternative parking in City Centre.
<i>Lubiri</i>	<ul style="list-style-type: none"> ▪ Preservation as Inner City Nature Reserve, restocked flora and fauna (impala); ▪ Palace for preservation as a museum (e.g Buganda Heritage, Human Rights, etc.); ▪ Up to 5 Ha. for development of appropriately designed public institutions (e.g. auditorium, additional museum, library, research institute, etc.) including gardens and parking; ▪ Financed by entrance fees and guided visits (free for schools and elderly).
<i>Bulange</i>	<ul style="list-style-type: none"> ▪ Historic buildings for Preservation (all additions and changes to be consistent with and complement existing building); ▪ Maximal visibility to public, ▪ Access for handicapped; ▪ As best possible grounds open to public and for appropriate community activities (subject to security requirements); ▪ School (free) and tourist guided visits.
Kasubi Tombs	<ul style="list-style-type: none"> ▪ Historic buildings for Preservation; ▪ Maximal visibility to public, ▪ School and tourist field trips enabled; ▪ Structured tourist and commercial facilities;

Institution	Recommended Intervention
	<ul style="list-style-type: none"> ▪ New Botanic Gardens in grounds.
National Theatre	<ul style="list-style-type: none"> ▪ Historic buildings for Preservation; ▪ Maximal visibility to public, ▪ Public access to gardens; ▪ Access for handicapped; ▪ Commercial underground parking.
National Museum	<ul style="list-style-type: none"> ▪ Historic building for Preservation; ▪ Maximal visibility to public, ▪ Museum for future relocation to larger appropriate facilities - City Centre historic building; ▪ Access for handicapped; ▪ Public access to gardens.
National Library	<ul style="list-style-type: none"> ▪ Historic building for Preservation; ▪ Maximal visibility to public, ▪ Access for handicapped; ▪ Public access to gardens.
Ministerial Headquarters, Ministerial Offices, Para-Statal and Institutional Headquarters and Offices.	<ul style="list-style-type: none"> ▪ Relocation of offices and facilities throughout the city and the metropolitan region on the basis of a Master Plan for Public Institutional Lands (see Section 6.2); ▪ Historic buildings for Preservation and Renovation (all additions and changes to be consistent with and complement existing building); ▪ Access for handicapped; ▪ Maximal visibility (subject to security requirements); ▪ Underground or alternative parking in City Centre.
International and Regional Institutional Headquarters and Offices	<ul style="list-style-type: none"> ▪ Proactive marketing to attract appropriate regional and/or international institutions of Kampala; ▪ Location in historic buildings or New CBD or Entebbe as appropriate; ▪ Maximal visibility to public.
City Hall	<ul style="list-style-type: none"> ▪ Historic buildings for Preservation; ▪ Addition of a floor or wing to house Central Division; ▪ Access for handicapped; ▪ Maximal visibility to public, ▪ Public access to gardens;

Institution	Recommended Intervention
	<ul style="list-style-type: none"> ▪ Commercial underground parking.
District, Division, Municipal, Town, County and sub-County Offices	<ul style="list-style-type: none"> ▪ For definition in detailed planning, ensuring maximal access and amenity for residents (including access for handicapped) and preservation of historic buildings.
Embassies, Diplomatic Facilities and Residences	<ul style="list-style-type: none"> ▪ Proactive mobilisation to promote location in historic buildings for Preservation and Renovation (all additions and changes to be consistent with and complement existing building); ▪ Access for handicapped; ▪ Maximal visibility (subject to security requirements); ▪ Underground or alternative parking in City Centre.
Cathedrals, Churches, Mosques, Temples and Ecclesiastic Institutions	<ul style="list-style-type: none"> ▪ Historic buildings for Preservation (all additions and changes to be consistent with and complement existing building); ▪ Maximal visibility to public, ▪ Access for handicapped; ▪ Grounds open to public and for appropriate community activities; ▪ School (free) and tourist guided visits.
Universities and Academic Institutions	<ul style="list-style-type: none"> ▪ For distribution see Section 10.2 below; ▪ Historic buildings for Preservation (all additions and changes to be consistent with and complement existing building); ▪ Maximal visibility to public, ▪ Access for handicapped; ▪ Grounds open to public and for appropriate community activities; ▪ School (free) and tourist guided visits to major universities.
Hospitals and Medical Facilities	<ul style="list-style-type: none"> ▪ For distribution see Section 10.2 below; ▪ Historic buildings for Preservation (all additions and changes to be consistent with and complement existing building); ▪ Maximal visibility to public, ▪ Access for handicapped.
Botanical Gardens	<ul style="list-style-type: none"> ▪ Entebbe - for preservation and enhancement; ▪ KCCA - new (Kasubi Toms grounds).
Zoological Gardens	<ul style="list-style-type: none"> ▪ Entebbe - for preservation and enhancement; ▪ KCCA - new (Salaama Island).

Institution	Recommended Intervention
Historic Buildings	▪ See Section 6.5.7 .
Stadia and Sports Facilities	▪ See Section 6.5.7
Showgrounds	<ul style="list-style-type: none"> ▪ For relocation to New Industrial & Business Park; ▪ Site for redevelopment as new public facility (e.g. academic institution, medical facility, etc.) or mixed public and residential use.
National Music Conservatorium	<ul style="list-style-type: none"> ▪ KCCA - new (City Centre); ▪ Including Concert Hall and Library.
Specialised Museums and Libraries	<p>New:</p> <ul style="list-style-type: none"> ▪ Science (Makarere University); ▪ Education (Kyamboga University); ▪ Sport (Mandela Stadium complex); ▪ Other specialised (e.g. modern art, international art, local art, etc.)(KCCA, other KMTC towns).
International standard Convention Centres	<ul style="list-style-type: none"> ▪ KCCA (Existing - Salaama, New - New CBD); ▪ Entebbe (Town Centre or major university); ▪ Mukono (Town Centre or major university).
Tourist Information Centres	<ul style="list-style-type: none"> ▪ KCCA - new (City Centre, Kasubi Tombs, <i>Lubiri</i>); ▪ Entebbe - new.
National Arts and Craft Centre	<ul style="list-style-type: none"> ▪ KCCA - new adjacent to tourism facilities (Salaama or Port Bell).
Open Air Theatres and/or Amphitheatres	<ul style="list-style-type: none"> ▪ Integrated in Public Open Space; ▪ Can be integrated with open sports fields; ▪ KCCA - one in each Division (except Central Division); ▪ KMTC - one in each Peripheral Town and two in each New Town.
National Building Construction Centre;	<ul style="list-style-type: none"> ▪ New - Goma (New Industrial and Business Park).
National Forestry Centre	<ul style="list-style-type: none"> ▪ New - Wakiso.
National Agriculture Centre	<ul style="list-style-type: none"> ▪ New - Mukono

10.2 Educational Services

To enable the attainment of the goals and targets detailed in Section including the redistribution and rapid extension and upgrading of educational facilities significant land allocation is required. Below the Consultant's recommended standards for application in downstream detailed planning.

10.2.1 Preschool Facilities

2022 Target Population: ranging by location and SEC between 20%-75% of age 3 to 5 cohorts (ranging from 1% to 2.25% of the population per cohort by location and SEC).

Long Term Target Population: ranging by location and SEC between 40%-90% of age 3 to 5 cohorts (ranging from 1% to 2.1% of the population per cohort by location and SEC).

Standard Facility: Single storey buildings or ground floor of primary school; 60-120 children; 250-500 m² floor space; attached fenced playground of equal area; safety standards for construction and for playgrounds; licensed and supervised public, NGO/CBO or private facility.

Standard Built Space: 4.0 m² per child by 2022, 5.0 m² per child long term.

Standard Land Allocation: 10 m² per child (generally ~ 0.1 Ha.)

Recommended Distribution: Wide distribution, within residential neighbourhoods, ready access (within 250 m if possible), distant or buffered from major roads and activity centres.

Table 53: Demand for Preschool Facilities

Area	Long Term Land (Ha.)	2022 Built Space (m ²)	Long Term Built Space (m ²)
KCCA	105	265,000	525,000
KMTC	184	305,000	925,000

Note: 1. Rounded figures.

10.2.2 Primary Schools

2022 Target Population: 95% of primary school age cohorts (ranging from 1% to 2.25% of the population per cohort by location and SEC).

Long Term Target Population: 97% of primary school age cohorts (ranging from 1% to 2.1% of the population per cohort by location and SEC).

Standard Facility: Double and triple storey walkups (initial construction of ground floor with foundations for additions); 3 classes per cohort, 35-40 pupils per class; safety standards for construction and for playgrounds; licensed and supervised public, NGO/CBO or private facility. Optional integration of community facility.

Standard Built Space: 4.0 m² per pupil by 2022, 5.0 m² per pupil long term.

Standard Land Allocation: 8 m² per pupil (generally ~ 0.65 Ha., 1.0 Ha. with community facility)

Recommended Distribution: Wide distribution, within residential neighbourhoods, easy pedestrian access (within 1,000 m if possible), buffered from major roads and activity centres.

Table 54: Demand for Primary School Facilities

Area	Long Term Land (Ha.)	2022 Built Space (m ²)	Long Term Built Space (m ²)
KCCA	300	1,350,000	1,850,000
KMTC	530	1,600,000	3,300,000

Note: 1. Rounded figures.

10.2.3 Secondary and High Schools

2022 Target Population: ranging by location and SEC between 60%-85% of secondary and high school age cohorts (ranging from 1% to 2.25% of the population per cohort by location and SEC).

Long Term Target Population: ranging by location and SEC between 65%-90% of secondary and high school age cohorts (ranging from 1% to 2.1% of the population per cohort by location and SEC).

Standard Facility: Double and triple storey walkups (initial construction of ground floor with foundations for additions); 6 classes per cohort, 30-40 pupils per class; multi-purpose sports field; safety standards for construction and for playgrounds and sports facilities; licensed and supervised public, NGO/CBO or private facility. Optional integration of community facility.

Standard Built Space: 5.0 m² per pupil by 2022, 7.0 m² per pupil long term.

Standard Land Allocation: 10 m² per pupil (generally ~ 1.5-2.0 Ha. depending on type of sports field and inclusion of community facility).

Recommended Distribution: Wide distribution, within or near residential neighbourhoods, easy NMT (cycle) access (within 3 km), can be integrated with local, neighbourhood centres subject to road safety measures.

Table 55: Demand for Secondary and High School Facilities

Area	Long Term Land (Ha.)	2022 Built Space (m ²)	Long Term Built Space (m ²)
KCCA	250	950,000	1,750,000
KMTC	450	1,125,000	3,125,000

Note: 1. Rounded figures.

10.2.4 Special Education Facilities

2022 Target Population: 1% of primary and secondary school age cohorts (ranging from 1% to 2.25% of the population per cohort by location and SEC).

Long Term Target Population: 2% of primary and secondary school age cohorts (ranging from 1% to 2.1% of the population per cohort by location and SEC).

Standard Facility: Single storey buildings or ground floor of primary school; 80-120 children; ~ 1,000 m² floor space; attached fenced playground; special design and safety standards for construction and for playgrounds; licensed and supervised public, NGO/CBO or private facility.

Standard Built Space: 7.5 m² per pupil by 2022, 10.0 m² per pupil long term.

Standard Land Allocation: 15 m² per pupil (generally ~ 0.1 Ha.).

Recommended Distribution: City scale distribution with transportation for physically handicapped, specialized facilities, easy access to PT, buffered from major roads and activity centres.

Table 56: Demand for Special Education Facilities

Area	Long Term Land (Ha.)	2022 Built Space (m ²)	Long Term Built Space (m ²)
KCCA	21	38,000	140,000
KMTC	37	45,000	250,000

Note: 1. Rounded figures.

10.2.5 Tertiary Education Facilities

Makarere University: Long Term student body > 40,000. Current campus ~ 80 Ha., long term requirement ~ 50 Ha.; leaving 20-30 Ha. for the development of a Hi-tec Business Park by the university (PPP).

Kyamboga University: Long Term student body > 40,000. long term requirement ~ 40 Ha..

Other Major and Large Universities: At least 1 in every CZ Quarter and at least 1 in every MZ zone; long term student body > 20,000, long term requirement 20-25 Ha.

Other Academic, Technological and Vocational Tertiary Institutions: widely distributed, of varying size and standard; ranging from 0.1 Ha plots to 5 Ha. campuses.

Standard Built Space: Average of 5.0 m² per student by 2022, 7.5 m² per student long term.

Construction Standards: Modern, high standard multi-storey buildings (6-8 floors) in CZ with backup generators, 3-4 floor “walk-ups” in MZ .

Standard Land Allocation: Average 10 m² per student in CZ and 12 m² in MZ (including sports facilities).

Recommended Distribution:

- KCCA - new major/large universities in Ggaba, Rubaga, northern quadrant of Kawempe;
- KMTC - new major/large universities in or near Town Centres.

Table 57: Demand for Tertiary Education Facilities

Area	Long Term Land (Ha.)	2022 Built Space (m ²)	Long Term Built Space (m ²)
KCCA	225	850,000	1,500,000
KMTC	225	400,000	1,000,000

Note: 1. Rounded figures.

10.3 Health Services

As detailed in **Section 6.5.6** health services in Kampala need to be radically upgraded including the physical facilities hosting these services. Indeed, it is reasonable to conclude that the physical and sanitary conditions of many medical facilities in the city constitute health risks to both patients and medical staff in their right.

The standards and distribution of basic care facilities (HC II-IV) need to be defined in the Health Master Plans under preparation.

Below the Consultant's recommendations for the distribution and requisite land allocations for hospitals to guide downstream detailed planning, the scale of demand for hospitals is presented in **Table 58** below. These are calculated on the basis of the following:

2022 Target: 500 beds per 100,000 population (post-WWII UK standards).

Long Term Target: 800 beds per 100,000 population (modern European standards adjusted downwards for younger demographic structure).

Hierarchy of Facilities:

- Mulago Hospital - principal national referral hospital; requires significant reconstruction, extension and upgrading.
- Major Hospitals - average of one 2,000 bed hospital per 500,000 population;
- Specialist Hospitals.

Standard Built Space: 50 m² per bed by 2022 (post-WWII UK standards), 75.0 m² per bed long term (minimum modern standards).

Construction Standards: Modern, high standard multi-storey buildings (6-8 floors) in CZ, mix of modern, high standard multi-storey buildings and 2-3 floor "walk-ups" in MZ; with backup generators.

Standard Land Allocation: 1 m² land per 1 m² built (generally 20-25 Ha. per major hospital).

Recommended Distribution:

- Major Hospitals - one in each KCCA Quarter; one in each KMTC town/MZ zone; two in each New Town; located either in Quarter/Town Center with high PT service or close to major highway/ring road.
- Specialist Hospitals - wide distribution, located along major PT route or close to major highway/ring road.

Table 58: Demand for Hospital Facilities

Area	Long Term Land (Ha.)	2022 Built Space (m ²)	Long Term Built Space (m ²)
KCCA	190	725,000	1,850,000
KMTC	290	725,000	2,900,000

Note: 1. Rounded figures.

10.4 Sports and Recreation

Kampala requires significant extension of its sport and recreational facilities to meet current and future needs. Below the Consultant's recommendation for application in downstream planning:

- Extension of the Mandela Stadium complex into the **National Sports Centre** with the incorporation of the Rugby and Cricket Grounds, training fields and sports museum (~ 50 Ha.).
- **Relocation of the Rugby and Cricket Grounds** to the Mandela complex releasing significant land reserve for development and public use, including public open space;
- Development of **new Stadia and Sports Centres**, one stadium in each MZ zone, and one multi-purpose sports centre (regulation football field and athletics track, tennis courts and other selected facilities) in each urban quarter; located along high capacity PT routes and/or with easy access to highway/ring road (2-2.5 Ha. each);
- Development of local **sports fields** (1.0-1.5 Ha.) which will also serve as open space and host community activities and events. These fields may, indeed should be integrated and shared with schools and community centres, but in all cases need to be open to the public. Generally these fields will incorporate football fields (not necessarily regulation size) and 1-2 multi-purpose fields (basketball, netball, volleyball). These are to be developed and distributed to the following standards:
 - * 2022 Target: 1 per 20,000 population;
 - * Long Term Target: 1 per 15,000 population.
- **Golf-courses**, one per MZ zone in addition to the existing courses in Kampala and Entebbe (60 Ha. each for regulation or 35 Ha. for 9 hole); private development.

- **Yachting jetties**, for recreation and tourism in Munyonyo, Entebbe, Kaazi, Port Bell and Nakisunga-Ntenjeru New Town; private development.
- **Horse-riding, cycling and off-road motoring** facilities and routes in the rural periphery for recreation and tourism; private development.
- An **Amusement Park** located with easy access to highway/ring road; private development.
- Appropriate and regulated **entertainment and recreational facilities** in City Centre, Towns Centres and Quarter Centres, in Hotels, Business and Industrial Zones, in larger markets and in pre-designated locations along the Lakefront;
- Appropriate regulations prohibiting entertainment facilities, and particularly alcohol outlets, in residential neighbourhoods; and their strict enforcement.

Table 59: Long Term Demand for Sports Facilities

Area	Stadia & Sports Centres (Ha.)	Local Sports Fields (Ha.)	Golf Courses (Ha.)
KCCA	30	190	68
KMTC	90	335	300

Note: 1. Rounded figures.

10.5 Markets

Markets are the exclusive domain of Local Authorities in Uganda. Although defined as a public service they are of significant economic value to KCCA and neighbouring LAs.

In reality markets in Kampala are inefficiently distributed and in many cases very rundown and unhygienic, constituting a health hazard to the public. In addition, formal markets probably host less than one half of informal commerce in the City, with large numbers of informal markets and street front vendors plying their wares and their trades, creating unhygienic conditions, congesting traffic and all too frequently causing accidents.

There is an urgent need to restructure and reorganize the market system and to redistribute, extend and upgrade market facilities to:

- Reduce unnecessary pressure on the City Centre;
- Reduce the number of unnecessary PT trips and ensure easy NMT access to fresh produce and basic products;
- Make the entire system more efficient and reduce consumer costs (transportation and prices);
- Ensure safety and sanitation;
- Increase KCCA and LA revenues;

- and more.

To this end the Consultant recommends the urgent preparation of a Markets Master Plan to enable the development of a hierarchy of markets including:

- **Wholesale Markets:**
 - * Short term - 3 to the East, West and North of the CZ;
 - * 2022 - 2 more to the North-West and the North-East of CZ;
 - * Long Term - 2 more in the New Town Industrial Zones;
 - * Generally to be located in planned Industrial Zones in close proximity to Highways/Ring Roads/
 - * Staged development on 15-20 Ha. sites.
- **Specialised City Centre Markets:**
 - * Upgrading, restructuring and reducing overall scale of existing City Centre markets;
 - * Specialised wings/sections or stand alone small markets for spices, specialty foods and beverages, specialty clothing & footwear, electronic goods, musical instruments & equipment, arts and crafts, jewelry, antiques, etc., each with appropriate requirements (delivery access, refrigeration, storage units, security, etc.);
 - * Strong tourism orientation (information, security, amenities, fast foods, etc.)
- **Urban Quarter Markets:**
 - * One in each Urban Quarter in KCCA and KMTC Towns;
 - * Generally to be located adjacent or in close proximity to high volume PT interchanges and future passenger rail stations;
 - * Staged development on average 5 Ha. sites,
 - * Specialised wings/sections for fresh produce, dairy, meat, fish, clothing & footwear, basic household goods, materials, music, games, etc., each with appropriate requirements (delivery access, refrigeration, storage units, etc.);
 - * Pre-planned long term upgrade to open shopping mall.
- **Urban Precinct Markets:**
 - * One in each residential precinct in KCCA and KMTC Towns future precinct;
 - * Generally to be located adjacent or in close proximity to PT stops with high NMT access;
 - * Average 1-2 Ha. sites,
 - * Specialised wings/sections for, as relevant by size of potential market fresh produce, dairy, meat, fish, clothing & footwear, basic household goods, each with appropriate requirements (delivery access, refrigeration, storage units, etc.);
 - * Pre-planned long term upgrade to open shopping centre.
- **Neighbourhood Markets:**
 - * Wide distribution;

- * High NMT (pedestrian) access;
- * Average 0.25-0.5 Ha. sites,
- * Appropriate facilities for fresh produce, dairy, meat and fish (delivery access, refrigeration, storage units, etc.);
- * Pre-planned long term upgrade to open neighbourhood shopping centre.

10.6 Community Services & Facilities

As detailed in the KPDP SR and Section 6.5.4 above Kampala lacks community services and facilities. To meet the shortfall and future demand the Consultant recommends establishment of a hierarchy of Community Centres as below:

- Urban Quarter Community Centres:
 - * Located in Urban Quarter Service Centres with high PT access;
 - * Approximately 3-5,000 m² built space, ~ 1.0 Ha.
 - * Including small auditorium, library/computer room with free internet access, training facilities, gyms, workshops, studios for arts and crafts, interdisciplinary multipurpose centres for special populations (early childhood, youth, elderly, disabled, etc.).
- Precinct Community Centres:
 - * Located in Precinct Service Centres with PT and NMT access;
 - * Approximately 1,000-1,500 m² built space, ~ 1.0 Ha.
 - * Including library/computer room with free internet access, study and training facilities, gyms, workshops, studios for arts and crafts, club facilities for special populations (early childhood, youth, elderly, disabled, etc.).
- Neighbourhood Community Centres:
 - * Widely distributed with approximately one centre per 15,000 population;
 - * Located with high NMT (pedestrian) access, where possible adjacent to school and/or sports fields;
 - * Approximately 150--300 m² built space, ~ 0.1 Ha.
 - * Including community office, workshops/activity rooms, club facilities for special populations (early childhood, youth, elderly, disabled, etc.), kitchen and toilet facilities for outdoor community events (including weddings and funerals).

The distribution, composition, organisation, operation and funding of these centres need to be defined in the framework of either a Community Development Master Plan or preferably in an integrated Education and Community Development Master Plan.

10.7 Public Open Space

As detailed in the KPDP SR above and in Section 9.3.2.2, Kampala severely lacks developed and maintained public open space. The potential for meet the shortfall and future needs in the KCCA is based on:

- Primarily, rehabilitation of degraded wetlands;

- Limited vacant land;
- Land allocations in infill and redevelopment projects;

The Consultant recommends allocation of land for preservation and development as public open space (for parks, gardens, sports facilities, etc.) on the following scales:

Table 60: Land Allocation for Public Open Space

Area	City Scale LT Target (Ha.)	Local Scale LT Target (Ha.)
KCCA	2,200 ⁽²⁾	1,550
KMTC	3,400	2,450

Note: 1. Rounded figures.

2. Including *Lubiri*, Kasubi Tombs and Salaama Island.

The Consultant further recommends:

- Establishment of an **inner city nature reserve** in the *Lubiri* grounds;
- Establishment of **Botanical Gardens** in Kasubi Tombs grounds;
- Establishment of **Zoological Gardens** on Salaama Island;
- Protection, preservation and expansion of **Natural Forests** in the GKMA and its hinterland;
- Development of **Commercial Forests** in the GKMA and its hinterland.

10.8 Cemeteries

Current norms dictate burial of the deceased in the village of extraction, with the indigent and “outsiders” being buried in the City. However as Kampala’s population shifts to multi-generational urban extraction this norm can be expected to fall by the wayside.

In the long term there is a need to allocate some 3-4 km² for cemeteries in the GKMA, with the KCCA requiring close on half the total. KCCA lacks appropriate land reserves on this scale and will need to either fill-in (line and treat) degraded wetlands or acquire appropriate land beyond its boundaries and/or adopt alternative approaches (cremation, above ground multi-layered burial structure). However this is beyond the planning horizon of KPDP.

For the moment KCCA needs to protect its existing cemeteries and plan their optimal utilisation whilst preparing appropriate long term options.

11 The Future Transport System for Kampala

11.1 Introduction

The current poor performance of the transport system is one of the major constraints for successful urban performance of GKMA and KCCA. The situational report presented several problem areas which need to be addressed. These are:



This section presents the proposed transport policy and strategy that is required to support proper urban development in both the KCCA and GKMA. The section presents the proposed intervention measures mainly for 2022, as required by the ToR, but some of these measures are also explored for longer horizon, as it is necessary to consider transport systems performance for more than 10 years.

The structure of this section is as follows:

- Section 2 presents the proposed vision for GKMA and KCCA and based on this vision, the proposed quantitative goals and objectives for 2022.
- Section 3 presents the proposed road network, for both LT (Long Term) and 2022, with traffic assignment results.
- Sections 4 discusses the proposed integrated public transport system proposed for 2022
- Section 5 presents the proposed policy and strategy toward the development of NMT infrastructure
- Section 6 presents the policy and strategy to establish efficient traffic management system in KCCA for 2022

As for the regulatory and institutional measures, these will be addressed in the next report, when we'll discuss potential action plans.

11.2 Transportation Vision, Goals and Objectives for 2022

11.2.1 The Vision

In 2022, Kampala Transport system will be integrated, sustainable²⁶ and safe, providing accessibility to basic services to all residents in an affordable manner

Based on this vision, and using the findings from the situational report, we propose the following goals and objectives:

11.2.2 Quantitative Goals and Objectives for KCCA for 2022

- At least 80% of the trips in KCCA region will be done with sustainable modes (walking, cycling, modern bus or rail system)
- At least 50% of all trips in KCCA region should be non-motorized (walking, cycling)
- At least 80% of all walking trips should be done on paved walkways that are physically separated from the motorized traffic
- There should be at least 200 km of cycling lanes in KCCA, networked, separated and protected from the general traffic
- Number of fatalities in road accidents should be reduced by at least 50% compared with 2011 results
- MRT (Mass Rapid Transit) system should be affordable and cost no more than 12% of the available household monthly income of low income people
- At least 60% of KCCA residents in 2020 should be able to walk to the nearest mass rapid transport stop (i.e. BRT) less than 1 km and 90% should be able to walk less than 3 km
- At least 80% of all employment and local service opportunities in KCCA region should be located no more than 2 km from a mass rapid stop
- Each person in KCCA should be able to access basic service (elementary and secondary school, health service and basic shopping) by walking no more than 2 km
- At least 50% of all motorized trips in KCCA region should be made on arterial roads that provide good mobility. These roads should have no parking along the road, average at-grade intersection spacing should be more than 1 km
- Each new land use development within KCCA should be evaluated using TIA - Traffic Impact Assessment procedure, and if traffic situation is deteriorating because of the new development, mitigation measures should be identified and financed by the developers

²⁶ Definition of Sustainable transport system: A transport system in which the traffic situation is not deteriorating and the system does not take resources from future generations

- Level of air pollution and GHG emission caused by road transport will be reduced by 50% from its current level
- Decisions regarding investments in transport infrastructure should be made based upon cost-benefit analysis, where the benefits are derived from up-to-date travel demand model.

11.3 The Proposed Road Network

11.3.1 Introduction - Base Scenario for 2022

In the situational report we identified the projects that are currently proposed by various entities and consultants. The majority of these projects attempt to improve the condition of the current network, by widening and repairing existing road sections. There were only few new road sections that were identified during the situational analysis phase. This scenario is defined as the "Do-minimum" scenario.

The consultant updated the Travel Demand Model, based on the extensive and updated surveys conducted during 2011. These surveys, together with analysis of the urban structure, allowed us to determine the following information:

- Up-to-date current employment and population data for each traffic zones
- Up-to-date road network structure
- Up-to-date traffic volumes

Additional TAZ (Traffic Analysis Zones) in the extended GKMA area to cover the proposed new development outside GKMA

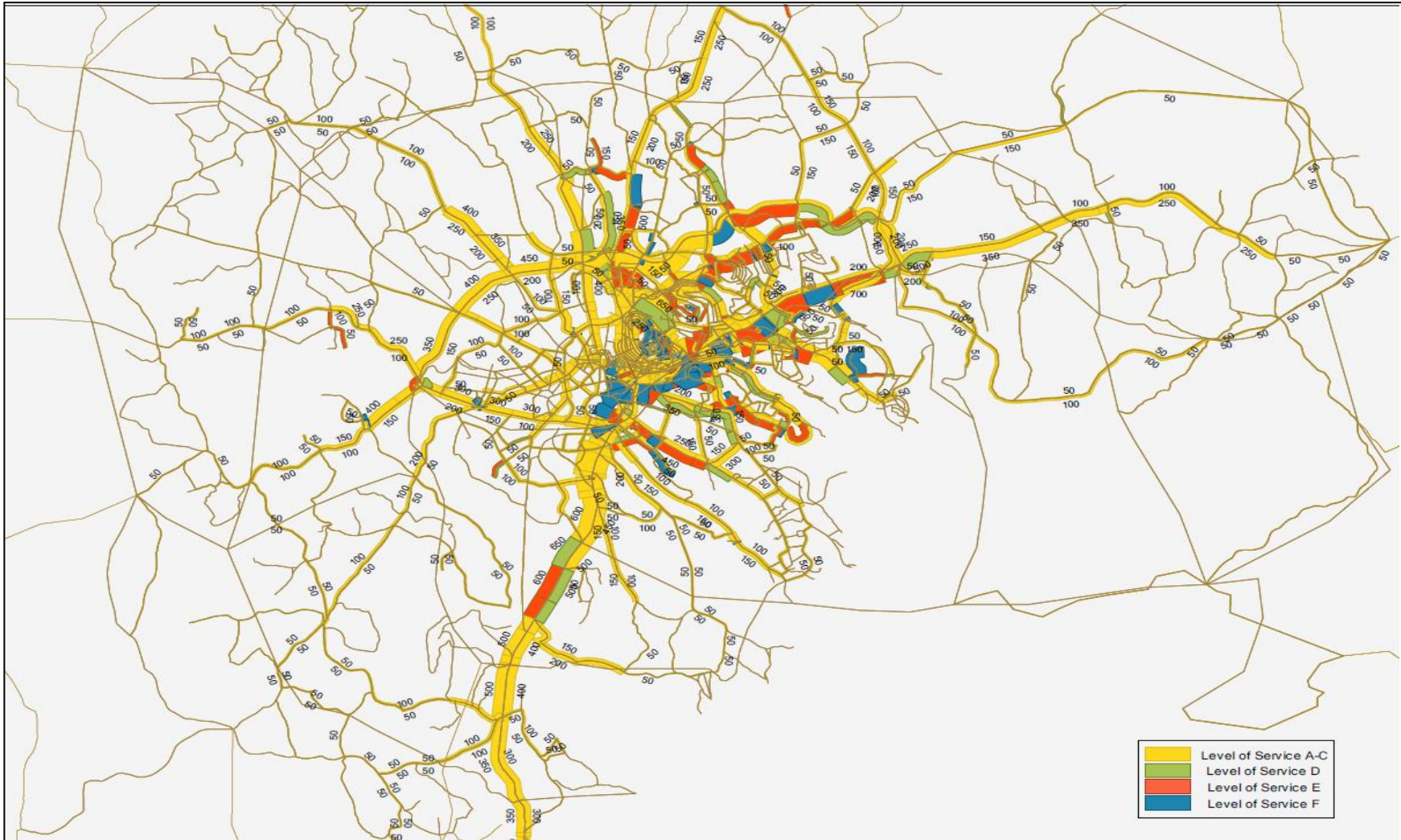
The new calibrated base case travel demand model was developed with the new information, and the model performed better than the previous model with respect to the general volumes and speeds (see the following maps). The calculated average AUTO speed for 2012 is ~22 km/h in AM peak hour.

Following the calibration of the base year model, we developed new AUTO matrices for the year 2022 and LT (Long Term), taking into account the forecasts regarding population and employment for these years.

At first, we developed a base scenario called: "Do minimum and more of the same (DMMOTS)". In this scenario, the population and employment were increased and their spatial distribution followed the unregulated pattern observed for the last 15 years.

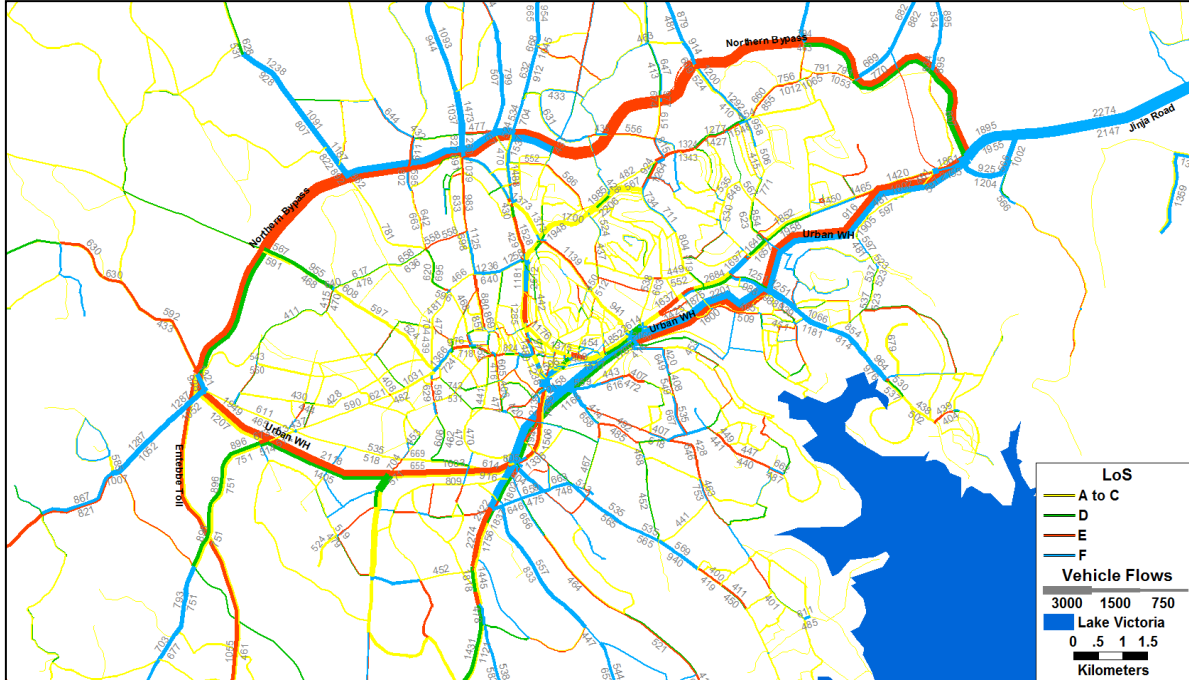
As for the road network, new road sections were introduced into the 2022 network only if these new highways are already under some discussions (i.e. the toll way to Entebbe). The DMMOTS scenario for 2022 results in gridlock with very high volumes and major traffic jams, as can be seen in the following maps:

Map 108: Base Case (2012) Assignment - Avg. Speed of 22 km/h in AM peak



These results were not surprising: Without dramatic changes in both the transport and land use system, Kampala will come to stand-still with an average speed of 4 km/hr during morning peak hour, as shown in the following map.

Map 109: Assignment results for DMMOTS Scenario - 2022: Avg. AUTO Speed of ~4 km/h



Since this scenario can't and won't function in reality, we prepared a new base scenario for 2022, which included two new elements:

- The spatial distribution of the additional land uses was changed, to create shorter trips than in 2012, and:
- We forced some traffic management measures onto the network. These measures included: restriction on on-street parking, enforcement on commercial encroachment, signing and marking of lanes, introducing traffic signals in most major intersections, and forcing informal bus stages out of the roads' right-of-way. These changes result in an increase of the basic capacity between 30%-50% for all local roads, as well as some changes in the steepness of the Volume-Delay Functions used in the TDM

Under this scenario, which still requires significant interventions, the average speed during peak hour is ~ 8 km/hr/ this is still an indication of a non-functioning system.

Thus, we looked into additional measures that should improve the performance of the road network. These are:

- Additional road capacity by introducing new highways. The potential additional new highways are discussed in the next section.
- Reducing the demand for car traffic by introducing an attractive MRT system, strict traffic management and safe and attractive NMT facilities. These measures are discussed in the following sections.

11.3.2 The Need for Additional Road Capacity

As mentioned in the situational report, there is no clear hierarchy in the road network, and there are almost no high quality limited access roads (with the exception of the Northern Bypass). Thus, we recommend adding several new road sections, both for GKMA and for KCCA.

These roads were selected based on analysis of empty spaces available in the metropolitan area as well as taking into account the locations of the new development proposed as part of the GKMA PDF and the PDP for KCCA.

The new road network consist of 3 ring roads, new urban freeways and several new radial roads, as shown on the following map and described in the following table 1

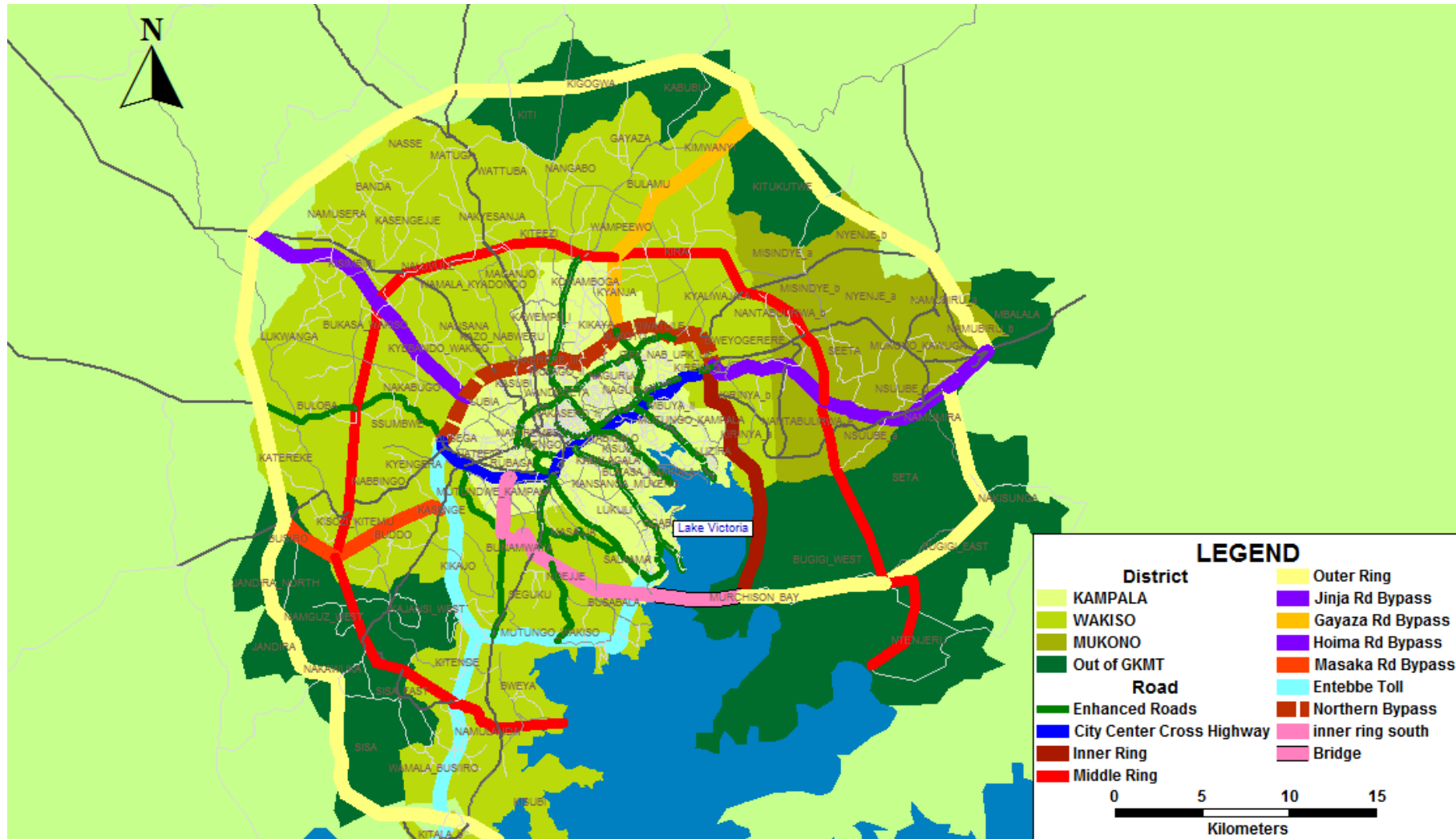
Table 1 summarizes the main characteristics of the proposed roads. For the purpose of the model analysis, we assumed that all new roads will have only 2 lanes per direction, and that the free flow speed is 90 km/h.

Table 61: The Main Charachteristics of the New Road Sections

Facility	Length	Type	Capacity per hour per direction
Urban HW	19 km	Highway	3400
Inner Ring	53 KM	Highway	3400
Middle Ring	85 KM	Highway	3400
Outer Ring	120 KM	Highway	3400
Jinja Rd Bypass	19 KM	Highway	2800
Gayaza Rd Bypass	15 KM	Highway	2800
Hoima Rd Bypass	17 KM	Highway	2800
Masaka Rd Bypass	12 KM	Highway	2800
Bombo Road (Existing Rd)	14 KM	Highway	2800
Entebbe Toll*	49 KM	Toll	3400

*Toll is not yet implemented in the model

Map 110: The Proposed New Road Network for GKMA



Based on the above proposal, we developed the following scenario that was tested by the Travel Demand Model (TDM). Please note that all the following scenarios assume already that traffic management measures were introduced.

Table 62: Scenarios Tested by the TDM

Scenario	2012	2022 - additional roads that were considered
BASE	Base	Entebbe Toll (no toll at this stage ²⁷)
Minimum		Entebbe Toll (no toll at this stage) Urban HW
Medium-1		Entebbe Toll (no toll at this stage) Urban HW Inter Ring road without Bridge
Medium-2		Entebbe Toll (no toll at this stage) Urban HW Inter Ring road with Bridge
Full		Entebbe Toll (no toll at this stage) Urban HW Inter Ring road with Bridge Median ring-road

To assess the viability of this road system, we developed new AUTO matrices for 2022 and for LT (Long Term). These matrices assumed the new development proposed by the GKMA PDF and KCCA PDP, with spatial distribution of activities that was planned to reduce congestion.

The results of these assignments are shown in the following table. As can be seen, each new road is improving the network performance but still, even after all road construction is complete, average speeds are not expected to be higher than today's averages. This implies that there is a need to reduce travel demand made by AUTO by providing an attractive MRT system.

²⁷ Existing TDM doesn't support Toll scenarios, which will be introduced in the following version of the model

Table 63: Assignment results for the various scenarios tested

Scenario Analysis for Kampala - AM PEAK												
Year		2022										
Indicator	Scenario Number Name	2012	1	2	3	4	5	6	8			10
		Base2012	Do Nothing 2022	Base 2022	Minimum	Medium-1	Medium-2	Full	New Modal Split (MTX2022*0.9)			Full - Long term
									Med-1	Med-2	Full	
Road Network				+25%	+25%	+25%	+25%	+25%	+25%	+25%	+25%	+50%
Total road KM	KM	1,976	1,976	2,026	2,046	2,060	2,073	2,153	2,026	2,027	2,028	2,379
From that: Highway	KM	341	341	391	411	425	438	518	391	392	393	744
From that: Paved	KM	873	873	923	942	957	969	1,049	923	924	925	1,276
From that: Toll	KM	0	0	50	50	50	50	50	50	50	50	50
Total road lanes KM	KM	4,068	4,068	4,268	4,345	4,403	4,453	4,774	4,268	4,272	4,276	5,679
From that: Highway	KM	736	736	936	1,012	1,070	1,120	1,442	936	940	944	2,347
From that: Paved	KM	1842	1842	2,042	2,119	2,177	2,227	2,548	2,042	2,046	2,050	3,454
From that: Toll	KM	0	0	200	200	200	200	200	200	200	200	200
Road Network Performance												
Auto trips (vehicles)	#	21,873	51,804	51,804	51,804	51,804	51,804	51,804	46,624	46,624	46,624	110,274
VKMT	KM	239,726	573,159	605,698	589,791	588,066	583,226	579,954	522,541	520,450	514,902	1,034,651
VHT	Hour	10,769	71,357	46,567	40,755	35,935	34,251	31,012	27,936	26,782	24,530	58,687
Man hour time	Hour	16,692	110,603	72,179	63,170	55,699	53,088	48,069	43,300	41,513	38,022	90,965
Average speed in GKMA	KM/H	22.3	8.0	13.0	14.5	16.4	17.0	18.7	18.7	19.4	21.0	17.6
Average speed in KCCA	KM/H		8.8	12.4	16.1	17.2	17.5	17.4	20.0	20.4	20.2	19.1
Average Trip length	KM	11.0	11.1	11.7	11.4	11.4	11.3	11.2	11.2	11.2	11.0	9.4
Average Trip duration	Minute	29.5	82.6	53.9	47.2	41.6	39.7	35.9	36.0	34.5	31.6	31.9
% of Congested Roads	%											
Facility indicator				Entebbe Toll	Urban HW	Inner Ring w/o bridge	Inner Ring with bridge	Middle Ring				
Length of proposed road	KM			50	20	35	19	85				
Capacity on proposed road	Veh/h			3,400	2,800	3,400	3,400	3,400				
Volume on proposed road (avg)	Veh.			1,417	5,126	4,750	3,314	2,185				
Speed on proposed road (avg)	KM/H			89	73	85	88	88				
VOC on proposed road (avg)	Veh/Cap			0.20	0.75	0.69	0.73	0.32				

Based on the above results, the consultant reached the following conclusions:

- The expected increase in number of AUTO trips due to increase in both population and standard of living will cause major gridlock within few years if no new roads are constructed.
- Even with large investments in the road network, the city will still experience congestion and slow speeds during the morning AM peak hour.
- It is important to reserve the necessary Right-Of-Ways (ROW) for the second (middle) ring road as it will support the proposed PDP
- In the long term (once KCCA land use reaches capacity), the road network will not be able to function properly without significant increase of capacity (i.e. adding at least 2 more lanes per direction for each major highway).

Therefore, to obtain a sustainable transport system in the long term, the consultant recommends:

- Developing attractive Mass Rapid Transit which can attract road users to PT (see next section)
- Introducing and enforcing strict demand and traffic management strategies like: congestion pricing, parking management and low emission zones.
- Promote significantly NMT transport by providing good facilities and incentives, and bringing basic services within walking distance.

11.3.3 Proposed Transport Strategy for the Road Sector 2022

- Develop as soon as possible the urban freeway. It is recommended to explore private sector involvement, as we recommend accompanying the construction of the urban freeway with high quality residential and commercial development, as can be seen in the 3D simulation shown elsewhere in this report.
- Prepare feasibility study and detailed design for the Southern by-pass section of the inner ring road and explore PPP options, including toll.
- Reserve the necessary ROW for the rest of the roads proposed for GKMA and KCCA, especially for the second ring road.

11.4 Policy & Strategy for Integrated Public Transport

11.4.1 Introduction

The Greater Kampala Metropolitan Area (GKMA) has a population of ~ 3 Million people and is expected to grow to 5 million by 2022 and 8 million long term. A recent 2,000 households travel habit survey conducted in 2011 revealed that almost 60% of all activities made by people with low income in GKMA are by walking.

Therefore, it is not surprising to find that 80% of the low income population make only 2 trips per/day: home-work-home. This finding was also verified by GPS units with data loggers that were given to the interviewees to record their activities for 24 hour period.

The main reason for NOT using public transport is the (relatively) high cost due to the fact that travellers have to pay for each single trip. This is combined with the fact that, to reach a destination, one needs to make, on average, between 1 to 3 trips on public transport, which can usually be made either by using minibuses or a combination of minibus and (for-hire) motorcycles. Thus, transport expenses can reach up to 25% of the available income of low income families.

Currently, the cost of a single trip varies between 0.35 USD to 0.8 USD. Most PT trips are conducted using the "taxi" system, which is usually an aging 14 seat minibus. Since there are no subsidies to PT and almost no regulation, there is very strong competition between taxi operators for the same routes as each taxi may carry only 150 passengers/day, the fare box revenues from the single tickets hardly covers all O&M costs including the driver salary, the driver assistant salary, monthly payment for use of the bus parks and all fuel and maintenance costs.

It is evident that by careful reorganization of the PT network, by introducing high capacity and fast bus operation (BRT), and providing variety of tickets' options, it will be possible to have a revenue making service with significant lower costs per single trip. Each bus on a BRT network can serve 1,500 - 2,500 passengers/day, and even at half of the current single trip cost, the service will be profitable.

Thus, the most important policy recommendation in the transport sector is to introduce a Mass Rapid Transit (MRT) system as soon as possible. This means that for the first stage, the MRT will be based on buses and will have the characteristics of a BRT. Later, it is recommended to introduce urban rail service in the form of an LRT system.

It is important to coordinate and integrated the taxi service with the BRT operation. This means that:

- The taxi routes should feed and complement the BRT routes, but NOT to compete with them
- A new ticketing system should be introduced, to allow for more ticket options, including the ability to have a seasonal (daily, weekly or monthly) ticket that will be valid on all PT modes and will be respected by all operators
- A common public transport information system will be introduced, and
- A strong regulator will operate to enforce the principles of the integrated PT system

The main advantages of the proposed integrated MRT system are:

- Reduction of traffic jams: Reorganization of the PT system will result in a significant reduction in traffic volumes along the main corridors, since high capacity buses will replace many old "taxis". In addition, the introduction of BRT lanes at the expense of lanes accommodating current illegal and unregulated parking is likely to further reduce the demand for car use.
- Making PT affordable for the urban poor: Introduction of new seasonal tickets which are valid across all operators and setting the base fee at a lower rate than today will make PT much more accessible to lower-income people in Kampala.
- Urban renewal: The BRT creates opportunity for an urban renewal as the BRT corridors will be redesigned from facade to facade to include new street furniture and new cross sections.
- The BRT allows the adaptation of TOD (Transit Oriented Development) principles for the preparation of the PDP.

11.4.2 The proposed MRT network for 2022

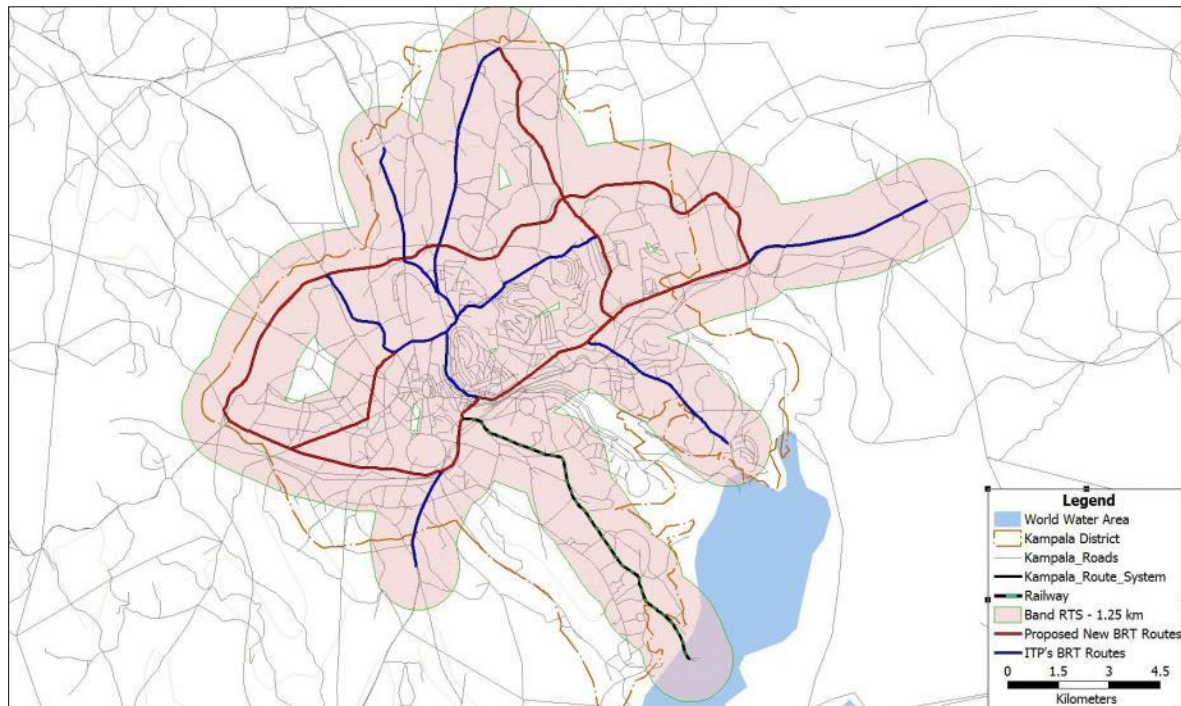
A pre-feasibility study conducted by ITDP in 2010 identified several potential BRT corridors, for which feasibility studies are still needed. Based on the goals and objectives mentioned above, we reviewed these corridors and analyzed their catchment area. Our analysis determined that there is a need to add more mass transit corridors to obtain the recommended coverage.

As there are also rail corridors in KCCA, we recommend reserving space within these corridors for potential future urban rail operation (i.e. LRT or suburban rail).

The following map shows the proposed MRT network for KCCA 2022. The network includes the original BRT corridors as well as additional corridor to provide better coverage, and the proposed rail corridors.

The map shows also the catchment area for the proposed MRT system, assuming 1.25 km of walking from the corridor.

It is proposed to reserve the right of way for the above system, as well as to initiate several feasibility studies, to ensure that the proposed corridors are available and feasible to accommodate future PT service.

Map 111: Proposed MRT Network for KCCA 2022

11.4.3 Proposed Policy and Strategy regarding Public Transport

The proposed strategy to develop an efficient, attractive and affordable PT services for KCCA by 2022 is as follows:

- Establish a Public Transport Authority (or any equivalent to a strong regulator): There is an urgent need to create a strong entity that will manage, operate, regulate and enforce integrated public transport services in KCCA. Without such an entity, it will be almost impossible to have an efficient integrated public transport service. There is a need to recruit and train the personnel as well as to create the necessary legal base for its operation.
- Adopt a public transport master plan for KCCA: The master plan should include: (1) the list of proposed services (BRT, LRT, rail, taxi, boda-boda), (2) the proposed integrated routes, (3) the integrated fare structure, (4) integrated public information system, (5) the proposed MRT corridors, (6) order of priority for implementation, (7) preliminary demand and revenue forecasts for each service, and (8) procurement plan for implementing the integrated public transport service
- Conduct feasibility studies and a detailed design study for the required services according to the identified priorities
- Construct the corridors and procure the services according to the procurement plan

11.5 Proposed Policy and Strategy for Promoting NMT

11.5.1 General

The policy and strategy for the promotion of NMT is divided between walking and cycling. For the coming 10 years, the majority of KCCA's population will make their trips by walking, and the goal is to attract more people to cycling, but cycling will consist of only 10% of all trips.

11.5.2 Proposed Strategy for Promoting Walking Trips

Today, it is possible to identify several major routes that are heavily used by pedestrians, both in morning and in the afternoon peak periods. These routes serve pedestrian arriving to city centre as well as pedestrians that walk from the main bus stages around the CBD. These routes have only partial walkway infrastructure, thus exposing pedestrians to risks and causing delays to pedestrians and reduction of road capacity, as many pedestrian use the travelling lanes.

The proposed PDP for KCCA 2022 includes the development of local activity centres and the introduction of BRT network. The activity centres will include basic service available at the local level, and the BRT will allow passengers to reach major activity centres that provide services which are not available on a local basis (i.e. municipal and government services).

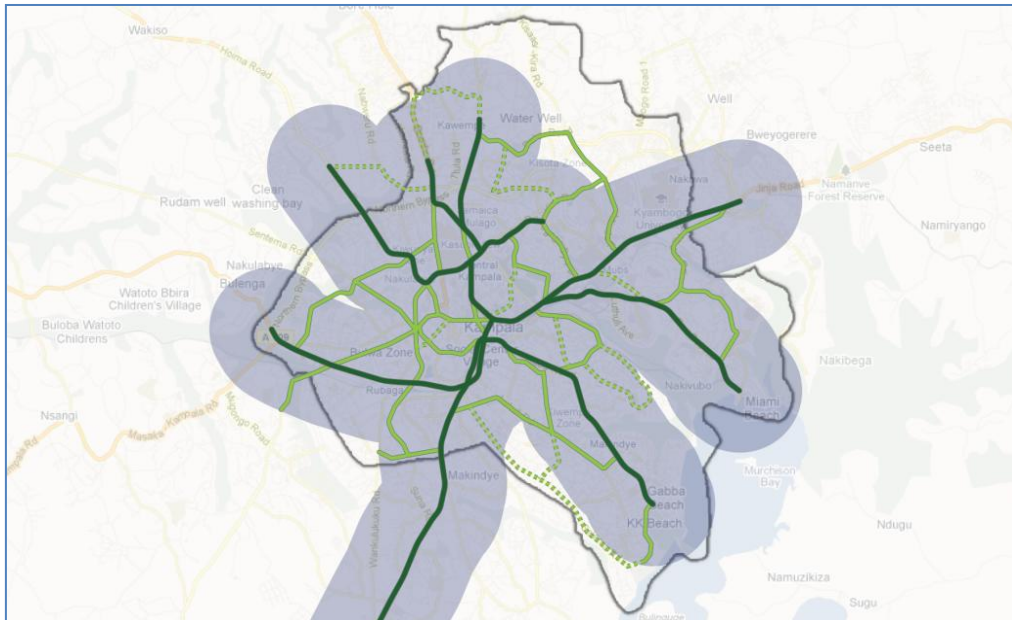
Thus we recommend adopting the following strategy:

- Identify all current major walking routes (i.e. routes with more than 1,000 pedestrian per hour per direction). Review the available walking infrastructure and prepare detailed design and tender documents for the provision of adequate walkway infrastructure. The design should be based on international standards for walkway widths and quality
- For each proposed BRT station, identify relevant walkways routes in a radius on 2 km from the station, and design and construct the walkways based on international standards
- For each local centre, identify walkways in a radius of 2 km, design and construct the walkways based on international standards
- Adopt new geometric design standards for urban roads that include the necessary width for separated and paved walkways along the street.
- In any new urban road include a proper walkway in the cross section. Similarly, whenever an existing urban road is reconstructed, introduce paved and separated walkways as part of the new cross section.

11.5.3 Proposed Strategy for Promoting Cycling

- Identify main potential cycling routes that will connect major residential locations to main and local activity centres. Prepare a master plan for cycling routes for KCCA for 2022 that will include at least 200 km of cycling lanes, mainly along existing roads and streets.
- Adopt best international geometric design standards for safe cycling lanes and select several corridors for detailed design and construction
- In parallel, for each BRT corridor that will be designed, include cycling lanes as part of the overall cross section. A preliminary proposal for a network of cycling lanes based on the BRT corridors is shown on the following map:

Map 112: Preliminary Cycling Network for KCCA 2022



- Similarly, along every new road, introduce cycling lanes as a standard part of the overall cross section
- Develop a comprehensive communication strategy to increase cycling awareness among decision makers and potential users
- Develop a comprehensive cycling outreach program, to include all major employers in KCCA. Identify potential infrastructure needs (i.e. bicycle parking facilities and bicycle lanes leading to these locations) and prepare a plan to provide these facilities.
- Select carefully a pilot project, construct the necessary lanes and parking facilities, and launch a communications campaign to increase awareness and usage.
- Conduct “before-after” surveys and draw conclusions from the pilot project

11.6 Strategy and Policy for Traffic Management

11.6.1 General

It is believed that lack of proper traffic management system is a major cause of current traffic congestion and gridlock, especially within the city centre. There are several traffic management problems that should be addressed. These are:

- The operation of the old taxi park and the new taxi park in the city centre and operation of some other taxi stages along the main roads that reduce the effective level of street capacity
- Unregulated taxi operations, where taxis stop everywhere to interrupt general traffic
- Lack of separated walkways for pedestrians that cause pedestrians to walk on the travelling lanes and to slow traffic
- Lack of organized pedestrian crossings, causing pedestrians to cross any time and anywhere
- Illegal parking along the main streets
- Lack of traffic signals on most of the main intersections, and traffic circles which are already in capacity
- Encroachment of commercial activities into the roads' ROW
- Lack of channelization on all roads.

Based on these observations, the proposed traffic management strategy for KCCA 2022 is as follows:

- Relocation of the main taxi stage (old park and new park) away from the centre
- Relocating of the smaller taxi stages from the main roads
- Introducing new on-street parking regulations especially along the main roads.
- Evacuating all commercial activities that encroach the roads' ROW
- Redesign of traffic circles in city centre and replacing them with traffic signals
- Introduction of a new parking management system
- Restructuring taxi routes to reduce the number of taxis along main roads

12 Infrastructure

12.1 Introduction, Vision and Goals

There are many gaps in the infrastructure of Kampala, the major ones of which have severe implications for the health of the population, the ecological system, the economy and an acceptable urban environment for the residents of Kampala.

This section presents a comparison of the current state of key components of the infrastructure, improvements currently underway and a comparison of their scope with the urban growth envisaged by the KPDP. The primary focus is on KCCA in 2022, but mention is also made of issues for the longer term or for a wider geographical area larger than the KCCA.

The sections of this section deal with:

- Drainage infrastructure;
- Water supply systems;
- Wastewater systems; and
- Solid waste collection and disposal.

The “Infrastructure Vision” for 2022 is that all Kampala’s residents live in areas which are reasonably protected from floods, have easy access to clean water, and have piped sewerage systems and regular collection of solid waste. The concomitant goals are as follows.

- Protection from floods should include drainage measures which prevent regular inundation of residential or business and industrial areas.
- Access to clean water should include all residents of KCCA, whether by house connection, or yardpipe or, as a temporary solution only standpipe close to place of residence; at economic prices. The use of springs and shallow wells should also be eliminated.
- All residential areas should have either piped sewers with treatment plants of sufficient capacity or as a temporary solution only regular collection of faecal sludge from latrines and other facilities; with the sludge being treated in a scientific manner which prevents pollution of ecological systems, and allows for recycling of the end product. In addition all industrial areas should be connected to proper sewerage systems, with pre-treatment as appropriate, and, if necessary, specialised treatment facilities.
- All areas and activities should have regular and effective collection of solid waste, with emphasis on sorting at source or close by, recycling, composting and environmentally sound land-fills. Hazardous industrial, health and other waste should be treated in specialist facilities.

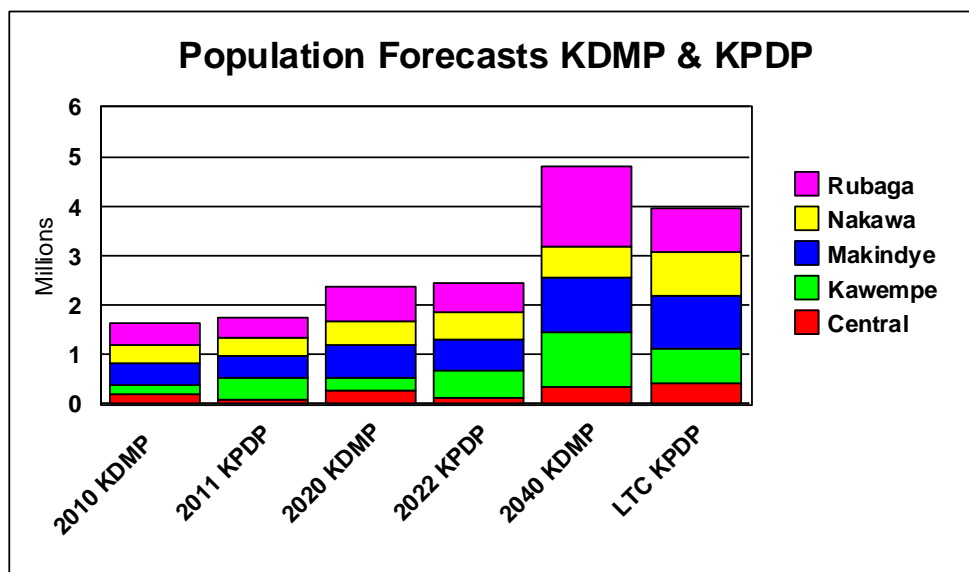
12.2 Drainage

As has previously been discussed, planning for the drainage has been done only for KCCA, in terms of the Kampala Drainage Master Plan (KDMP)²⁸, and analysis of that study has been done in relation to KPDP .

12.2.1 Population Comparisons

The following figure and table compare population projections of the KDMP and KPDP for different time horizons.

Figure 96: Comparison of Population Forecasts of KDMP and KPDP



Sources: KDMP and consultants projections for KPDP

Table 64: Comparison of Population Forecasts of KDMP and KPDP

Division	2010 KDMP	2011 KPDP	2020 KDMP	2022 KPDP	KPDP 2022/ KDMP 2020
Central	220000	104000	284000	139000	49%
Kawempe	150000	425000	236000	555000	235%
Makindye	473000	450000	676000	609000	90%
Nakawa	359000	354000	488000	542000	111%
Rubaga	451000	417000	700000	603000	86%
KCCA	1653000	1750000	2384000	2448000	103%

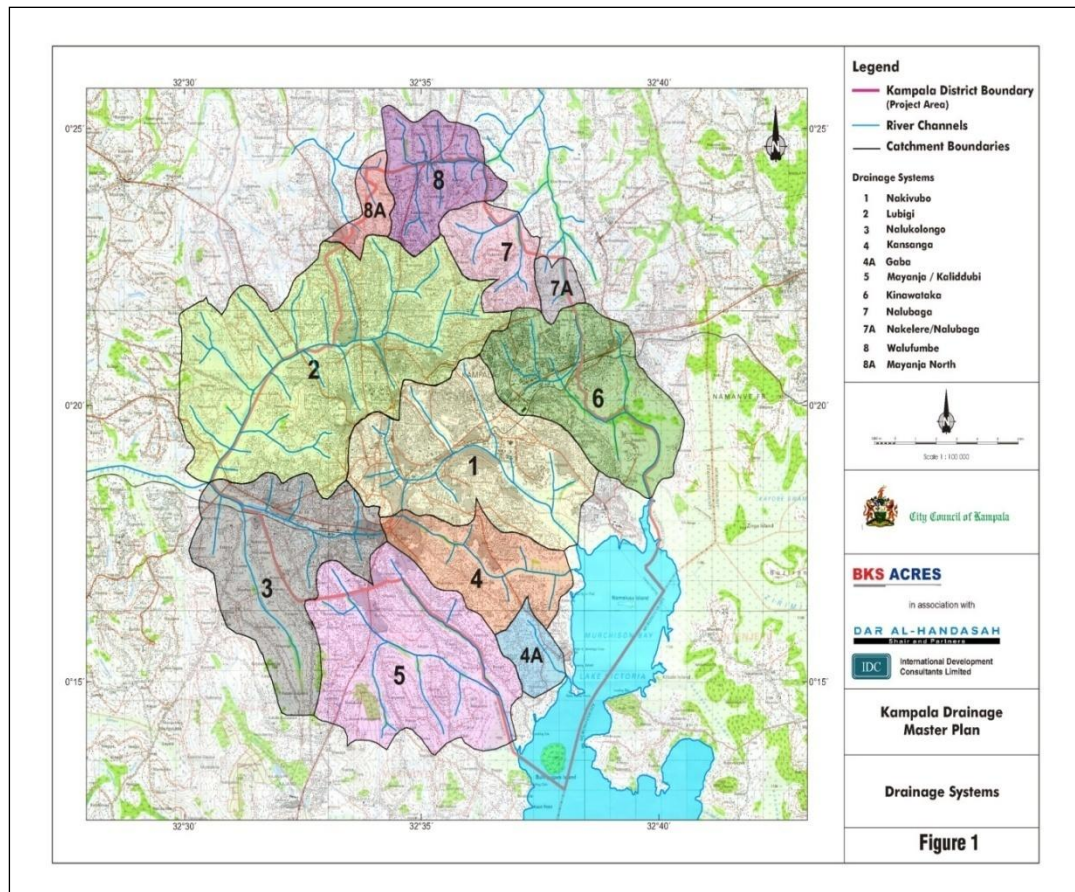
Sources: KDMP and consultants projections for KPDP

From these figures it can be seen that the total population of KCCA according to the two plans is very similar - a difference of 3% which can easily be accounted for by the two- year difference in projection period. There are however large differences when the divisions are compared. It appears that the extent of non-residential growth was underestimated by the KDMP, and hence they expected a higher population growth rate in the Central Division. In contrast growth in

²⁸ Nakivubo Channel Rehabilitation Project (NCRP) Kampala Drainage Master Plan, July 2002

Kawempe Division is projected by KPDP to be much higher than that envisaged by KDMP. As previously mentioned, this is in part due to the potential for the urban area to expand northward. This growth has been part of a large extension of the built-up area to the north-east beyond the borders of KCCA. The following map provides an overview of the drainage systems which are discussed further below.

Map 113: Drainage Systems in KCCA:



Source: KDMP

12.2.2 Implications for Nakivubo Drainage System

The lower population growth in the central division does not mean less pressure on the drainage systems in that division, including the important Nakivubo system. It may well be that non-residential development will result in higher runoff than residential development and that a re-evaluation of the absorption capacity and infrastructure of the Nakivubo system is necessary. Any changes to the wetlands are likely to reduce the capacity of the system.

12.2.3 Implications for Lubigi Drainage System

In respect of Kawempe Division, the major drainage systems are Lubigi and Nakivubo. KDMP pointed out that Lubigi is partly channelized downstream of

Hoima Road, but proposed that further channelization of Lubigi be allowed only upstream of Hoima Road crossing and the lower Lubigi should be left to drain naturally, thus keeping the wetland intact.

12.2.4 Other Drainage Systems

Given that the differences in population projections in other divisions are small, the recommended measures probably do not need to be changed, as summarised in the table below. It should be noted however that implementation has taken place mostly in the Nakivubob system, and this needs to be extended to other areas.

Table 65: Proposed Measures for Other Drainage Systems

No.	Drainage System	Proposed Action
3	Nalukolongo	Channelization of Nalukolongo upstream of Old Masaka Road; the wetland downstream thereof should be preserved.
4 / 4a	Kansanga & Gaba	Wetland in relatively good condition despite 60% having been modified; possible channelization of Kansanga downstream of Gaba Road.
5	Mayanja/Kaliddubi	Mayanja upstream area built up & wetland in relatively poor condition & channelization may be beneficial. Kaliddubi should be left to drain naturally.
6	Kinawataka	Condition of S-E part of wetland is good, should be preserved. Channelization of other parts may improve conditions.
7 / 7a	Nalubaga/Nakalere	Moderate value for preservation. Channelization of Nalubaga may improve wetlands, but Nakalere should be preserved.
8 / 8a	Walufumbe / Mayanja North	Moderate condition, 20% modified, some value for preservation. Channelization of most of Walufumbe may be necessary.

Source: KDMP

12.2.5 Policy and Strategy for Drainage Systems

The over-arching policy for the planning and implementation of drainage systems is that they should be aligned with the urban growth model for KCCA and GKMA, as set out in **Sections 8 and 9**, so as to ensure that there is adequate provision of drainage systems for all segments of the population and also for non residential activities; furthermore that policies of densification be followed so as to achieve economies in provision of the infrastructure.

It is therefore recommended that the following strategies be followed:

- Future planning be based on the Long Term capacity projections of the KPDP;
- Detailed planning to be extended to drainage systems other than Nakivubo, including those where the drainage systems include not only portions of KCCA, but other parts of GKMA;
- Ensure that there is congruence between location of population in KPDP and the planning of drainage systems;
- Detailed urban planning within the drainage systems to ensure that flood prone areas are not allocated for urban development and/or adequate drainage to resolve flood threats is incorporated in the plan;
- Development control capacities be strengthened so that unauthorised construction does not take place in flood prone areas;
- Adequate drainage to resolve flood threats is put in place or alternative housing with proper services to be offered to residents who are currently located in areas with problematic drainage;
- Sensitisation of the population to the problems of location in flood prone areas for their health and the sustainability of their residential environment;
- Adequate funding for investment in drainage.

Priority areas for capital investment:

- 1st priority - Inner City (CZ);
- 2nd priority - Peripheral Towns (built urbanised areas);
- 3rd priority - Outer Suburbs (built urbanised areas);
- 4th priority - New Towns;

and thereafter new development areas in the Outer Suburbs and peri-urban areas.

12.3 Water Infrastructure

12.3.1 Population Forecasts

The Update of the 2003 Feasibility Study for Kampala Water Supply (UFSKWS)²⁹ was published in July 2010. The 2003 study covered KCCA only while the update included large adjacent areas of Mukono and Wakiso districts. The update included a review of population numbers. The base year for the update was 2009 and projections were made until 2025 at 5-year intervals.

²⁹ Update of the 2003 Feasibility Study for Kampala Water Supply, July 2010

The estimated population for KCCA in 2009 in UFSKWS was 1,553,000 while that of the KPDP in 2011 is 1,751,000 or a difference of 13%, part of which can be attributed to the different forecasting periods. However the difference between 2020 in UFSKWS and the 2022 horizon for KPDP is 27%, because of the higher population growth rates used in KPDP. The UFSKWS growth rate is 2% while that of KPDP is 3.1%.

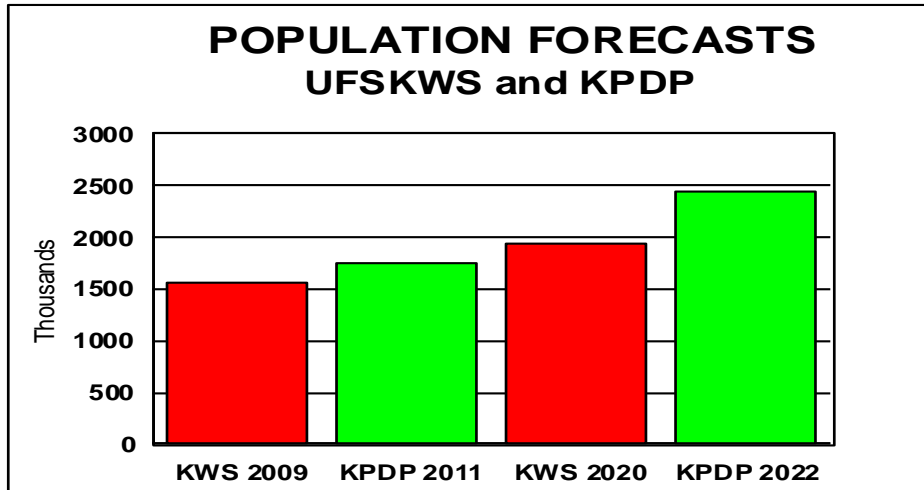


Figure 97: Population Forecasts for UFSKWS and KPDP

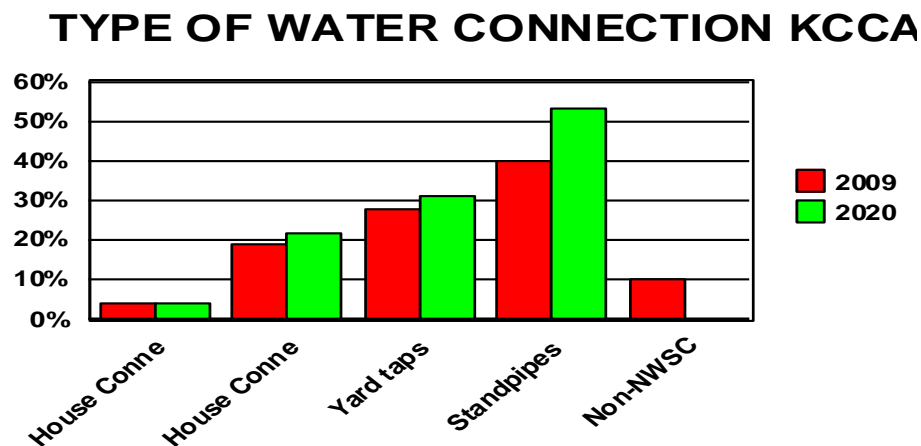
Source: UFSKWS and consultants calculation for KPDP

12.3.2 Water Demand

The water demand in KCCA according to UFSKWS for all categories of land use was projected to grow by 3.5%. Domestic demand was projected to grow at 3% or 50% faster than population, due to extension of the network, and an upwards shift in service level segmentation, which is partly a reflection of rising income levels and partly a reflection improved services to the urban poor. The relevant data are shown in the following table and figure (rounding has resulted in some minor discrepancies between these and the figures quoted above).

The challenge will be to sustain an improvement in service levels given that KPDP projects a more rapid increase in population growth.

Figure 98: Changes in Type of Water Connection, KCCA



Source: UFSKWS

Table 66: Water Demand by Connection Type

Type	Rate l/c/d	2009			2020		
		% Pop	No Pop	Tot m3/d	% Pop	No Pop	Tot m3/d
House Connect. High Income	150	4%	58000	8700	4%	86000	13000
House Connect. Middle Income	115	19%	298000	32200	22%	420000	48000
Yard taps	40	28%	432000	17300	31%	602000	24000
Standpipes	20	40%	616000	12300	53%	833000	16700
Non-NWSC		10%	159000		0%	0	0
TOTAL			1563000	70500		1941000	101700

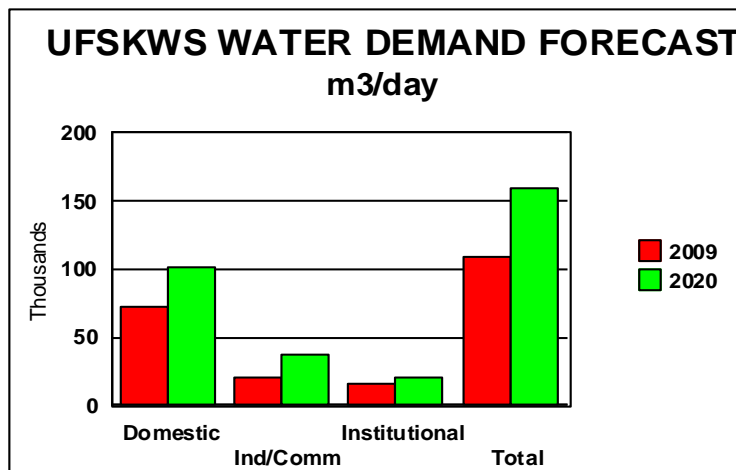
Source: UFSKWS

Industrial and commercial demand in KCCA was projected to grow at 5.6% p.a., reflecting rapid economic growth. Institutional demand, on the other hand was projected to grow at only 1.9% or roughly equal to population growth. With regard to industrial use the study estimated that there was 1143 ha of land “allocated” for industrial development, of which only 346 ha, or 30%, was used. Many of these areas do, however, fall within wetlands. It should be noted that the Namanve site falls outside KCCA and has been planned with future industrial growth in mind, but it is developing very slowly.

Table 67: Water Demand in KCCA according to UFSKWS

Type	2009	2020	Growth Rate
Domestic	72000	102000	3.15%
Ind/Comm	20000	37000	5.60%
Institutional	17000	20000	1.91%
Total	109000	159000	3.48%

Source: UFSKWS

Figure 99: Water Demand in KCCA according to UFSKWS

Source: UFSKWS

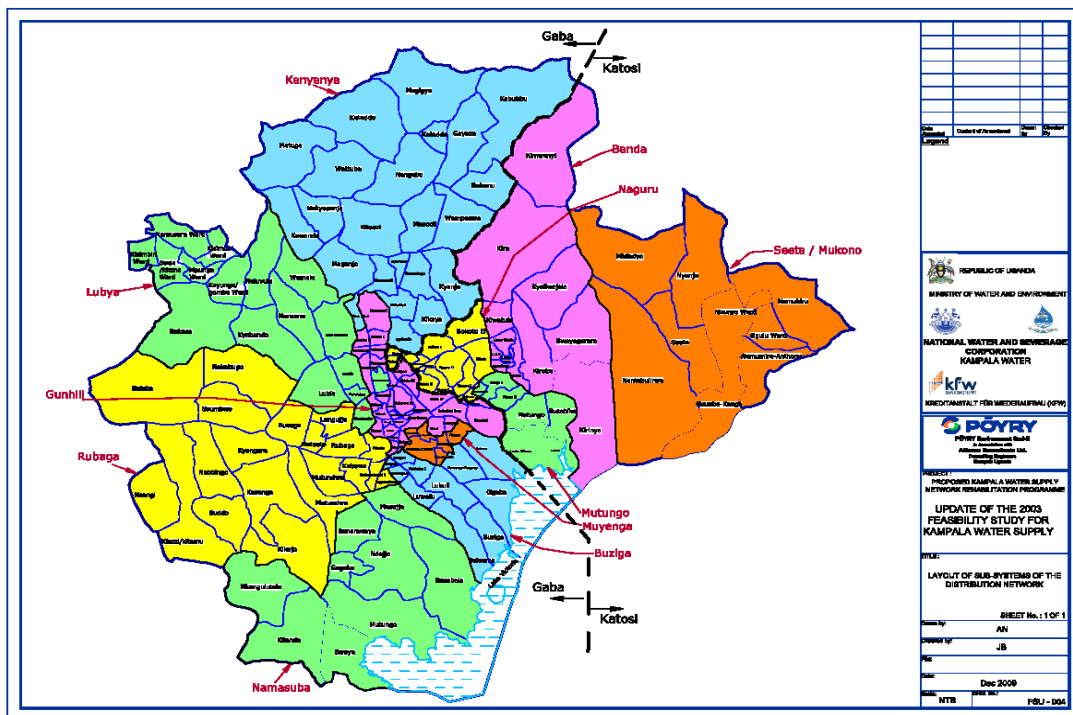
12.3.3 Water Supply

The UFSKWS, on the basis of the above projections, and the proposed new or upgrading of plants at Gaba and Katosi, predicted that water output from treatment plants would meet demand until 2025. Katosi would come on stream in 2020. This would serve areas in Kampala, Mukono and Wakiso, but note that Entebbe and nearby areas are in a different supply area. There is some flexibility in the areas which the Gaba plants and Katosi could supply. Thus for example Naguru is currently supplied by Gaba, but in the future will be served by Katosi.

12.3.4 Water Subsystems

The Kampala Water Supply Area consists of 11 subsystems. Five of these are wholly within KCCA and four are shared between KCCA and KTC. Another 2 fall wholly outside KCCA. They do not match administrative boundaries, but consultant has aggregated parishes by sub-system in order to compare water demand according to UFSKWS with population growth according to KPDP. The results of this exercise are found in the following table.

Map 114: Water Subsystems in the Kampala Water Supply Area



Source: UFSKWS

Table 68: Comparison of Water Demand and Population in Subsystem

	Demand			Population		
	2009	2020	G Rate	2011	2022	G. Rate
Within KCCA:						
Gun Hill	57000	70000	1.89%	284200	325600	1.24%
Muyenga	11100	13300	1.66%	77,400	114,200	3.60%
Buziga	14600	19900	2.86%	317,000	437,900	2.98%
Mutungo	15700	20500	2.45%	678,600	877,700	2.37%
Naguru	21000	25000	1.60%	240,100	304,100	2.17%
Sub Total	119400	148700	2.02%	1597300	2059500	2.34%
Shared with KTC:						
Rubaga	19100	28600	3.74%	422,900	711,100	4.84%
Lubya	13500	24300	5.49%	360,900	549,300	3.89%
Kanyanya	10300	18700	5.57%	313,400	525,200	4.81%
Banda	9700	18600	6.10%	356,700	710,900	6.47%

Source: UFSKWS, and Consultant's calculations for KPDP

Within KCCA the largest sub-system is that of Gun Hill (it is also the largest in the Kampala Water Supply Area). It covers extensive residential areas, the CBD and the central Industrial Area. UFSKWS projects that water demand will grow at 1.9% while KPDP projects that population will grow at 1.2% p.a. On the one hand there will be intensification of commercial and office activity areas in the CBD, but per capita usage will be lower than for residential uses. There will probably be some intensification of industrial activities for which water demand is relatively high compared to commerce and offices. Some of the residential areas are slums and upgrading will likely see them moving to higher per capita consumption. Overall the demand and population and other growth in the respective studies are reasonably well balanced in the short term of 10-15 years.

In the Muyenga sub-system there is a large discrepancy between the growth in water demand of 1.7% and the population growth rate of 3.6%. This appears to be due to the proposal to intensively redevelop large parts of the Nsambya area, which are currently very under-populated.

The Buziga sub-system shows a good match between growth in water demand and in population. Large parts of the sub-system consist of middle - high income residential areas, so that per capita consumption is not going to shift much. The Mutungo sub-system also has a good balance of the respective growth rates.

In the Naguru sub-system the projected population growth rate significantly exceeds that of the projected water demand. This is because redevelopment and intensification of large parts of the area are proposed, for residential and other purposes.

As mentioned above there are four subsystems which cover areas both within and outside KCCA. They are spatially extensive and are expected to have rapid

population growth, Water demand is also expected to grow rapidly. The water demand from the portions within KCCA is not separated, but the following table shows how much of the population is accounted for by the respective components in 2011 and 2022.

12.3.5 Water Supply to the Urban Poor

The UFSKWS stated that “in Kampala, access to safe water is at 70%, but for the informal settlements, this figure is believed to be a dismal 17%.”³⁰ There will have been some change in these figures, but there are still many issues of concern. Instead of safe water, use is made of springs and shallow wells which are polluted by faecal matter, with consequent impacts on the health of residents.

The reasons for this situation are:

- The constraints of the water distribution networks in the slums;
- High prices charged by yard-tap owners and kiosk operators;
- The practice in NWSC of dealing with landlords rather than tenants ;
- Failure of water vendors to pay NWSC.

The UFSKWS is guided by the national goal for Urban Water Supply and Sanitation (UWSS) wherein the target for urban areas by 2015 is a piped water point within 200m providing a minimum of 20 litres per capita per day. It furthermore refers to the Pro-Poor Strategy (2006) of MoWE, the focii of which are formation of a pro-poor unit in NWSC; introduction of appropriately priced pre-paid systems; educating slum dwellers, and collaboration between institutions involved in the sector. A policy for subsidising new yard taps was introduced.

A feasibility study carried out in 2004 highlighted priority areas in terms of WATSAN requirements, as follows in order of priority: Kisenyi II; Ndeeba; Kagugube; Kasubi; Katwe I; Mbuya I; Nateete; Kanyanya; Kyebando; and Bukesa. Following the study, water supply systems were implemented in a number of informal settlements and parishes, including Kamwokya-Kifumbira, Ndeeba, Kisenyi I, Kisenyi II, and Kagugube, assisted by donor funding. At the completion of UFSKWS, the NWSC was aiming to reach, within 4 years, full coverage of “Greater Kampala’s” urban poor of over 400 000 persons through the use of yard taps and public stand pipes, some of which will involve prepaid meters. A large reduction in the price of water for the poor has been achieved.

12.3.6 Policy and Strategy for Water Supply

Given the high proportion of the population that has access to piped water and upgrading the distribution system to ensure piped water is “clean” potable water.

³⁰ Census 2002, KPDP Household Survey and other surveys in slums indicate far higher access to piped water (>90%). The problem however is the quality of the piped water.

The focus of the development of the water supply system should be on the timely provision of increases in the capacity of the system, a decrease in the proportion of the population served only by stand-pipes, and ensuring that new residential areas are properly supplied with water, with the proviso that preference be given to those areas which conform to the principles and proposals of KPDP. To implement this policy the following strategies are proposed:

- Future planning be based on the Long Term capacity projections of the KPDP;
- Timely commissioning of the Katosi WTP and the associated transmission system;
- Upgrading and repair of the transmission system so as to minimise the very high physical losses of water and the consequent pressure on WTP's and their financing;
- Extension of the pre-paid water system so as to provide cheaper water for the poor;
- Prohibition of water connections to new construction lacking licensing and/or contrary planning regulations;
- In the case of relocated slum dwellers, ensure timely provision of water supply systems, at minimum on-site yard-taps, so as to encourage re-location;
- Create awareness of the health problems arising from use of springs and shallow wells;
- Appropriate progressive fees structure to ensure development and proper maintenance of the water supply network on an economic basis.
- Adequate interim financing for capital investment.

Priority areas for capital investment:

- 1st priority - New Employment Zones;
- 2nd priority - Inner City (CZ);
- 3rd priority - Peripheral Towns (built urbanised areas);
- 4th priority - Outer Suburbs (built urbanised areas);
- 5th priority - New Towns;
- and thereafter new development in the Outer Suburbs and peri-urban areas.

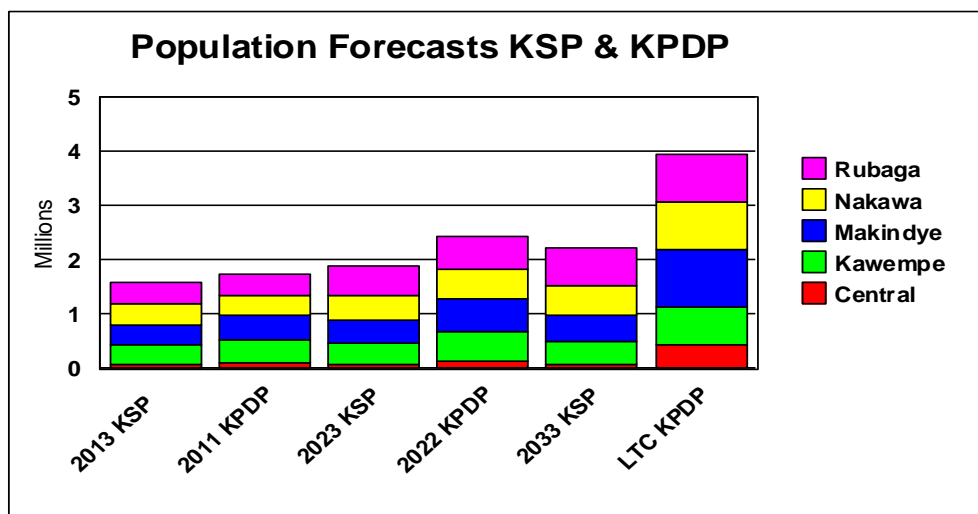
12.4 Wastewater and Sewage Infrastructure

12.4.1 Population Forecasts

The Kampala Sanitation Program Feasibility Study (KSPFS)³¹ was published on July 2008. The project area was confined to KCCA. The base year for population estimates was 2007, with planning horizons for 2013, 2023 and 2033. The population projected by KPDP for 2011 (1 751 000) for KCCA is 10% greater than that projected by KSPFS for 2013 (1 595 000). In addition in the period 2011 – 2022 KPDP projects that population will grow at 3.1% p.a. compared to 1.8% of KSPFS. It should also be noted that the KSPFS figure for 2013 is only 3% greater than the figure for 2009 in the Update of the 2003 Feasibility Study for Kampala Water Supply (UFSKWS). It is therefore likely that the wastewater production forecasts will be underestimated NWSC is in the process of commissioning a new study (see below) and it is suggested that, following on from the KPDP, the new study and release of the new Census results, a KCCA / NWSC working group be constituted to monitor population growth and forecasts on an ongoing basis.

The following figure compares the population forecasts for KPDP and KSPFS by division.

Figure 100: Population Forecasts According to KSP and KPDP



Sources: KSP and Consultant calculations for KPDP

12.4.2 Wastewater Production

With regard to domestic wastewater production, the average generation rate has been applied to the KPDP population forecast to estimate wastewater production for 2022 and this has been compared to the KSPFS wastewater production in 2023 to enable a preliminary comparison of demand, which will in turn be reflected in the facilities required, as in the following table. It can be seen that for KCCA as a

³¹ Kampala Sanitation Program Feasibility Study, July 2008

whole, the KPDP forecast is 30% greater than that of KSPFS and in the case of individual divisions this varies from 7% to 83%.

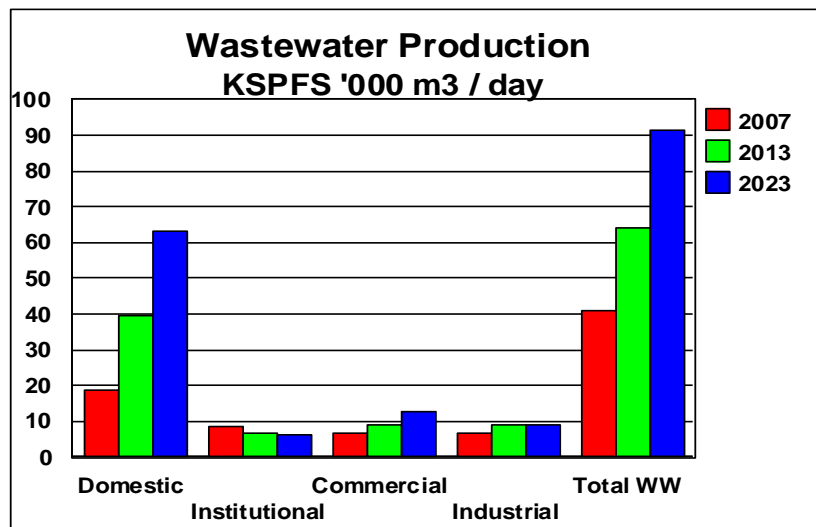
Table 69: Comparison of Domestic Wastewater Production Forecasts

Forecast/ Area	KSPFS	KPDP	KSPFS	KPDP	KPDP/ KSPFS	KSPFS	KPDP
	20013	2011	2023	2022	2022/2023	G Rate	G Rate
Central	3141	4358	3182	5821	183%	0.13%	2.94%
Kawempe	7235	8787	9835	14204	144%	3.12%	4.92%
Makindye	11140	12862	18883	26872	142%	5.42%	7.65%
Nakawa	11132	10203	17653	21259	120%	4.72%	7.62%
Rubaga	6708	7106	13469	14382	107%	7.22%	7.31%
KCCA	39356	43315	63022	82538	131%	4.82%	6.66%

Sources: KSPFS, Consultant calculations for KPDP.

In 2007 domestic wastewater was the biggest portion of the total, at 46%. This was however projected to rise substantially to 61% in 2013 and 69% in 2023. The following figure and table show the portions for institutional, commercial, and industrial land uses and the respective growth rates in production.

Figure 101: Wastewater Production Forecasts by Activity, per KSPFS



Source: KSPFS

Table 70: Distribution and Growth Rate of Wastewater Production by Type

Type	2007	2013	2023	G Rate
Domestic	46%	61%	69%	4.8%
Institutional	21%	11%	7%	-0.9%
Commercial	17%	14%	14%	3.4%
Industrial	16%	14%	10%	0.4%
Total WW	100%	100%	100%	3.6%

Source: KSPFS

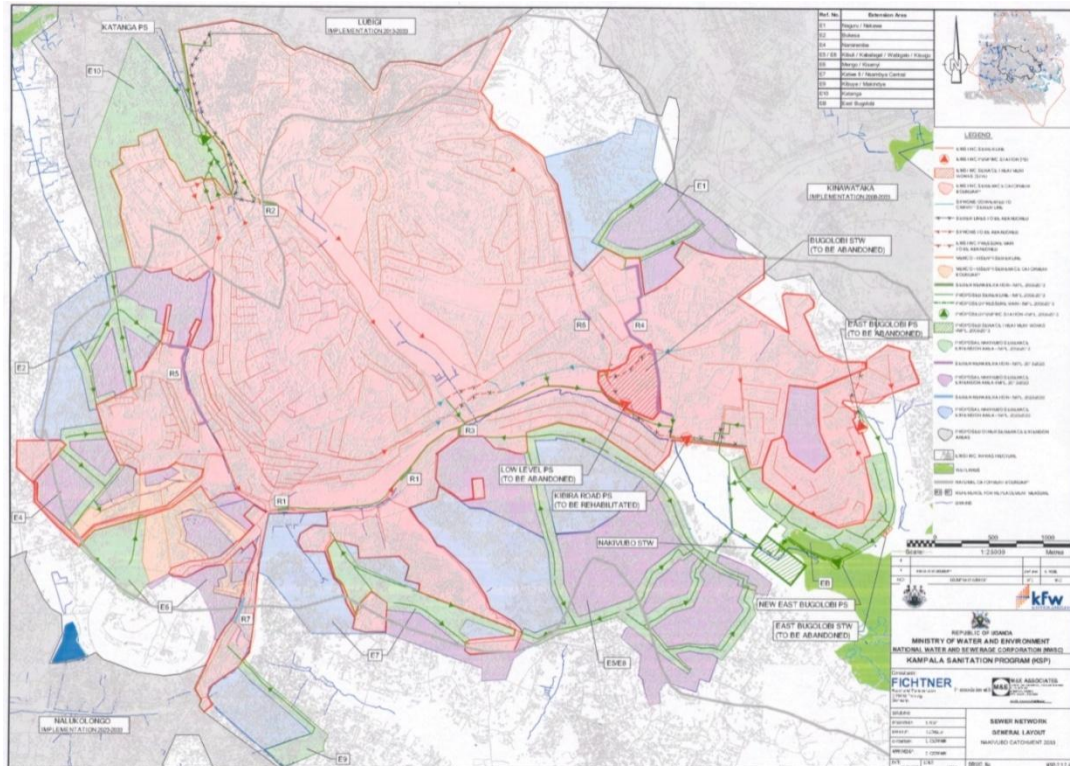
In the long term is intended that KCCA be served by 4 sewage treatment plants according to the natural catchment areas at Nakivubo (replacing the existing Bugolobi STW), Lubigi, Kinawataka and Nalukolongo.

12.4.3 Nakivubo Existing and Proposed Sewerage System

The existing sewerage network is limited to part of the Nakivubo Catchment. This covers all of the Central Division and small adjacent parts of Nakawa and Kawempe divisions. The existing sewer network served about 30,000 persons in 2007 but this accounted for only 23 % of the wastewater flow, with 43% being from commercial customers, 17% from industry and 17% from institutions. Much of the system needs rehabilitation or upgrading. In addition to rehabilitation, KSPFS proposed that:

- The system be expanded to cover most of the Nakivubo catchment;
- The new Nakivubo STW be constructed and;
- The existing Bugolobi STW be decommissioned;

The main area for extension of the system would be south of the existing one in the northern part of Makindye Division. There would also be extensions into the easternmost part of Rubaga Division. These extensions would be phased in during the period 2008 - 2033.



Map 115: Nakivubo Sewerage System Including Extensions to 2033

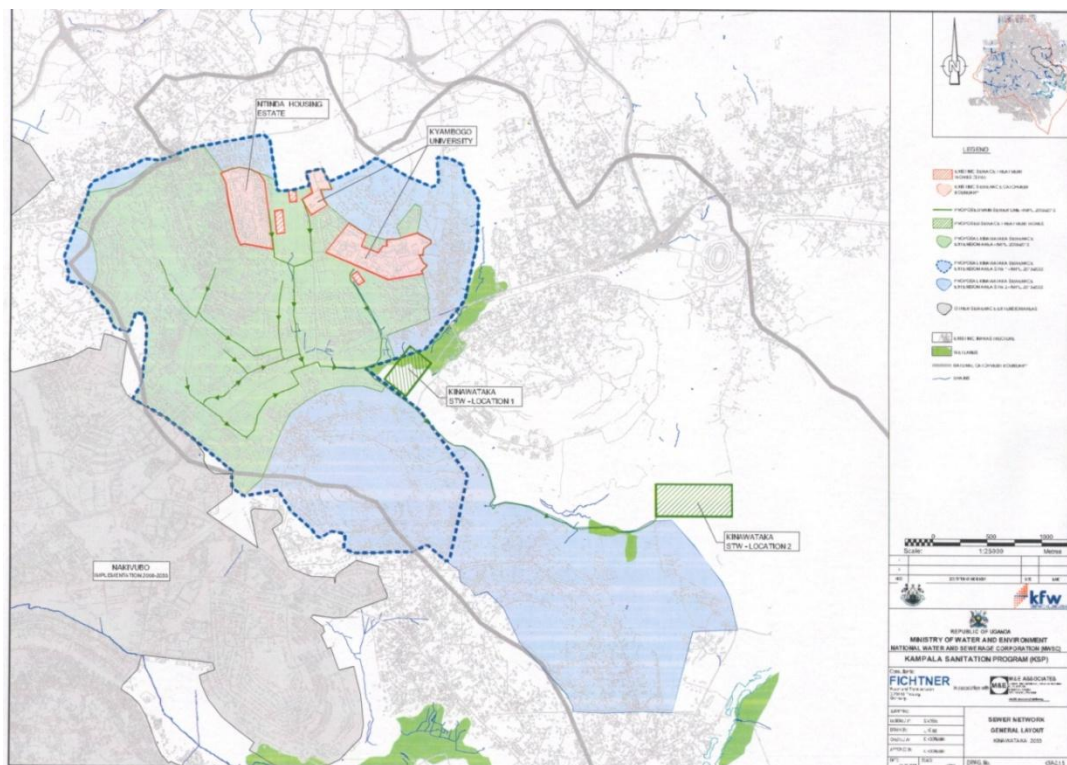
Source: KSPFS

The KSPFS of July 2008 was followed by the Lake Victoria Protection Phase I Final Design Report (LVPI-FDR)³², which was the first phase in implementation of the KSPFS. This includes rehabilitation of the existing Bugolobi STW, to enable it to operate satisfactorily for about 5 years, until the new Nakivubo STW is to be constructed. This is to be followed by rehabilitation of the Nakivubo wetland.

A tender is closing in July 2012 for construction of Nakivubo and Kinawataka sewers.

12.4.4 Kinawataka Sewerage System

This system does not yet exist, except for three project-specific elements serving Ntinda Housing Estate and Kyambogo University. It is on the eastern border of the Nakivubo catchment. The KSPFS proposed that the system serve most of the southern part of Nakawa Division, to be implemented in two stages: an area more or less to the north of Jinja Road during the period 2008 - 2013, and an area south of this in the period 2013 - 2033. The STW will also have a Faecal Sludge Treatment Works (FSTW). It is proposed to implement the system as part of LVP II.



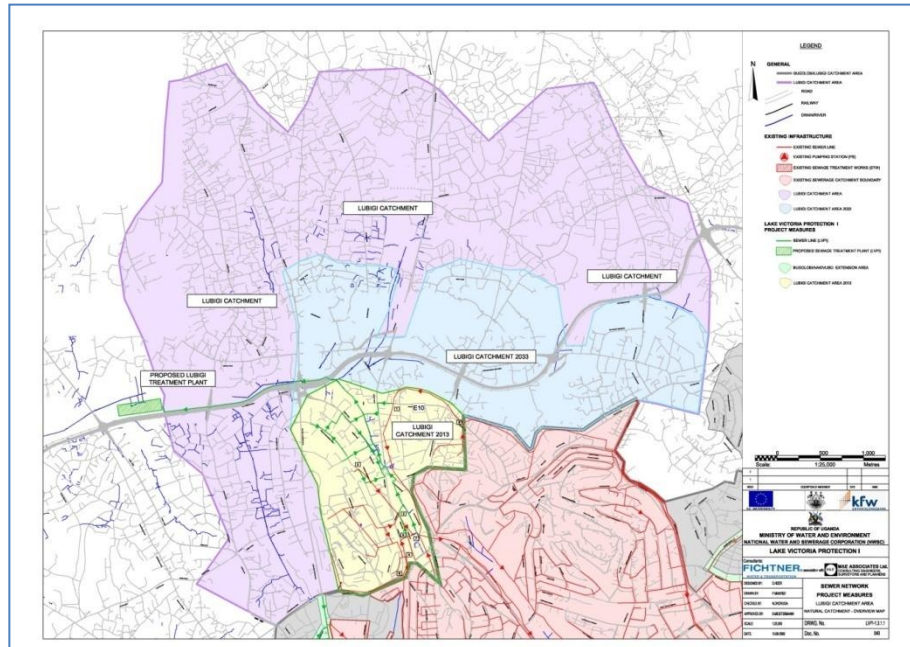
Map 116: Kinawataka Planned Sewerage System

Source: KSPFS

³² Lake Victoria Protection Phase I Final Design Report, September 2009

12.4.5 Lubigi FSTW and STW

The emphasis currently is on the FSTW but the catchment area is quite large, and there may be needs for extensive piped sewers, as discussed below.



Map 117: Lubigi Catchment

Source: LVPI-FDR

This project is now under construction with final capacity designed for the planning horizon of 2033. The design report states that dewatered sludge shall be reused after a storage period of at least 6 months to ensure its hygienic quality, in agriculture as fertilizer.

The study addressed the low faecal sludge collection rates, the reasons for which are primarily the cost of emptying latrines etc and the difficulties of access in informal settlements. A demonstration project was therefore proposed, focusing on using appropriate equipment, providing affordable services and involvement of the community. This includes a suction device adapted for Ugandan conditions for emptying latrines in informal settlements and rough terrain, affordable pit emptying and a socially and environmentally acceptable transfer system.

The demonstration parishes are as follows:

- Kawempe Division: Makerere II- III, Mulago I - III
- Rubaga Division: Kasubi
- Makindye Division: Katwe I - II, Kibuye I - II, Nysambya Central

The programme would provide “a clear understanding of the cost of operating, managing and financing a small scale pit emptying system”.

An EOI for “Package 5a: Development of An Appropriate Sanitation Concept, Review of Water Supply Aspects in Informal Settlements & Feasibility Study will

close in July 2012. The study will address water supply issues and faecal sludge collection issues in 20 parishes.

Lubigi will accept sewage from parts of the existing Nakivubo system which are in poor condition. These include the Katanga / Wandegeya area and Makerere University. Over the planning period wastewater production is expected to increase at a rate very similar to population growth. This wastewater will not come only from the aforementioned areas.

LVPI does not set out the sewer networks that might possibly be developed in the rest of the Lubigi Catchment. This catchment extends roughly 5km upstream from the treatment works and about 3km north of the Northern Bypass, and also includes some areas south of the Northern Bypass. Apart from the areas discussed in the previous paragraph no reticulation systems have been planned thus far. The areas within the catchment are not all low income and there might be potential for extensions of reticulation.

12.4.6 Nalukolongo FSTW

This project has been put on hold until later stages of implementation of KSPFS. Faecal sludge can in the meantime be treated at Lubigi.

12.4.7 Industrial Wastewater

As stated in KSPFS it is desirable to connect industries to the sewer network due to the risks of untreated effluent for the environment. NWSC is, however, not obliged to accept effluent that may endanger persons' health and safety or the integrity of the network and treatment works. Pre-treatment may therefore be required. On the other hand, industries may wish to treat their own wastewater, which is governed by regulations, but the enforcement thereof has become an issue.

The composition of problematic effluent and the nature of pre-treatment varies greatly with the industries concerned and KSPFS proposes that wastewater which is not treatable in the proposed STW should be dealt with in a special treatment facility(ies). To do this a detailed survey of industries with their production line, production process and the wastewater flows is required.

Insofar as the industrial areas are concerned the three largest are Central, Kinawataka (on Jinja Road), and Port Bell / Luzira. It is estimated that the first accounts for a third of effluent, and this can easily be discharged into the existing Nakivubo sewer network.

The Port Bell /Luzira industrial area is expected to be the second largest discharger of effluent in KCCA although it is still being developed. There is however no sewer network. Fortunately, the major dischargers, Uganda Breweries and Ngege Fish have their own treatment plants.

Kinawataka industrial area is also unsewered and will be accommodated in the first phase of the proposed Kinawataka System.

The smaller industrial areas of Kawempe I / Kazo Ward and Nalukolongo are also not sewerred. It should be remembered that Namanve industrial area is outside the KCCA.

12.4.8 Conclusions Regarding Wastewater and Sewage

Despite considerable analysis and the recent implementation or beginning of major projects, the provision of sewerage services to KCCA is severely lacking. In the low income areas, due to both difficulties of creating a network and affordability, the adopted solution is FSTW, which are planned at Bugolobi and Kinawataka STW's, as well as already being implemented in Lubigi, with another one probably will be developed at Nakululongo at a later stage.

There are large middle-upper income areas in KCCA which are not yet planned for piped sewerage systems, especially in Makindye Division and the north-east part of KCCA. Where affordable, piped systems are to be preferred and planning should commence.

In April 2012 a NWSC EOI closed for Lake Victoria Watsan "Package 2a: Water Network Modelling and Master Planning", which includes analysis of the existing network, modelling of the 2025 network and outline design modelling of the 2035 network and updating and integration of the sanitation and water supply master plans, whereby the above -mentioned issues can be addressed. The impetus of the implementation of water supply should be maintained with the planning and implementation of wastewater systems.

It must however be stressed that any sludge collection approach is incompatible with the projected and planned growth of the City, and totally incompatible with KCCA's Vision and the Consultant's Planning Vision. Put simply a city of 5-8 million population, and certainly its core, cannot function on the basis of a sludge collection system of any type.

High density housing of even basic standard, and certainly all multi-storey housing, even 3-4 storey walk-ups, have to be connected to an appropriate piped sewage system. Indeed from Roman times on, the first key to a sustainable city is its water and sewage system.

The implications of adopting a sludge collection approach is to develop Kampala as "wall to wall" *Muzigo*. Hence, the entire approach has to be rethought and a clear goal of developing a comprehensive piped sewage system for the entire City has to be set.

12.4.9 Policy and Strategy Regarding Wastewater and Sewage

Given the critical shortcomings in the current wastewater system, the policy recommended in this report is to give high priority to extension of the piped sewerage network over the entire KCCA and KMTC Towns, including New Towns, and construction or upgrading of WTP's on an economic basis.

Recommended strategies are as follows:

- Future planning be based on the Long Term capacity projections of the KPDP;
- Set and work towards clear goals:
 - * 2022 Target: 100% coverage of primary employment centres (developed sections); 80% coverage of Inner City (CZ); and 50% coverage of KMTC Town Centres;
 - * Long Target: 100% coverage of primary employment centres (developed sections); 100% coverage of Inner City (CZ), KMTC Town Centres and New Towns; 80% coverage of planned urbanised (built) areas in the balance of the KMTC.
- Commence with planning of a piped sewer network for the Lubigi catchment and for other catchments in addition to those of Kinawataka and Nakivubo, and undertake planning for additional sections of the Nakivubo system;
- Accelerate the upgrading, rehabilitation or augmentation of the existing network and treatment plants and the commissioning of new WTP's;
- Require all industries and formal commerce and institutions to have appropriate connections or pre-treatment facilities as a condition of building plan approval, and make authorisation of occupation and implementation of water supply conditional on implementation of those connections / facilities, while also strengthening enforcement capabilities.
- Adopt and implement appropriate progressive fees structure to ensure development and proper maintenance of the sewage network on an economic basis.
- Adequate interim financing for capital investment.

Priority areas for capital investment:

- 1st priority - New Employment Zones;
- 2nd priority - Inner City (CZ);
- 3rd priority - Peripheral Town Centres (high density areas);
- 4th priority - New Towns;

and thereafter new development in the Outer Suburbs and peri-urban areas.

12.5 Solid Waste

12.5.1 Population Forecasts for KCCA

The Kampala Review of Solid Waste Management Strategy 2006 (KRSWMS), for the jurisdiction of KCCA, projected population figures from the 2002 Census to 2006 and 2016. These have been compared with those for KPDP, as in the following figure and table. The growth rates used by KRSWMS for the respective periods are 3.7% and 3.3%. KPDP has projected rapid growth in the period 2002 - 2011 of 4.2% and a slower growth from 2011 - 2022 of 3.1% as KCCA becomes denser and KTC develops faster.

The growth rates of KRSWMS have been applied to 2011 and 2022, from which it appears that there is a difference of 2% - 4%. The population figures are thus consistent.

12.5.2 Generation of Solid Waste

The KRSWMS estimated that waste generation in 2002 was about 1kg per capita per day, and applied this to the years 2006 and 2016, so that there would be a growth of 18 000 tons per month in 2006 to 60 000 tons in 2016, or an increase of 43%. In comparison, according to the USEPA, the average American generates 2kg per day. At present it is estimated that only 15 000 tons per month or about a third of waste generated is deposited at Kiteezi landfill site.

It is estimated that about three-quarters of waste generated is organic in nature, with plastics (12%) and paper and board (11%) making up the next largest categories. The small remainder includes glass, textiles, and metal.

12.5.3 Current Disposal Practices

Waste destined for the landfill site may be deposited in skips and removed to landfill by KCCA divisions or sub-contractors, and in the case of high income areas may be collected from individual properties by private contractors.

As discussed two thirds of waste is disposed of by means other than use of a landfill site. These means include burning of refuse, illegal dumping of waste by refuse collectors or building contractors, household dumping of waste into stormwater channels, sewers or public areas, and incineration of waste.

These disposal practices manifest themselves in health problems, blockage of drainage systems, air pollution, odours, and degradation of the urban environment.

12.5.4 Landfill Sites and Composting

There is at present only one landfill site for KCCA, at Kiteezi, which is located outside KCCA. There is some sorting of waste for recycling, mainly plastics, but the sorting is done under unhygienic and unsafe conditions. The site was

established in 1996 and operated as an un-managed dump until 2000, after which it has been operated to a degree as an engineered landfill. There are, however, problems including an inefficient leachate treatment plant, poor stormwater drains and unstable slopes. A project is underway to determine the feasibility of flaring of methane gas from the site, to minimize greenhouse gases and smoke and prevent spontaneous combustion.

The landfill was expanded once but is again very near capacity, so that KCCA issued a tender for land for either an additional site or expansion of the existing site. An addition to the existing site will suffer from many of the same problems already found at Kiteezi. An alternative site would enable the development of a properly lined and drained site, composting, a modern leachate treatment plant, gas flaring and proper recycling. Implementation thereof might well require an interim increase in the capacity of Kiteezi.

Given that there is a high proportion of organic waste it is highly desirable that there be a composting plant combined with the landfill. This has already been done successfully in Mukono, where the system includes gazetted waste collection points, waste skips, and small concrete structures for temporary storage of waste. In addition Entebbe is planning a composting site.

12.5.5 Types of Waste

For the purposes of this study waste is divided into non-hazardous and hazardous, with sub-types within these two groups.

Non-hazardous waste

Domestic waste will include a high proportion of organic waste capable of composting, but also recyclables which could be sorted at source (households) or alternatively at a landfill site or at an intermediate location. Non-recyclables would be disposed of at a landfill site.

Agricultural, food market and garden waste is mostly organic and can be composted.

Commercial and retail waste will include a mix of recyclables, organic waste, and non-recyclables. Larger organisations provide good opportunities for sorting at source.

Industrial waste will include recyclables, non-recyclables and possibly organic waste, and also provide good opportunities for sorting at source.

Construction waste is mostly inert and part can be recycled, e.g. at a crushing plant, while the rest can be deposited at a landfill although special provisions or a separate landfill might be needed.

Hazardous Waste

Hazardous Industrial wastes include both liquids and solids, which should be recycled as far as possible or deposited at a special hazardous landfill.

Contaminated building waste, e.g. old asbestos products, would need to be deposited at a special hazardous landfill.

Health system waste will primarily be handled through incineration

12.5.6 Hierarchy of Waste Collection and Disposal Facilities

In addition to regular refuse collection, it is proposed that the following hierarchy of facilities be provided:

Skips or concrete structures in low income areas, which should be widely distributed but from which refuse must be very regularly removed in order to maintain a hygienic environment; their location and size should take account of access constraints;

- Drop-off sites at short distances from and at convenient locations for residents to drop off recyclable waste, garden waste etc. This will apply mostly to high and middle income areas and also to small scale contractors and businesses and KCCA departments to deposit limited amounts of refuse. Supervision will be required to control the type and quantity of waste;
- Transfer stations in order to optimise logistics due to distances to landfill sites, use of appropriate vehicles etc - i.e. to reduce travel times and costs;
- Waste processing or separation sites which may be part of a landfill but which could be used to divert recyclables to processors before reaching the landfill;
- Composting facilities, probably located at the site of the landfill, but which might also be located to divert organic material before reaching the landfill.
- Landfill sites specially designed, prepared and constructed to minimise environmental and health impacts.
- Special treatment and landfill sites for hazardous waste.

It should be noted that the Value for Money Audit Report on Solid Waste Management in Kampala, reported that 86 five ton trucks were needed in KCCA. There were however, on average, only 35 trucks available.

12.5.7 Hierarchy of Waste Collection and Disposal Facilities

Floodplains, wetlands and unstable geology are severe constraints on the location of a landfill and will either prevent development in proximity to them, or will require high capital costs for engineering and construction, both to avoid impacts

on the floodplains and wetlands and to minimise the potential for them and geology to damage the landfill.

Hydro-geological investigations will be required, and design needs to address the shape, height and slopes of the landfill. Construction will include appropriate lining, drainage, leachate treatment and gas flaring. At the end of its life the site will require proper covering and capping, gas and leachate management etc.

The location of a landfill, composting facility and the development of the rest of the solid waste system will require detailed analysis that is obviously beyond the scope of this study. It is clear that the existing facility needs, at the very least, duplication (according to proper standards) to handle existing levels of solid waste generation in KCCA at existing rates of collection and disposal.

In order to accommodate both population growth and increased collection rates a much larger facility than the existing one will be needed, or alternatively more than one facility is required. It may well be that such facilities should be developed to also serve KTC, and locations in those areas may in fact be the most appropriate for KCCA from a logistics perspective. To this end there should be cooperation with Mukono TC and with Wakiso TC, which are axes of rapid growth.

12.5.8 Policy and Strategies for the Solid Waste System

The recommended policy for the solid waste system is to institute a spatially comprehensive solid waste system which maximises recycling, provides a cost-effective hierarchy of collection and disposal components, and minimises permanent elements such as land-fills, so as to improve health and prevent pollution of human and natural environments. In order to do this, the following strategies are proposed:

- Plan a comprehensive waste handling and disposal system in close coordination between KCCA and the rest of GKMA, so as to share facilities, obtain economies of scale and enable efficient logistics;
- Specify a hierarchy of collection, sorting and disposal facilities which promotes sorting at source, diversion to recycling as early in the process as possible, and minimisation of collection and transport costs;
- Ensure high frequency of collection so that the public is encouraged to use the formal and organised system of disposal, rather than casual dumping;
- Educate the public as to the negative impacts on, health, drainage, air pollution etc of informal dumping of waste, and the benefits of recycling;
- Provide organised economic opportunities for members of low income communities to participate in the initial rungs of the collection and sorting hierarchy;

- Ensure that composting facilities are a major component of every landfill system;
- Design and construct landfills that are physically stable, properly lined and drained and have modern facilities for treatment of leachate and gas emissions;
- Ensure that landfills and composting plants are big enough, and planned well in advance, to cater for rapid population growth and increases in income levels;
- Require that large new residential or industrial developments provide facilities for collection and sorting of waste at source, as a condition of development control, with enforcement capabilities;
- Regulate all stages of the waste process with a system of clear standards, inspection and sanctions, and the human resources for that.

For the long term, with the upgrading and development of the rail system, the option of bulk transport of waste to an appropriate, more distant landfill site should be investigated.

13 Physical Planning Projects and Action Areas

The analysis and development of the Physical Development Framework and Physical Development Plan lead to the development of a Short Term Policy for Planning and Development of the KSPA and specifically the KCCA areas. This policy includes a list of projects and actions which should be implemented in the near future.

The consultant recommends the following projects and action areas for the short term development of the KSPA and KCCA areas. This section addresses Detailed Local Development Plans and constitutes the fourth and final level of the KSPA planning hierarchy, as illustrated in the following flowchart.

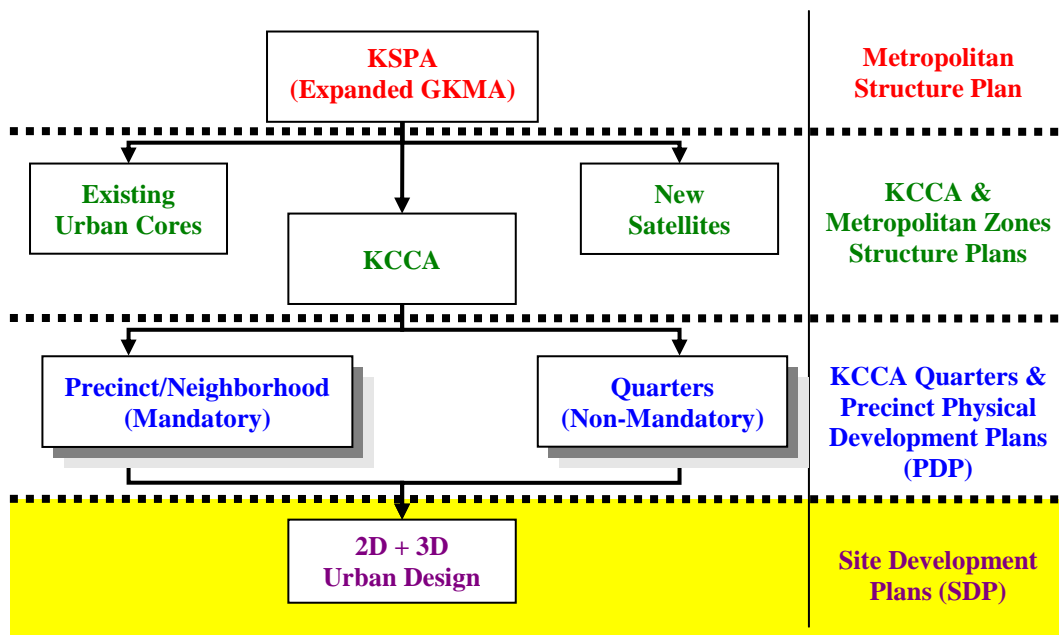
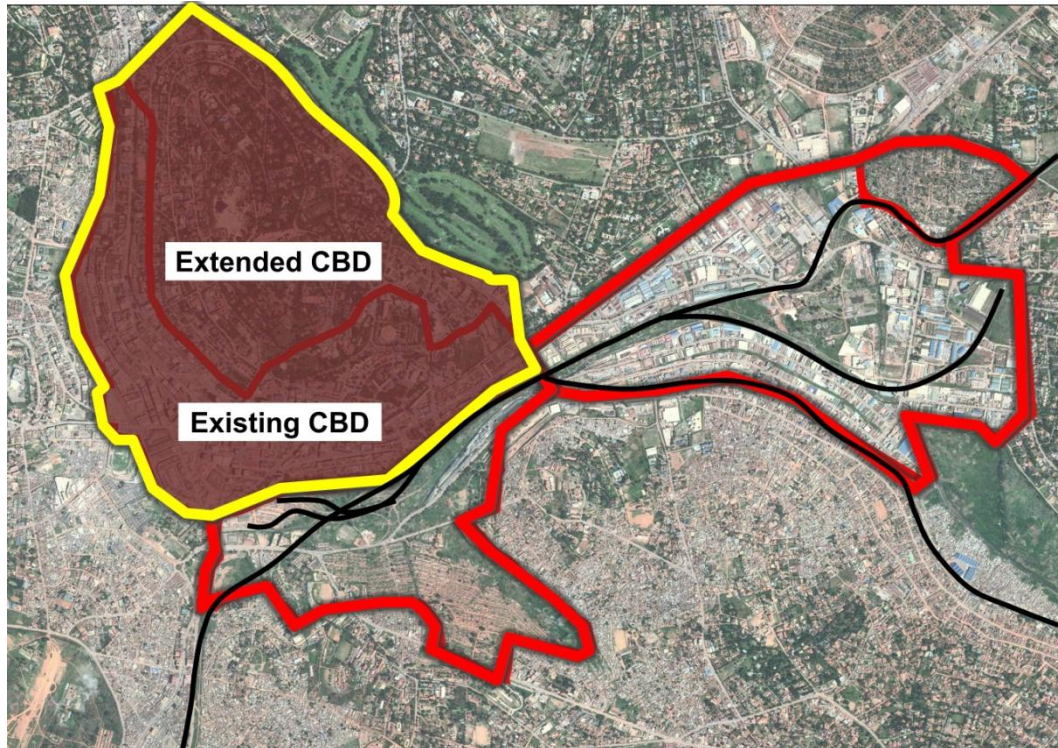


Figure 102: Detailed Local Development Plans in the Planning Hierarchy

13.1 Existing and Extended CBD PPDP

The existing CBD is one of the busiest areas in Kampala. Despite it being fairly well organized in structure, it does not fulfill its potential as a business centre. The CBD can be dramatically improved by upgrading existing infrastructure, transportation systems and built structures. The physical upgrade of the CBD will improve its functionality as well as its image. Nakasero Hill looks over the existing CBD area and is characterized by mixed uses, some of which are complementary to the business and governmental activities which take place in the CBD. Nakasero Hill can be regarded as part of an extended CBD. As part of the development of the CBD the extended CBD should also receive adequate treatment. With the upgrade of the CBD the adjacent areas will also require upgrading in order to continue and serve as an useful of the CBD.

The consultant recommends the Existing and Extended CBD which consists of the Existing CBD and Nakasero Hill extension receive a PPDP as part of the City Center Quarter (see map).



Map 118: Existing and Extended Central Business District PPDP

13.2 New CBD PPDP

As part of the development of the KPDP the consultant prepared an urban scheme for a new CBD area. The new CBD will be constructed on an area which nowadays is occupied by police barracks and the Uganda Railways Corp in the Nsambya Precinct. The area can be redeveloped as a business centre which will supply employment for thousands within the city. The proper development of this area as a modern and attractive business centre will strengthen the city of Kampala as a business centre in the region and entire country. According to the 2D and 3D urban design plan created by the consultant the new centre will include a variety of building types, including high-rise buildings and complexes, a freeway combined with a railway and train station, a BRT system, a large scale urban square, as well as local plazas, a system of open spaces, and an urban park.

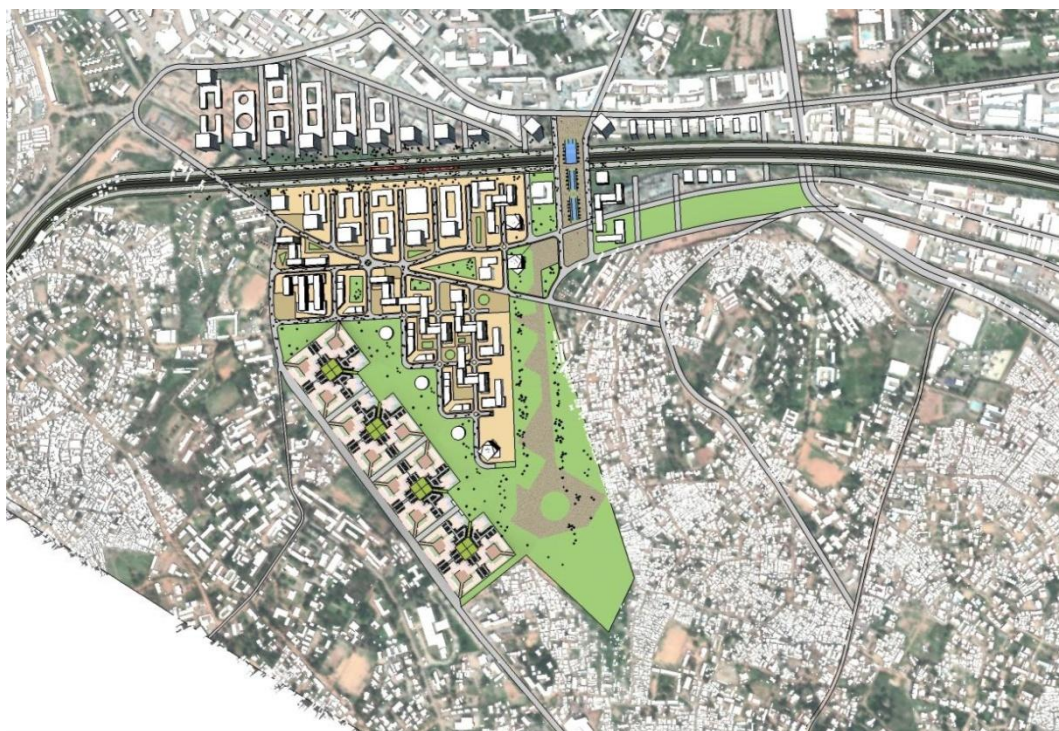
The consultant recommends developing a PPDP for the new CBD as soon as possible in order to protect this asset for the favor of the entire city and metropolitan area. It is crucial that this area be dedicated to the development of a new CBD before this resource is lost to other causes.

The consultant recommends the New CBD area which consists of the police barracks and the Uganda Railways should receive a PPDP as part of the City

Center Quarter. The following images present the Urban Design Scheme for the new CBD (see map).



Map 119: New Central Business District PPDP



Map 120: New CBD Urban Design Scheme



Figure 103: New CBD Urban Design Scheme



Figure 104: New CBD Urban Design Scheme



Figure 105: New CBD Urban Design Scheme



Figure 106: New CBD Urban Design Scheme

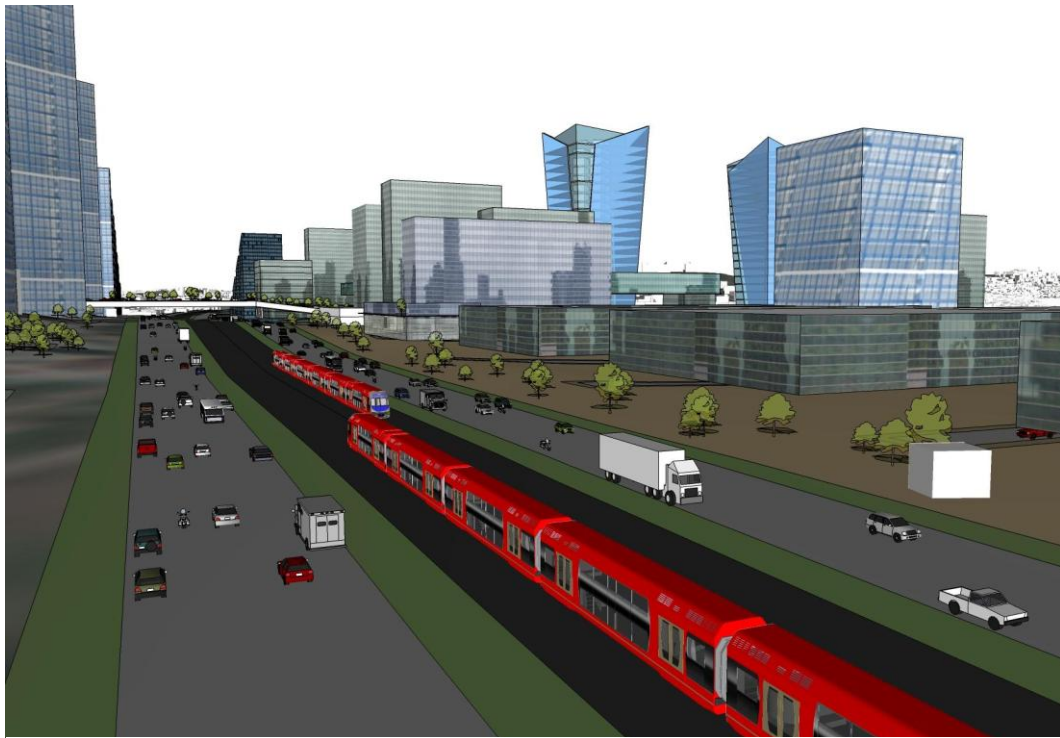


Figure 107: New CBD Urban Design Scheme perspective

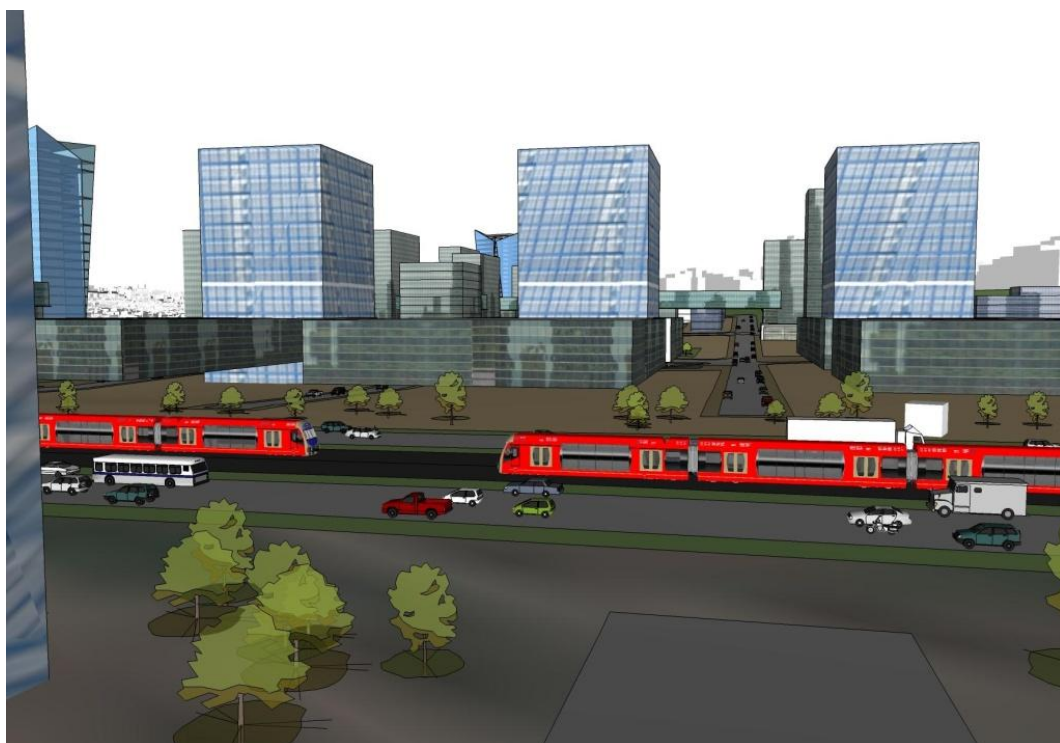
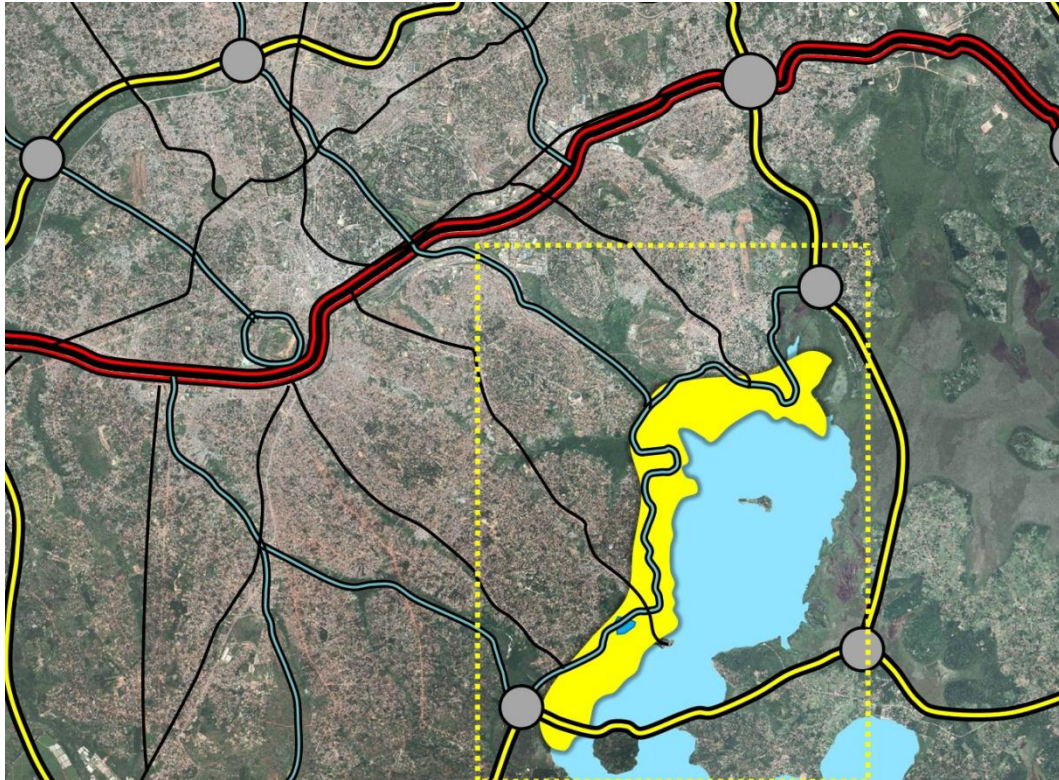


Figure 108: New CBD Urban Design Scheme perspective

13.3 Lakefront SDP

One of Kampala's landscape resources with the greatest unfulfilled potential is the lakefront on the shores of Lake Victoria. Development of the lakefront as a recreation, business and service centre, through proper drainage and design, will help protect the lakeshore and stop encroachment and created a mixed use area. The Lakefront development will develop Kampala as a Lakefront city and connect the lake to the Inner City. The Lakefront will combine nature and public services and form a link between the natural and the urban. The two will have an important role in the wellbeing of the city's inhabitants by offering them a green open space and recreational area as well as encourage tourism.

The consultant recommends the Lakefront area be declared a Special Planning Zone within the KCCA and have a PDP developed for the entire area (see map).

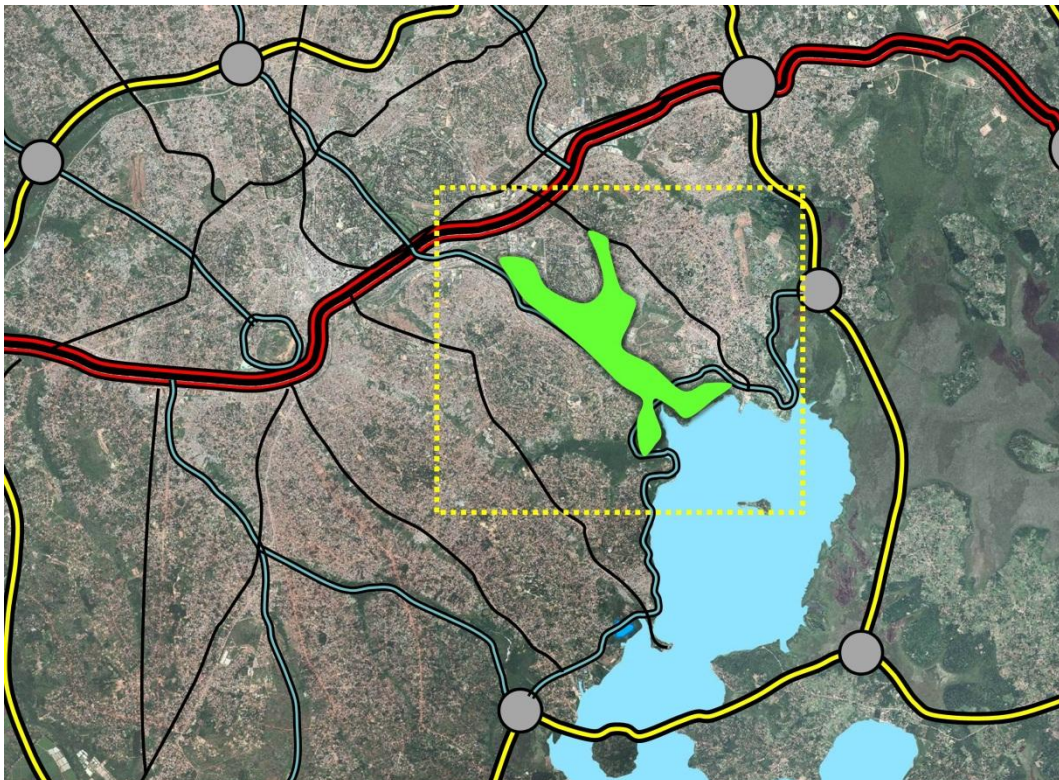


Map 122: Lakefront SDP

13.4 Central Urban Park SDP

Of the vast areas of wetlands within the KCCA one area was chosen for development as a Central Urban Park. The wetland is located in Quarter 3, near Boglobi and Luzira, its edge reaching the area designated to become a new occupation centre. This wetland was chosen due to its substantial size, its proximity to the city centre, and its accessibility to the Lake Victoria shoreline. The project is complementary to the development of the Lake Victoria shoreline as a Lakefront. The Central Urban Park will have an important role in the wellbeing of the city's inhabitants by offering them a green open space and recreational area as well as encourage tourism. The park will offer a green open space for public use within the KCCA including facilities for recreation, sport and culture. The park development will be consistent with environmental regulations and include comprehensive drainage planning to ensure the protection of the ecologic system.

The consultant recommends developing a plan for the Central Urban Park as an important part of the city's open spaces system (see map).

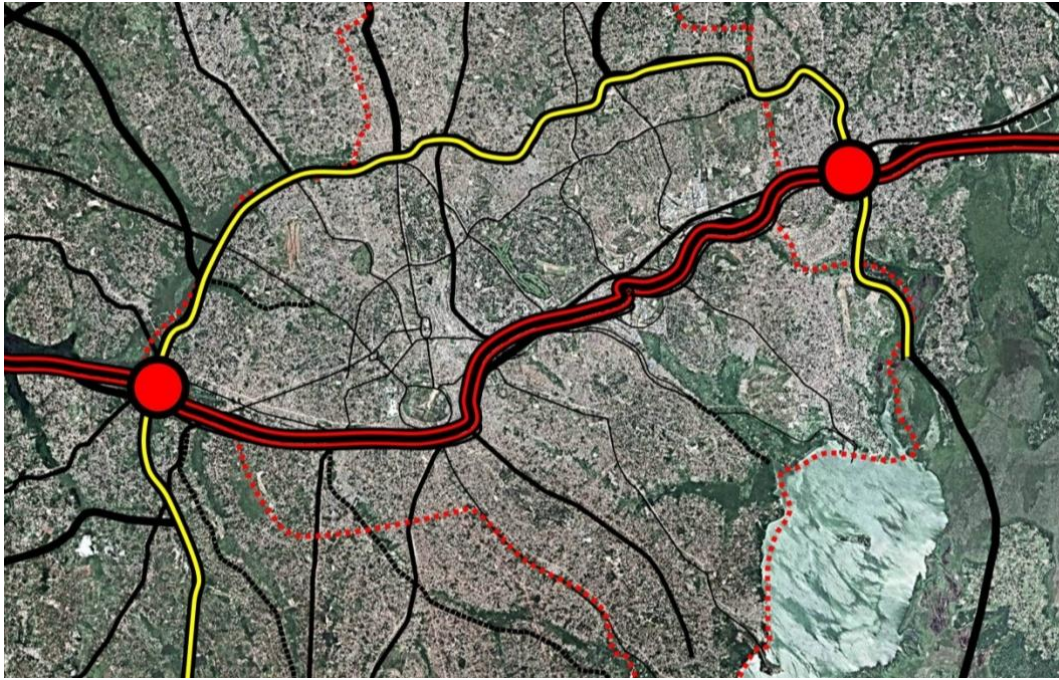


Map 123: Central Urban Park SDP

13.5 City Centre Freeway Zone SDP

The importance of the Urban Freeway has been stretched repeatedly throughout this report. The Urban Freeway which will include high standard roads and a railway will offer quick and efficient way in and out of the city and will greatly improve traffic within the city. The Urban Freeway will encourage development along its path, creating a business and services corridor in the heart of the city. The Urban Freeway will be constructed along the existing railway tracks, thus taking advantage of the land reserves along the railway. The Freeway will be connected to the local road system through a series of exists which will make the Freeway a well-integrated and significant part of the city structure. The City Centre Freeway Zone must receive special attention and a SDP for this specific road section.

The consultant recommends developing a plan for the Centre Freeway Zone as a crucial component of the main transportation system (see map).

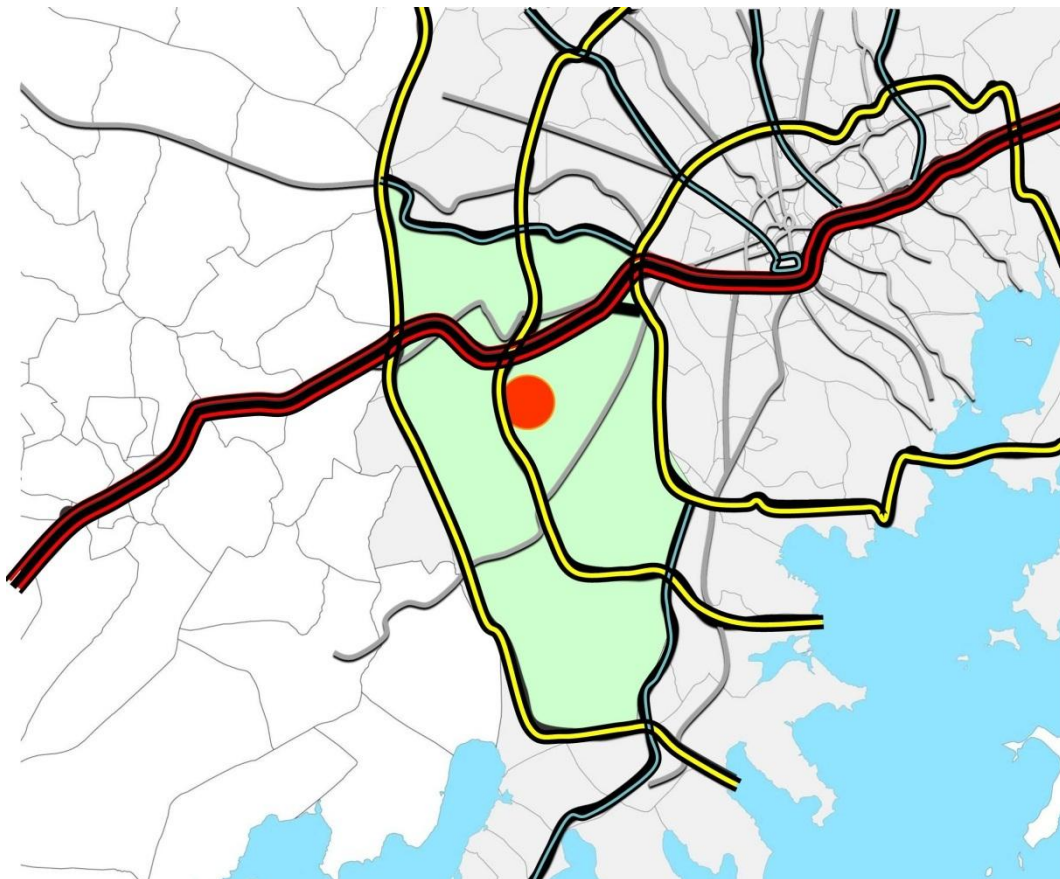


Map 124: City Centre Freeway Zone Site Development SDP

13.6 Ssisa and Nsangi New Town PDP

The Physical Development Framework indicated that new satellite towns must be constructed in the KSPA. In order to prepare the KSPA for the population flooding which will take place in the next few years, appropriate housing, services and employment centres must be constructed as soon as possible. The areas of Ssisa and Nsangi have been found to be the most appropriate for immediate development to form a new satellite town. The new town will form a new focal point outside the city and reduce the existing and future pressures which will fall on the city. A modern and well planned satellite city will be able to provide adequate living conditions for the millions of migrants which will otherwise be forced to seek housing, services and employment within the city or in its immediate proximity.

The consultant recommends the Ssisa and Nsangi area be declared a Special Planning Zone outside the KCCA and have a PDP developed for the entire area as part of the metropolitan system. The PDP will allow the development of a new satellite town near the KCCA (see map).

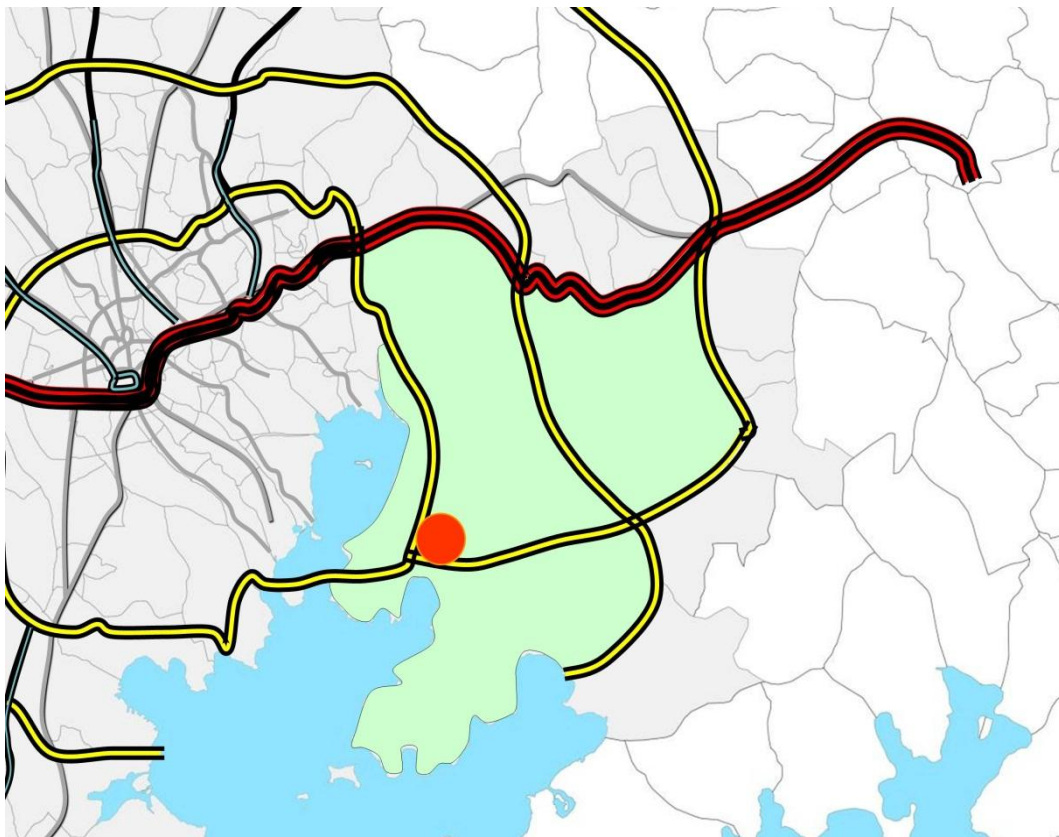


Map 125: Ssisa and Nsangi New Satellite Town PDP

13.7 Nakisunga and Ntenjeru New Town PDP

The Physical Development Framework indicated that new satellite towns must be constructed in the KSPA. In order to prepare the KSPA for the population flooding which will take place in the next few years, appropriate housing, services and employment centres must be constructed as soon as possible. The areas of Nakisunga and Ntenjeru have been found to be appropriate for development to form a new satellite town. The new town will form a new focal point outside the city and reduce the existing and future pressures which will fall on the city. A modern and well planned satellite city will be able to provide adequate living conditions for the millions of migrants which will otherwise be forced to seek housing, services and employment within the city or in its immediate proximity.

The consultant recommends the Nakisunga and Ntenjeru area be declared a Special Planning Zone outside the KCCA and have a PDP developed for the entire area as part of the metropolitan system. The PDP will allow the development of a new satellite town near the KCCA (see map).

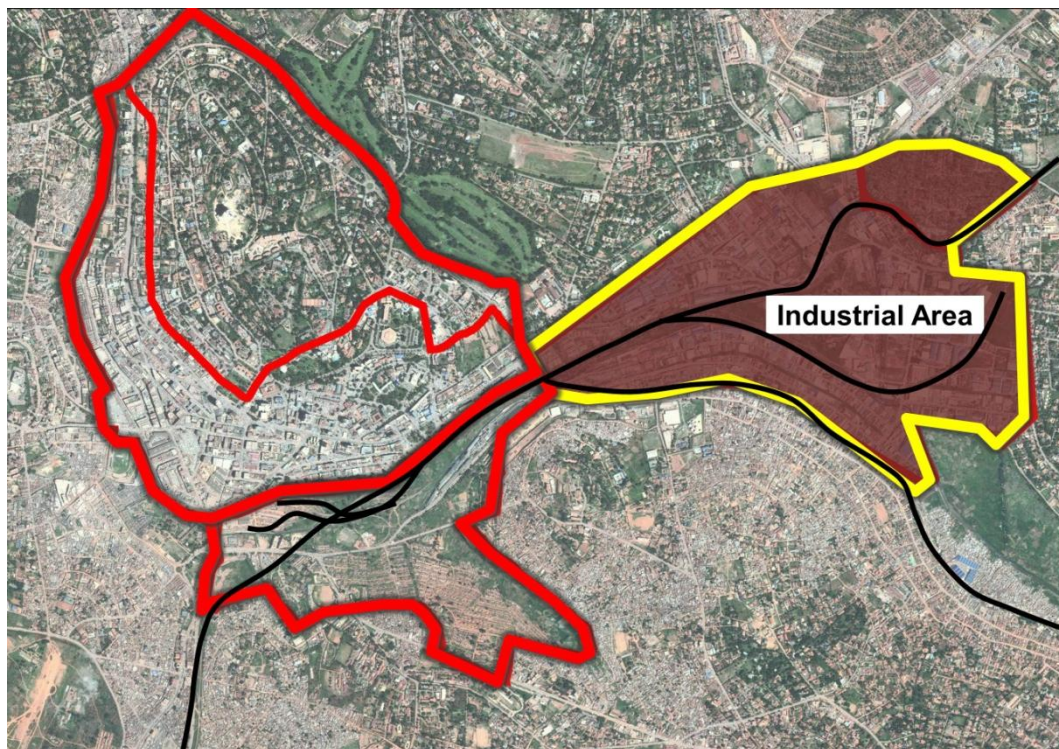


Map 126: Nakisunga and Ntenjeru New Satellite Town PDP

13.8 New Employment Center (Industrial Area Precinct) PPDP

In proximity to the existing and new CBD there is a large area which nowadays contains an industrial zone. The area is located in a very attractive and accessible area which has greater potential than serving as a low-tech industrial site. Under the assumption that the existing National water and sewerage treatment centre which is located within the industrial zone will be relocated in the near future, the entire site can be redeveloped. With the development of the wetland near the edge of the industrial zone as an urban park, the entire area can be upgraded. If redeveloped in a higher density and with appropriate infrastructure the area can serve as a new employment centre for thousands and become an important part of the city centre. The new employment centre should be developed in coordination with the development of the new CBD as the two sites are both physically and functionally linked.

The consultant recommends the New Employment Center receive a PPDP as part of the City Center Quarter for redevelopment of the area as a modern employment center (see map).



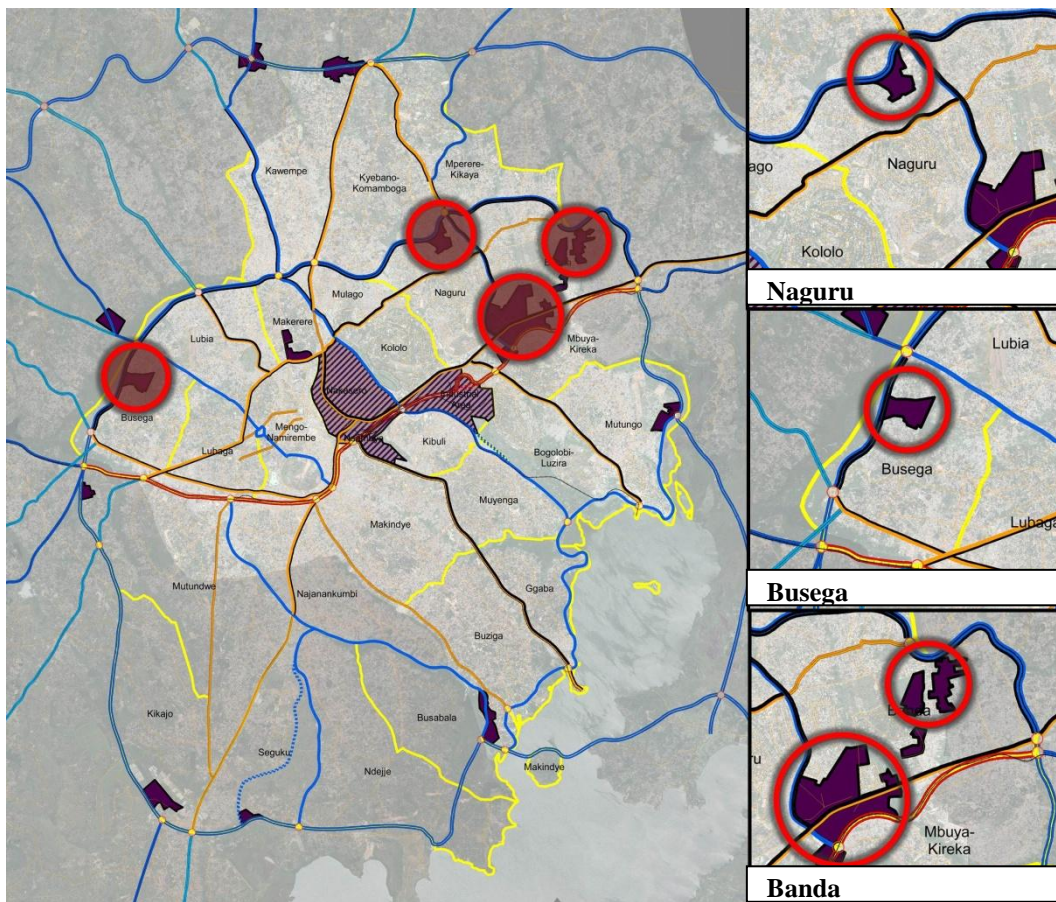
Map 127: New Employment Centre Project

13.9 New Employment Center Pilot Project SDP

New Employment centers outside the City Center will reduce the need to reach the City Center for employment, thus reducing congestion in the city and creating a hierarchy of employment centers. New Employment Centers should be located within the KCCA, mostly along the Inner and Mid Ring, with some exceptions closer to the City Center and existing universities. Each center, either new or redevelopment, should receive its own SDP.

The consultant recommends four New Employment Center Pilot Projects be developed in two stages:

- 1st stage: 1. Naguru Precinct - along Inner Ring
- 2nd stage: 2. Busega Precinct - along Inner Ring
- 3. Banda Precinct - along Inner Ring
- 4. Banda Precinct - near Kyambogo University



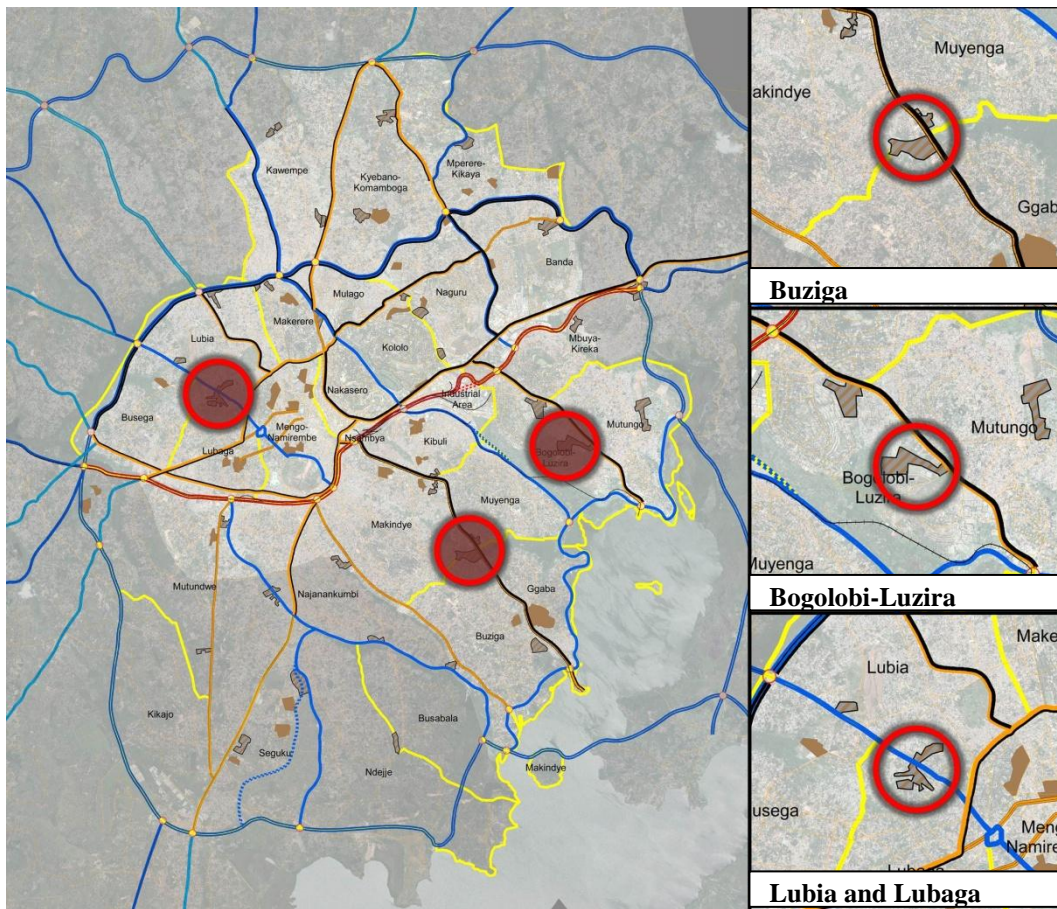
Map 128: New Employment Center Pilot Projects SDPs

13.10 New Commerce and Service Center Pilot Project SDP

A main component of the KSPA and KCCA structure is the creation of a hierarchy of focal service centres. The local service centres will be distributed in a manner ensuring that every point in the KCCA will have access to a service centre located within a 2km walking radius. The service centre system will be derived from the Integrated Model of the KCCA. The centres will constitute an alternative to the existing sprawl of commerce and services along main roads through focal crystallization. The focal centres will offer the inhabitant of the precincts and quarters public services, commerce, and emergency services in an organized and accessible manner. Each center should receive its own SDP.

The consultant recommends three New Commerce and Service Center Pilot Projects be developed in two stages:

- 1st stage: 1. Buziga Precinct
- 2nd stage: 2. Bogolobi-Luzira Precinct
- 3. Lubia and Lubaga Precincts



Map 129: New Commerce and Service Center Pilot Project SDPs

13.11 Precinct/Neighborhood Pilot PPDP

The KPDP dictates every Precinct/Neighborhood must have a PPDP as part of the KPDP planning hierarchy. The Precinct/Neighborhood Physical Development Plan (PPDP) is to be planned with reference to the context of its respective Quarter. The purpose of the Precinct/Neighborhood PPDPs is to allow orderly, coordinated, harmonious and progressive development of the area. The PPDPs will promote health, safety, order, amenity, convenience, general welfare of all its inhabitants, efficiency and economy in the process of development and improvement of communication. Every Precinct/Neighborhood shall have a Physical Development Plan. The PPDP will address all precinct planning layers.

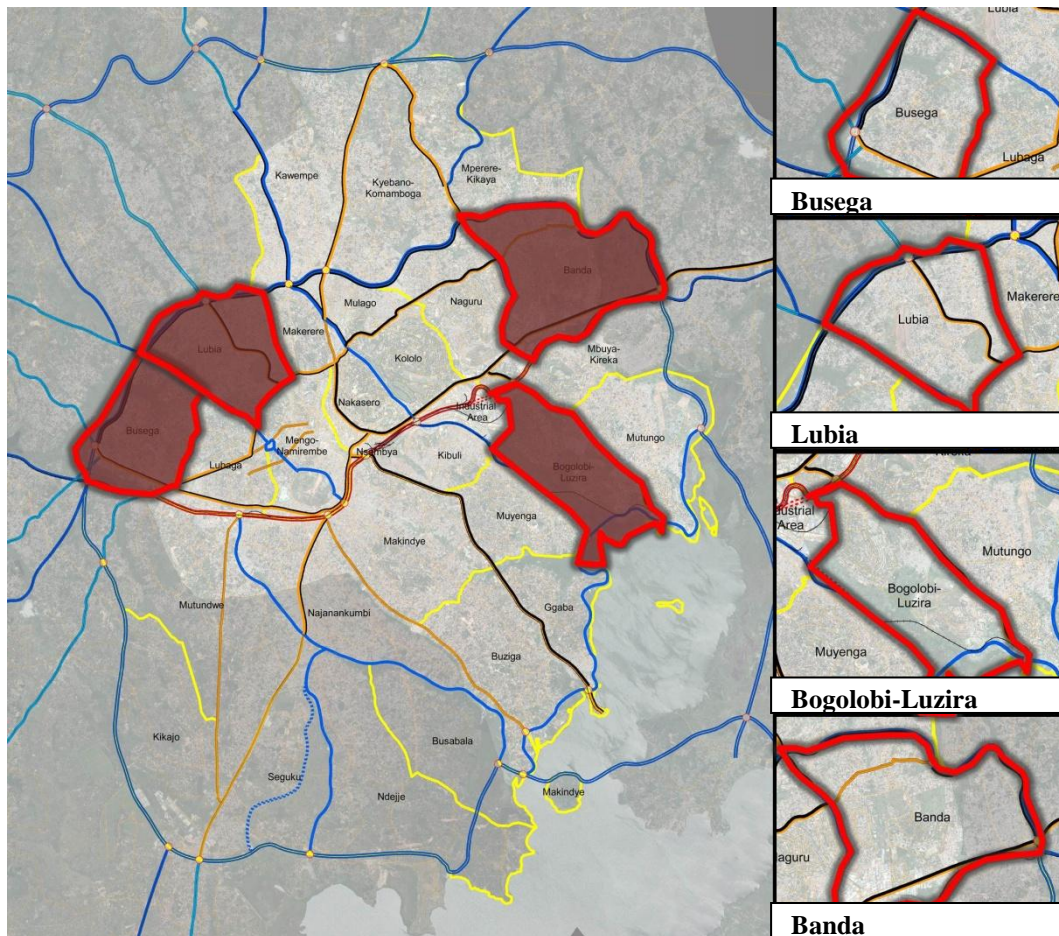
The consultant recommends four Precinct/Neighborhood Physical Development Pilot Plans be developed in two stages:

1st stage: 1. Lubia Precinct.

2nd stage: 2. Banda Precinct

3. Busega Precinct

4. Bogolobi-Luzira Precinct



Map 130: Precinct/Neighborhood Physical Development Pilot Plans PPDPs

14 Kampala Physical Development Plan (KPDP)

The objectives of the Kampala Physical Development Plan (KPDP) are to guide orderly physical and sustainable development of the city in the short and long term. The KPDP is to update and replace the 1994 Structure Plan and to provide short and long term developmental goals for the KCCA.

The KPDP is a result of the spatial planning strategies, analysis and planning principles described throughout this report. The Kampala Physical Development Framework for the GKMA (KPDF) is an advisory document for the Kampala Physical Development Plan (KPDP).

The KPDP consists of planning provisions and maps, presented in **Appendix A**. The 11 maps address the following structural planning layers:

- a. **Integrated Land Use Plan** (for the entire CZ and for the KCCA only)
- b. 10 maps of the following planning layers :
 1. **Quarters and Precincts Boundaries;**
 2. **Transportation System;**
 3. **Natural Resources and Open Spaces System;**
 4. **Spatial Economic System;**
 5. **Commerce, Services and Institutions System;**
 6. **Infrastructure - Drainage, Sewage and Water Supply Systems** (3 maps);
 7. **Residential Area Classification;**
 8. **Major Development and Redevelopment areas.**

14.1 Integrated Land Use Plan

The Integrated Land Use Plan Map integrates the Transportation System, Natural Resources and Open Spaces System, Spatial Economic System, Commerce, Services and Institutions System and Residential Area Classification planning layers. The map allows examination of the various planning layers as part of the complete and comprehensive urban system for the KCCA.

14.2 Quarters and Precincts Boundaries

The Quarters and Precincts Map presents the division of the KCCA area into Quarters and Boundaries. There is a total of 8 Quarters divided into 29 Precincts. The Quarters and Precincts act as planning units and for the basis for future planning in the KCCA area.

14.3 Transportation System

The Transportation System Map presents the KCCA transportation system which is composed of local and metropolitan roads, existing railways and BRT routes. The map differentiates between the Urban Freeway, Urban Highways, the metropolitan Ring Roads and Metropolitan Radial Roads, Main Urban Roads and existing metropolitan and local roads. BRT routes are passes along Urban Highways and Main Urban Roads.

14.4 Natural Resources and Open Spaces System

The Natural Resources and Open Spaces System Map presents the KCCA Urban Parks and Boulevards system as well as Cultural and Historical Reserves, Water bodies, Natural Forest Reserves, Natural Wetland Reserves, Sport Centres, Tourism and Recreation centers, Marinas and the Lake Victoria Lakefront. The map indicates the location of the KCCA hills and their incorporation into the Tourism and Recreation and Open Spaces systems.

14.5 Spatial Economic System

The Spatial Economic System Map presents Employment, Business and Service Centers in the KCCA area. The distribution of Employment, Business and Service Centers aims at providing the citizens of the KCCA alternatives to the CBD, thus reducing the pressure on the City Center. The map shows the City Center, new Business, Community Service and Commerce Secondary Centers, Major Employment Centers, Business Parks, Lakefront, Tourism and Recreation Centers and Marinas, along with Existing Markets (gazetted), Existing Commercial Area and Existing Industrial Areas.

14.6 Commerce, Services and Institutions System

The Commerce, Services and Institutions System Map presents the KCCA area service centers system based on the concept of Focal Crystallization. The map shows the new Business, Community Service and Commerce Secondary Centers, Existing Community Facilities, Cultural and Historical Reserves, Major Government Facilities, Major Universities (existing and new) and Major Hospitals (existing and new). The map indicates the location of Police and Emergency services and Marinas.

14.7 Infrastructure - Drainage, Sewage and Water Supply Systems

The three Infrastructure Maps present the Drainage, Sewage Treatment and Water Distribution Systems. The Drainage System Map presents the KCCA drainage system and rivers. The Sewage Treatment Map indicates the location of Sewage Treatment Works and Faecal Sludge Treatment Facilities and Sewerage System proposed expansions. The Water Distribution Map indicates the location

of Water Reservoirs, Transmission and Distribution Networks, LU (Lafayette Utilities) and the KCCA Water Supply Area Boundary.

14.8 Residential Area Classification

The Residential Area Classification Map presents the division of the KCCA area into Residential Zones according to their location and proximity to the City Centre. The KCCA area was divided into three Residential Zones: Central Residential Zone, Inner City Residential Zone, and Peripheral Residential Zone. Non-Residential areas which are not to include residential development are also presented in the map.

14.9 Major Development and Redevelopment

The Major Development and Redevelopment Map presents a summary of the Major Sites and Action Areas for development in the KCCA area. The areas indicated in the map are areas of high potential for development and redevelopment extracted from the various planning layers and urban systems presented in the other maps. The Major Sites and Action Areas include the Urban Freeway, Employment Centers, Natural Resources and Open Spaces, New Residential Development, Business, Community Services and Institutions, and Slum Redevelopment and Upgrade sites.

14.10 Summary

The different planning layers which form the KPDP constitute a comprehensive and complete plan for the KCCA area and urban system. These maps are to be the basis for future planning and development in the KCCA and surrounding area.

The KPDP Maps may be found in Appendix A. Further information regarding planning hierarchy and definitions of landuses may be found in the KPDP Planning Provision.

15 Towards Implementation

The experience of past plans, specifically including that of the 1994 Kampala Structure Plan, as indicated in **Section 3.11** above, clearly indicates the need for appropriate, structured, coordinated and properly funded implementation organs to enable and ensure implementation of the plan. The Consultant's recommendations are detailed below.

15.1 Statutory Bodies

The Consultant recommends the establishment of three formal, statutory implementation bodies:

1. **NPB Plan Implementation Committee (NPIC)** - given the unique significance of Kampala to Uganda, a national body, in the framework of the National Planning Board, coordinating, overseeing and directing implementation of both the KPDP and the KPDPF with relevant national institutions. This with a primary emphasis on policy and resource allocation;
2. **KCCA Plan Implementation Committee (KPIC)** - a KCCA body coordinating, overseeing and directing implementation of the KPDP on the local level with a primary emphasis on the operational side and on coordination in the field.

The establishment of these implementation committees are incorporated in the proposed statutory provisions of the KPDP (see **Appendix A Section 5.2**)

3. **Kampala Development Fund (KDF)** - a dedicated fund with dedicated revenue source to fund development of infrastructure and public facilities in the City.
4. **Kampala Lands Bank (KLB)** - a joint KCCA and the ULC mandated to hold, acquire, exchange and/or subject to clear restrictions sell, plan, manage, enhance, upgrade, develop (directly or in JV) and allocate for public benefit all public (GOU and KCCA) real estate properties in the jurisdiction of the KCCA.

15.1.1 NPB Plan Implementation Committee (NPIC)

The proposed NPB Plan Implementation Committee will be charged with directing and overseeing the implementation of both the KPDP and the KPDPF in coordination with the primary stakeholder (national tier). The NPIC will focus on coordination on the national and metropolitan scales and on statutory functions of the NPB.

The NPIC should be constituted of:

- The Secretary of the NPB - chair;
- A member of the NPB;
- The Executive Director of the KCCA or permanent representative;
- Representatives of the KCCA;
- Representative of GKMA representative Municipalities and Towns
- Representative of National Ministries and Authorities (MoLG; MoW&T; MoW&E; MoFPED; NPA; NEMA; UNRA; Uganda Police (Metropolitan Police); Uganda Lands Commission; Buganda Lands Board.
- A public representative (registered professional planner).

The NPIC should be mandated, *inter alia*, to:

- Oversee, assess and report on all relevant aspects of public bodies and projects regarding the implementation of all aspects relevant to the implementation of both the KPDP and the KPDPF.
- Initiate and require interventions, actions and projects, and changes thereto, from all relevant public bodies required to advance the implementation of both the KPDP and the KPDPF.
- Report periodically and no less than once annually, to the Hon. Minister of Lands, Housing and Urban Development regarding the implementation of from all relevant public bodies regarding the implementation of all aspects relevant to the implementation of both the KPDP and the KPDPF.
- Deal, in standing of the NPB, with all proposals for changes to the KPDP and/or KPDPF and/or variations from the KPDP subject to the provisions detailed in the KPDP statutory documents.
- Approve, in full or in part or with changes, proposed changes to the KPDP subject to the provisions detailed in the KPDP statutory documents.
- Approve or bring to the NPB for discussion and approval changes to and/or variations from the KPDP and KPDPF subject to the provisions detailed in the KPDP statutory documents.

15.1.2 KCCA Plan Implementation Committee (KPIC)

The KCCA Plan Implementation Committee, to be established by the KCCA by statutory instrument, will be charged with directing and overseeing the implementation and enforcement of the KPDP within the jurisdiction of the KCCA. The KPIC will focus on coordination on the city and local scales and on the operational and enforcement fields.

The KPIC will be constituted of:

- The Executive Director of the KCCA - chair;
- Representatives of the Lord Mayor and KCCA Council (majority and opposition);
- A representative Divisional Mayor;
- KCCA Directors of Physical Planning, Engineering, Finance; Education and Health;
- KDIIP Project Manager;
- Representatives of MoE; MoH; NWSC; NEMA; UNRA; Uganda Police (Metropolitan Police);
- KCCA Senior Legal Officer responsible for Planning Law and Enforcement;
- Director of the Kampala Lands Board;
- KCCA Senior Planners responsible for Planning, Construction Licensing (Building Permission) and Planning Enforcement.

The KPIC should be mandated, *inter alia*, to:

- Require, receive and assess reports from all relevant KCCA units and public bodies involved in, impacting on and/or impacted by implementation of the KPDP and the KPDPF;
- Initiate and require interventions, actions and projects, and changes thereto, from all KCCA units and all relevant public bodies required to advance the implementation of both the KPDP;
- Report periodically and no less once quarterly to the NPIC regarding implementation and enforcement of the KPDP.

The KPIC will not be mandated to assess, approve or recommend for NPB approval Spatial Development Plans nor to grant Development Permission (construction licences).

15.1.3 Kampala Development Fund (KDF)

Effective development requires, *a priori*, adequate and reliable sources of finance for the construction and development of infrastructure and public facilities. And in all developing cities the potential for funding exists, lying in the betterment and environmental enhancement (added value) accruing to property as a result of such public investment. Indeed the scale of betterment distinctly outpaces the costs of the necessary investments creating the potential for a win-win arrangement benefitting both the relevant public body investing to provide utilities, amenity and services and the beneficiary property owner³³. The challenge, and the opportunity, therefore lies in establishing the appropriate mechanism to “tap” an

³³ The term “owner” is used loosely here and refers to all types of tenure rights in any given property.

appropriate proportion of the expect or resultant enhancement of value to finance the requisite investment.

Given the particular circumstances of Kampala and particularly the dearth of dedicated funding for development, apart from donor financing, the Consultant recommends the establishment, by statutory instrument, of a development fund, the KDF, to ensure adequate and appropriate financing for infrastructural and public facility construction and development in the City.

The KDF should be mandated, *inter alia*, subject to appropriate regulation, oversight and approved operating procedures, to:

- Collect on behalf of and/or receive from the GOU and/or the KCCA all income generated within Kampala from specific taxes and/or levies dedicated to the financing of infrastructural and public facility development (e.g. betterment taxes, real estate stamp duties, etc.);
- Receive all KLB “excess income” (gross income less direct costs and funds allocated for reinvestment in property);
- Establish, administer and run, on an exclusive monopoly basis, casinos, public lotteries, sports betting and games of chance in Kampala;
- Hold and invest such monies on behalf of the GOU and/or the KCCA;
- Access the financial markets utilising its projected income stream and/or KLB retained properties as collateral, exclusively for the financing of infrastructural and public facility development;
- In full coordination with the MoFEDP and the KCCA, define and periodically update the definition of relevant infrastructural and public facility development for funding (e.g. the distinction between maintenance costs which will not be funded and facility rehabilitation and refurbishment which might be funded);
- In full coordination with the MoFEDP and the KCCA, define and periodically update criteria for allocation of funds for the acquisition of lands and/or properties and/or the construction and development of infrastructural and public facilities;
- In full coordination with the MoFEDP and the KCCA, define and periodically update criteria for the identification of appropriate public bodies (including NGOs) to whom funds for the construction and development of infrastructure and/or public facilities may be allocated; the requisite prior conditions; and the mechanisms for control, monitoring and evaluation;
- Allocate, budget and administer the distribution of funds consistent with the defined criteria, in consultation with MoFEDP and the KCCA, to the KCCA and/or relevant public bodies;
- Control, monitor and evaluate the application of funds dispersed and projects financed.

The KDF will not be allowed to finance, directly or indirectly, current operating expenses or the costs of service provision, beyond the provision of built and/or equipped facilities, or current maintenance costs. The only exception may be the subsidization of PT where such subsidies may enable the densification of development and hence reduce costs of infrastructural provision.

The KDF will not finance infrastructural development in fields for which dedicated funds (e.g. URF for roads) or sources of finance exist or ought to exist (e.g. utilities such as water, sewage, electricity, communications).

Once established and successfully operational the KDF may be mandated to extend its scope of operation to other Local Authorities in the GKMA.

15.1.4 Kampala Lands Bank (KLB)

The GOU remains one of the primary land owners in Kampala, retaining significant land holdings, on both scale and by location, in the City, particularly in and around the City Centre. Title over state lands in public use throughout the country is held and managed on behalf of the state by the Uganda Lands Commission (ULC). Moreover, public lands managed and leased by the District Land Boards, including the Kampala Lands Board, are owned by the state and title is held on its behalf by the ULC.

Whilst government lands in Kampala are nominally managed by the ULC, once allocated to a specific ministry or other public body, effective management and control over the specific property is effectively retained by that body. As a result, as detailed in the KPDP SR, the use of state lands in Kampala is inefficient both economically and functionally and in many cases detrimental to the functioning and development of the City.

A large and unknown proportion of the KCC's once substantial land holdings have been sold off or otherwise moved to the effective control of third parties. The newly established KCCA has managed to retrieve control of select properties. Other properties may yet be retrieved. Nonetheless, as detailed in the KPDP SR, the KCCA still retains significant land holdings, many of which are also inefficiently utilised.

Given this, the Consultant recommends the establishment, by statutory instrument, of the KLB to hold, acquire, exchange and/or subject to clear restrictions sell, plan, manage, enhance, upgrade, develop (directly or in JV) and allocate for public benefit all public (GOU and KCCA) land and real estate in the jurisdiction of the KCCA.

The KLB should be mandated, *inter alia*, subject to appropriate regulation, oversight and approved operating procedures, to:

- Register all existing and all new GOU and KCCA properties, specifically including existing roads, public spaces, public facilities, wetlands, waterfront, etc. as well as all newly acquired land be it by purchase, exchange, appropriation or any other legal manner;
- Hold and manage all GOU and KCCA properties in the jurisdiction of the KCCA except those managed and leased by the Kampala Lands Board;
- Retrieve and re-establish control of all GOU and KCCA properties unlawfully held by third parties;
- Retrieve selected lands and properties as required for public use, currently managed by the Kampala Lands Board that are unleased and/or in such cases as the lease is not or should not be renewed;
- In conjunction with the Ministry of Public Service and the KCCA, identify and assess the existing and projected land and property needs of all relevant public bodies in Kampala and plan appropriate land allocations, on scale, form and location and/or relocation, within KCCA boundaries or beyond;
- In conjunction with KCCA, identify and assess the existing and projected land and property needs of all relevant public service facilities, including open space, in Kampala and plan appropriate land allocations, on scale, form and location within KCCA boundaries;
- Acquire, register and allocate on behalf of the GOU and/or the KCCA land and property as requisite to meet identified public needs;
- Through the KESC, detailed in **Section 0** below, identify, assess, plan, develop and/or manage and rent, solely or in JV with private developers, select lands and properties on a “for profit” economic basis and in a regulated and transparent process
- Sell, rent, lease, exchange or otherwise dispose of GOU and KCCA lands and properties, on an economic basis and in a regulated and transparent process, subject to appropriate prior planning and development and subject to the proceeds of such sale or disposal being reinvested in appropriate lands and properties and/or utilised to finance land acquisition or reclamation, including the financing of relocations, and/or being transferred as “excess income” to the KDF for the financing of construction and development of infrastructure and public facilities;
- Enable the KDF to utilise its portfolio as collateral to acquire finance for development subject to appropriate pre-determined criteria and procedures as agreed with the KDF, the MoFEDP and the KCCA.

Once established and successfully operational the KLB may be mandated to extend its scope of operation to other Local Authorities in the GKMA.

15.2 KCCA Agencies

15.2.1 KCCA Planning Directorate

The KCCA Planning Directorate is the primary agent responsible for the implementation of the KPDP. The directorate is currently undergoing significant reorganisation. The majority of the senior professional staff have recently been replaced with new staff being recruited and a number of senior positions yet to be staffed. New staff have yet to integrate into the organisation and the system, constituting both a major challenge and a significant opportunity to develop and implement appropriate work procedures and introduce a healthy organisational culture. Moreover, the directorate's physical facilities are being renovated, further complicating operations.

Given the scale and scope of the changes, directorate management has adopted, as an interim strategy, a high level of centralisation with the intention of systematically devolving responsibilities and functions to the KCCA divisional planning units at a later point.

The directorate is responsible for, *inter alia*:

- **Physical Planning** - effectively the initiation management of all downstream planning required including PPDPs, KCCA initiated SDPs, most SPDPs and all QPDPs. The directorate is not staffed, equipped or trained to prepare such plans and all plan preparation activities must, perforce, be outsourced with the directorate managing, enabling, coordinating and directing plan preparation.
- **Construction and Development Licensing** - assessing, managing and approving or rejecting or requiring modification to all Development Permission proposals. Implementation of the KPDP and effective enforcement in the field will perforce significantly increase the the number of proposals to be processed. Moreover, to ensure adequate standards the KPDP will add somewhat to the complexity of the process.

As the workload increases internal capacity has to increase, both by ensuring adequate professional resources and by automating and improving work procedures. In all circumstances, this is a central regulatory function. As such, whilst certain technical aspects might possibly be outsourced, the planning directorate, in both headquarters and in the KCCA divisions needs to be adequately staffed and equipped to enable efficient in-house operations.

In addition, the efficiency of the licensing process has and will continue to impact directly on both enforcement (the less efficient the higher the inducement to avoid licensing procedures) and the attractiveness of the city for investors (the lower the efficiency the more attractive competitive locations become). As such it is essential to provide fast and efficient service to

residents, professional representatives and particularly investors. To this end the Consultant recommends priority be given to:

- * Automation and integration in the GIS system;
- * Defining and implementing “green light” licensing processes;
- * Integration of key stakeholder representatives (NEMA, NWSC, Uganda Police - Emergency Services, etc.) in the process including permanent location of seconded staff from these institutions located and providing the public services within the KCCA Construction and Development Licensing Unit.

The Consultant further recommends the preparation of a range and selection of standardised construction plans for most standard construction (houses, walk-up apartments, hostels, low-cost housing solutions, etc.) and the provision of initial free consultations to allow individuals and small scale developers to adopt and adapt standard plans and blueprints, paving the way for rapid “green light” approval of Development Permission,

- **Construction and Development Enforcement** - effective enforcement has over the years been the exception rather than the rule in the KCC. Currently, in the framework of the KCCA, there has been an evident ongoing attempt to introduce systematic enforcement. The growing pains are also evident and the directorate still lacks adequate resources to ensure enforcement. The Consultant therefore recommends the adoption of a multi-layered approach to enforcement:

- * Starting with outreach with local (LC1) representatives themselves learning and thereafter explaining to individual property owners expectations, rights and obligations;
- * Local surveillance, by both LC1 and KCCA inspectors and identification of initial earthworks or construction materials allowing for real-time verification of Development Permission and in its absence firstly explaining the requisite process and thereafter active enforcement;
- * Systematic professional surveillance of major development projects to allow for early identification and immediate correction of divergence from approved building plans;
- * Bi-annual geo-referenced mapping and identification of new or expanded structures cross-referenced against geo-referenced construction licensing data.

This will require both the mobilisation and training of LC1 KCCA representatives and the significant expansion and upgrading of the Enforcement Unit.

- **GIS System Management** - the KPDP project has upgraded the KCCA GIS unit as detailed in **Appendix F** including provision of hardware and software, updating and adding databases and training directorate staff (most of whom

have left KCCA service recently). This however only provides the platform for a usable, reliable GIS system. The immediate down-stream requirements constitute significant challenges, including:

- * Continuous management, management and updating of the system;
- * Enabling, supporting and integrating down-stream Physical Planning;
- * Enabling and supporting Construction Licensing;
- * Enabling and supporting Construction and Development Enforcement;
- * Enabling and supporting Strategic Planning;
- * Integration of LIS layers and data once available;
- * Enabling, support for and integration of revenue systems once acquired and prepared;

The GIS unit is not adequately staffed and its former systems manager has recently been appointed Director of Planning and is hence unavailable to manage the system. The Consultant therefore recommends the Client consider outsourcing the management and maintenance of the system, in part or in full for the coming years.

- Enabling Public Participation in Planning
- Supporting Strategic Planning
- Enabling Sectoral Service Operations.

To enable the directorate to meet the challenges ahead and to effectively implement the KPDP its capacities will have to be significantly enhanced including:

- Expanded staffing of both professional and support staff, in-house and/or outsourced:
- Inclusion of new specialised planning capacities including Urban Design, Landscape Planning and Design; Urban Economics; Social Planning and Public Participation, Transportation Planning (unless provided by a KCCA TU and certainly once such functions are coordinated by MATA), etc.;
- Additional hardware and software and a significantly extended communications network, as well as reliable wide-band internet service allowing for future on-line management and service provision;
- Training of new staff and continuous ongoing training; and more.

Hence, the Consultant recommends the urgent preparation and implementation of a Capacity Building Programme building on and extending the base laid by the KPDP project and plan preparation project.

15.2.2 Kampala Economic Services Corporation (KESC)

To create and/or enhance revenue for the KCCA whilst ensuring the efficient management of its economic resources and facilitating economic development in the City, the Consultant recommends the establishment of the KESC, as a fully owned municipal corporation or in JV with the GOU.

The primary benefits from a corporate structure lies in its business orientation and its operational flexibility even whilst still meeting highest public standards with regard to procurement and disposal of goods, services and assets.

The KESC should be mandated, *inter alia*, subject to appropriate regulation, oversight and approved operating procedures, to for example:

- Plan, develop, maintain, manage on selected KLB land holdings and real estate, in its own right, through sub-contractors and/or in JV with the purpose of maximising the return from such properties and investments;
- Plan, establish and run PT services and/or tender out such services on behalf of the KCCA;
- Plan, establish and run exclusive gambling services (casinos, lotteries, sports betting, etc.) and/or tender out such services on behalf of the KCCA;
- Plan, establish, market and run tourism and recreational services (hotels, waterfronts, tour companies, etc.) and/or tender out such services on behalf of the KCCA;
- Plan, establish, market and manage new industrial and business parks;
- Plan, establish, market and manage new commercial centres;
- Plan, establish and manage show grounds, stadia and conference centres on behalf of the KCCA;
- Plan, upgrade and manage public markets and PT stations and/or tender out such functions on behalf of the KCCA;
- Manage procurement services for the KCCA and other public bodies including neighbouring Local Authorities utilising their combined purchasing to attain preferable terms;
- Plan, develop, market and manage public signposts and advertising boards and/or tender out such services on behalf of the KCCA; and more.

KESC operations will be structured either within the company or through subsidiaries.

All profits will accrue to the KCCA and/or GOU in the case of joint ownership and be distributed accordingly.

It is noted that the legal basis for the establishment of the proposed KESC and the KMSC detailed below needs to be investigated and it may well require enabling legislation. Similarly the potential liabilities (taxes on profits) and advantages

(VAT) needs to be investigated and if required adjusted to ensure the optimal benefit to the public.

15.2.3 Kampala Municipal Services Corporation (KMSC)

To enhance service provision in the KCCA by ensuring the efficient management of the services on an economic basis, the Consultant recommends the establishment of the KMSC, as a fully owned municipal corporation.

The primary benefits from a corporate structure lies in its economic orientation and its operational flexibility even whilst still meeting highest public standards with regard to procurement and disposal of goods, services and assets. However, as distinct from the KESC its orientation is towards service provision and standards as opposed to profit motivation.

Indeed the company will not seek to achieve a profit nor will it distribute dividends, with any profits being reinvested in services. It will however seek to operate profitable services utilising the excess income to cross-subsidise non-profitable services or to subsidise needy populations subject to criteria and priorities determined by the KCCA.

The KMSC should be mandated, *inter alia*, subject to appropriate regulation, oversight and approved operating procedures, to provide such services as:

- Solid waste collection, treatment and disposal;
- Hazardous waste collection, treatment and disposal;
- Health services from HC II to HC V and specialised hospitals (not major hospitals);
- Educational services from pre-school to high schools including dormitory services;
- Sports and extra-mural activities and services;
- Festivals, carnivals, street theatre, open air concerts, etc.;
- Public cemeteries and burial services;
- Libraries and community services; and more.

KMSC operations will be structured either within the company or through subsidiaries.

15.2.4 KCCA Transport Unit

Consultant's recommendations require strong professional capacities for planning, regulating, managing and ensuring control. These are especially relevant to the introduction of the traffic management measures (i.e. on-street parking management and traffic control centre) as well as to the recommendations regarding public transport operation and organization.

Currently, there are no such capacities within KCCA nor in other public interventions plans will fail to obtain the objectives of congestion reduction and increase of available income.

There is an ongoing process to establish MATA (Metropolitan Area Transport Authority for GKMA). However, most stakeholders are of the opinion that it's establishment will require 3-4 years. However, the short term interventions recommended should be implemented before that, and actually ASAP.

Therefore, the Consultant recommends establishing immediately, in the KCCA, a strong Transport Unit (TU), that will be responsible for the following activities:

- **Transportation Planning:** this includes continuous updating of the TDM, conducting relevant surveys, planning the public transport services, preparing feasibility studies for various transport infrastructure and services, conducting TIA for major land use projects, etc.
- **Parking Management:** this unit should be responsible for updating parking regulations and parking arrangements, contracting, through the KESC, parking operators and collecting the income. We assume that the income that will be generated from the parking will be able to finance the other activities of the transport unit.
- **Traffic Management:** this includes designing and updating of traffic arrangements, design of traffic signals, operating the traffic control centre, marking and signing of the roads and streets
- **Public Transport Operation:** this includes network design, contracting operators possibly through the KESC, licensing services and control of operation

The Client may consider outsourcing these functions to enable immediate professional services until the establishment and operation of MATA.

15.2.5 Other KCCA Bodies and Actors

Most of the KCCA's operational directorates and all the Divisions and LC Is have a contribution to make to the implementation of the KPDP. Of particular note are:

- **Engineering Directorate** interfacing with and supporting the planning process on numerous levels (engineering, surveying, etc).and with specific responsibilities in the development and maintenance of infrastructure and service facilities;
- **Strategic Planning Unit** with responsibility to ensure coordination between spatial planning and development, resource capacities and operation planning (e.g. the development of public parks and sports facilities and the capacity to maintain them together with the funding for both aspects);

- **Control, Monitoring and Evaluation:** the Consultant recommends the establishment of an institutional CM&E unit to provide both systematic urban and real-time operational control and monitoring services to KCCA management and to undertake systematic evaluation of projects and systems as the KPDP Implementation;
- **IT** - to provide the technical support for GIS unity hardware, communications systems and to provide an internet platform for public access to the KPDP and all other approved plans and later to enable online service provision (e-government) for Planning Directorate functions amongst others;
- **Division Planning Units** as the local operational arm of the Planning Directorate;
- **LC I representatives** constituting the eyes, ears and mouths of the directorate and the professional functions in the field.

All these units and functionaries need to be enabled, sensitised, coordinated and trained to ensure maximal contribution to the implementation of the KPDP, each in his/her field and/or neighbourhood.

15.3 Local Government and Municipal Structures

Local government structures in Kampala, as in Uganda as a whole, are a product of traditional and colonial structures. The lower levels (LC I and II, villages, wards, parishes) frequently reflect old historic boundaries and interests (village land holdings, denominational parishes/areas, historic natural boundaries, etc.). The higher levels (LC III - V, districts, counties and sub-counties) generally reflect colonial administrative delimitations with more recent changes and interest, generally splits, in response to growth and local or political interests. Changes and adjustments are almost always post factum responses to developments that have already occurred. As such villages are classified as towns and towns as municipalities once size thresholds are attained and verified in census data. As a result municipal structures and boundaries inevitably lag behind developmental trends, frequently very significantly so.

This is clear in Kampala where development trends have outstripped administrative boundaries, frequently leaving many without effective service access. KCCA boundaries are generally unidentifiable to both the east and the west and only identifiable by clear natural barriers as wetlands. Kawempe Division for example is split north-south by the northern bypass. Both Nakawa Division and Kira TC stretch north to south whilst much of their development is oriented east to west, differentiated between their northern, central and southern sectors. Many parishes/wards host very diverse neighbourhoods whilst many homogenous neighbourhoods, including slums, spill over from one parish/ward to the next. Large contiguous relatively densely developed areas, primarily to the south-west of the KCCA are still served by rural compatible sub-county administrative structures whilst much of Wakiso TC remains distinctly peri-urban.

Kampala's spatial and urban systems have been analysed here and the KPDP zones and KPDP quarters and precincts have been defined to enable the planning and orderly development of existing or projected distinct urban functional units.

Clearly rational service provision is best provided and administered in such distinct functional units. It is evidently preferable that administrative boundaries correlate, more or less, to such functional and spatial definitions. However, the process of changing and adjusting such boundaries is complex, often conflicting with embedded interests and challenging the status quo. Hence it is essential to carefully weigh-up the pros and cons of such changes. As such the Consultant recommends:

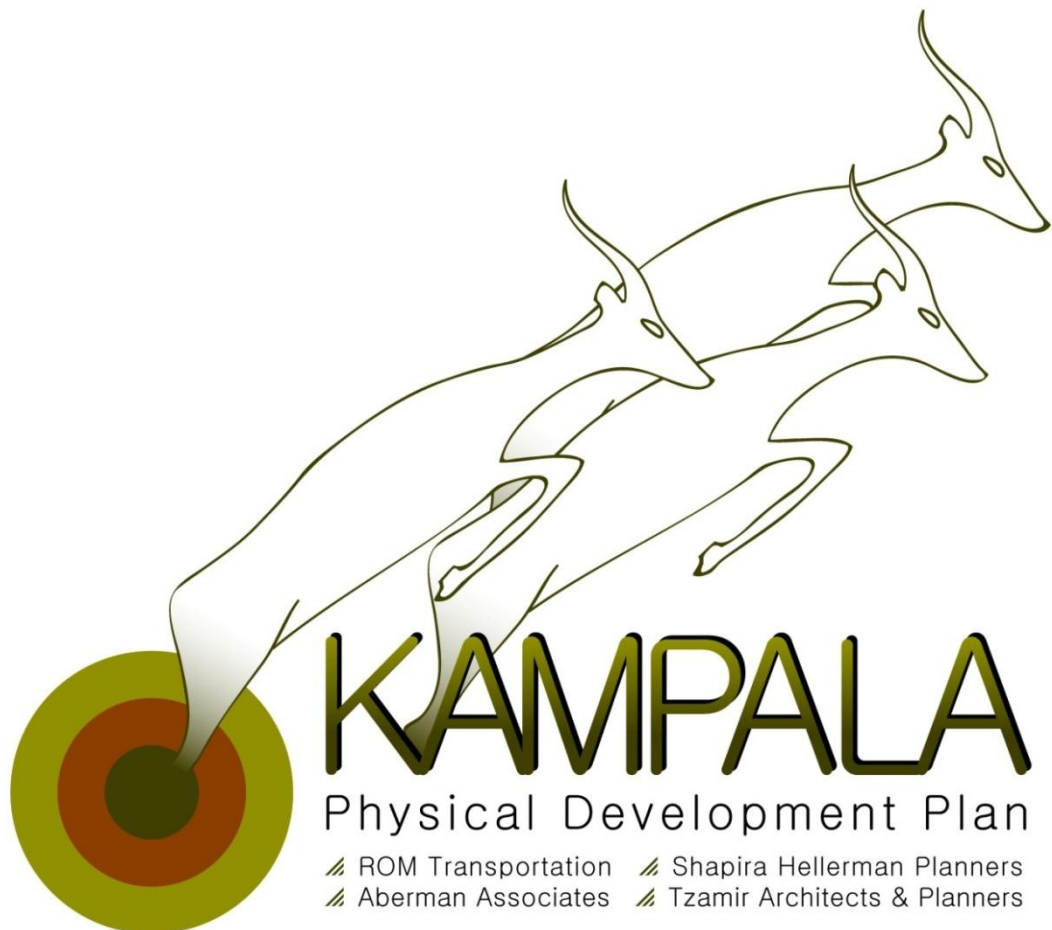
- The KCCA conduct an in-depth investigation and assessment of the potential impacts of restructuring and coordinating Division boundaries to KPDP Urban Quarters and Parishes/Wards to Urban Precinct boundaries and decide accordingly;
- Downstream planning of Metropolitan Zones, specifically including New Towns, include the assessment of and recommendations regarding the municipal structuring of the planned area for consideration by the MoLG.

Appendix A: Kampala Spatial Physical Development Plan (KPDP)

Kampala Capital City Authority

Kampala Physical Development Plan - Planning Provisions, Schemes and Maps

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Tzmir Architects and Planners Ltd.
Shapira & Hellerman Planners
ROM Transportation Engineering Ltd.
Aberman Associates
Ofek Aerial Photography Ltd.

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1 General Information

1.1 Plan Objectives

The objectives of the Kampala Physical Development Plan (KPDP) are to guide the orderly, sustainable physical development of the city in the short and long term. The KPDP is to update and replace the 1994 Structure Plan and to provide short and long term spatial development direction for the KCCA.

1.2 Plan Initiation

The Kampala Physical Development Plan was initiated by the GOU and KCCA. Plan preparation was directed by the KCCA Director of Physical Planning, Mr. Joseph Ssemambo and Steering Committee chaired by the MoLHUD Director of Planning and Urban Development, Mr. Savino Katsigaire.

Members of the Steering Committee include:

- Ssegawa Patrick (Uganda Communication Comm.)
- Ashaba Hannigton (MoFPED)
- Kityo Peter (Electricity Reg. Authority)
- Muhangi Warren (UIA - Land Surveyor)
- Masiga Edward (Ministry of Water & Environment)
- Muramira Eugene (NEMA)
- Gumonye Issa (Ministry of Local Government)
- Kiggundu Tamale (KCCA- Project coordinator KIIDP)
- Katebalirwe Peter (KCCA - Senior physical planner)
- Myamanywa Charles (KCCA - Principal physical planner)

1.3 Plan Preparation

The Kampala Physical Development Plan was prepared by:

- Tzamir Architects and Planners Ltd.
- Shapira-Hellerman Planners
- ROM Transportation Engineering Ltd.
- Larry Aberman & Associates

1.4 Planning Approval and Status

The National Planning Board's recommendation to declare the Kampala Metropolitan Area a Special Planning Area under Section 24 of the Physical Planning Act 2010 has been approved by the Hon. Minister of Lands, Housing and Urban Development and formally gazetted.

In accordance with the provisions of Section 20 of the Physical Planning Act 2010 this plan is subject to the approval of Hon. Minister of Lands, Housing and Urban Development on the recommendation of the National Planning Board.

This plan is submitted to the National Planning Board for deposition, assessment and recommendation to the Hon. Minister by the KCCA on the recommendation of the Steering Committee, following extensive stakeholder and public (civil society) participation and consultation.

This plan supersedes the Kampala District Structure Plan of 1994

The KPDP does not cancel or void previous Local Development Plans or Development Permission/Construction Licenses legally approved under either the Physical Planning Act 2010 or the Town and Country Planning Act 1951.

The KPDP defines, enables and/or constrains the legal approval of development and construction activities within the jurisdiction of the KCCA.

This plan does not convey or infer planning or development permission approval for any existing development, structure or groundwork not previously legally approved.

The KPDP does not define, approve, convey, infer, change, cancel or limit any legal land, property or tenure rights, nor does it define, approve, convey, infer, change, cancel or limit any legal sub-division or property registration.

All physical development plans and development permission and all construction and groundwork for development purposes in the jurisdiction of the KCCA are hereafter subject to the directions and provisions of the KPDP in addition to all other legal constraints and requirements.

1.5 The Kampala Physical Plan Elements

The KPDP is composed of the following elements:

1. Kampala Physical Development Plan Planning Provisions (this document)
2. Integrated Physical Planning Scheme detailed at 1:20,000
3. Ten (10) layer maps detailed at 1:20,000
4. Kampala Physical Development Plan Final Report (KPDP FR) (Draft Final Report for deposition).

These elements are hierarchical and in the event of any contradiction between them the higher ranked element will prevail.

1.6 KPDP Preparation and Approval Dates

	<u>Date</u>
Final Draft Submission	22/10/2012
KCCA Recommendation	
Deposition by National Planning Board	
National Planning Board Recommendation	
Approval by the Hon. Minister for Lands, Housing and Urban Development	

2 Planning Provisions

2.1 Division to Quarters and Precincts

The KPDP defines the division of the planning area into Quarters and Precincts/Neighbourhoods according to planning considerations. Each Quarter and Precinct/Neighbourhood constitutes a spatial planning unit. See **Map 133**.

Table 71: Projected Population by Precinct

Quarter	Precinct	Area (Ha.)	2011	2022 Target	Long Term Target
1	1. Busega	831	82,245	135,146	135,146
	2. Lubaga	679	66,345	125,809	125,844
	3. Mengo-Namirembe	758	86,626	114,943	121,034
	4. Lubia	863	133,261	220,687	220,687
	5. Makerere	346	43,136	66,188	71,264
2	6. Mulago	342	74,162	93,852	96,691
	7. Kololo	494	13,738	16,748	45,382
	8. Naguru	902	86,892	148,160	160,174
	9. Banda	1,283	108,768	151,235	159,678
3	10. Mbuya-Kireka	707	82,292	123,786	130,015
	11. Mutungo	1,041	86,079	143,914	143,914
	12. Bogolobi-Luzira	909	43,666	81,622	106,385
4	13. Kibuli	343	68,481	97,256	97,317
	14. Muyenga	641	61,913	106,607	106,607
	15. Ggaba	595	30,309	60,193	60,193
	16. Makindye	1,155	187,332	306,785	316,208
	17. Buziga	1,061	50,949	85,810	139,758
	18. Najanankumbi	1,509	161,825	220,766	251,335
5	19. Nakasero	378	14,395	16,826	33,778
	20. Nsambya	139	5,050	22,946	23,520
	21. Industrial Area	255	3,672	5,533	8,842
6	22. Busabala	978	10,879	20,174	65,348
	23. Ndejje	1,746	28,035	86,637	119,579
7	24. Mutundwe	2,221	118,120	233,161	236,552
	25. Seguku	1,100	26,272	71,954	79,765
	26. Kikajo	1,286	12,485	35,295	86,960
8	27. Kawempe	1,882	241,662	332,937	375,317
	28. Kyebano-Komamboga	856	106,195	196,972	196,972
	29. Mperere-Kikaya	941	36,273	75,683	75,683
Total		26,242	2,071,057	3,397,626	3,789,949

2.2 Density Targets and Intervention Approaches

The KPDP defines Density Targets and Intervention Approaches as detailed in **Table 72**:

Table 72: Density Targets and Intervention Approach by Location

Location/ Landuse	Estimated Gross Density 2011	Gross Built Area Capacity	Indicative Nett Development Rights	Intervention Approach
CBD				
Commerce Small Scale & Informal	49%	60%	80%	Upgrade (markets)
Formal Commercial And Offices	95%	150%	200%	Upgrade and Densification
Government	116%	150%	200%	Upgrade and Densification
Transport	30%	50%	200%	Upgrade and Public Services
City Centre Frame				
Commerce Small Scale & Informal	49%	90%	120%	Upgrade Markets 60% / Redevelop other 120%
Formal Commercial And Offices	99%	120%	160%	Upgrade and Densification
Industrial	58%	120%	160%	Upgrade / Redevelopment
Transport	48%	50%	50%	Upgrade and Public Services
Utilities	20%	20%	25%	Upgrade and Public Services
Apartments	100%	120%	180%	Upgrade and Densification
High Income	21%	120%	180%	Densification
Middle Income	24%	100%	150%	Upgrade and Densification and New Development
Low Income	21%	120%	180%	Redevelopment
Very Low Income	51%	120%	180%	Redevelopment
Inner City				
Commerce Small Scale & Informal	44%	90%	120%	Upgrade Markets 50% / Densification or Redevelop & other 120%
Formal Commercial and Offices	53%	90%	120%	Upgrade and Densification
Government	39%	90%	120%	Redevelopment
Industrial	41%	90%	120%	Upgrade and Densification
Quarry	7%	90%	120%	Rehabilitation & Redevelopment
Transport	25%	50%	50%	Upgrade and Public Services

Location/ Landuse	Estimated Gross Density 2011	Gross Built Area Capacity	Indicative Nett Development Rights	Intervention Approach
Utilities	14%	20%	25%	Upgrade and Public Services
Apartments	16%	100%	150%	Upgrade and Densification
High Income	20%	50%	75%	Infill and Densification
Middle Income	25%	70%	105%	Infill and Densification and New Development
Low Income	22%	100%	150%	Upgrade and Densification
Very Low Income	26%	70%	100%	Slum Avoidance/Upgrading
Outer Suburbs (KCCA Peripheral)				
Commerce Small Scale & Informal	33%	90%	120%	Upgrade Markets 50% / Densification or Redevelopment other 120%
Formal Commercial and Offices	34%	90%	120%	Upgrade and Densification / Redevelopment
Government	15%	90%	120%	Redevelopment
Industrial	33%	60%	80%	Upgrade and Densification
Existing Quarry	7%	60%	80%	New Development
Utilities	10%	20%	25%	Upgrade and Public Services
Apartments	13%	100%	150%	Densification
High Income	19%	40%	60%	Infill and Densification
Middle Income	16%	50%	75%	Infill and Densification and New Development
Low Income	18%	70%	100%	Upgrade and Densification and New Development
Very Low Income	18%	70%	100%	Slum Avoidance/ Upgrading & New Development

2.3 Planning Hierarchy and Definition of Mandatory Plans

Planning in the KCCA will take place according to the following hierarchy:

1. Kampala Physical Development Plan (KPDP)
2. Precinct/Neighbourhood Physical Development Plan (PPDP)
3. Site Development Plan (SDP)
4. Development Permission

2.3.1 Precinct/Neighbourhood Physical Development Plans (PPDP)

Every Precinct/Neighbourhood shall have a Physical Development Plan. The Precinct/Neighbourhood Physical Development Plan (PPDP) is to be planned in a scale of 1:2,500 with planning reference to the context of its respective Quarter. Reference maps and plans of the reference quarter shall be in a scale of 1:5,000 or 1:10,000.

The PPDP is to allow orderly, coordinated, harmonious, progressive and sustainable development of the area to which it relates in order to promote health, safety, order, amenity, functionality, accessibility, general welfare and economy to all its inhabitants and efficiency in the process of development.

The PPDP will include the following components:

1. Land use Plan (scale 1:2,500)
2. 3D Urban Design Principles and images.
3. Written Provisions
4. Statement of compatibility with and/or divergence from the KPDP and compatibility with the Physical Planning Act 2010. In the event the PPDP is prepared by a body other than the KCCA or the MoLHUD, this statement will be a sworn statement signed by both the representative of the body proposing the plan and by the Lead Planner.

The PPDP will address the following provisions:

A. Physical

1. The area to which the PDP is to apply, detailing and in accordance with Boundaries and Divisions Map. Boundary changes of no more than one hundred (100) meters will not be considered changes to the KPDP. PPDP boundaries must be adjacent with no overlaps or gaps.
2. Determining the target population capacity of the Precinct consistent with that indicated in **Table 1** above or justifying variation therefrom within a range of 75% - 150% of the target. Variation within this range will not be considered a change to the KPDP.

3. Detailing, adjusting and altering the boundaries, area, shapes, and positions of any land use including roads, streets, pedestrian and cycle paths and rights-of-way;
4. Classification and subdivision of the plan area for residential, commercial development, institutions and service facilities, business and industrial development, infrastructure, environmental protection and natural resource management, public and private open space and tourism, or a combination of any of the above. No land or structure within the plan area will be developed or used for any purpose other than in accordance with the plan.
5. Determining the type and density of development generally or in any particular locality, for all or specific uses and functions consistent with the average density targets indicated in **Table 2** above. Variation within 75-150% of average densities will not be considered a change to the KPDP.
6. Assessing the balance in the supply of and demand for local public services, facilities and amenities for the projected population, identifying any gaps and in the event of a projected shortfall defining requisite amelioratory solutions to ensure appropriate service provision.
7. Determining the location of public service facilities including major public institutions, education (primary school upward), health (HC III upward), community facilities, sports facilities, major ecclesiastical facilities for all denominations, playgrounds, etc.
8. Conservation and enhancement of historic buildings and objects of architectural, archaeological, historical or scientific value.
9. Feasible routes for existing, upgraded and new roads, streets, cycle routes, pedestrian routes, rights-of-way, railways and canals, probable sites for bridges, docks, harbors, piers, power-lines, telecommunication, water drainage and sewerage or any other work or undertaking of public utility.
10. Determining the appropriate location for major infrastructural facilities including water storage and distribution; collection, transfer, treatment and disposal sites for solid, liquid and hazardous waste; power transformation facilities; communications masts with appropriate exclusion areas; etc.
11. 3D urban form and architectural principles of the urban fabric.
12. Traffic analysis of the proposed plan and comprehensive transportation plan for the entire Precinct/Neighbourhood.
13. Mapping and assessment of environmental values and defining mechanisms for their appropriate use, protection, rehabilitation and/or preservation.
14. Mapping and assessment of sources of pollution and defining mechanisms for their resolution or mitigation;
15. Mapping and assessment of all historic buildings and landmarks and defining mechanisms for their appropriate use, protection, rehabilitation and/or preservation.

16. Assessing the wider traffic and parking impacts of the planned development and integrating appropriate solutions;
17. Defining the location and parameters of MRT, BRT and PT stops, stations and termini within the area.
18. Assessing access needs and ensuring adequate access to services, opportunities and public transport for all residents with special emphasis on pedestrians and on the disabled.
19. Assessing needs and defining mechanisms ensuring all plots in the Precinct can be connected to power supply, on-plot water supply and water borne sewage systems.
20. Undertaking appropriate participatory and consultative processes, identifying, assessing, balancing and addressing, as best possible, relevant stakeholder and public (civil society) interests, needs, desires and preferences.

B. Re-distribution of Land Ownership (when necessary)

21. Pooling of the lands of several owners, within the plan area and re-distributing of that land among the owners;
22. Effecting exchanges of or cancellation of existing land subdivision as may be necessary or convenient for giving effect to the PPDP;
23. Adjusting property rights between owners of land.
24. Acquisition of land for public use by the KCCA.

C. Implementation

25. Defining implementation stages, prerequisites and conditions for PPDP implementation.
26. Action Plans for implementation.
27. Directing Construction Licensing and Enforcement.
28. Any matter necessary or incidental to the implementation of the PPDP.

PPDP Approval

Subject to requirements of the Physical Planning Act 2010 and consistency with higher order plans, all proposed PPDPs will be assessed, rejected or approved in part or in full or subject to changes by the KCCA: All deviations from KPDP are subject to National Planning Board approval.

All PPDPs will be initiated by the KCCA or prepared by other parties subject to prior KCCA approval which will include prior definition of plan boundaries and mechanisms and benchmarks for reporting and consulting.

KCCA approval of each PPDP will include:

- a) All requirements and processes defined in the Physical Planning Act 2010 for Local Urban Physical Plans;

- b) Preparation of the plan under the direction of a Steering Committee chaired by the KCCA Director of Physical Planning;
- c) Preparation of plan on the basis of extensive Stakeholder and Public (civil society) participation and consultation;
- d) Presentation of the proposed plan in an open, structured consultative forum for public feedback to be held in the Precinct or within easy access thereto;
- e) Assessment and recommendation of the plan by the KCCA Planning Directorate;
- f) Presentation of the proposed plan to the KCCA Council;

2.3.2 Site Development Plan (SDP)

All plots larger than one Hectare (1.0 Ha) for development and construction and all plots including any construction to a height exceeding ten (10) meters and/or planned to house twenty (20) or more residential units and/or including any single structure exceeding five hundred square meters (500 m²) and/or including any structure wherein over fifty (50) persons may congregate and all proposed development requiring changes to KPDP or PPDPs shall have a Site Development Plan (SDP). Variation of up to fifty (100) meters from KPDP and variation of up to twenty (50) meters from PPDPs is not considered a change requiring an SDP unless such a change impacts the alignment of roads, rail or infrastructural networks, in which case any variation requires an SDP.

A Site Development Plan operationalizes the provisions of a Precinct/Neighbourhood or Urban System Physical Development Plan. The SDP defines land use arrangement and boundaries and buildings location in a scale of 1:1,250 – 1:500. The SDP will be the prerequisite for acquiring a Development Permission for development of a structure on the site.

The SDP will include the following components:

1. Land use Plans (scale 1:1250 – 1:500).
2. 3D Simulations, images and Layouts.
3. Written Provisions
4. Statement of compatibility with and/or divergence from and/or absence of relevant higher order plans and compatibility with the Physical Planning Act 2010. In the event the SDP is prepared by a body other than the KCCA or the MoLHUD, this statement will be a sworn statement signed by both the representative of the body proposing the plan and by the Lead Planner.

5. Statement of approval from the Uganda Police Emergency Services with regard to fire protection, emergency exit provisions, emergency water supply and access for emergency service vehicles.
6. Statements of approval from the relevant water, sewage, power and waste disposal service providers regarding compatibility with their existing and/or planned systems and approval of interim solutions proposed if so incorporated in the proposed plan.
7. Statement of approval from NEMA for all plans incorporating commercial, industrial and/or health service facilities (HC III upwards);

The SDP will address the following provisions:

1. The area to which the SDP is to apply.
2. 3D urban design characteristics of the public and private domains, location and general form of buildings and ensembles of buildings, layout of roads and streets, pedestrian and cycle paths, location of infrastructure networks and facilities, layout of open spaces, and integrating all those components into a whole fabric.
3. Architectural design parameters of buildings and complexes of buildings.
4. Detailed layouts and sections of all land uses in the site, either for residential, commercial, industrial, public and private services and tourism or combination of those.
5. Infrastructure plans, environmental protection and natural resource management principles, including on-site power and water supply linkages as well as acceptable solid waste disposal solutions and linkage to water-borne sewage system or in its absence provision for future linkage and provision of acceptable on-site interim solutions for sanitation.
6. Traffic, transportation and parking impacts and solutions including adequate on-site parking provision.
7. Local public service and facility needs and their provision, either on-site or alternative identified solutions within easy access.
8. Provision for fire prevention and emergency services, including access and water supply.
9. Implementation plan, development stages and timetable, cost and financing of infrastructure, service facilities and public open space.
10. Detailed subdivision of planned areas into lots for construction.

SDP Approval

All proposed SDPs are to be submitted to the Divisional Urban Physical Planning Committee and KCCA Urban Physical Planning Committee. The Divisional Urban Physical Planning Committee is to examine each SDP and submit its comments and recommendations regarding the plan to the KCCA Urban Physical Planning Committee. Subject to requirements of the Physical Planning Act 2010

and full consistency with the higher order plans, all proposed SDPs will be assessed, rejected or approved in part or in full or subject to changes by the KCCA Urban Physical Planning Committee.

All SDPs will be initiated by the KCCA or prepared by other parties subject to prior KCCA approval which will include prior definition of plan boundaries and mechanisms and benchmarks for reporting and consulting.

KCCA approval of each PPDP will include:

- a) All requirements and processes defined in the Physical Planning Act 2010 for Local Urban Physical Plans;
- b) Preparation of the plan under the direction of a Steering Committee chaired by a representative of the KCCA Director of Physical Planning;
- c) Presentation of the proposed plan in an open, structured consultative forum for public feedback to be held within easy access to the neighbourhood of the site being planned;
- d) Assessment and recommendation of the Divisional Senior Planner for Divisional Urban Physical Planning Committee;
- e) Presentation of the proposed plan to the Divisional or KCCA Urban Physical Planning Committee.

2.3.3 Development Permission

A Development Permission is required for all new construction and development, earthworks for development purposes, demolition of or changes to historic structures (constructed prior to 1960) or addition or extension to pre-existing structures. In order to be granted Development Permission the development plans must be in accordance to the area's SDP and PPDPs.

In addition to Physical Planning Act 2010 requirements Development Permission applications will address and include the following provisions:

1. The area to which the plan is to apply.
2. A textual explanation of the requested permit.
3. Detailed maps, plans, sections, elevations and any other architectural and engineering information relevant to the requested permit indicating:
 - a. Existing structures and/or development;
 - b. Proposed full construction and development of the relevant plot(s) to full capacity;
 - c. Proposed stages of development;
 - d. Proposed structure or element for current development.
4. Sworn statement of compatibility with the KPDP, the relevant PPDP and the Physical Planning Act 2010 and definition of proposed and potential uses and the requisite statements of approval and notifications required,

signed by both the representative of the body proposing the development and by the Lead Planner/Architect/Civil Engineer.

5. Statement of approval from the Uganda Police Emergency Services with regard to fire protection, emergency exit provisions, emergency water supply and access for emergency service vehicles for all structures exceeding four (4) stories and/or five hundred (500) square meters and/or expected to host fifty (50) or more persons and/or for the production, processing or storage of flammable materials.
6. Notifications from the relevant water, sewage and power suppliers regarding payment or provision of acceptable guarantee for future payment for on-site connection to the relevant existing and/or planned system and approval of interim solutions proposed if immediate connection is not feasible.
7. Statement of approval from NEMA for all structures for the sale or storage of hazardous materials, all industrial and manufacturing facilities and/or health service facilities (HC II upwards) regarding safety and waste disposal requirements.
8. Appropriate and adequate public toilet facilities in all buildings, facilities and structures open to public access (public service facilities, commercial facilities, office blocks, hotels, entertainment and recreational facilities, public transit stations, etc.).
9. Appropriate access provision and toilet facilities for the disabled and the mobility impaired, for all buildings, facilities and structures open to public access (public service facilities, commercial facilities, office blocks, hotels, entertainment and recreational facilities, public transit stations, etc.).

2.3.4 Planning Consistency of Mandatory Plans.

1. Development Permission for a site, building or complex must be consistent with its respective Site Development Plan (SDP) where such a plan is required.
2. A Site Development Plan (SDP) must be consistent with its respective Precinct/Neighbourhood Physical Development Plan (PPDP).
3. A Precinct/Neighbourhood Physical Development Plan (PPDP) must be consistent with the Kampala Physical Development Plan (KPDP).
4. The Kampala Physical Development Framework for the GKMA (KPDF) is an advisory document for the Kampala Physical Development Plan (KPDP).

2.4 Definition of Non-Mandatory Plans

There are additional plans in the planning hierarchy which are NOT mandatory in and of themselves, but which are required to further detail the KPDP, direct down-stream planning and to ensure comprehensive planning of the KCCA as a complete system. As such, each of these plans retains a specific level of flexibility with regard to the KPDP as defined below. These plans include:

1. Sectoral and Physical Development Plans (SPDP)
2. Quarter Physical Development Plan (QPDP)

2.4.1 Sectoral and Physical Development Plans (SPDP)

Integrated Sectoral and Physical Development plans are required to direct the development of essential systems which distributed over the city and/or the metropolitan area and/or require integrative city wide and/or metropolitan scale coordination and direction, both functionally and spatially.

Certain SPDPs require planning on a metropolitan scale to inform planning on the city. These are indicated below. Such SPDPs will be prepared in two overlapping stages - a Metropolitan Scale Framework and a City Scale Plan for the KCCA. Similar city scale plans may and should be prepared for GKMA towns and/or metropolitan zones.

KCCA Sectoral and Physical Development Plans are to be planned on a scale of 1:20,000 as appropriate. GKMA Sectoral and Physical Development Frameworks are to be planned on a scale of 1:50,000 or 1:100,000 as appropriate

The following SPDPs are recommended:

1. Housing and Construction (GKMA and KCCA);
2. Open Space, Parks, and Sports (KCCA);
3. Tourism (GKMA and KCCA) unless incorporated in the LED SPDP;
4. Waterfront Development (KCCA);
5. Local Economic Development (KCCA);
6. Education and Community Development (KCCA);
7. Cultural Heritage Preservation (KCCA);
8. Health (KCCA);
9. Transportation, Movement and Access (GKMA and KCCA);
10. Water and Sewage (GKMA and KCCA);
11. Drainage (GKMA and KCCA);
12. Sanitation and Waste Disposal (GKMA and KCCA);
13. Communications (KCCA).

SPDPs will be prepared based on KPDP targets, goals, objectives and policy direction and consistent with the KPDP itself.

Each SPDP will include:

1. Definition of implementation stages, prerequisites and conditions for QPDP implementation.
2. Defining the mechanisms required for changes to previously approved PPDPs and interim transitional procedures.
3. Any matter necessary or incidental to the SPDP.

SPDP Approval

Subject to consistency with the KPDP, all proposed SPDPs will be assessed, rejected or approved in part or in full or subject to changes by the KCCA on consultation with the NPB and the KMPA: Subject to the ranges of flexibility detailed above, all deviations from and changes to KPDP are subject to National Planning Board approval.

KCCA SPDPs will be prepared by the KCCA. GKMA and KCCA SPDPs will be prepared in conjunction with the relevant bodies including KMPA, MoLHDU, MoFEDP, NPA, MoW&T, MoE, MoH, Mukono and Wakiso Districts, GKMA Municipalities, Towns and sub-Counties, utility regulatory bodies, etc.

SPDP plan preparation will be directed by appropriate Steering Committees chaired or co-chaired as appropriate by the KCCA Executive Director (or permanent representative). Plan preparation will include appropriate stakeholder and public (civil society) participation and consultation.

KCCA approval of each PPDP will include:

- a) Presentation of the proposed plan in an open, structured consultative forum for public feedback;
- b) For plans derived from GKMA Framework Plans, agreed and approved Framework Plans;
- c) Prior consultation with the Secretary of the NPB;
- d) Assessment and recommendation of the plan by the KCCA Planning Directorate;
- e) Joint presentation of the proposed plan to the KCCA Council, Divisional Mayors, Urban Physical Planning Committee Chairperson and Senior Physical Planner;
- f) Final consultation with the Chairman and Secretary of the NPB;
- g) Presentation of the proposed plan to the KCCA Urban Physical Planning Committee including reporting regarding feedback and comments of the public, Division, KCCA Council and NPB.

2.4.2 Quarter Physical Development Plans (QPDP)

Each Quarter incorporates several Precincts.

Each Quarter Physical Development Plan (PPDP) is to be planned in a scale of 1:5,000 – 1:10,000.

The QPDP is to required to direct and enable orderly, coordinated, harmonious and progressive development of the area to which it relates in order to promote health, safety, order, amenity, convenience, general welfare of all its inhabitants, efficiency and economy in the process of development and improvement of communication and to enable coordination of PPDP boundaries and elements.

The QPDP will address and include the following:

A. Physical

1. The area of the QPDP and the areas to which each PPDP is to apply.
2. Detailing, adjusting and altering the boundaries, areas, shapes, and positions of major land uses, roads and streets whilst retaining the balance between the various elements and ensuring accessibility of the major components. Adjustments and alterations of areas mapped in the KPDP in the range of 80-120% of the specific area and/or relocation of functions and uses indicated by symbols within a radius of 250 meters (within Quarter boundaries only) are not considered changes to the KPDP.
3. Adjusting the distribution of population capacity targets between the relevant Precincts whilst retaining the quarter targets defined in **Table 1**. Variation within 90-125% of the quarter capacity target and within 75% - 150% of the capacity target for any specific Precinct will not be considered a change to the KPDP.
4. Determining the scale and location of medium and high order service facilities in accordance with guidelines detailed in the KPDP FR including:
 - a. Secondary Schools, High Schools and Academic Institutions apart from major universities (schematic);
 - b. Health Facilities from HC III upward (schematic);
 - c. Major community facilities (schematic);
 - d. Major sports facilities (football fields, public swimming pools, indoor sports halls, etc.) (schematic);
 - e. Markets and shopping centres (mapped);
 - f. Police stations (schematic);
 - g. Cemeteries (mapped).

In the event any of these have already been defined in a relevant sectoral SPDP these definitions will be integrated in the QPDP. Variation of location of facilities of less than 100 meters is not considered a change to the SPDP, variation beyond 100 meters will require the approved change of the SPDP. Variation of road, rail and NMT routes and/or of

infrastructural system alignments of any scale require prior consent of the relevant body responsible for their development.

5. Determining the density of land uses within the guidelines defined in Table 2 above. Variation within 75-150% of average densities will not be considered a change to the KPDP.
6. Conservation and enhancement of historic sites of architectural, archaeological, historical or scientific interest.
7. Routes for existing, upgraded and new distributor roads and streets and public transit routes and networks, primary pedestrian and cycle paths, railways, canals, docks, harbors, piers, quarries, power-lines, telecommunication, water drainage and sewerage systems or any other public infrastructure.
8. Define the location and parameters of MRT and BRT stops, stations and termini (schematic).
9. Identifying any changes required to previously approved PPDPs.

B. Implementation

10. Defining implementation stages, prerequisites and conditions for QPDP implementation.
11. Action Plans for implementation.
12. Defining the mechanisms required for changes to previously approved PPDPs and interim transitional procedures.
13. Any matter necessary or incidental to the QPDP.

QPDP Approval

Subject to consistency with the KPDP, all proposed QPDPs will be assessed, rejected or approved in part or in full or subject to changes by the KCCA on consultation with the NPB and the KMPA: Subject to the ranges of flexibility detailed above, all deviations from and changes to KPDP are subject to National Planning Board approval.

All QPDPs will be initiated and prepared by or under the direction of the KCCA in consultation with the NPB and the KMPA.

KCCA approval of each QPDP will include:

1. Preparation of the plan under the direction of an appropriate inter-institutional Steering Committee chaired by the KCCA Director of Physical Planning;
2. Preparation of the plan to be based on extensive stakeholder and public (civil society) participation and consultation;
3. Assessment and recommendation of the KCCA Planning Directorate;
4. Joint presentation of the proposed plan to the relevant Divisional Councils and Urban Physical Planning Committees;

5. Presentation of the proposed plan to the KCCA Council;
6. Presentation of the proposed plan to the KCCA Urban Physical Planning Committee including reporting regarding feedback and comments of the public, Division and KCCA Council. NPB and KMPA representatives will participate in committee deliberations as non-voting members.

2.4.3 Planning Consistency (Non-Mandatory Plans)

1. Sectoral and Physical Development Plans (SPDP) must be consistent with the Kampala Physical Development Plan (KPDP).
2. A Quarter Physical Development Plan (QPDP) must be consistent with the Kampala Physical Development Plan (KPDP) and approved SPDPs.
3. All lower hierarchy plans (PPDPs and SDPs) must be prepared consistent with approved SPDP and QPDP .

2.5 Transitional Orders

The transitional orders apply to the time frame between the approval of the KPDP and until a Precinct/Neighbourhood PDP is prepared and approved for a given Precinct/Neighbourhood. The transitional period will be set at four years from the approval of the KPDP. During this period Development Permission will be given under restrictive circumstances according to the following:

During 1st-3rd year: Development Permission will be granted to plans which are in accordance with the KPDP. A construction plan which specifies the development and use of land in divergence from the KPDP will not be granted Development Permission unless approved as a SDP.

During 4th-7th year: Development Permission will be granted to plans which are in accordance with an approved Precinct/Neighbourhood Physical Development Plan (PPDP). If no such PDP exists at the time, a Site Development Plan must be prepared and approved before any proposed construction plan can be granted Development Permission.

After 7 years: Development Permission will be granted to plans which are in accordance with a legalized PPDP and SDP as relevant.

2.6 Definitions and Terminology

Term	<u>Definition</u>
Land Use	Determined according to the main function in an area marked in the KPDP.
Function	The activities which are permitted to take place and be developed in each Land Use as defined in the KPDP.
Conservation site/element	A site, area, structure or element of historical, national, cultural, architectural or archeological significance.
World Heritage Site	The Kasubi Tombs site which was declared by UNESCO as a world heritage site of Outstanding Universal Value.
Urban Freeway	A main, limited access transportation route which runs along an east-west axis and includes private vehicle routes and rail.
Urban Highway	Roads which include partially radial roads which branch out from the Urban Freeway, and a Lakefront road which passes along the Lake Victoria shore. Either upgraded existing roads or newly constructed roads.
Main Urban Road	Existing major roads which are not upgraded to Urban Highways, but which remain significant in the road system as they connect different areas in the city.
Ring Road	Part of the Metropolitan Transportation System which includes three limited access Ring Roads and Radial Metropolitan Roads.
BRT	Bus Rapid Transport - High capacity and fast bus operation. BRT routes pass along private vehicle routes with dedicated PT lanes.
Public Facilities and Institutions	A structure or area which is used mainly for either educational, cultural, community, religious, health, welfare or social services.
Transportation Center	An area which serves as a transportation center includes parking, terminals, public transportation stations and options for transition between modes of transport.
Recreational Facilities	Areas which included functions such as pubs, discos, cinemas, galleries, museums, amusement parks, recreational fishing, paddling, swimming, etc.

3 Goals and Planning Layers of the KPDP

3.1 Primary Goals

3.1.1 Developmental Goals

- To provide Kampala with a **clear and legible Urban Structure**;
- To enable and direct Kampala's future **balanced and sustainable development**;
- To enable the City to absorb and house its current and future population whilst providing appropriate employment opportunities, services and amenities to ensure a reasonable **Quality of Life** for its inhabitants;
- To enable Kampala to successfully **function** as:
 - Hub of an integrated, balanced Urban System in Uganda;
 - Engine of Growth for Uganda, enabling and driving prosperity;
 - The “Garden City of Africa” - the Gateway to and Showcase of Uganda;
 - Capital City and Seat of Government;
 - Leading Cultural and Educational Centre of East and Central Africa;
 - Centre of the Buganda Kingdom;
 - Quality Home and Living Environment for its residents;
 - Tourism Destination and Hub.

3.1.2 Spatial Goals

- To create a **Multifocal and Multifunctional City Centre** composed of special components of metropolitan importance.
- To **enlarge and extend the CBD**.
- To construct an **Urban Freeway** for better accessibility to employment and businesses.
- To develop Kampala as a **Lakefront city** and to connect the lake to the Inner City.
- To change the attitude towards wetlands within the city and protect them as lively, healthy and functional **Parks accessible to Kampala's residents and visitors**.
- To create a **new hierarchy of service centers and sub-centers** and to control and direct linear sprawl of shops and public services.
- To crystallize a **new spatial system, as part of the city center, for cultural activities, recreation and tourism**.

- To develop the **hill tops for public use, recreation and tourism.**
- To define and designate new **Urban Quarters and Precincts** as planning entities for better control, management and development.
- To encourage **new housing models**, including affordable housing, in future development of Quarters and Precincts.
- To create **hierarchical road network** system consist of urban freeway and major arterial road.
- To create **Mass Rapid Transit (MRT) system** that includes BRT and/or LRT.
- To provide **safe and attractive infrastructure for non-motorized trips.**
- To **integrate land use and transport planning.**

Planning Layers and Integrated Plan

The KPDP appears in 10 maps:

- c. **Integrated Land Use Plan** (for the entire CZ and for the KCCA only)
- d. 10 maps of the following planning layers :
 1. **Quarters and Precincts Boundaries;**
 2. **Transportation System;**
 3. **Natural Resources and Open Spaces System;**
 4. **Spatial Economic System;**
 5. **Commerce, Services and Institutions System;**
 6. **Infrastructure - Drainage, Sewage and Water Supply Systems (3 maps);**
 7. **Residential Area Classification;**
 8. **Major Development and Redevelopment areas.**

4 Land Uses and Functions


General: No land or structure within the KPDP's boundaries will be developed or used for any purpose except the functions listed under the appropriate land use for the land.

Infrastructural facilities, roads, cycle paths, pedestrian routes, public transport routes and parking are allowed in all land uses according to local and regional needs and constraints as dictated by SDPs.


Provisions: Detailed planning provisions will be determined as part of each area's SDP.

4.1 Land Use Specifications

4.1.1 City Center

<u>Land Use:</u> City Center		<u>Marked:</u> 
<u>Description:</u>		
Main and central functions of the city and metropolitan area including the existing CBD and new development and re-development in adjacent areas.		
<u>Functions:</u>		
a.	Offices and business facilities	
b.	Commercial areas including markets (specialized markets only)	
c.	High-tech industries	
d.	Storage and logistic areas	
e.	Public services and institutions	
f.	Public open spaces including pedestrian and cycling routes	
g.	Transportation centers and urban highways	
h.	Hotels, tourism, recreational and entertainment facilities	
i.	City Center Residence	
j.	Convention facilities	

4.1.2 Major Employment Centers and Business Parks


<u>Land Use:</u> Major Employment Centers & Business Parks		<u>Marked:</u> 
<u>Description:</u>		
Major business centers located along the Inner Ring. Each Major Business Center covers a minimum of 25 Ha.		
<u>Functions:</u>		
a.	Offices and business facilities	
b.	Commercial facilities including wholesale markets	
c.	Light and high-tech industries	
d.	Storage and logistic areas	
e.	Appropriate public services	
f.	Public open spaces	
g.	Transportation centers	
h.	Convention facilities	
i.	Appropriate recreation and entertainment facilities	
j.	Emergency and police services	

Note:

Potential areas for major employment centers were identified as part of the KPDP. The total suggested area exceeds the required area according to the KPDP program. These areas will be planned in the Local Economic Development (LED) SPDP and detailed in appropriate SDPs.

Mining and quarrying is explicitly precluded within the boundaries of the KCCA.


4.1.3 Tourism and Recreation

<u>Land Use:</u> Tourism and Recreation		<u>Marked:</u> 
<u>Description:</u>		
Tourism and Recreation areas within the KCCA located at potential (e.g., hilltops, lakefront, etc.) or at existing sites (e.g., Kibuli Mosque, Kasubi tombs, etc.) to meet the different the needs of local, regional and international tourism.		
<u>Functions:</u>		
a.	Tourist attractions including culture, entertainment, leisure, recreation and sports	
b.	Public open spaces and parks	
c.	Hostelry	
d.	Tourist facilities	
e.	Convention facilities	
f.	Appropriate tourism oriented commercial facilities.	

Note:

These areas will be planned in the Local Economic Development (LED) SPDP and detailed in appropriate SDPs.


4.1.4 Lakefront

<u>Land Use:</u> Lakefront		<u>Marked:</u> 
<u>Description:</u>		
The Lakefront consists of the Lake Victoria shoreline in the KCCA area. The Lakefront is a mixed use area which includes functions of employment, commerce, tourism and recreation together with the protection and preservation of the coastline itself..		
<u>Functions:</u>		
a.	Urban parks	
b.	Sports fields	
c.	Tourism facilities	
d.	Culture, entertainment, leisure, recreation and sports facilities	
e.	Offices and business facilities	
f.	Appropriate commercial facilities	
g.	Public services and institutions	
h.	Public open spaces including promenades, pedestrian and cycling routes	
i.	Transportation facilities	
j.	Hostelry	
k.	Convention facilities	
l.	Residence	
m.	Marinas and water sports centres	

Note:

All Lakefront development must be consistent with environmental regulations and include comprehensive drainage planning to ensure the protection of the ecologic system.


4.1.5 Secondary Centers: Business, Community Services and Commerce

Land Use: Secondary Centers: Business, Community Services and Commerce		Marked: 
Description:		
Small scale Business, Community Services and Commerce centers within the built urban tissue. The local centers are to supply services for the residents of adjacent neighborhoods.		
Functions:		
a.	Commercial areas including markets	
b.	Public services and institutions	
c.	Offices and business facilities	
d.	Recreational facilities	
e.	Public open spaces	
f.	Transportation centers	
g.	Emergency and police services	
h.	Mixed use with commercial and recreational functions on ground floor and either office or residential uses on upper floors	

Note:

All local business, community services and commerce centers are to be highly accessible by foot, NMT, BRT and private vehicle, especially the local Precinct centers.


4.1.6 Major Hospital

<u>Land Use:</u> Major Hospital		<u>Marked:</u> 
<u>Description:</u>		
New or existing major hospitals within the KCCA. On average, a major hospital will hold 2,000 beds serving a catchment population of some 500,000 people.		
<u>Functions:</u>		
a.	Hospital and health facilities	
b.	Appropriate commerce	
c.	Support facilities (catering, laundry, staff housing, etc.)	
d.	Public services and institutions	
e.	Transportation facilities	

Note:

Major hospitals are to be highly accessible by foot, NMT, BRT and private vehicle.

4.1.7 Major University

<u>Land Use:</u> Major University		<u>Marked:</u> 
<u>Description:</u>		
New or existing major universities within the KCCA.		
<u>Functions:</u>		
a.	University and research institutions	
b.	Convention centers	
c.	Dormitories and staff housing	
d.	Public services and institutions	
e.	Public open spaces	
f.	Appropriate commerce	

Note:

Major universities are to be highly accessible by foot, NMT, BRT and private vehicle.

4.1.8 Major Government Facility

Land Use: Major Government Facility		Marked: <input type="checkbox"/>
Description:		
Areas which house major government facilities (e.g., KCCA offices, Parliament, Kampala State House, etc.).		
Functions:		
a.	Government facilities	
b.	Public services and institutions	
c.	Public gardens and parks	


4.1.9 Cultural and Historical Reserve

Land Use: Cultural and Historical Reserve		Marked: <input type="checkbox"/>
Description:		
Areas of historic and cultural significance within the KCCA (Kasubi, Lubiri, Salaama island) including World Heritage Sites.		
Functions:		
a.	Natural reserves and parks	
b.	Historical sites	
c.	Cultural facilities	
d.	Tourist attractions	
e.	Tourism oriented commerce	
f.	Facilities required for maintenance of the natural reserve	

Note:

Total built area for all uses may not exceed 5% of the total area of each site.


4.1.10 Urban Park

<u>Land Use:</u> Urban Park		<u>Marked:</u> 
<u>Description:</u>		
Green open spaces for public use within the KCCA including recreation, sport and culture. The urban parks vary from city and metropolitan scale parks to small-scale local parks. The urban parks are located either in currently vacant areas or in existing wetlands within the KCCA.		
<u>Functions:</u>		
a.	Open space activities	
b.	Sport and recreation activities	
c.	Open air gathering and performance	
d.	Catering facilities	
e.	Public services	
f.	Facilities required for maintenance.	
g.	Culture, entertainment and recreation facilities such as open air theaters and stages, convention centers, amusement parks, zoos, theme parks and botanical gardens	
h.	Cultivated and organized planting spaces	
i.	Cemeteries	
j.	Water parks and swimming pools	


Note:

All urban park development must be consistent with environmental regulations and include comprehensive drainage planning to ensure the protection of the ecologic system.

4.1.11 Sports Center

Land Use: Sports Center		Marked: 
Description:		
Sport facilities for public use within the KCCA. The sport facilities vary from city scale centers to small-scale local centers.		
Functions:		
a.	Sport and recreation facilities such as stadia, golf courses, sporting arenas and halls, public swimming pools, etc.	
b.	Facilities required for maintenance.	


4.1.12 Natural Wetland Reserve

Land Use: Natural Wetland Reserve		Marked: 
Description:		
Natural wetlands surrounding the KCCA. The wetlands have an important role in the Kampala ecologic system and constitute the most significant land reserves in the KCCA area.		
Functions:		
a.	Wetland reserves including preservation and/or rehabilitation of natural fauna and flora, natural drainage and bodies of water	
b.	Natural open spaces	
c.	Facilities required for maintenance of the natural reserve	


Note:

All wetland development must be consistent with environmental regulations and include comprehensive drainage planning to ensure the protection of the ecologic system.


4.1.13 Natural Forest Reserve

Land Use: Natural Forest Reserve		Marked: 
<u>Description:</u>		
Forests within the KCCA which form part of the Natural Resources and Open Spaces System.		
<u>Functions:</u>		
a.	Forest reserves including preservation and/or rehabilitation of natural fauna and flora	
b.	Tourist attractions	
c.	Facilities required for maintenance of the natural reserve	


4.1.14 Central Residential Zone

Land Use: Central Residential Zone		Marked: 
<u>Description:</u>		
Inner city residential areas included in the City Center and areas adjacent to the City Center (e.g. Kololo, Old Kampala, Nsambya, Kibuli, Bogolobi, etc.). The central residence zone provides support functions for the city center and includes public functions to a certain extent in addition to residence.		
<u>Functions:</u>		
a.	Residential houses and complexes	
b.	Offices and business facilities	
c.	Commerce	
d.	Mixed use with commercial functions on ground floor and either office or residential uses on upper floors	
e.	Public services and institutions	
f.	Public open spaces including pedestrian and cycling routes	


4.1.15 Inner City Residential Zone

Land Use: Inner City Residential Zone		Marked: 
Description:		
Inner city established, relatively dense residential areas which are not adjacent to the City Center (e.g., Busega, Lubia, Mutungo, Buziga, etc.) These residential zones are mostly residential with more non-residential functions.		
Functions:		
a.	Residential homes, streets, complexes and neighborhoods	
b.	Small scale local commerce	
c.	Small scale office facilities in neighbourhood commercial centres	
d.	Public services and institutions	
e.	Public open spaces including pedestrian and cycling routes	


4.1.16 Peripheral Residential Zone

Land Use: Peripheral Residential Zone		Marked: 
Description:		
Peripheral less established, less dense city residential areas in the extended KCCA area (e.g., Kawempe, Kyanja, Mutundwe, Busabala, etc.). These residential zones are primarily residential often lacking non-residential functions.		
Functions:		
a.	Residential neighborhoods	
b.	Small scale commerce	
c.	Small scale office facilities in neighbourhood commercial centres	
d.	Public services and institutions	
e.	Public open spaces including pedestrian and cycling routes	

4.1.17 New Residential Zone

Land Use: New Residential Development		Marked: 
Description:		
Areas for development of new residential areas. The new residential areas will be planned and built according to modern standards. The areas are located either in the Intermediate Residence Zones or the Peripheral Residence Zones.		
Functions:		
a.	Residence	
b.	Small scale commerce	
c.	Small scale office facilities in neighbourhood commercial centres	
d.	Public services and institutions	
e.	Public open spaces including pedestrian and cycling routes	


4.1.18 Slum Redevelopment and Upgrade

Land Use: Slum Redevelopment and Upgrade		Marked: 
Description:		
Existing slums which are to be redeveloped or upgraded. The areas for slum redevelopment and upgrade are located either in the Central Residential Zone, the Intermediate Residence Zones or the Peripheral Residence Zones.		
Functions:		
a.	Residence	
b.	Offices and business facilities	
c.	Commercial areas	
d.	Public services and institutions	
e.	Public open spaces including pedestrian and cycling routes	


Note:

A SDP will be prepared for each slum and its perimeter. Priority will be given first and foremost to interventions aimed at restricting the extension and growth of the slum. All central slums are designated for redevelopment. Each slum in the inner city will be assessed and designated for either upgrade or redevelopment. All peripheral slums are designated for upgrade.

4.1.19 Road Network

<u>Land Use:</u> Road Network		<u>Marked:</u> 
<u>Description:</u>		
<p>New road networks to serve both KCCA and GKMA. The minimum reserve width of each new road is 60 m' and should include it is cross section travelling lanes, separation area between the two travelling direction, walkway pavement on each travelling side with minimum width of 2.5 m', cycling lane on each side with minimum width of 2.5 m', and a possibility for MRT system with a minimum width of 8 m' for the MRT sections and 15m' at stations and platforms</p> <p>No parking will be allowed along the arterial roads. There will be no at-grade intersection between the urban freeway and the urban roads., but only interchanges</p>		
<u>Functions:</u>		
a.	To establish a network of high quality roads in KCCA and GKMA	
b.	To move traffic quickly and safely between different parts of the city	
c.	To provide safe and attractive facilities for pedestrians and cyclist	

4.1.20 MRT Network (BRT/LRT)

<u>Land Use:</u> MRT Network (BRT/LRT)		<u>Marked:</u> 
<u>Description:</u>		
<p>New mass rapid transit network for KCCA. The alignments are either along existing urban road or within the new arterial system. The MRT may be operated as BRT (Bus Rapid Transit) or by LRT (Light Rails Transit).</p> <p>All stations and platforms should be accessible by mobility impaired people. The MRT is planned to cover the majority of the KCCA area with a radius of 2 km</p>		
<u>Functions:</u>		
a.	To establish a network of MRT for KCCA	
b.	Serve low income and mobility impaired people with integrated and high quality public transport service	

5 Implementation

5.1 Planning Priorities

5.1.1 Precinct/Neighbourhood Physical Development Plans (PPDP)

First Priority

- 20 - Nsambya (New CBD)
- 19 - Nakasero (CBD)
- 3 - Mengo-Namirembe (Cultural Heritage Precinct)
- 21 - Industrial Area (Business Precinct)
- 5 - Makerere (Knowledge Precinct)

Second Priority (KCCA rapid growth precincts)

- 1 - Busega
- 2 - Rubaga
- 4 - Lubyapa
- 8 - Naguru
- 9 - Banda
- 10 - Mbuya-Kireka
- 11 - Mutungo
- 12 - Bogolobi-Luzira
- 14 - Muyenga
- 16 - Makindye
- 27 - Kawempe
- 28 - Kyebano-Komamboga
- 29 - Mperere-Kikaya

Third Priority

- All other precincts.

5.1.2 Priority Site Development Plans (SDP)

- New CBD
- First BRT routes
- Urban Highway
- Mengo World Heritage Site
- Nsambya Police and Railways
- Central Business Park (Industrial Zone upgrade)
- Luzira Prisons
- Makerere University and Business Park
- Kyambogo Complex

- New Employment Centre Pilot Plan
- New Residential Development Pilot Plan
- Residential Upgrade and Densification Pilot Plan
- Slums Upgrade Pilot Plan
- Urban Quarter Centre Pilot Plan
- Precint/Neighbourhood Centre Pilot Plan.

5.1.3 Sectoral and Physical Development Plans (SPDP)

First Priority

- Transportation, Movement and Access (GKMA and KCCA);
- Water and Sewage (GKMA and KCCA);
- Local Economic Development (KCCA);
- Waterfront and Wetlands Preservation, Landscaping and Development (KCCA);
- Education and Community Development (KCCA);
- Drainage (GKMA and KCCA);

Second Priority

- Cultural Heritage Preservation (KCCA);
- Health (KCCA);
- Sanitation and Waste Disposal (GKMA and KCCA).
- Housing and Construction (GKMA and KCCA);

Third Priority

- Tourism (GKMA and KCCA) unless incorporated in the LED SPDP;
- Communications (KCCA);
- Sport (KCCA).

5.1.4 Quarter Physical Development Plans (QPDP)

First Priority

- Quarter 5 (Central).

Second Priority

- All other quarters (1-4, 6- 8).

5.2 Institutional Structures for Implementation

5.2.1 NPB Plan Implementation Committee (NPIC)

The NPB Plan Implementation Committee charged with directing and overseeing the implementation of both the KPDP and the KPDPF, is hereby established. The NPIC will focus on coordination on the national and metropolitan scales and on statutory functions of the NPB.

The NPIC is constituted of:

1. The Secretary of the NPB - chair;
2. One (1) serving member of the NPB selected by the Chairman of the NPB;
3. The Executive Director of the KCCA or permanent representative;
4. One (1) GKMA representative - the serving Mayor of a GKMA Municipality or Town, selected by the Chairman of the NPB on consultation with GKMA Districts, Municipalities and Towns;
5. Representative of MoLG;
6. Representative of MoW&T;
7. Representative of MoW&E;
8. Representative of MoFPED;
9. Representative of NPA;
10. Representative of NEMA;
11. Representative of UNRA;
12. Representative of the Uganda Police (Metropolitan Police);
13. Representative of the Uganda Lands Commission;
14. Representative of the Buganda Lands Board;
15. KCCA Director of Physical Planning;
16. KCCA Director of Engineering;
17. KMPA Chief Planner;
18. One (1) GKMA professional representative - serving Senior Planner of a GKMA Municipality or Town, other than town represented by a Mayor, selected by the Chairman of the NPB;
19. One (1) public representative (registered professional planner) selected by the Chairman of the NPB.

The NPIC is hereby instructed and empowered to:

- Define its operating procedures subject to approval of the NPB chairman with the NPIC meeting at least quarterly;
- Require, receive and assess reports from all relevant public bodies regarding the implementation of all aspects relevant to the implementation of both the KPDP and the KPDPF.

- Initiate and require interventions, actions and projects, and changes thereto, from all relevant public bodies required to advance the implementation of both the KPDP and the KPDF.
- Report periodically and no less than once annually, to the Hon. Minister of Lands, Housing and Urban Development regarding the implementation of from all relevant public bodies regarding the implementation of all aspects relevant to the implementation of both the KPDP and the KPDF. These reports will be initially submitted to the NPB chairman and at his discretion either be forwarded directly to the Hon. Minister with copies to NPB members or brought to the NPB for prior discussion and approval.
- Deal, in standing of the NPB, with all proposals for changes to the KPDP and/or KPDF and/or variations from the KPDP subject to the provisions detailed below.
- Approve, in full or in part or with changes, proposed changes to the KPDP.
- Approve or bring to the NPB for discussion and approval changes to and/or variations from the KPDP and KPDF subject to the provisions detailed below.

Approval of changes to or variation from the KPDP is subject to the following:

- All requests and proposals for statutory changes to and/or approval of deviation from the KPDP will be brought before the NPIC for assessment and deliberation, on the recommendation of the KCCA.
- All requests and proposals for statutory changes to and/or approval of deviation from the KPDP will be deposited as per the requirements of Section 20 of the Physical Planning Act 2010 for a period of no less than 15 days and no more than 30 days. Notice of such deposition will also be forwarded to the Permanent Secretaries of all relevant Government Ministries, the Lord Mayor of Kampala and all mayors and chairmen of KCCA Divisions, GKMA Districts, Municipalities, Towns and sub-Counties.
- Within the period of deposition the Permanent Secretaries of each relevant Government Ministry notified, the Lord Mayor of Kampala or any three (3) mayors and chairmen of KCCA Divisions, GKMA Districts, Municipalities, Towns and sub-Counties may request the Chairman of the NPB, at his/her discretion, to refer the proposal to consideration and decision of the full NPB.
- The NPIC may consider all such proposals, unless referred by the Chairman of the NPB to the full NPB, and approve, in part or in full or with changes, or reject or itself refer the proposals to the full NPB.

- Notification of NPIC decisions with regard to changes and/or approval of deviation will be forwarded to the Hon. Minister of Lands, Housing and Urban Development, MoLHUD Ministers of State and Permanent Secretary, the Lord Mayor of Kampala, the Chairman of the NPB, the Chairman of the KMPA and all NPB members.
- Within ten (10) working days of such notification the Hon. Minister of Lands, Housing and Urban Development, MoLHUD Ministers of State, MoLHUD Permanent Secretary, the Chairman of the NPB, the Executive Director of the KCCA and any three (3) NPB members may refer the decision to the full NPB for reassessment, deliberation and decision. In the absence of such a referral the NPIC decision will be considered to be approved by the NPB and the Hon. Minister of Lands, Housing and Urban Development.
- All NPB decisions approving such proposals, in part or in full or with changes, will be forwarded for approval of the Hon. Minister of Lands, Housing and Urban Development. In the event that within ten (10) working days the Hon. Minister does not require changes to the decision or instruct the NPB to reconsider its decision or extend the period of consideration, the NPB decision will be considered to be approved the Hon. Minister of Lands, Housing and Urban Development.
- All approved changes to the KPDP will be publicized as per the requirements of Section 22 of the Physical Planning Act 2010.

5.2.2 KCCA Plan Implementation Committee (KPIC)

The KCCA Plan Implementation Committee charged with directing and overseeing the implementation and enforcement of the KPDP with the jurisdiction of the KCCA, will be established by the KCCA. The KPIC will focus on coordination on the city and local scales and on the operational and enforcement fields.

The KPIC will be constituted of:

1. The Executive Director of the KCCA - chair;
2. Representative of the Lord Mayor;
3. KCCA Council member representing council majority selected by the majority party;
4. KCCA Council member representing council opposition selected by the largest opposition party;
5. One (1) Divisional Mayor appointed by the Executive Director on consultation with all divisional mayors;
6. KCCA Directors of Physical Planning, Engineering, Finance; Education and Health;
7. KDIIP Project Manager;

8. Representative of MoE;
9. Representative of MoH;
10. Representative of NWSC;
11. Representative of NEMA;
12. Representative of UNRA;
13. Representative of the Uganda Police (Metropolitan Police);
14. KCCA Senior Legal Officer responsible for Planning Law and Enforcement;
15. Director of the Kampala Lands Board;
16. KCCA Senior Planner responsible for Planning;
17. KCCA Senior Planner responsible for Construction Licensing (Building Permission);
18. KCCA Senior Planner responsible for Planning Enforcement.

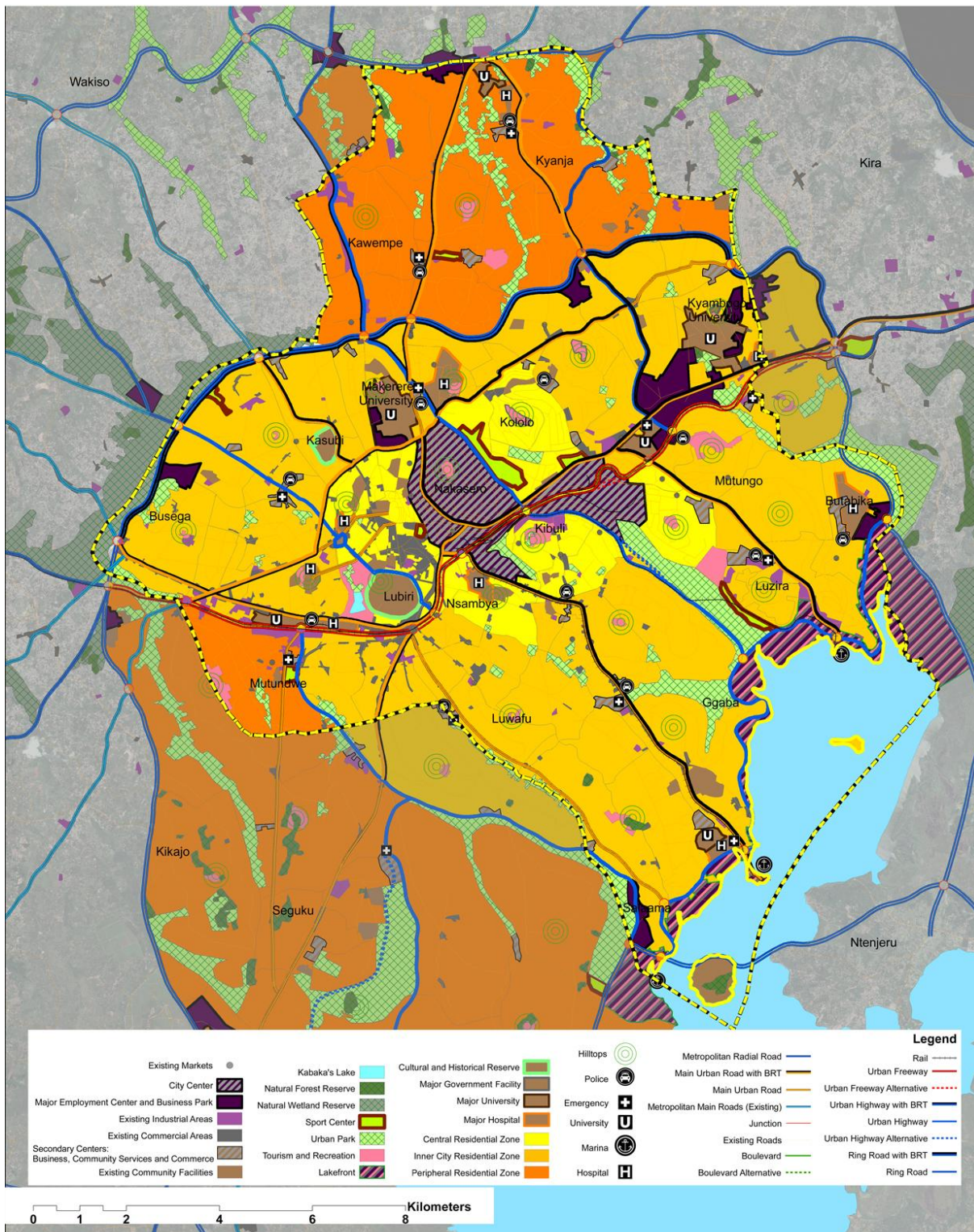
The KPIC is hereby instructed and empowered to:

- Define its operating procedures subject in coordination with the NPIC, meeting at least monthly;
- Require, receive and assess reports from all relevant KCCA units and public bodies involved in, impacting on and/or impacted by implementation of the KPDP and the KPDF;
- Initiate and require interventions, actions and projects, and changes thereto, from all KCCA units and all relevant public bodies required to advance the implementation of both the KPDP;
- Report periodically and no less once quarterly to the NPIC regarding implementation and enforcement of the KPDP.

6 Planning Schemes and Maps



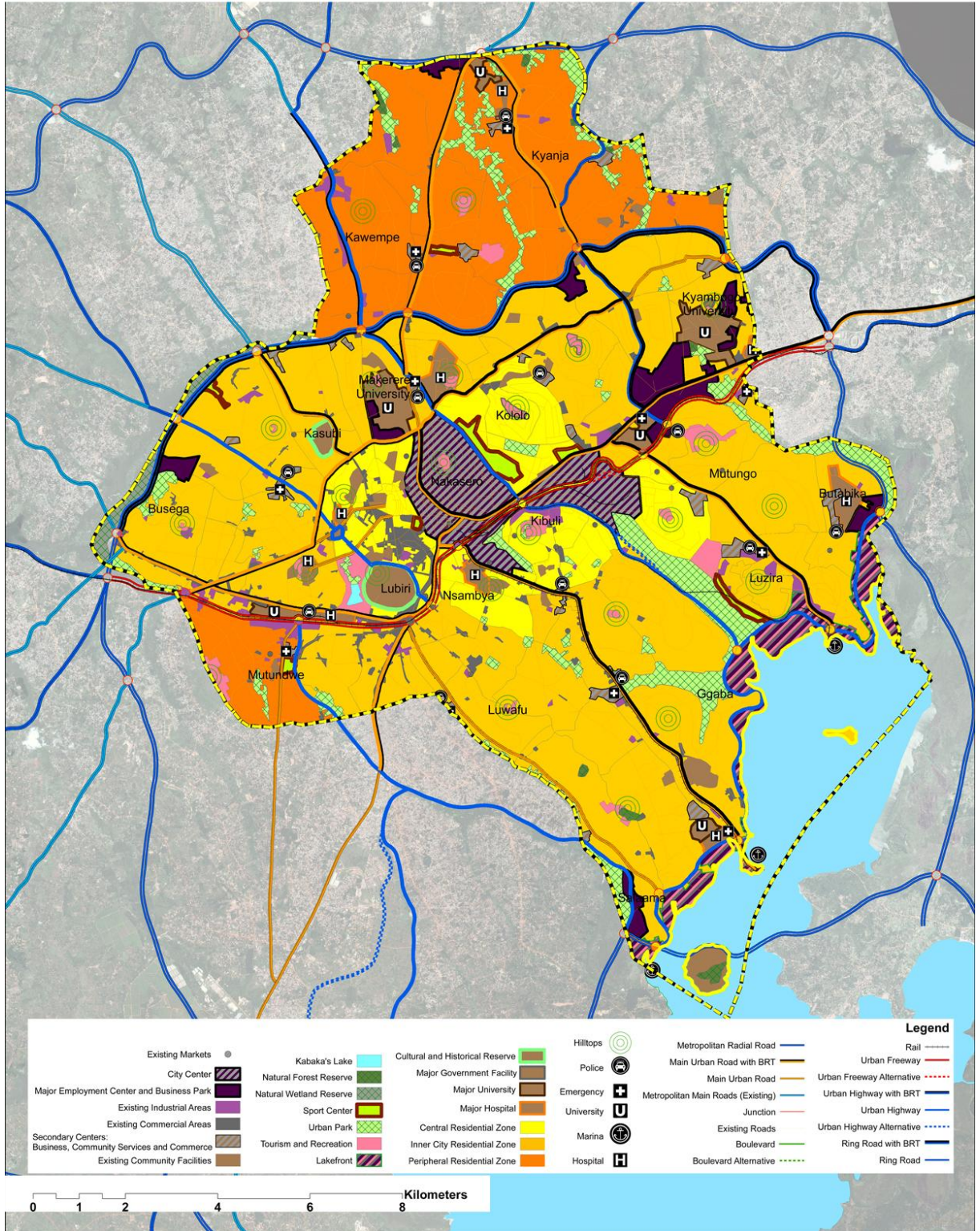
KAMPALA PHYSICAL DEVELOPMENT PLAN INTEGRATED LAND USE PLAN (CZ)



Map 131: KPDP- Integrated Land Use Plan (CZ)



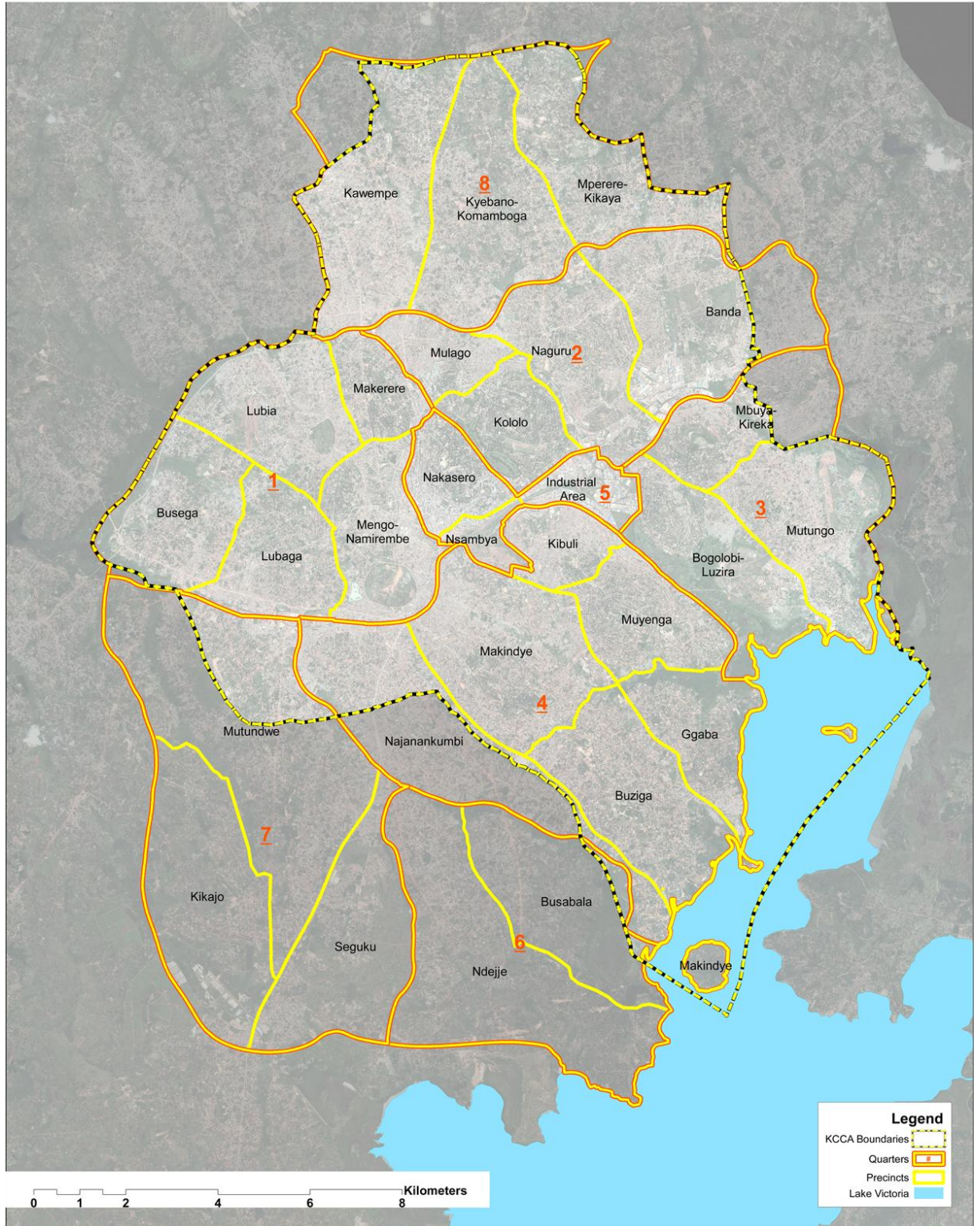
KAMPALA PHYSICAL DEVELOPMENT PLAN INTEGRATED LAND USE PLAN (KCCA)



Map 132: KPDP- Integrated Land Use Plan (KCCA)



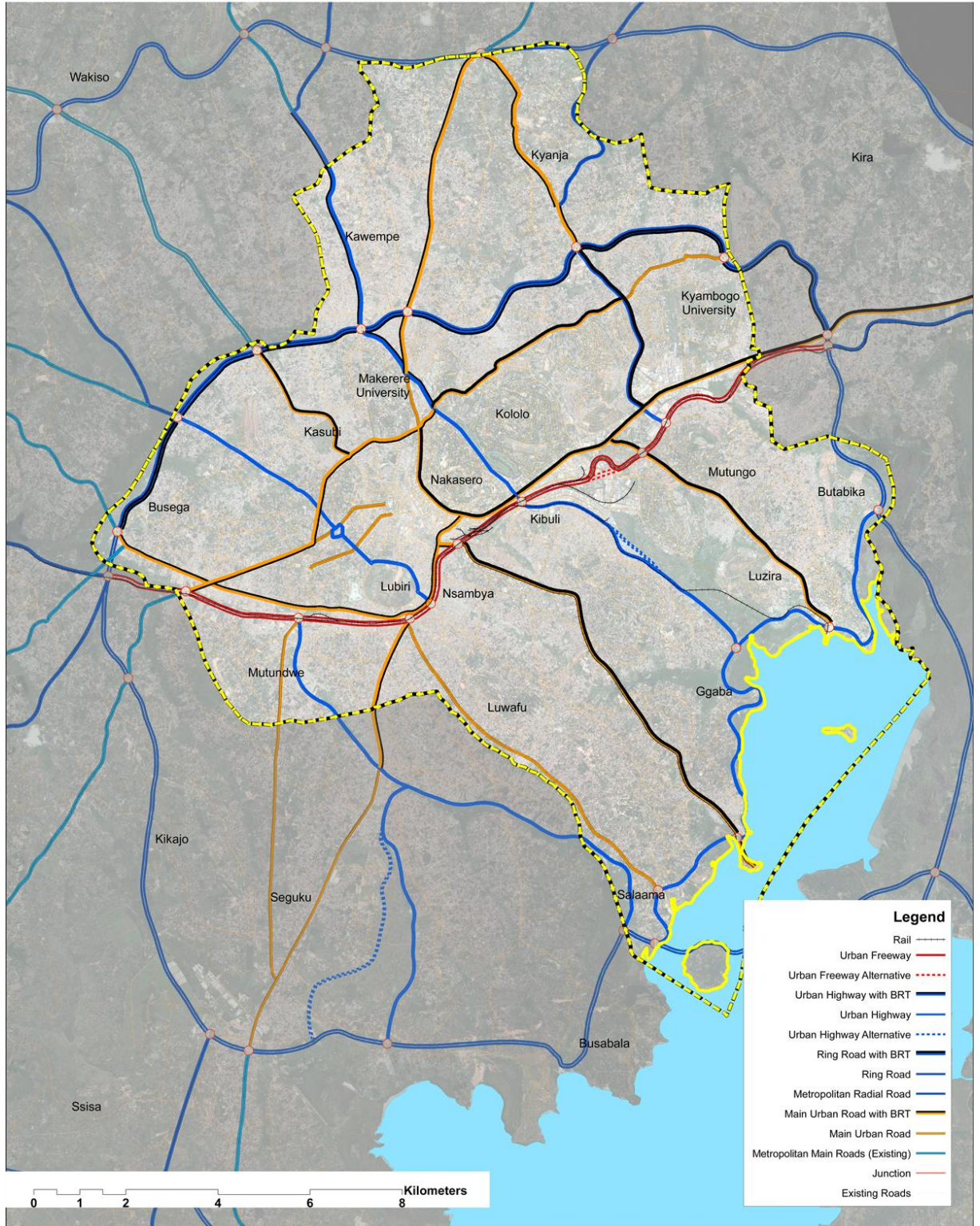
KAMPALA PHYSICAL DEVELOPMENT PLAN QUARTERS AND PRECINCTS BOUNDARIES



Map 133: KPDP – Quarters and Precinct Boundaries



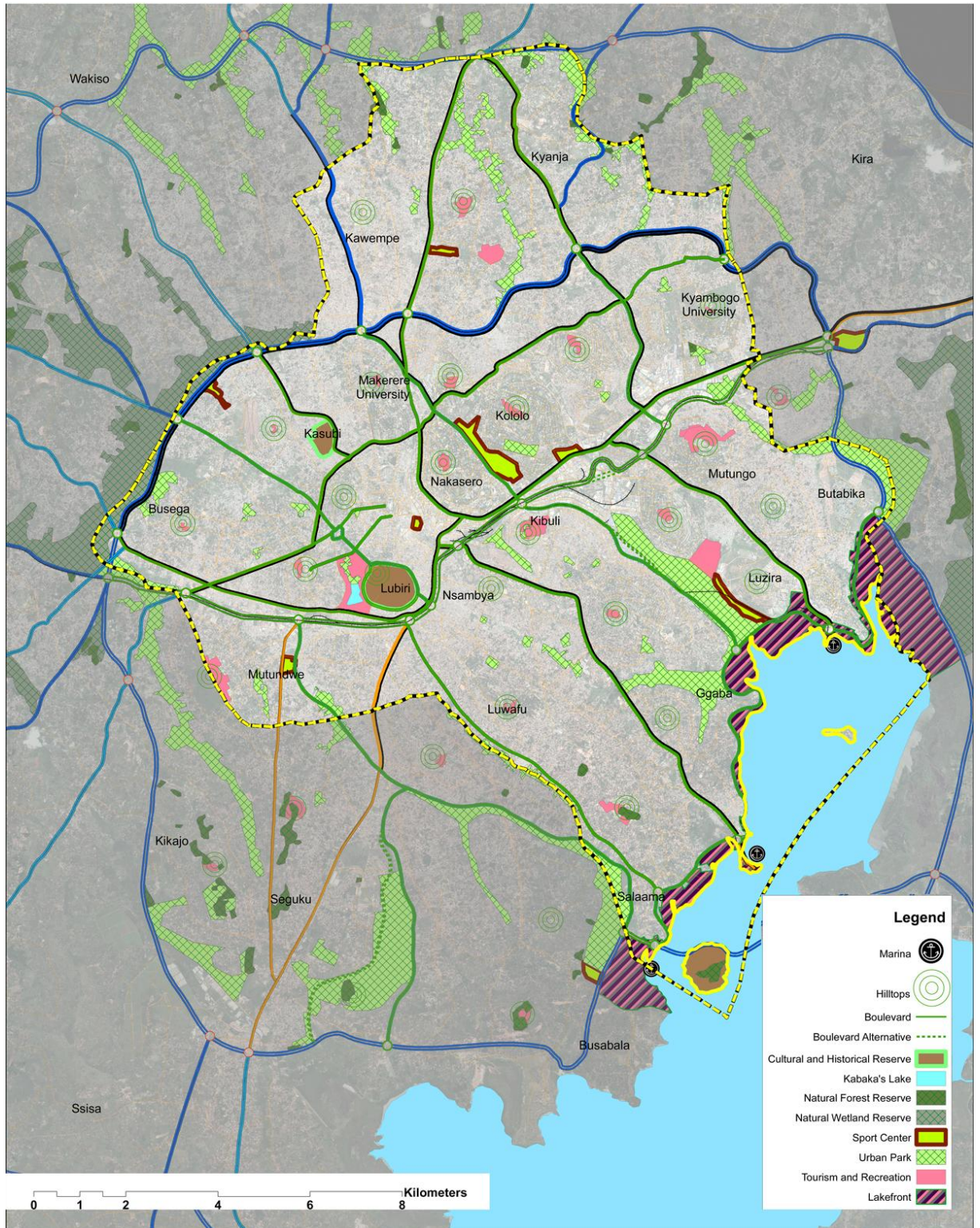
KAMPALA PHYSICAL DEVELOPMENT PLAN TRANSPORTATION SYSTEM



Map 134: KPDP - Transportation System



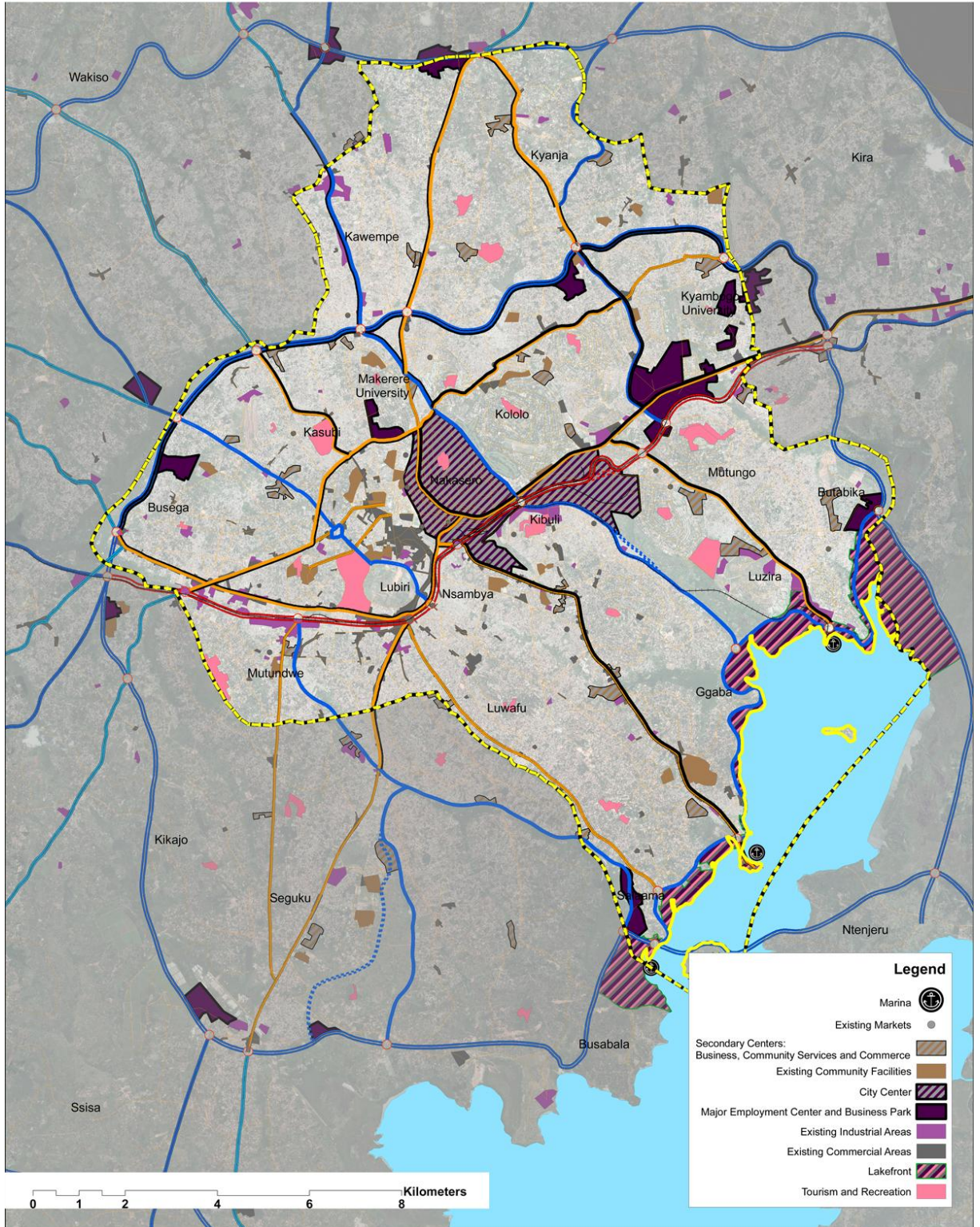
KAMPALA PHYSICAL DEVELOPMENT PLAN NATURAL RESOURCES AND OPEN SPACES



Map 135: KPDP - Natural Resources and Open Spaces



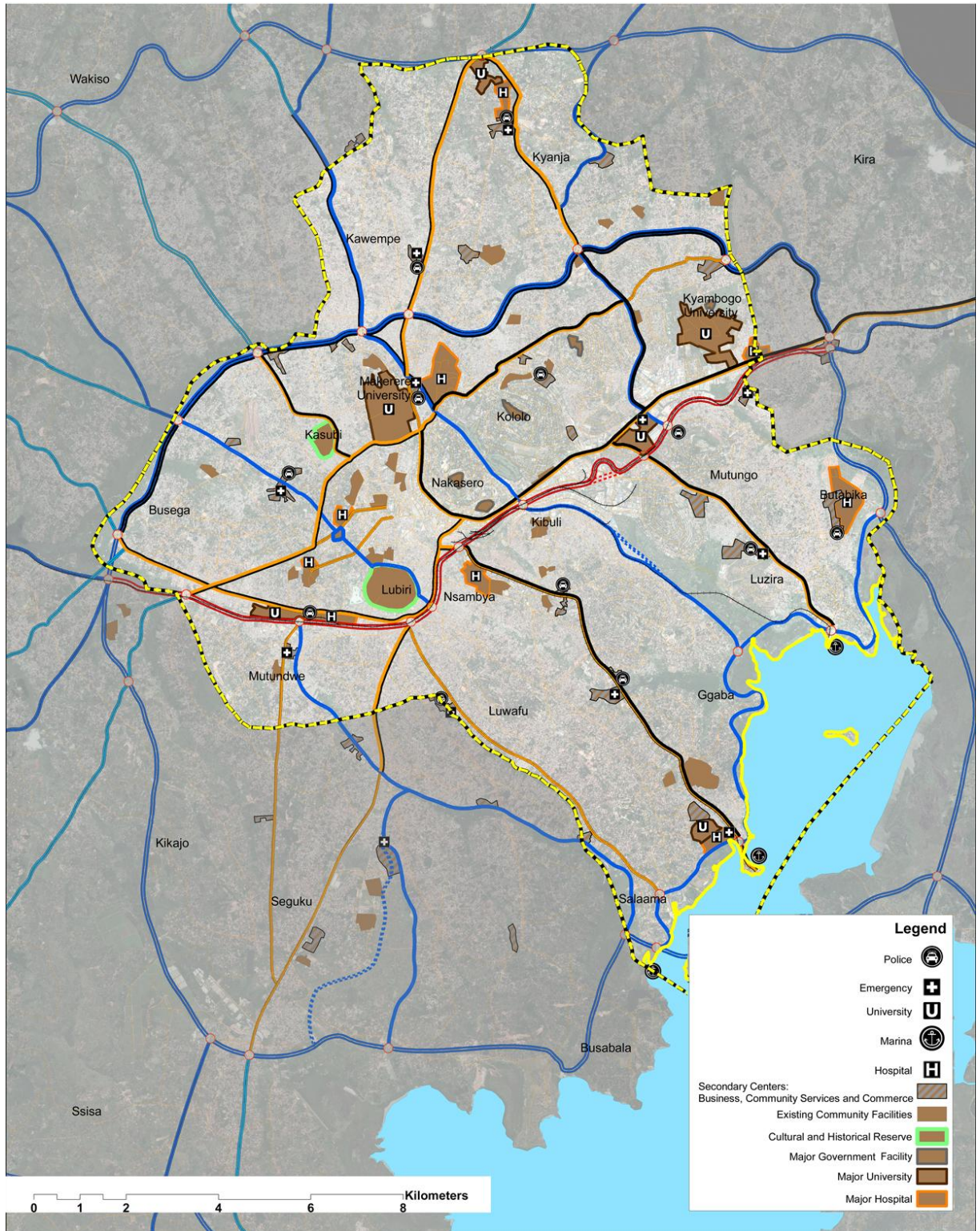
KAMPALA PHYSICAL DEVELOPMENT PLAN SPATIAL ECONOMIC SYSTEM



Map 136: KPDP - Spatial Economic System



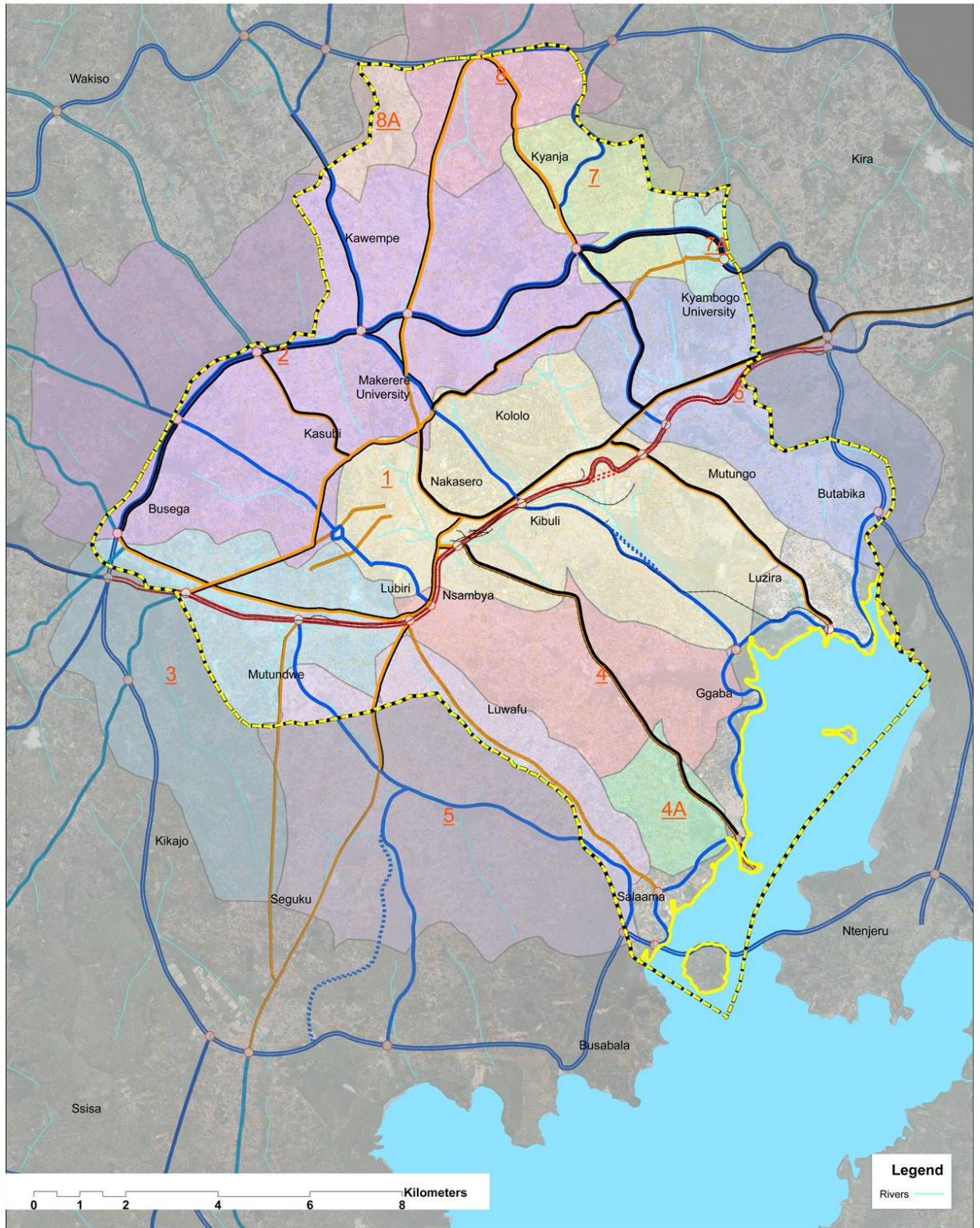
KAMPALA PHYSICAL DEVELOPMENT PLAN COMMERCE, SERVICES AND INSTITUTIONS



Map 137: KPDP - Commerce, Services and Institutions System



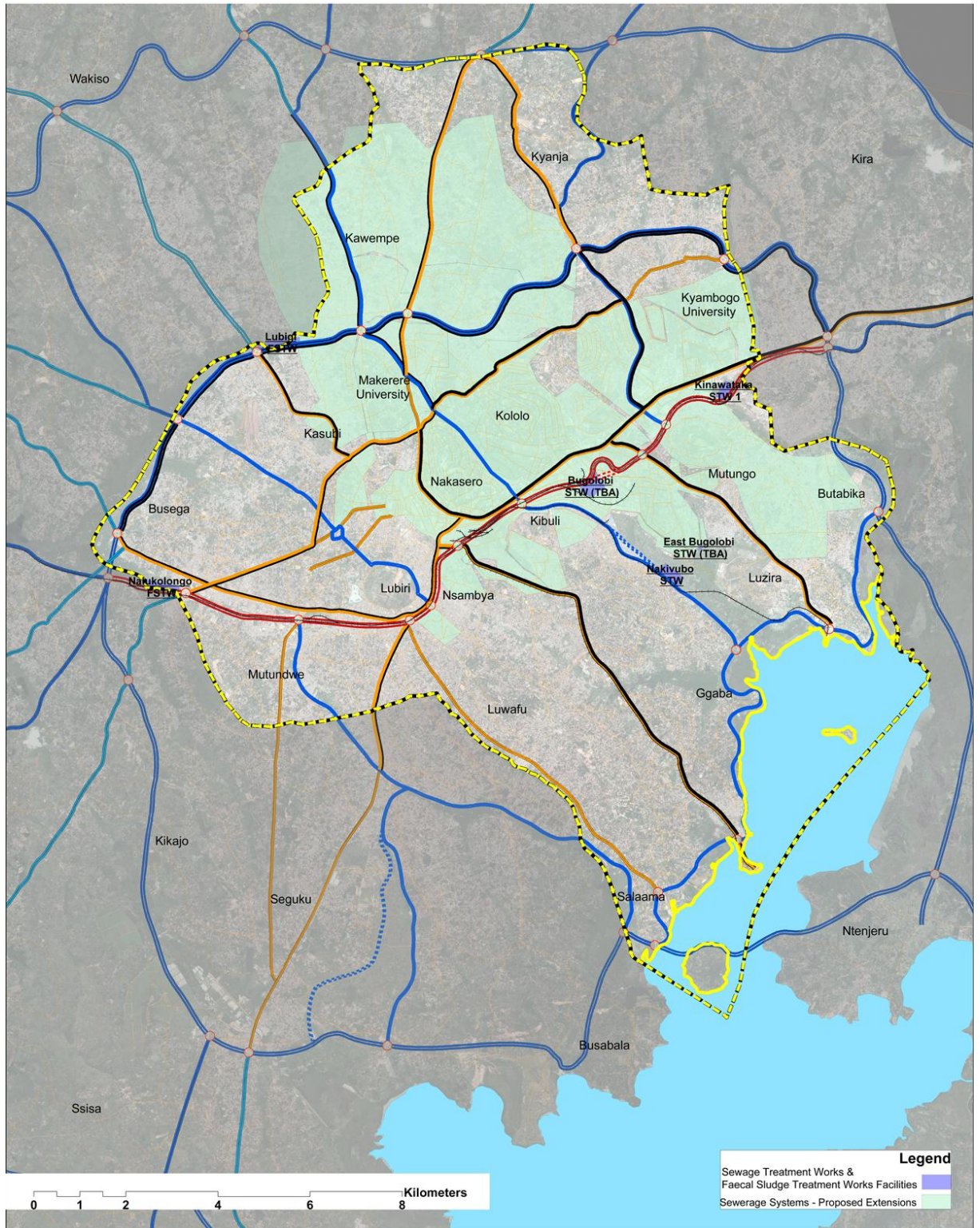
KAMPALA PHYSICAL DEVELOPMENT PLAN INFRASTRUCTURE - DRAINAGE



Map 138: KPDP - Infrastructure - Drainage



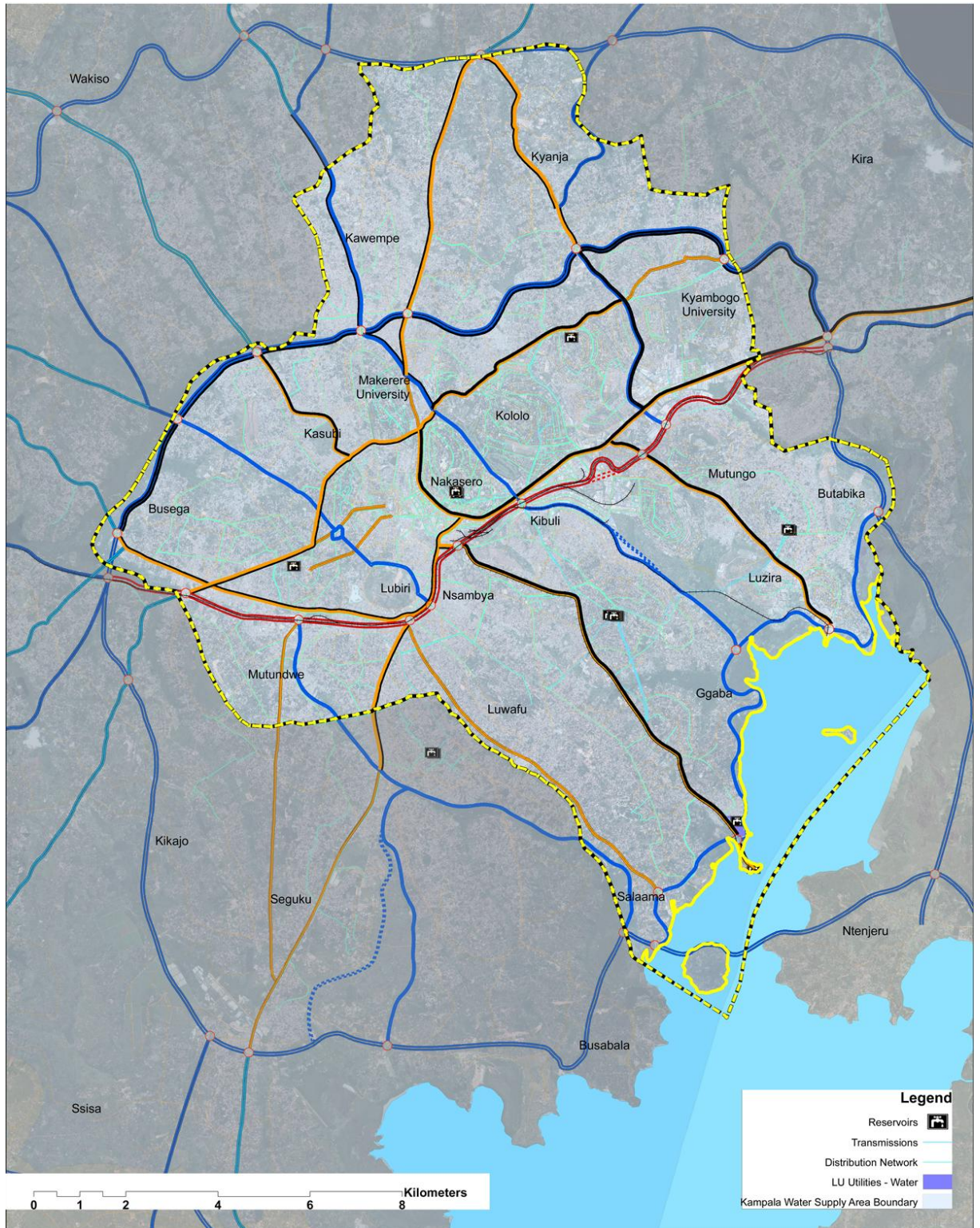
KAMPALA PHYSICAL DEVELOPMENT PLAN INFRASTRUCTURE - SEWERAGE TREATMENT



Map 139: KPDP - Infrastructure - Sewerage Treatment



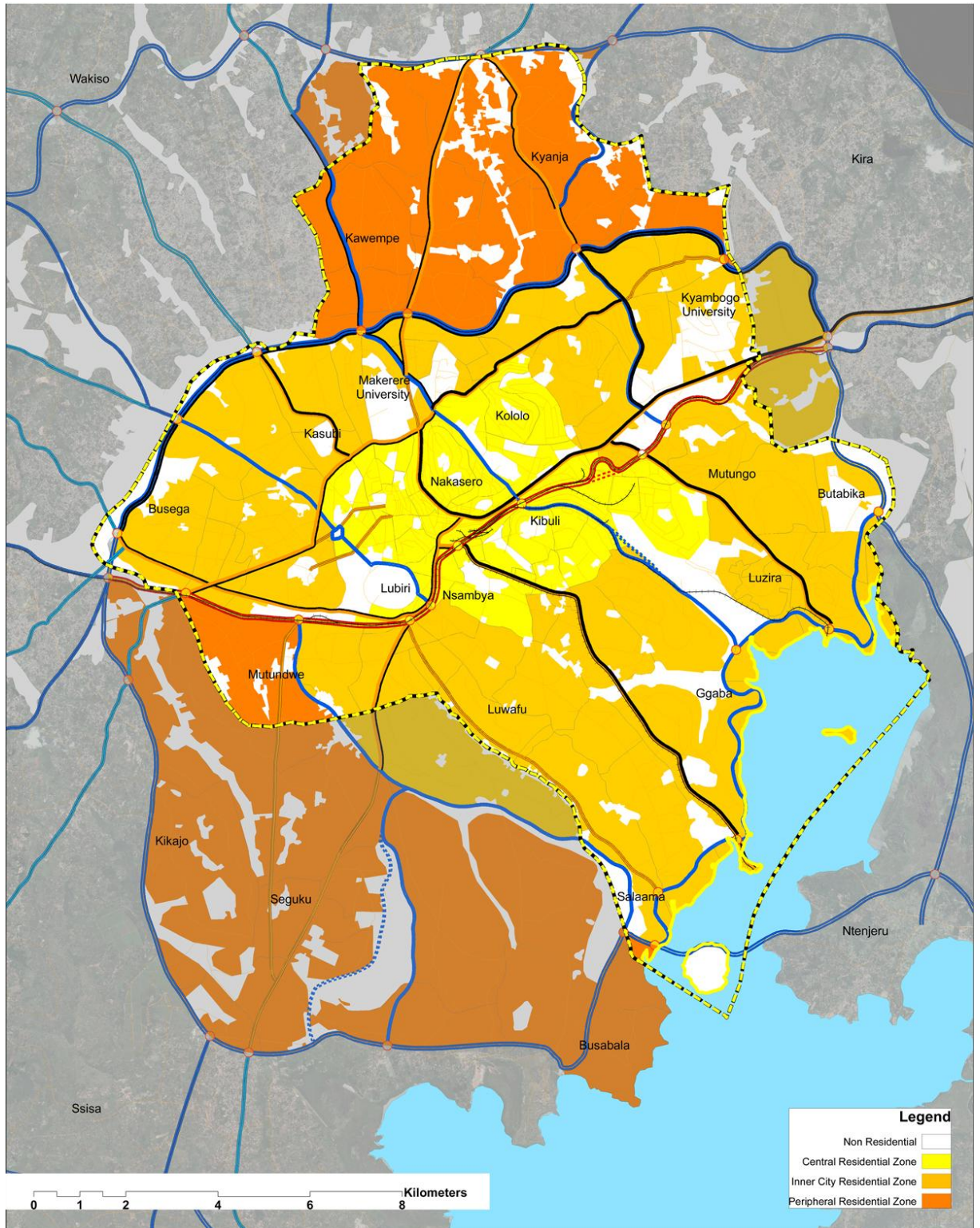
KAMPALA PHYSICAL DEVELOPMENT PLAN INFRASTRUCTURE - WATER



Map 140: KPDP - Infrastructure - Water



KAMPALA PHYSICAL DEVELOPMENT PLAN RESIDENTIAL AREA CLASSIFICATION

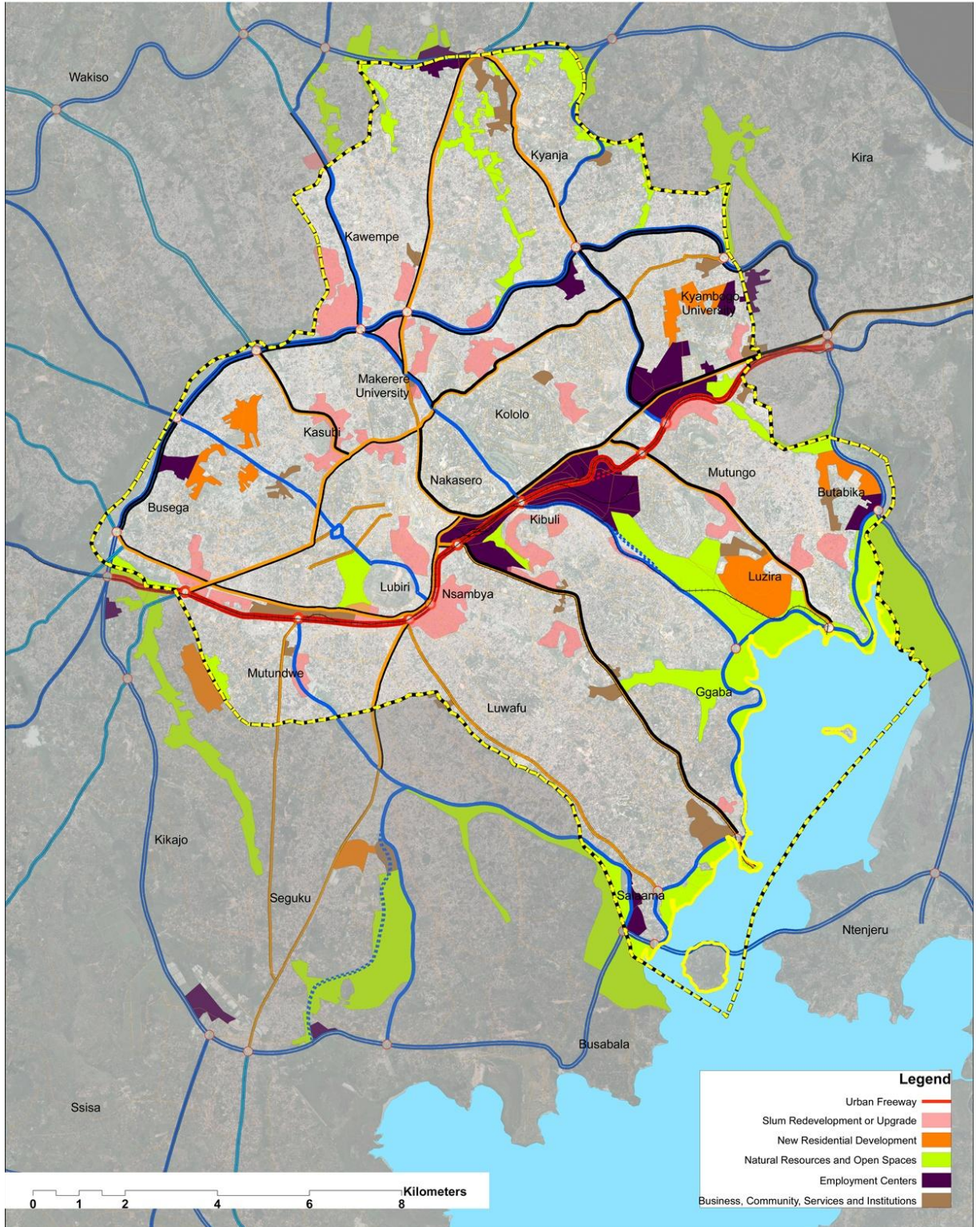


Map 141: KPDP - Residential Area Classification



KAMPALA PHYSICAL DEVELOPMENT PLAN

MAJOR DEVELOPMENT AND REDEVELOPMENT



Map 142: KPDP - Major Development and Redevelopment

Appendix B: References and Bibliography

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Appendix C: KPDP Steering Committee Minutes

A1: KPDP STEERING COMMITTEE 1 of 23.08.11

MINUTES OF THE FIRST STEERING COMMITTEE MEETING ON THE PREPARATION OF THE PHYSICAL DEVELOPMENT FRAMEWORK FOR THE GREATER KAMPALA METROPOLITAN AREA AND THE KAMPALA CAPITAL CITY PHYSICAL DEVELOPMENT PLAN HELD IN THE KIIDP BOARDROOM B207 AT KCCA AT 9.30 AM, 23rd AUGUST 2011.

ATTENDANCE.

<u>NAME & EMAIL</u>	<u>ORGANISATION</u>
1. KATSIGAIRE SAVINO 0772471922 katsigaire@mlhud.go.ug	MLHUD\D\PPUD\CHAIR
2. SSEGAWA PATRICK 077240909 patseg@ucc.co.ug	UG COMMUNICATIONS COMM.
3. ASHABA HANNINGTON 0782941814 Hannington.ashaba@finance.go.ug	M.O.F.P.E.D
4. KITYO PETER 0782448041 p.kityo@era.or.ug	ELECTRICITY REG. AUTHORITY
5. MUHANGI WARREN 0752498222 wmuhangi@ugandainvest.go.ug	UIA\IPDD\LAND SURVEYOR
6. MASIGA EDWARD 0782482078 edward.masiga@mwe.go.ug	MINISTRY OF WATER & ENVIRONMENT
7. MURAMIRA EUGENE 0772400625 tmuramira@nemaug.org	NEMA
8. GUMONYE ISSA nakasindes@yahoo.com	MINISTRY OF LOCAL GOVT. (principal urban planner)

- | | |
|---|---|
| 9. KIGGUNDU TAMALE
urban@inforcom.co.ug | KCCA
(project coordinator KIIDP) |
| 10. AGABA N. GEORGE
0772090198
gagaba06@yahoo.com | KCCA

(deputy director physical planning) |
| 11. KATEBALIRWE PETER
0772434852
katebapeter@yahoo.com | KCCA

(senior physical planner) |
| 12. KYAMANYWA CHARLES
0772508744
charleskyama@gmail.com | KCCA

(principal physical planner) |
| 13. KOOJO CHARLES
0772522707
koojocharles@yahoo.co.uk | ROM |
| 14. LWASA SLWAIB
0772461727
slwaiblwas@gmail.com | ROM |
| 15. ABERMAN LARRY
0787685976
aberman@kingsley.co.za | L.ABERMAN ASSOCIATES |
| 16. HANA SHAPIRA
hanasha@netvision.met.ie | SHAPIRA HELLERMAN PLANNERS |
| 17. HELLERMAN JOS
jon@netvision.met.ie | SHAPIRA HELLERMAN PLANNERS |

AGENDA

- I. PRAYER
- II. INTRODUCTION OF MEMBERS OF THE STEERING COMMITTEE
- III. COMMUNICATION FROM THE CHAIR
- IV. CONSIDERATION OF THE PLAN APPROVAL PROCESS FOR THE GREATER KAMPALA METROPOLITAN AREA AND THE KAMPALA CAPITAL CITY PHYSICAL DEVELOPMENT PLAN.
- V. APPROVAL OF THE INCEPTION REPOST

MIN. 1 PDP-KCCA/23/08/11: WELCOME REMARKS AND INTRODUCTION.

The meeting started at 9.50am with welcome remarks by the Director Physical Planning and Urban Development, as the chair of the meeting who asked members of the Steering Committee to introduce themselves.

MIN.2 PDP-KCCA/23/08/11: COMMUNICATION FROM THE CHAIR.

After adoption of the agenda and prayer led by the secretary to the meeting, the Chairman invited the project coordinator Kampala Institutional and Infrastructural Development Project (KIIDP) to give a background to the assignment.

The Physical Development Plan (PDP) for Kampala featured as a key issue especially when 76 other urban councils had just completed their structure plans. The PDP also constituted a key component for the KIIDP.

In conceptualization of the PDP, it was necessary to have a forum of stakeholders to consult hence the Steering Committee whose membership cuts across ministries and agencies. The Steering Committee should have met earlier but it was not possible due to the on-going structural changes. The Chair was given to the Ministry of Lands, Housing and Urban Development responsible for physical planning and final approval of physical development plans for the entire country and the Vice Chair to the Ministry of Local Government responsible for all local administrations in the country.

The bidding for the planning consultancy was international and 34 firms' submitted bids of which 6 firms were shortlisted. The best evaluated consultant emerged as a consortium i.e. M/S ROM Transportation in Association with Halufa Group, Shapira & Hellerman Planners, Larry Aberman Associates, Tzamid Architects and Planners and Ofek Aerial Photography (Israel).

A good product is expected of the consultant and it is the duty of the Steering Committee to critique the presentation and offer policy guidance to the planning process.

The Chairman summed up by indicating that the planning process is an all embracing activity cutting across all sectors and remarked that members' contributions were critical to the success of the assignment. There are teething issues in the environment, finance, national economy, issues of urbanization, strategic investment and financing in the Greater Kampala Metropolitan Area (GKMA). It was therefore important to give the consultants adequate guidance since the plan is in our interest. The Chairman trusted that members had read the inception report along with the Terms of Reference.

Members agreed that the stakeholder coverage be increased and that the Steering Committee be expanded to include the CAOs of Wakiso and Mukono Districts, the Town Clerks of Entebbe and Mukono Municipalities as well as Wakiso, Nansana and Kira Town Councils, the private sector and civil society organizations. It was noted that the members mentioned above were already members of the Steering Committee but may not have received invitations. Further noted that some members of the Steering Committee had not received the inception report. Secretariat was charged to email the document.

MIN. 3 PDP-KCCA/23/08/11: PRESENTATION OF INCEPTION REPORT.

The team leader, Jos Hellerman provided an overview of the inception report. It was stated that the purpose of the assignment was to create a liveable habitat and options for the future development of the area specified in the terms of reference. To be developed are:

- Strategic policy interventions.
- Proposed development options and address planning objectives as defined in the TOR.
- Conduct training in GIS.
- Prepare communication strategy for the planning process and after.
- Upgrade the GIS at KCCA.
- Prepare a vision for the city.
- Prepare a physical development framework for the GKMA and a PDP for Kampala City for final approval.

Highlights on the consultant's presentation of the inception report included:

- Extending planning horizon to 20 – 30 years from 10 years in the TOR. Spatial development plans would be prepared for 10 years and action area plans for 5 years.
- Orthophoto boundaries covered an extra 6 parishes, hence the need for extra financial cover.
- Special issues: Requirement to harmonize the Physical Planning Act 2010 and the Kampala Capital City Act 2010 in relation to approval process of the Physical Development Plan.

- Work in progress includes; Training in GIS, transportation surveys and household socio-economic surveys
- Two large stakeholder workshops held in addition to Division consultations.

The contract assignment completion period was reduced from 24 to 20 months to comply with World Bank closure of the project by 31st December 2012.

COMMENTS ON THE INCEPTION REPORT

- Kampala City is assuming primacy hence the need for a long term planning horizon to lay development strategies. The committee agreed on 20 to 30 year time horizon in line with the national development plan.
- The communication strategy is a critical component due to the sensitivity of planning exercise transcending various local authority jurisdictions. It was meant to popularize the planning process and the plan implementation. This has not been done and yet it is critical especially for the plan making process and implementation.
- There is need to integrate environmental risk assessment into the project. The Consultant was to liaise with NEMA to work out modalities.
- KCCA was to study the consultants’ proposal to contract its extension and cost implications.
- Utilities were not well addressed in the inception report.

It was agreed that frequency of Steering Committee meetings was targeted to Consultants’ deliverables as per T.O.R and at any other time to deal emerging issues in the planning process.

CHAIRMAN

SECRETARY

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A2: KPDP STEERING COMMITTEE 2 of 13.02.12

MINUTES OF THE SECOND STEERING COMMITTEE MEETING HELD ON 13TH FEBRUARY 2012 ON THE PREPARATION OF THE PHYSICAL DEVELOPMENT FRAMEWORK FOR THE GREATER KAMPALA METROPOLITAN AREA AND THE KAMPALA CAPITAL CITY PHYSICAL DEVELOPMENT PLAN HELD IN THE KCCA COMMITTEE ROOM I AT KCCA AT 9.30 AM, 23RD AUGUST 2011.

AGENDA:

- 1) Welcome remarks and introduction of members present
- 2) Communication from the chair
- 3) Presentation of situation report
- 4) Discussion and way forward

ATTENDANCE

- 1) Katsigaire Savino Chairperson
- 2) Ivan Katongole Secretary
- 3) Bonne Nsambu
- 4) Charles Nyakwebara
- 5) Geoffrey Katabazi
- 6) Kasingye Kyamugambi
- 7) Ongora Emmanuel
- 8) Kaweesi Daniel
- 9) John M. Behangana
- 10) Godfrey B. Kisekka
- 11) Kiggundu Tamale
- 12) Lawrence Byensi
- 13) Nakatudde Ruth
- 14) Kato Geoffrey
- 15) Opio Peter
- 16) Kizito Mugerwa R.
- 17) Andrew Kitaka
- 18) Ron Bekah

PRELIMINARIES

The chairperson called the meeting to order at 9.40am

The opening prayer was led by Kato Geoffrey (Physical Planner – Kira Town Council)

All members present were subjected to self introduction

MIN. 1 KPDP-KCCA/13/02/12: WELCOME REMARKS AND INTRODUCTION.

The chairperson welcomed all members present. He informed members that:

- a) The Steering Committee was expanded to include members from Metropolitan Towns, Counties and Sub Counties among others.
- b) There is need to understand the existing situation in order to make informed decisions Area (GKMA) as understood by the consultant
- c) There is need to understand the existing situation in order to make judicious decisions.
- d) There is need to identify the missing gaps in information presented by the consultants.

The chairperson welcomed any supplementation to his introductory remarks but there was none.

MIN. 2 KPDP-KCCA/13/02/12: PRESENTATION OF SITUATION ANALYSIS

At 9:50am the consultants took the floor to present the situation analysis report.

In their opening remarks the consultants indicated that:

- They were very happy with coordination at a professional level
- The final report was ready and was it was going to be distributed very soon
- The situation analysis had brought out enough information to be used in making decisions.
- The presentation was not going to cover everything in the interest of time but an executive summary and main report were available for further reading and understanding
- The Kampala Physical Development Plan was to be developed within the metropolitan framework covering about 1000Km².
- **The consultants presented their findings on the following themes:**
 - a) Primary trends and challenges and challenges
 - b) Roles and functions of the city
 - c) Spatial structure of Kampala:
 - d) KCCA Structure:
 - e) Urban form:
 - f) Natural systems and the environment
 - g) Land tenure system
- At 10:45am there was a tea break of 15 minutes and the session resumed at 11:00am
- **After the break, the consultants presented their findings on the following themes:**

- h) Social structure
- i) Socio-economic structure
- j) Economic sustainability
- k) Housing
- l) Urban planning and regulation
- m) Main transport problems
- n) Integration of urban planning and transport planning
- o) Transportation strategic directions

MIN. 3 KPDP-KCCA/13/02/12: DISCUSSIONS AND COMMENTS ROUND 1

- At 11:55am the chairperson took the floor and welcomed comments from members present.
- John Behangana (Town Clerk - Mukono) indicated that:
 - 1) Findings should come for the entire metropolitan area and that they should come out strongly with all necessary details.
 - 2) More details needed for the rampant abuse of open spaces.
 - 3) Study could look at the stakeholder structure of the GKMA and map out roles and responsibilities.
 - 4) Study does not indicate the stakeholder structure of the GKMA and does not clearly indicate the roles and responsibilities at different levels.
 - 5) The consultants TOR was not given so members were unable to check if the consultants have satisfactorily captured everything they were expected to capture.
 - 6) There is need to conclude the transition from KCC to KCCA as this might affect the planning process.

Godfrey B. Kisekka (Town Clerk Wakiso) indicated that:

- 1) It was not clear if the situational analysis report was for KCC or KCCA
- 2) There was need for the Directorate of Physical Planning to work hand in hand with the Ministry of Lands, Housing and Urban Development and Makerere University to train Ugandans in the field of urban planning and management
- 3) There is need to introduce para-transit system of transport as one of the affordable solutions to transport challenges
- 4) There is need to deal with challenges in providing new infrastructure.
- 5) The role of GKMA is not clear; it is not indicated how KCCA will relate with other local governments in the GKMA.
- 6) There is need to repossess former transport terminals in order to plan for an effective bus service in Kampala
- 7) A bus terminal is proposed in Nabweru yet the area is congested; why not consider moving the proposed bus terminal to Wakiso town? Another bus terminal is proposed in Masanafu yet the location appears not to be suitable.
- 8) There is need to make more consultations with the Metropolitan Towns, Counties and Sub Counties.

Engineer Nsambu indicated that:

- 1) The TOR indicates that planning was to be done for 150Km² but 1000Km² was the focus of the consultants. It is important that the area of the planning area comes out clearly.
- 2) What area of the city is dedicated to transport facilities against the standard of 15%? How much area is currently committed to transport infrastructure?
- 3) Is there a need to promote off street parking or discourage off street parking. Promotion of off street parking encourages private car ownership.

Joseph Ssemambo (Acting Director Physical Planning)

- 1) He commended the consultants for have given a very clear picture of the existing situation of Kampala City and the metropolitan Towns, Counties and Sub Counties.
- 2) He however noted that the consultants needed to capture earlier planning experiences and initiatives in the preamble of the report as indicated in the TOR.

Mr. Kiggundu (KIDIIP)

- 1) He thanked the consultants for the good job done so far but indicated that the physical development plan has a big impact on KCCA, therefore the institutional structure that was not included in the report should be added

The Chairperson:

- 1) He indicated that there has been a lot of planning in Uganda and that many beautiful plans were made in the 1970s but they were not implemented.
- 2) He noted that currently there are new institutions with varying mandates and it is therefore important to indicate in the report how the various institutions will related in order to make the planning work.

Ruth Nakatudde (Wakiso District Physical Planner)

- 1) She called for the need to identify the immediate action areas.
- 2) She noted that Light Rail Transport is the best alternative but in the absence of electricity what are most suitable mass transport alternatives?

MIN. 4 KPDP-KCCA/13/02/12: RESPONSES FROM CONSULTANTS

- While responding to comments and questions raised, the consultants indicated that:
 - 1) There is need to develop a metropolitan region development framework to streamline how the various institutions will relate with each other. They promised to tackle the subject in future meetings.
 - 2) The previous planning experiences and initiatives will be included in the preamble as indicated in the TOR and recommended by members present.
 - 3) The metropolitan planning authority should be integrated with the district planning boards in the metropolitan area in addition to attaching importance to leadership with grassroots leaders participating in strategic and action planning.

- 4) It common that in many cities the introduction of Bus Rapid Transport is often resisted but with cooperation from stakeholders it can be successfully introduced.
- 5) The consultants were not required to identify the actual points where the bus terminals are to be located (which is unusual) and this will be done by the Directorate of Physical Planning.
- 6) There are no simple reasons to explain failure to implement previous plans since it is a combinations of a multiplicity of factors.

MIN. 5 KPDP-KCCA/13/02/12: DISCUSSION AND COMMENTS ROUND 2

- The Chairperson

- 1) He informed members present that it was not possible to divorce KCCA issues from the national picture. There is an imbalance between rural and urban development by the government. This imbalance also contributes to failure in implementation of plans since usually there is deficiency on resources available to drive plan implementation.

Daniel Kaweesi (Town Clerk - Entebbe)

- 1) He observed that the situational analysis report concentrates on KCCA yet its focus should have been on the entire GKMA. There are planning units outside KCCA which should be given a chance to interact with the consultants.
- 2) He also noted the absence of key stakeholders including Ministry of Local Government, Prime Minister's Office and Ministry Finance, Planning and Economic Development among others.
- 3) He also noted that transport planners should not leave out the option of water transport from Entebbe to Port Bell.
- 4) He further emphasised the need to improve coordination between KCCA and the Kampala Metropolitan Towns, Counties and Sub Counties.

Joseph Ssemambo (Acting Director Physical Planning)

- 1) He informed stakeholders from the Kampala Metropolitan Towns, Counties and Sub Counties that each Town, County or Sub County has a section dedicated to it analysing all sectors as had been done for KCCA.
- 2) He indicated that soft copies of the reports will be emailed to the respective institutions and that they should focus on sections most relevant to them and give feed back to the consultants.

Chair person:

- 1) He emphasised the need to ensure that interest of stakeholders in the Towns, Counties and Sub Counties should come out clearly in the situational analysis report.
- 2) He noted that discussion of the situational analysis report had not ended and that members were expected to send in more comments to the consultants.
- 3) He observed that comments can still be sent in via email and that reports should be availed to members as soon as possible so that they read and send comments to consultants for consideration.

- 4) He also noted that KCCA formally took over from KCC and the remaining transitional issues had no effect not only on the planning process but also on the will to implement plans that will be developed.

MIN. 6 KPDP-KCCA/13/02/12: CONCLUDING REMARKS

At 12:50pm, the chairperson made concluding remarks.

- 1) In his concluding remarks, the chairperson informed members present that all contributions will be given consideration by the consultants.
- 2) He informed members that the secretariat would inform members the date for the next meeting and the agenda.
- 3) He once again emphasised that all out puts of the consultants would be emailed to members whom he encouraged to read and send in comments which would be discussed during the next meeting.

The meeting ended at 12:55pm

These minutes are a true reflection of what transpired during the second Steering Committee Meeting which was held on February 13, 2012 in KCCA Committee Room 1

Chairman

Secretary

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Signature

Signature

.....

Date

Date

.....

A3: KPDP STEERING COMMITTEE 3 of 22.03.12

MINUTES OF THE CONSULTATIVE MEETING ON THE DEFINITION OF THE LONG TERM VISION AND DEVELOPMENT STRATEGY FOR THE KAMPALA CAPITAL CITY AUTHORITY AND THE GREATER KAMPALA METROPOLITAN AREA HELD IN KCCA COMMITTEE ROOM 1 AT 9:00AM ON MARCH 22, 2012.

AGENDA:

- 5) Opening prayer
- 6) Communication from the chairperson
- 7) Presentation of vision and development strategy for KCCA and GKMA
- 8) Discussions/ Reactions/ Recommendations

ATTENDANCE

- 19) Katsigaire Savino Chairperson
- 20) Ivan Katongole Secretary
- 21) (List of participants attached)

PRELIMINARIES

- The chairperson called the meeting to order at 9.40am
- The opening prayer was led by Anita Kusiima (Supervisor - Development Control)
- All members present introduced themselves

MIN.1 KPDP-KCCA/22/03/12: COMMUNICATION FROM THE CHAIRPERSON

The Chairperson welcomed all members present and thanked them for being committed to actively participating in the planning process. He informed members present that:

- a) The third Steering Committee was involving more stakeholders and was not a Steering Committee in the sense of the word. He noted that it was in essence a consultative meeting on the definition of the long term vision and development strategy for the Kampala Capital City Authority and the Greater Kampala Metropolitan Area.
- b) The Situational Report had already been discussed and a wider stakeholders meeting held at Grand Imperial Hotel.

- c) The Consultants were going to present their thoughts on which direction the City should develop based on the Situational Report and consult members present on the vision and development strategies for KCCA and GKMA.
- d) Members present were expected to actively participate in the deliberations of the meeting in order to contribute to the physical transformation of the planning area.

MIN.2 KPDP-KCCA/22/03/12: PRESENTATION OF VISION AND DEVELOPMENT STRATEGY

- a) The proposed vision of KCCA and GKMA was presented and the key topics during the presentation included:
 - 1) Kampala at crossroads
 - 2) Kampala Vision
 - Transformation of Uganda from a peasant to modern society.
 - 3) Development strategy (2012 - 2022)
 - 4) Laying the foundations (2012 - 2022)
 - 5) Quantitative targets and goals (2012 - 2022)
 - 6) Need for national policy
 - 7) Resource development and application
 - 8) Land requirements
 - 9) Integrated planning at all levels
 - 10) Need for strategic development plan
 - 11) Need for drainage plan
 - 12) Integrated water and sewerage systems
 - 13) Communications
 - 14) Economic development
 - 15) Greening Kampala
 - 16) Decision on wetlands
 - 17) Cleaning Kampala
 - 18) Housing development targets (2022)
 - 19) Services and activities
 - 20) Private sector resource development

- b) The development strategies were presented through displaying various scenarios. Key highlights of the presentation included:
 - 1) Future scenarios and conceptual plans
 - Emphasised that Steering Committee 3 and Steering Committee 4 were each to consider the GKMA scale (physical development framework) and KCCA scale (Physical Development Plan) respectively
 - 2) Existing urban sprawl, densities and spatial coverage
 - 3) Disjointed incremental growth
 - 4) Future growth scenarios
 - 5) 2040 worst case scenario

- There was a power interruption at 10:00am during which members present had a cup of tea. Session resumed at 10:25 am with members in smaller groups using laptops
 - 6) Establishment of new regional towns
 - 7) Potential action areas i.e Wakiso/ Nansana
 - Goma/ Kira
 - Sisa/Nsanji/Nakisunga
 - Ntebbe
 - 8) Conceptual plan
 - Widening existing cores
 - 9) Conceptual metropolitan structure
 - 10) Spatial sustainability analysis
 - 11) Detailed site analysis of action areas
 - 12) Kampala new town plan (2022 - 2040)
 - 13) New GKMA Physical Development Framework
 - GKMA road system 2022 and 2040
 - Transportation spine near the CBD i.e current Kampala railway station
 - 14) Kampala new towns
 - Nakisunga, Ntenjeru, Sisa and Nsanji
 - 15) Organisational decision making
 - 16) Need to declare Special Planning Area

MIN.3 KPDP-KCCA/22/03/12: DISCUSSIONS/ REACTIONS/ RECOMMENDATIONS

The Chairperson thanked the Consultants for the presentations delivered during the meeting. He informed members that:

- It was possible to achieve the proposed vision but there are many challenges to overcome
- The vision for the GKMA had been sufficiently presented with projections for 2022 and 2040 time periods

The Chairperson invited Comments/ Reactions/ Questions from members present

The following Comments/ Reactions/ Questions were raised:

1. It was observed that land tenure was a big challenge and the Consultants were requested to make proposals on how to deal with land tenure.
2. It was proposed that wetlands should be converted into urban forests or develop housing where they are located.
3. It was noted that there is need to harmonise the metropolitan planning law with the Kampala Capital City Act (2010).
4. There is need to improve revenue collection in the city in order to get funding to develop the city as planned.

5. There is need to create a rolling fund to finance urban development and it should be a responsibility of the central government.
6. There is need to show how infrastructure will be developed in the already developed unplanned areas.
7. It was noted that in-flow of population into Kampala can be controlled by developing regional urban centres
8. It was noted that the population figures used during planning are wrong since the Uganda Bureau of Standards used a wrong methodology to conduct the census in Kampala City.
9. It was noted that there is need to hold another meeting with land owners so that they speak for themselves instead of claiming that they are anti-development and that land tenure is a big challenge for urban development in Kampala. It was further noted that land owners are interested in PPPs with KCCA.
10. It was suggested that there should be a proposed road connecting Entebbe Road through Sisa to the proposed 3rd ring road.
11. It was noted that wetlands are part of the ecosystem which can be used for development but in a sustainable way. – The Chairperson noted that wetlands are not doing what they should do; he asked members present what should be done in the circumstances.
12. It was noted that there is need to plan and manage wetlands as part of the ecosystem since they are part of the green infrastructure which Consultants should emphasise.
13. It was noted that land is one of the preconditions for the development of Kampala however; Consultants must indicate other pre-conditions for the City's development.
14. It was noted that they saying that land belongs to the people should be abandoned and that land ownership should revert to the government to ease planning of Kampala.
15. There is need to revisit the institutional and legal framework in order to have a functional metropolitan planning authority with KCCA as part of the municipal entities.
16. It was noted that there is need to manage real estate agents parceling out land around the city without proper planning.
17. It observed that it is necessary to rethink a compact land form to avoid unnecessary sprawling of the City and that it is time to develop the national urbanisation policy.
18. It is important to emphasise multimodal transport infrastructure and that the current railway station should be the focal point in planning the future transport system.

19. Kampala should be seen as a City of the lake and there is need to develop water transport and water front areas. There is also need to emphasise cultural heritage and the creative industry.
20. Cities are about people are it is important to put in place a population monitoring system. The Consultants should advise on how this can be done.
21. There is need to think about resource mobilisation at an early stage if plans are to be implementable and useful.
22. Land utilisation should be improved and proposals from Consultants should come in handy.
23. Master planning seems to have completely failed in the past. Consultants should therefore develop a strategy for implementing the proposed plan. – The Chairperson informed members that the Consultants had presented the vision and development options. He called upon members to discuss these in order to give back and not concentrate on other issues.
24. It suggested in the vision, the first word; functional should be removed and that the words Ugandan society should also be removed.
25. What would happen to the other satellite towns which are not action areas e.g Kakiri, Wakiso and Kasangati? – The Chairperson informed members that planning for existing towns is also going on but focus on action area towns is a futuristic proposal.
26. It was noted that the vision misses the futuristic image of the city and that the wording is too academic. – The Consultants indicated that what is proposed will be handled at the next stage of planning.
27. Members were also interested in knowing if the proposed vision by the Consultants is on line with the vision of Kampala Capital City Authority. – The Consultants noted that it is better to start with the verbal aspects and narrow them along the way as the plan is developed. The Consultants noted that it is difficult to define a vision and that it is important to start by looking at the GKMA and narrow down to the vision of KCCA which will be at the next meeting. In addition, the Chairperson informed members that the vision for the plan must inform the vision of the city. He noted that the words in the vision are too many and there is need to cut them down.
28. It was observed that it is important to define the key words in the vision; and to mention that it is the vision for the spatial development of the city.
29. It was noted that the Directorate of Physical Planning should share the KCCA vision with the Consultants to ensure that the vision developed is in line with the overall vision of KCCA.
30. Some members presented indicated that the key words in the vision as it should be maintained since the key words are important in the implementation of the plan.

31. It was observed that it is common to find planners' vision conflicting with the visions of local governments yet it is better that the 2 visions are in agreement.
32. Members were interested in finding out if the vision developed by the Consultants was for GKMA of KCCA.
33. It was observed that the vision developed should be for GKMA; unfortunately each of the towns in the planning area has its own vision which must be looked at in order to develop an all embracing vision.
34. It was noted that there is need to understand the employment problem which can be dealt with through developing regional urban centres.
35. There is need for tenants to be included in the meetings between KCCA and the land owners. - The Chairperson asked representatives from the GKMA to indicate if their visions are not positive on the key words in the vision proposed by the Consultants.
36. It was also noted that there is need to agree if the vision developed is for GKMA and not KCCA.
37. It was observed that the vision should indicate a measure of the city against other cities in the region say the leading city in East Africa. - The Consultants noted that it is important that the vision developed is as realistic as possible. - The Chairperson noted that it is however possible to reflect the comparative advantage of Kampala in the region in the City's vision. He requested the Consultants to think more about it.
38. It was noted that Kampala was the only meaningful city on Lake Victoria and it should be used as a potential advantage that can be used on the GKMA scale and later on the KCCA scale.
39. It was suggested that there is need to keep the vision broad and not emphasise particular aspects but deal with them when developing the objectives of the plan.
40. It was noted that some members had reservations on the upper ring road and that it should be acceptable to forget about the inner ring which is a road through the city centre and concentrate on the outer ring far away from the city centre. - The Chairperson noted that expressways can run through the City centre. He requested the Consultants to make proposals on what could be done to stop urban sprawl that is going on at a faster rate. - The Consultants noted that enforcement is the only easy and realistic alternative available to deal with sprawl.
41. It was suggested that the proposed vision should be adopted and that there is need to think of an integrated approach; instead of a ring road, we can talk of a ring railway line and that all transport modes should be planned for. It was also noted that the 10 years being planned for was such a short time given the pace of development of the City. - The Consultants noted that for KCCA, an integrated approach to transport planning is already in process and in future the same will be extended to the satellite towns. The

Consultants noted that the railway line is 1 track and it should be upgraded and integrated into the overall master plan.

- 42. The Chairperson noted that members present had adopted the proposed vision and that all members present had adopted the options presented by the Consultants.
- 43. It was further noted that integration should be looked at from a broader perspective by looking at other issues beyond transportation and that Consultants must emphasise the need for regularly re-planning to avoid the situation going out of hand. In addition it is important that the planning period should be for a realistic timeframe.
- 44. It was noted that Consultants should give advice on possible ways of funding and implementation of the plan. - The Consultants noted that the World Bank is aware of the funding requirements and plans are underway to take on detailed schemes development in order to operationalise the plan.
- 45. The Consultants were also encouraged to think more outside the box just in case the World Bank does not fund plan implementation in the long run.
- 46. It was noted that betterment fees could be one of the sources of revenue that must be thought about. Consultants were requested to give advice on how to exploit this source of revenue.
- 47. The Chairperson thanked the Consultants for the wonderful presentations. He noted that the Steering Committee had been vibrant and the Consultants had received useful in-put from members present. The Chairperson thanked members for having given up other duties in order to come and attend the meeting.

The being no other business, the meeting was closed at 4:00pm

These minutes are a true reflection of what transpired during the Third Steering Committee Meeting which was held on March 22, 2012 in KCCA Committee Room 1.

Chairperson

Secretary

.....

Signature

Signature

.....

Date

Date

.....

Participants:

NAME	INSTITUTION	TITLE
ANITA KUSHIMA	KCCA	SUPERVISOR DEVELOPMENT CONTROL
ANNIE GALIWAYO	KCCA	DESS
ASHABA HANNINGTON	MOPPED	PRINCIPAL ECONOMIST
BONNIE NSAMBU	KCCA	PE/KIIDP
CHRISTINE NANTONGO	KCCA	MAPPING TEAM/GIS
DR. KIGGUNDU AMIN .T.	MAKERERE UNIVERSITY	LECTURER
DR. STEPHEN MUKIIBI	MAKERERE UNIVERSITY	HEAD OF DEPARTMENT
EVELYN KAHOZA	KCCA	PHYSICAL PLANNER
FARIDAH KIGGWE	KCCA	PHYSICAL PLANNER
G.T. MWESIGIYE	UHRC	SECRETARY
GODFREY B. KISEKKA	WAKISO TOWN COUNCIL	TOWN CLERK
GODFREY WALUSIMBI	KCCA	MANAGER BUILDING CONSTR
HENRY SSEBAGGALA	KCCA	PHYSICAL PLANNER
HOPE JEMIMAH KASIMBAZI	PSFU	EX. ASSISTANT/HR
IVAN KATONGOLE	KCCA	PHYSICAL PLANNER
JOEL KATEREGGA	BUGANDA LAND BOARD	BOARD MEMBER
JOS HELLERMAN	SHP (KPDP TEAM)	TEAM LEADER
JOSEPH SSEMAMBO	KCCA	AG. DPP
KATABAZI G.K	KCCA	PHYSICAL PLANNER
KATAMBA FRED	MUKONO	FOR CAO
KATEBALIME PETER	KCCA	SENIOR PHYSICAL PLANNER
KATO GEOFFREY	KIRA T.C	PHYSICAL PLANNER
KATSIGAIRE SAVINO	MLHUD	D/PPSUD
KICONCO MIRIAM	MOLHUD	SENIOR INSPECTOR PHYSICAL PLANNING
KIGGUNDU TAMALE	KCCA	PC/KIIDP
KIRIBAKKA VICENT	KCCA	SENIOR PLANNER
KIVUMA HERBERT	WAKISO DISTRICT LG	PHYSICAL PLANNER
KOOJO CHARLES	KPDP TEAM	PLANNER
KYAMANYWA CHARLES	KCCA	P. PHYSICALL PLANNER
KYASANKU DAVID	NANSANA TOWN	TOWN CLERK
MABALA SAMUEL	MLHUD	CUD
MALI JACQUELINE	KCCA	PHYSICAL PLANNER
MARY KAROOMA	KCCA	LANDSCAPE ARCH.
MOSHE HIRSH	ROM (KPDP TEAM)	TRANSPORT EXPERT
NABAKKA ANNET	KCCA	PHYSICAL PLANNER
MAXENSIA		

MIN.1 PDP-KCCA/20/07/12: COMMUNICATION FROM THE CHAIRPERSON

- The Chairperson started by welcoming members present to the meeting. During his communication he highlighted the following:
- Members were attending one of the last Steering Committees since the consultants were about to finalise the preparation of the PDF and PDP for Kampala
- During the meeting, members were expected to review the in-pup of consultants to ensure that they had taken into consideration all concerns that had been raised by stakeholders at earlier meetings
- The purpose of the meeting was for consultants to present the alternative plans/ options to members which requires referring to specific areas of the plan in order to make decisions carefully
- There is need for free debate on the proposals made by the consultants and issues raised by members present in order to guide various stakeholders on the process for the preparation of the PDF and PDP.

MIN.2 PDP-KCCA/20/07/12: PRESENTATION OF KAMPALA PDF AND PDP – SPATIAL AND DESIGN ASPECTS

1. HIGHLIGHTS OF THE PRESENTATION

- Kampala today - current situation, potential and challenges
- Envisioned roles and functions of Kampala
- Participation of the public in the preparation of the GKPDF and KPDP
- KCCA Physical Development Plan
- Planning scenarios
- Short term 2020 – Business as usual
- Long Term 2040 “best case” – Balanced Urban System
- GKMA Population Forecast

2. CONCEPTUAL METROPOLITAN STRUCTURES

- Alternative 1: The Independent Satellite cities Model
- Alternative 2: The Urbanized Belt Model

- Alternative 3: The East-West Corridor Model
- Alternative 4: The Radial Model of Integrated Satellite Cities + East-West Corridor Model

NOTE:

Alternative 4: Selected as the best choice

3. SPATIAL SUITABILITY ANALYSIS

Purpose of spatial suitability analysis was to find suitable areas for metropolitan growth

Analysis was done for:

- Land use
- Topography
- Metropolitan Road System
- Unsettled and Vacant Areas

4. DETAILED SITES ANALYSIS

- Wakiso-Nansana
- Ssisa – Nsangi

Spatial Suitability Balance Sheet for New Satellite Towns

GKMA Vision: Metropolis of Satellites

GKMA Recommended Strategic Policy

- To boost development of existing towns
- To plan and establish New Satellite Towns

NOTE:

The consultants decided to expand the TOR scope and designed the GKMA long term (2040) – Physical Development Framework instead of limiting the planning to the 10 years planning period per the TOR signed.

5. GKMA PHYSICAL DEVELOPMENT FRAMEWORK

- Five Factors of Regional Structure:
 - Factor 1: Kampala Special Planning Area (KSPA)
 - Factor 2: Transportation System
 - Factor 3: Subdivision into Metropolitan ZONES

- Factor 4: Population Distribution
- Factor 5: Metropolitan Services Hierarchy

6. KCCA PHYSICAL DEVELOPMENT PLAN 2020 – 2040

The Best Physical Structure for KCCA

- Physical Structure = Spatial Distribution of Economy

Alternative Structural Models:

- Ribbon Development Model
- Focal Model
- Integrated Model – Enhanced Foci Model

NOTE:

Integrated Model – Enhanced Foci Model was selected

7. SEVEN FACTORS OF KCCA URBAN FORM

- Transportation System
- Subdivision
- Population Distribution
- Landscape and Nature
- City Spatial Economy & Services
- City Center & CBD
- Improving Residential Areas

8. SHORT TERM (10 YEARS) POLICY FOR PLANNING AND DEVELOPMENT PROJECTS

- Kampala Special Planning Area Hierarchy
- Action Areas – Suggested Design Projects (2013 – 2014)
 - Project 1: Ssisa & Nsangi New Satellite Town
 - Project 2: City Center Local Structure Plan
 - Project 3/4/5/6: New CBD DLDP
 - Project 7: Urban Freeway and Railway

- Project 8: Lakefront and Central Park
- Project 9: Local Service & Economy Focal Center Pilot Project
- Project 10: Residential Planning Intervention Case Study

MIN.3 PDP-KCCA/20/07/12: DISCUSSIONS/ REACTIONS/ RECOMMENDATIONS

At the end of the presentation, members were granted a tea break of 15 minutes which was followed by a discussion/reaction/comment session. At the beginning of this session, the Chairperson:

- Thanked the consultants for the wonderful presentation that had been delivered to members present and summarised the key highlights in the presentation.
- Informed members that per what the consultants had proposed, there were many choices which had to be made and that good choices could be made if members followed all the finer details of the proposals made.
- Informed members that they had received reports earlier and that it is expected each of them had summarised comments are questions which they want to put across to the consultants.
- Welcomed questions/ reactions/comments from members present.

Questions, Reactions and Comments

1. Members entirely agreed with the proposals put across by the consultants but had some questions, reactions and comments which included the following:
2. Members envisaged implementation challenges arising from the fact that some of the planning zones proposed fall within areas not under the jurisdiction of KCCA.
3. Members noted that the presentation did not include much planning for the outer lying areas including Mukono and Wakiso but concentrated on KCCA.
4. Members indicated that it is important to ensure that KCCA deals expeditiously with the legal aspects of the Special Planning Area to avoid conflicts which are likely to come up at the implementation stage.
5. It was also noted that the planning zones should be prioritised since all of them can not be worked on at the same time.

6. Some members supported the proposal to turn some of the degraded wetlands into green parks and strict conservation of very sensitive wetlands that have not yet been degraded. In addition it was noted that it was not economical to pass roads in wetlands but destruction of the environment.
7. It was noted that no proposal was made for railway transport yet this had been mentioned in the previous Steering Committees. Members proposed that planning should be done for the railway network to be used in the future.
8. It was also noted that the presentation did not highlight the critical success factors for the PDF and PDP and it was agreed that the consultants should include the critical success factors in the report.
9. Members were also interested in knowing if the consultants had looked at the politics of planning in Uganda and the implications that local politics will have on the implementation of the plan.
10. Some members were of the view that parks of Kololo and Nakasero should not be included in the new CBD because they are places with many vested interests since it is where many embassies and rich people's homes are located.
11. Members noted that the plan implementation action areas need to go beyond the CBD and look at the entire GKMA if the plan is to have an impact and guide the development of the Kampala.
12. It was also noted that consultants need to interact with the Wetland Management Department which appears not to be in agreement with the proposal to turn some of the wetlands into green parks and is currently demarcating wetland boundaries in Kampala.
13. Some members proposed that Kololo and Nakasero areas should be planned for and the plan implemented without worrying about property owners in the area so that the planning treats all city stakeholders/ residents equally.
14. It was noted that the matters concerning the Metropolitan Physical Planning Authority and implementation of the KCCA structure must be resolved in order to implement the PDF and the PDP.
15. It was also noted that action plans for industrial development in the planning zones need to be prepared to stimulate employment creation in the outer lying areas to reduce pressure on KCCA.

Responses to Questions, Reactions and Comments

- a) Members were informed that there is an institutional framework which provides for the Metropolitan Physical Planning

Authority(MPPA) and that once the MPPA is operationalised, authorities in the respective areas which implement the approved plans for their areas per the plans approved by the MPPA. It was noted that this was the reason why the Steering Committee was being attended by leaders from the metropolitan towns and counties.

- b) Members were informed that the original TOR involved only planning for Kampala and the decision to extend the planning boundaries was reached later being it was not proper to plan for kampala in isolation because the interdependence between Kampala and the metropolitan towns and counties. It was noted that the Ministry of Lands, Housing and Urban Development would give support to local authorities in planning the proposed zones i.e Sisa and Nakisunga among others.
- c) It was noted that the Kampala southern bypass had not been implemented because of the wetlands along the route. However, there is vivid evidence which shows that the economic benefits of the southern bypass far out weigh the economic benefits of conserving the wetlands along the route and that without the southern bypass Kampala will come to a standstill. Members were further informed of the urgent need to for traffic management including use of signals which have high impact. In addition, it was noted that even in future (2040) many people will use walking to move form one place to another and it is important to prepare an Non Motorised Transport master plan.
- d) The consultants were agreement with members present that the railway network should be part of the plan and that Kampala should emulate cities like Addis Ababa that have commenced light rail project.
- e) The consultants indicated that they had understood the political environment and that in consultation with all stakeholders they had prepared a plan which goes beyond local politics.They also indicated that the final report will include joint resolutions drawn by all parties as part of easing the implementation phase. It was however noted that politicians work in the short term and that it is important to show the policians the proposals in order for them to approve and adopt them.
- f) The consultants further noted that the issue of local politics had been discussed with the World Bank and it was noted that there must be project champions who should work towards ensuring that the plans are implemented immediately.

- g) Members were informed that when the instrument for the Kampala Special Planning Area will be released, the Minister will issue policy guidelines. In addition members were informed that the gazettment instrument was currently in the Ministry of Justice.
- h) Members were informed the World Bank was also of the view that the proposed transport corridors should be gazetted, preserved and later opened up when funds become available. It was noted that the same should be done with open spaces, parks etc.

The Chairperson thanked members for having attended Steering Committee 5 and requested them to be good ambassadors of the planning process who should be able to guide other stakeholders especially the general public on what is taking place in order to avoid misunderstandings. The Chairperson extended his invitation to members present to the wider stakeholders meeting during which the consultants were to present the alternative plans at Metropole Hotel on July 20, 2012.

The being no other business, the meeting was adjourned at 12:10pm

These minutes are a true reflection of what transpired during the 5th Steering Committee Meeting which was held on July 20, 2012 in Committee Room 1- City Hall.

Chairman	Secretary
.....	
Signature	Signature
.....	
Date	Date
.....	

A5: KPDP STEERING COMMITTEE 5 of XX.XX.12

5TH STEERING COMMITTEE ATTENDANCE LIST

NAME	TITLE	INSTITUTION	EMAIL	PHONE NUMBER
Savino Katsigaire	Director Physical Planning & Urban	MLHUD	katsigaire@mlhud.go.ug	0772471922

	Development			
Muramira Telly Eugene	Director Planning	NEMA	tmuramira@nema.ug.org	0772400625
Charles Nyakwebara	Urban Planner	UIA	cnyakwebara@ugandainvest.go.ug	0712855012
Ayebare Pamela	Land Acquisition Specialist	UNRA	pamela.ayebare@unra.go.ug	0712321881
Ongora Emmanuel	Physical Planner	NPA	ongorae@yahoo.com	0772003825
Kyansanku David	Town Clerk	Nansana Town council	kyasankud@yahoo.co.ug	0772890929
Ashaba Hannington	Principal Economist	MFPED	Hannington.ashaba@finance.go.ug	0782941814
John.M.Behangana	Town Clerk	Mukono Municipal Council	jbehangaana@yahoo.co.uk	0772553474
Joseph Ssemambo	Ag. DPP	KCCA	Joseph.ssemambo@yahoo.com	
Andrew Kitaka	Director Engineering & Technical Services	KCCA	akitaka@kcca.go.ug	0772614622
Nakatudde Ruth	Physical Planner	Wakiso District	Ruth2002ug@gmail.com	0772823920
Ivan Katongole	Contract Manager	KCCA	ikatongole@gmail.com	0712816533
Peter Opio	Principal Statistician	UBOS	Peter.opio@ubos.org	0752319690
Koojo Charles	Consultant	ROM	koojocharles@yahoo.co.uk	0772522707
Vincent Byendaimira	AG.Commissioner Land use Regulation and compliance	MLHUD	vbateenyi@mlhud.go.ug	0772447262
Kiggundu Tamale	Programme Coordinator	KIIDP/KCCA	kiggundutamal@yahoo.com	0772200351
Hope Kasimbazi	Human Resource	PSFU	hopekasimbazi@yahoo.com	0772453915
Kato Geoffrey	Physical Planner	Kira Town Council	Kato-wamala@yahoo.com	0712682970
Nakibuuka Faridah	Physical Planner	Wakiso Town Clerk		0752963603
Tumwebaze Charles	Strategic and Project Management	KCCA		0772457198

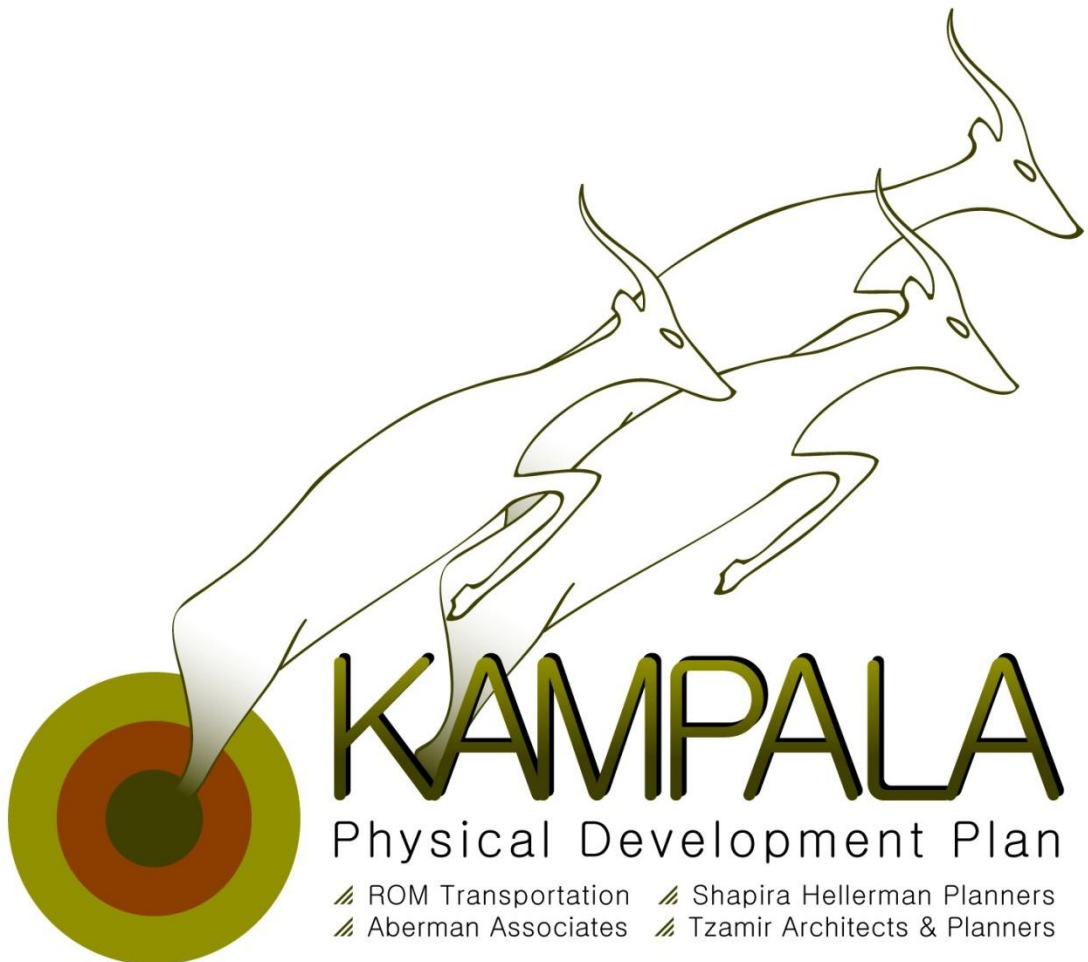
Appendix D: Stakeholder & Public Participation Report

Kampala Capital City Authority

Updating Kampala Structure Plan and Upgrading the Kampala GIS Unit

Public and Stakeholders
Participation Final Report

September 2012



ROM Transportation Engineering Ltd.
Shapira & Hellerman Planners
Aberman Associates
Tzamir Architects and Planners Ltd.
Ofek Aerial Photography Ltd.

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

1. Document Verification

Job title		Updating Kampala structural plan and upgrading the Kampala GIS unit		Job number GKMA-1	
Document title		Public Participation for Situational Analysis		File reference	
Document ref		GKMA-2			
Revision	Date	Filename	Kampala PDP PP Final.docx		
	10/2011	Description	PP Final Report		
			Prepared by	Checked by	Approved by
		Name	Hana	Jos	Moshe
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
Issue Document Verification with Document					
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Introduction

The purpose of this paper is to present the findings of the comprehensive public participation process conducted during the planning process.

Public and stakeholder participation in the planning process has a number of main goals:

- Including active participation of stakeholders and the public in the planning process;
- Informing the public about the planning process and its stages;
- Expansion of knowledge and databases;
- Paving the road for authorization of plans at the various levels;
- Reducing objections and preventing conflicts;
- Informing the public about the planning process and its stages;
- Ensuring transparency in the planning process.

Consistent with the terms and spirit of the ToR, the purpose of these meetings with the stakeholders and civil society and particularly with professionals, in addition to acquiring information and enriching the planning process, is the idea of participation in itself and of recruiting assorted interested parties to work jointly towards implementation of processes contributing to the planning of the City and the GKMA. Indeed, as appropriate to an open civil state and whilst ensuring the highest standards, approximately 1,500 participants took part in the process.(see Apendics D)

The participatory planning processes are indicated in **Figure 109** below.

The process had three phases:

1. During the data collection phase as an integral part of the situational analysis of Kampala and its metropolitan area. public representatives and professionals from all Divisions of KCCA participated in the process (in a total of 5 meetings). Beyond KCCA boundaries additional district and local meetings were held (7 meetings in total), in which both public representatives and professionals participated. In parallel thematic meetings were also held on various topics including with educationalists, parents and pupils (4 meetings), markets representatives, urban farmers representatives, entrepreneurs, environmental and infrastructural specialists, young academics, young graduates and students. In addition, structured focus groups were held at three neighborhoods (slums) around the city, in which neighborhood residents including women, men and some youths participated.

2. Workshop 1 Public Participation and Stakeholders & Civic Society at the stage of Vision and Planning Directions
 3. Workshop 2 - KCCA at the stage of planning alternatives and evaluation.
- Details of the Consultative Forums, Focus Groups and Workshop have been reported in Working Papers. Findings of the participatory and consultative processes are presented below.

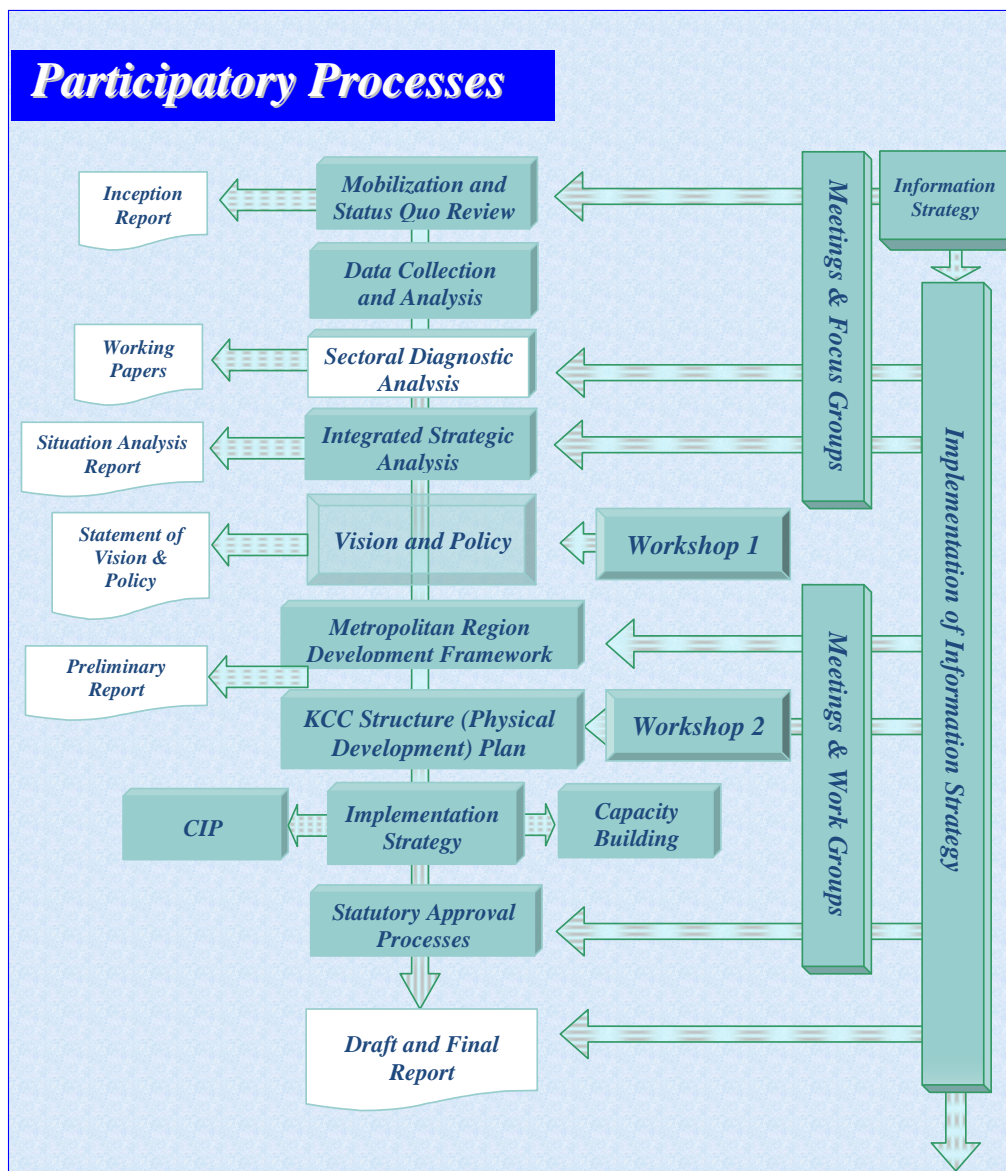


Figure 109: Public and Stakeholder Participation in the Planning Process

Consultative Forums

The meetings were led by planning team professionals, including KCCA seconded staff who took part in organizing the events and contributed to their success. In addition to leading, their role was also to translate and explain the terms or topics under discussion in Luganda.

Prior to each Consultative Forum meeting (in the Divisions, Towns and Districts), normally a short preliminary meeting was held with a senior local representative, followed by a general and structured assembly which began with a presentation and explanation regarding the plan (its purposes and methodology), and then structured workshops during which questions were raised for discussion. Participants were divided into discussion groups, in which each participant was given the opportunity to voice his or her opinion on the issues raised. Group findings were then presented to the plenum and finally local representatives gave concluding remarks.

Thematic groups were held in small forums as focus groups. On average 15-20 people participated in each of these meetings.

Table 73: Consultative Forums

Forum	Date	Location	Number of Participants
Kampala Central Division	13.6.11	KCCA Offices	35
Nakawa Division	15.6.11	Nakawa Division Offices	130
Makindye Division	16.6.11	Makindye Division Offices	55
Rubaga Division	17.6.11	Rubaga Division Offices	50
Kawempe Division	20.6.11	Kawempe Division Offices	70
Wakiso District	18.7.11	Wakiso District Offices	35
Mukono District and Municipality	19.7.11	Mukono District Offices	40
Entebbe Town	20.7.11	Entebbe MC Offices	70
Kira Town	21.7.11	Kira TC Offices	50
Wakiso TC & Sub County	31.8.11	Sub county Hall	28
Katabi, Ssisa and Makindye Sub counties	31.8.11	Makindye Sub county	32
Kasangati - Nangabo	21.9.11	Nangabo Sub- county	21

Issues Raised

The main problems raised in the Divisions and the Districts/Town, different areas, were quite similar. Each discussed the matter of slums, over-crowding, problematic infrastructure and lack of services in each area, including health, education and public services. In the Divisions many remarked on community activities being organized by NGO's and CBO's for children, disabled persons and women, as well as among youths, in the form of professional training.

In the Districts/Towns participants emphasized the encroachment of wetlands creating more slums.

Most towns and sub-counties were defined as dormitory towns/villages with vacant land for expansion (mentioned in Kawempe as well), under fast development but not in an organized planning framework. Most participants mentioned the abundant labour, fertile soil and many other advantages of each town (water, proximity to the city and to the lake, and building materials, etc.). They all mentioned the provision of food to the city and to the markets.

In the districts most participants mentioned the need for institutional coordination, collaboration in physical planning including infrastructure development, environmental management, public sensitization, fighting drug abuse and funding social services.

Additional issues mentioned included lack of skills among the older population and the matter of illiteracy – there are institutions dealing with this problem in a number of areas. High rates of unemployment and high price of living were also discussed, as was the need for training in urban agriculture and in general

Participants mentioned a number of programs which in their opinion had significant impact – mostly programs for improving infrastructure, water, sewage, garbage collection, programs related to environmental concerns, education (UPS, UPE), programs for agricultural training and community programs operated by NGO's. In one case the North By-Pass was also mentioned.

Obstacles for programs' implementation were also a recurring theme in both the Divisions and the District/Towns. In this regard participants focused on issues of corruption, political intervention, inadequate resources, lack of coordination between institutions, absence of responsibility, and lack of professionalism. Some importance was also given to lack of awareness and public involvement, as well as to land problems and ensuing conflicts.

Divisions' roles are perceived and defined as being dedicated to planning, providing resources, communicating with neighbouring divisions, handling and planning of infrastructures and mainly providing services. The roles of Parishes are to bring matters to the divisions for discussion, to follow-up and to ensure they are implemented. A number of groups also mentioned the role of securing services (probably related to the follow-up role), street maintenance and illumination. The Parishes see themselves as involved in NGO and CBO activities in their communities.

The Districts, as mentioned, see themselves providing food, materials, dormitory functions and land for future development.



Kampala Perceptions

Most participants perceive the city as highly disorganized. The main problems raised include sanitation problems which are attributed to the daily congestion and overcrowding in the city. The issue of accessibility is perceived as problematic by most participants, as is the concentration of crime in the centre of the city which makes many of them fondly recall the 1960's during which the city was much more intimate and organized. Many attribute the current situation to the new populations which arrived in the city and to corruption in the institutions which should be taking care of the city.

Representatives of the education sector perceive Kampala is as an under-developed city, extremely overcrowded and dangerous for children. Also, it does not provide housing for villagers migrating to the city. However, participants also noted its potential for development, which can improve its infrastructures and transform itself into a busy but organized city, with improved infrastructure and public transportation and a safe place for its residents, including children.

The Future of Kampala

Most participants believe that change could occur following increase of resources, improvement of infrastructure and services (especially in the fields of health and education), transportation - without Boda-Boda (mentioned in all meetings), manpower training and finally follow-up to ensure that plans are actually implemented.

Most participants see the future city of Kampala as a well planned, organized, green, modern city, with international standards of infrastructure, similar to cities such as New York, Tel Aviv and Tokyo. It will be an expanded city, with suburbs around, a city with limited crime, plenty of employment opportunities and environmentally friendly.

Some participants in District/Town Forums raised the issue of planning a new capital city instead of Kampala but most of them would like a modern organized city with satellite cities around.

Planning and Development

The process of urban planning was frequently described as frustrating as it requires constant development in many levels but its results are not always tangible and the plans are frequently not implemented. The frustration grows as the city and its environment finds itself coping with a constant flow of migrants, a population which doubles its numbers during the day, expanding slums and lack of basic services to the point of total collapse in many areas. In all meetings, participants raised the importance of planning while cooperating with professionals and ensuring implementation by entrepreneurs. In this regard, all meetings discussed the many obstacles to implementation.

It should however be noted that professional participants accurately define the roles of the various authorities and the division of responsibilities between them and also correctly identify needs and issues requiring constant planning and coordination.

One of the topics mentioned in various contexts is the issue of transportation and associated problems, which participants believe causes constraints and distorts the development of the city centre, preventing proper and sufficient deployment of services as well as increasing social gaps in the city.

An additional prominent issue raised during meetings is the issue of ownership of lands (tenure) which reportedly derails planning options, creates slums and causes infiltrations and encroachment both in and outside the city. The problem of encroachment is mentioned as occurring mostly outside the city as a phenomenon which results in creation of slums following entry of new populations to the wetlands (in direct contradiction to the perception and reporting of the environmental professionals).

In addition, all meetings discussed the expansion of road-side markets, with the more organized markets having a difficult time coping and competing.

The growing crowdedness and inability to provide reasonable housing is detrimental to the city's development and results in lack of services in most areas as well as constantly growing sanitation problems.

The issue of environmental protection was also raised in various contexts including destruction of forests, mining around the city, garbage disposal (or lack of it) and the many inundations occurring around the city, mostly in its poorest sections.

District, Town & sub-County Consultative Forums

Seven (7) meetings were held in the following districts/towns/sub-counties: Entebbe, Kira, Kasangati, Mukono, Makindye, Wakiso (town and district). The purpose of these meetings was to better inform the Consultant's professional

teams regarding central issues in the planning process and to include District, Town and sub-County representatives in the process.

The meetings were led by planning team professionals, including Project seconded staff who took part in organizing the events and contributed to their success. In addition to leading, their role was also to translate and explain the terms or topics under discussion in Luganda.

In general it was noted that participants are well aware of the area's and the specific town/sub-county's condition, are adept at participating in workshops and have a good ability to define problems and needs.

General Findings and Common Issues

The purpose of the questionnaire compiled by the planning team was to find out how each area/town is perceived by local residents and professionals in each local authority. The aim was to gain a better understanding of the specific characteristics of each area/town, its main problems and existing trends, and thereby to identify required interventions towards improving the area.

The main problems raised for the different areas were quite similar. Each group discussed issues of poverty, relatively high crowdedness, rural migration, rapid urbanization, poor roads and networks, problematic infrastructure and lack of sufficient services in each area (including health, education and public services).

Many remarked on community activities which should be more organized, mobilized and sensitized. Participants mentioned high rates of unemployment and poverty, as well as problems of crimes and poverty and encroachment of wetlands which create more slums.

Participants mentioned a number of programs which in their opinion made the greatest impact – mostly programs for improving infrastructures, water, sewage, garbage collection, providing land for investment, programs related to environmental concerns, education (UPS, UPE), programs for agricultural training and community programs operated by NGO's. In one case the Northern Bypass route development was also mentioned.

Obstacles for programme implementation were also recurring themes. In this regard participants focused on corruption, political intervention, shortage of sufficient resources, lack of coordination between institutions, lack of responsibility and lack of professionalism. Some importance was also given to lack of awareness and public involvement, as well as to land problems and ensuing conflicts.

Most districts were defined as dormitory cities with vacant lands for expansion, under fast development but not in an organized planning framework. Most participants mentioned the abundant labour, fertile soil and many other

advantages of each town (water, proximity to the city and to the lake, and building materials).

Most participants mentioned the need for institutional coordination, collaboration in physical planning including infrastructure development, environmental management, public sensitization, fighting drug abuse and funding social services.

As for Kampala, some raised the issue of planning a new capital city instead of Kampala and most of the participants would like a modern organized city with satellite cities around.

Environment and Infrastructure Workshop

Participants in the Environment and Infrastructure Workshop estimated that only 10% of the GKMA is covered by piped sewerage systems and only 10% in KCCA have access to piped sewerage. Other solutions (pit latrines, on-site management; settlement ponds, septic tanks, wetlands) are suitable only in the short term. In the gazetted water supply areas, water provision is adequate, but not for population growth and infrastructure needs improving. There are various problems of connections and affordability. There are capital investment programmes. There was substantial agreement that the poor are not responsible for major encroachments into wetlands and they have an interest not to do so because of agricultural opportunities, although awareness is low. The main problem is non-residential encroachment into the wetlands. Infrastructure should not be provided to illegal operations, but there is a problem of political will. Climate change is of concern, as is greater runoff because of growth in the built environment and inadequate drainage infrastructure, although wetlands can play an important role. For solid waste there is a problem of sorting at source and there are limited landfill and similar sites. There was general agreement that coordination between organisations needed to be greatly improved.

Focus Groups

Twelve Focus Groups and an Environmental Workshop as below

Table 74: Focus and Thematic Groups

Forum	Date	Location	Number of Participants
Students and Graduates	19.2.11	Consultant's facilities	17
Teacher's Union	10.6.11	KCCA	15
Head Teachers	16.6.11	KCCA	10
Parents	13.6.11	KCCA	10
School Management	15.6.11	KCCA	8

Forum	Date	Location	Number of Participants
Committees			
School Pupils	20.6.11	KCCA	3 + 3
Urban Agriculturists	5.5.11	KCCA	15
Market Traders	5.5.11	KCCA	14
Young Professionals	7.5.11	Consultants' facilities	12
Kisenye Parish	9.5.11	In the parish	+30
Makarere III Parish	9.5.11	In the parish	+50
Property and Real Estate	19.7.11	KCCA	12
Tourism	20.7.11	KCCA	12
Environmental Workshop	25.8.11	KCCA	30

The purpose of the focus group meetings was to identify and clarify important issues from the individual perspective and/or different point of views. Participants were selected as representative of everyday life in the field or as experts in relevant fields. These meetings' products complement the quantitative data collection providing both subjective, individual experience and perspective (what the participants think, know and feel about the subject matter and what their aspirations for the future are) as well as expert perspective.



The total number of participants in the forums exceeds 250 people. The different forums included three parishes (Kisenyi, Bwaise III and Makerere III), market traders, urban agriculturalists, young professionals, property and real estate sector, tourism sector and in the field of education: teachers union, school headmasters, school management, pupils, parents, students and graduates.

Market Traders Focus Group

The main considerations listed by participants for selection of their business location include passing traffic, provision of water and electricity, proximity and accessibility to potential customers (residential markets), accessibility to supplies, security and stability of the area and reasonable distance from competitors (other markets).

The main problems encountered by businesses include competition (from other markets), street vendors, weather damage (rain and heat), road accidents, theft of goods, shortage in storage areas, problems with location costs and parking places.

The most prominent competitors are the vendors in the main streets, farmers selling their produce cheaply to markets close to their farms and the numerous new supermarkets which have been opened lately.

From an organizational perspective each market has its own association and all markets together are organized under a central union.

Urban Agriculturists Focus Group

Most urban agriculture group members were women. Among the women most are poultry farmers, as well as a number of other enterprises. From the stories told during the meeting we gather that most of them began working in the field due to shortage of food for their families or in order to increase the wellbeing of their family, community, etc.

The men working in this field often do so as a second income (such as growing mushrooms). Usually the conditions are there – space, a room for growing the mushrooms or a field. The story of the participant who works as a fish monger is different – he began from a small family business and grew to be a large scale supplier.

The main competitors to those dealing with urban agriculture are either rural farmers who sell their produce for cheap or those operating large-scale businesses in the field.

The main problems listed by group members include limited space for urban crops, high price of tools, limited capital, theft and marketing issues.

Participants are happy with the municipality's attempts to institutionalize and control urban agriculture as it will streamline the field and result in the establishment of training centers (some participants were trained, but many were not).

Participants are organized in various farmers' unions and also in the central Kampala union which is considered the largest one of all.

One of the main threats on urban agriculture activities is shortage of space, but also changes in land policies. Another crucial issue leading to instability in the field is the constant immigration into the city, which will not leave land for farming. That is why the municipal law (ordinance) dealing with this matter is so important for farmers, as it requires them to obtain a business license, among other issues.

In response to the question "what do you think of Kampala", responses dealt with the need to expand the city and to legislate laws favouring farmers, especially

those immigrating into the city. Participants also believe that the city must allocate land to farmers and must take care of reducing the congestion.

In general we have noted that urban agriculture activity does take place in the city, and that its boundaries are presently being defined. There are a number of threats to the activities although the city is trying to organize the sector. Residents who work in the field fear the future in light of the heavy immigration, land limitations and land policies being changed not in their favour.

Young Professionals Focus Group

As young professionals and as residents of the city and GKMA, participants identified the city's problems and negative characteristics including inadequate services, limited community life, lack of organization and structure, transportation congestion, lack of green spaces particularly for children, poverty, density, housing problems, etc.

In the field of services transportation problems were emphasized including congestion, shortage of parking, road maintenance. Also emphasized were shortfalls in health services, sanitation, electricity (supply and cost), cost of communications and general cost of services.

When asked to define "middle class" answers split into 2 distinct viewpoints:

- a. standard definitions based on education, lifestyle, status and residual income levels; and
- b. anything above basic subsistence (regular meals, use of public transport, steady employment on any level, etc.)

Participants expressed their aspirations for a well planned city - modern green and clean city with dispersed centers, improved transportation system and good governance.

The suggestions to the planners included distribution of services to all areas, to extend development into rural areas, tools to tackle urban poverty, to improve medical system and standards, to limit boda boda and heavy duty traffic in the city.

Education Oriented Focus Groups

Parents select schools for their children based on distance (although some parents drive their children up to one hour each direction), religion, academic level and available financial resources. All participants criticize the schools and education system for overcrowded classrooms, lack of proper sanitary facilities, lack of infrastructure such as water and electricity, and little to no services and suitable equipment. Classes are very crowded (reportedly 80-120 students in a classroom with two teachers). Schools are housed in old, unkempt structures, usually with no yard, open space or sports. Another criticism regards the level of teachers, who usually earn very low wages and live in difficult conditions in housing attached to the school, or else don't get any housing at all. Teachers' motivation in general is low, as are their teaching conditions.

Boarding schools are perceived as a good solution for the bad conditions in the public school system as well as a means of distancing the children from the insecurity on the streets including the immediate area around the school. The danger on the street, busy parents, low level of education and poor conditions for studying, both in school and at home, lead many parents to prefer boarding schools, although even that option does not provide all the answers (reported unsatisfactory food, insecurity, separation from parents, etc.).

As to whether the boarding schools phenomena will be a lasting one, responses dealt mainly with the problematic infrastructures in the city, lack of minimal conditions and the high tuition fees in private schools. Participants generally agreed that the academic level of the boarding schools is higher and the time which students can dedicate to studies is significantly larger than at home.(travel and household chores).

The reason that most schools are concentrated in the centre of the city is more accessible, even if there are good schools in relative geographical proximity.

The high concentration of schools in specific areas, mostly the better areas, is also related to social status wherein “successful” parents meet around the school. In addition the center of the city is the primary employment node and transporting children to school in proximity to the place of work provides social exposure and contact.

The Consultants were told that many of the children from the poorest homes drop out of school due to poverty, shame and not feeling comfortable to be with others, preferring to wander the markets and even work in them.

A more balanced distribution of schools, on a neighborhood/zonal basis, is dependant on good infrastructures (roads, water, electricity, etc.) and large-scale development and construction of new schools with necessary services included.

The city of Kampala is perceived as an under-developed city, impossible overcrowding, dangerous for children (raised in the discussion with the pupils). It does not provide housing for villagers migrating to the city. However, participants also noted the City’s development potential (a proposal was raised to develop a new capital city in order to reduce the load from Kampala), a City with improved infrastructure and public transportation, transformed it into a busy but organized city, a safe place for its residents, including children.

Following are the main points as raised during the meetings as documented:.

Slums

The meetings with residents of the various slums have pointed to the fact that there is a substantial difference between the various slums and with it their chances of upgrading and regeneration.

In Kisenye which is located close to the city centre, residents expressed their wish to remain in the neighborhood and are worried about changes in the real-estate market which may result in their having to leave their homes due to inability to pay the rising costs of rental. Most of them live there because it is close to the markets and their places of work. Residents suggest taking measures to reduce poverty levels and transform the neighborhood into a more organized and planned place with residential areas, small banks and other sources of occupation, health and education services and environmental protection. Everyone is willing to contribute their skills to the neighborhood and believe that the fact that they are organized as a community may in itself help the neighborhood.

Despite its shortcomings they are afraid of being evicted from their homes and most of them would like to see their future there.

As to the question "what is Kampala city to you?" the answers were similar to those provided by other focus groups: a dirty place, crowded, disorganized, undeveloped, with a lot of in and out migration characteristic of slums.

In conclusion, there is a certain community spirit in the neighborhood, paired by a significant apprehension from the planned future changes, which may distance them from the neighborhood due to lack of budget (increased rental rates). Participants' recommendation for transforming the neighborhood into a more commercial area reflects their aspiration for more sources of income and local employment to ensure their ability to stay in their homes.

In Makerere III and Bwaise III residents perceive the situation as much more severe, due to unacceptable living conditions, lack of basic services and extreme poverty.

Student and Graduate Focus Group

As Urban Planning students and graduates and as residents of the city, participants identified the city's problems and negative characteristics including neglect, lack of organization and structure, problems due to overcrowding, transportation congestion, lack of green spaces and the problem of the slums. However, when asked specifically about the city's advantages, participants were able to list many advantages including landscape, construction boom, empty plots, the fact that the city is located on the banks of Victoria lake, recreation facilities and the fact that it is a relatively safe city.

Participants expressed their aspirations for a clean city catering to a variety of populations, where living conditions are good, with open spaces and no slums. A city with no pollution and public transportation (if possible – underground public transportation), a sustainable, well preserved city.

Participants disagreed on the ideal location of markets. While some believe they should be removed from the center of the city and brought into the neighborhoods,

others argued that the variety in a central city market is higher because it serves a larger population. Disagreements were also identified on the matter of roadside commerce. While some participants believe that it increases truck traffic, others argued that on the other hand it provides livelihood to residents living in those areas.

From the answers to the question "where do you see yourself in 10 years" it can be concluded that participants would like to become involved in fields of design and transportation, as central issues in the city's life which may bring good profits, but not only that. It may be noted, none of the graduates indicated an intention to leave the country.

Property and Real Estate Focus Group

The residential sector constitutes the dominant segment of the market in Kampala. It is clearly segmented. It is driven by demand from low income migrants (rural in-migration immigrants and refugees) and students for low cost rental housing and the middle income residents for higher standard private ownership. Demand in the lower end of the market is met almost exclusively by private, generally inform, development (tenements). Most of the supply to the middle and upper ends of the market is based on individual private sector development, frequently informal. Larger scale, formal is growing but remains very limited in scale, supplying the middle and upper segments. Given supply limitations projects aimed at the lower end of the market have been taken-up by middle income families and those aimed at the mid-range by upper-middle income purchasers. Top range developments are priced beyond the capacities of the upper-middle income market and aimed primarily at the diaspora market and foreign residents.

The dominance of the residential market is reflected in the widespread preference for rental housing development as the prime mode of investment in real estate in Kampala.

Commercial space in the city is at a premium and the limited supply resulting in large-scale turnover (rising rentals) and speculative participation in the market. Commercial development is limited to a few actors concentrating largely in and around the centre of the city. The informal sector's involvement in this segment is marginal (excluding large-scale roadside vending).

Office space in the city is likewise at a premium with development limited to a few actors concentrating largely in and around the centre of the city. Given demand and prices there are a significant number of new developments going up in and around the centre of the city.

Demand for industrial space is reportedly growing at a slower pace than other segments of the market. There is reportedly significant demand for logistical facilities and for small to medium scale industrial space. The upper end of the

market, large-scale industrial and logistical facilities, is well supplied in the city and in the GKMA by the few large-scale actors, land-owners and developers, frequently with public sector support. An effective supply gap is indicated for the mid and lower segments of the market.

The property market is almost exclusively private since the public sector withdrew from the residential market (with the privatisation of the National Housing Corporation). The exception is in the industrial segment in which the public sector retains a significant role in enabling large scale developments and investments. The public sector's role is also very limited in the direction, support and/or regulation of the market. The NSSF was identified as a potential significant actor in the various segments of the real estate market.

The property market in Kampala is perceived to be inefficient given land prices and differences therein, the land tenure system, the lack of appropriate infrastructure, the cost of construction and particularly the cost of materials and the absence of new appropriate construction methods.

Construction methods are generally labour intensive and low technology with innovation distinctly limited in all segments of the market.

In response to the Consultant's request for clarification all participants indicated a clear correlation between land prices and infrastructural provision.

Participants' vision for Kampala correlates with the vision expressed in all the Focus Groups - i.e. an organised and regulated city, accessible, serviced with infrastructure, sustainable and environmentally friendly with "green" elements. Transport and movement received specific comment including the suggestion to introduce rail (passenger) services in the city.

Tourism Focus Group

Primary Tourist Markets mentioned: Europe, business tourists, internal and regional expatriates. Developing Regional Market : Kenya, Tanzania, Uganda, primarily business. Families (East Africans especially Kenyans). East Africa developing as/needs to be developed as an integrated market. Serena and Sheraton (business hotel). Arab market is an untapped market. Community tourism (western areas). Backpackers are a developing attractive market (poorly served). Potential for year round tourism as opposed to seasonal.

Primary Tourist Attractions

- Wildlife sanctuaries.
- Lake Victoria (potential).
- Uganda wildlife education centre.
- No significant attractors in Kampala (which serves the business visitor and tourists in transit to and from wildlife attractions).

- Project proposal for tourism route but no financing has been provided, so the project is on hold.
- Recreation for the local market.
- New Serena Hotel on Lake Victoria (Pearl group - Cementers).
- Government does not support and believe in its own(hotel, travel)
- 2 billion for branding tourism in Uganda.

Vision

- Congress Tourism as a destination.
- Resorts.
- Lounges.
- Water oriented market (should be looked at).
- Infrastructure (tourism).

Expectations

- Tourism centers.
- Cultural tours.
- Tourism should be budgeted.
- The golf course should be utilised to attract major tournaments.
- World wind surfing competitions on Lake Victoria.E.g Carzi.
- Marathons.
- Traffic (road infrastructure).
- Give incentives
- Gazette (plan) areas for recreation for the local population



Workshop 1 - Stakeholder & Civic Society

The first Public Participation Stakeholder & Civic Society Workshop was held on the 29th of February 2012 at the Grand Imperial Hotel in Kampala, under the auspices of the KCCA Executive Director Mrs. Jennifer Semakula Musisi. The assembly included approximately 240 participants, including the City Councillors, Divisions and Towns Mayors, senior officials, professionals, representatives of the neighbourhoods, NGOs and stakeholders in the city. The meeting was chaired by Mr Savino Katsigaire Director Physical Planning and Urban Development

MLHUD and coordinated by Mr Kiggundu David Tamale Project Coordinator KIIDIP KCCA.

The meeting included:

- Opening Remarks by the Executive Director KCCA;
- Presentation of the Findings (Situational Report);
- Structured Group Discussion;
- Plenum Reporting;
- Presentation of the Scenarios - Strategic Choices;
- Open Discussion and Feedback.

In her opening remarks the ED emphasized growing trends evident in Kampala and its hinterland, the high rate of urbanization without significant physical planning intervention and the implication and consequences of not implementing the previous plans (1994).

She invited the participants to share responsibility in making the right decisions to ensure that Kampala grows as a healthy balanced City for its residents.

The findings presentation (attached) included an overview and analysis of the data collected, and its implications on various planning issues, including relevant comparative international data, in addition to examples from Kampala itself. The presentation included diagrams, graphs and photographs which contributed to a better and more in-depth understanding of the issues.

The second presentation (attached) presented a possible conceptual direction for a ‘new city “Vision”’.

Following the findings presentation, participants were divided into 5 smaller discussion groups, each concentrating on questions prepared by the planners.

Each group included 40-45 participants and was led two members of KCCA the planning team. Participants presented their views and opinions as per their individual preference. All views, opinions and statements were documented and are detailed below.

The findings of each group were later presented to the plenum by one of the group participants. These findings are presented in this report as presented during the meeting.



As indicated above, during the second part of the meeting optional scenarios of the integration processes was presented, followed by a plenum discussion of the issues raised. The comments are presented in this report as they were presented during the meeting.



Main Findings of the Group Discussions

1. Which roles and functions of Kampala need to be strengthened or prioritised over the others? Are there other major roles the City could and should fill? (Capital City, Primate City, Gateway and Showcase, Centre of Buganda Kingdom, Engine of Growth, Home and Living Environment, Regional Education Centre, Tourism Hub).

Most of the participants mentioned the: Capital and Primate City, Gateway and Show case, Engine of

Growth and and Tourism Hub as priorities. Some emphasized the Regional Function and other roles like Sensitization and Recreation Centre.

2. Which roles, functions, services could and should be developed in the suburbs and the metropolitan towns and which should remain concentrated in the City Centre?



For the City Centre the common answers were: banks, administration, business, 5 star hotels, trade, modern housing, communication masts, transport, supply center. For the suburbs the frequent answers were: markets, industries, residential, education and health services, shopping centers, outlets, primary schools, green belts, boda boda.

3. Should the rate of in-migration from the rural areas into Kampala be slowed? If so how? Or should Kampala plan to try to absorb the inevitable wave of migrants?

The answer was: YES. The means mentioned are:

- Provide the required services in the suburbs
- Regional cities
- Provision of employment activities in the suburbs/delocalisation of industries.
- Put up policies that make economic activities in the rural areas profitable.
- Improve the Infrastructure and the transport system in the suburbs.
- Rural incentive schemes for investors.
- Develop upcoming cities and national framework.
- Policy regulation and Land use
- Rural planning (modern agriculture) to avoid out migration
- Improve security in rural areas.
- Relocate central government to other areas.



4. What needs to be done to allow KCCA and metropolitan municipalities and towns to collect real taxes and fees to enable service provision?

The frequent answers were:

- Private firms to collect taxes
- Development tax database
- Computerised tax system
- Establish a reliable data bank
- Integrate and coordinate tax collection between KCCA and neighbouring Districts.
- Political will of the metro-area and harmonising with central government
- Review KCCA property tax on owner occupied
- Show benefits of taxes
- Transparency in tax management.

5. How can land be made available in the right places to meet needs (housing, employment, infrastructure, services) and to enable Kampala to develop properly?

The frequent answers were:

- Compensation
- Land consolidation
- Land banking
- Land use planning
- Remove dual land ownership.
- Identify the required land during the planning process
- Establish stronger land laws (Government)
- Establish partnership with land lords and developers
- Consolidation and land re-adjustment (must revisit the land law)
- Compensation land fund
- Transparent land registration
- Transparent land acquisition
- Work with Buganda Kingdom.

6. What needs to be done to enable control and enforcement of private construction and development?

The frequent answers were:

- Provide planning guidelines
- Technical manpower and proper enumeration.
- Harmonise policies(KCCA and other local authorities)
- Prepare local schemes/detailed
- Sensitization of masses on the policies
- Simplify the planning process and make it transparent
- Outsource development control and enforcement
- Strength enforcement of laws
- Prepare detailed schemes agreeable to the people and they should be known to developers
- There should be political commitment
- Establish construction standards
- Approve building plans in a short time
- Regular inspection and monitoring of the sector
- Implement master plan
- Enhance submission of structural plans
- Effective land use planning.

7. Should the protection of wetlands be absolute (even relocating present intrusion) or general but with expectations



(present intrusion? infrastructure? open public space? Housing? Employment?)

Answers tended to protection but included:

- Absolute protection
- Sustainable utilisation of wetlands
- Critical wetlands should be protected absolutely
- Zero tolerance to new wetland development/ encroachment
- Compensate land lords owning land within the wetland areas.

8. Given budgetary constraints what transport infrastructure should be given priority? (Upgrading the existing road network? NMT (non-motorised infrastructure for pedestrians and bicycles) special lanes and corridors for public Transport? New highways?)

The frequent answers were:

- Bus
- Rail- Establish railway system/ revamp existing rail system (underground rail system also noted)
- Upgrading existing road network - upgrading infrastructure
- NMT(non-motorised transportation)
- Special lanes.

Additional responses included:

- New highways
- Upgrade existing roads to bitumen standards.
- Special lanes/bicycles/pedestrians
- Dual high ways should be established
- Construct express ways
- Introduce commuter train service.

9. What should be the policy toward Boda-Boda? (Remove them completely? Remove them from the city centre? Keep them only until there is good public transport system? Keep them and support them?)

Common responses included:

- Remove them from the city centre in order to decongest the CBD
- Provide special lanes for boda-boda in the suburbs and a good management system.
- Remove them completely
- Keep them until good system
- Control boda bodas - tax boda boda heavily to discourage them
- Don't touch taxis
- Remove them from CBD and in the suburbs they should be regulated
- Establish transport hubs for boda boda and taxis in the suburbs.

Minority responses supported retaining the Boda-boda in the CBD.

10. There is a decision to build a BRT system in Kampala. In your opinion, what should be the first route to be developed?

Routes mentioned were:

- Jinja road-Bombo road corridor
- Entebbe road
- Entebbe/Kampala
- Bwaise-Kampala
- Kampala-Jinja Road
- Kampala-Gayaza Road
- Kampala-Kawempe
- Kampala-Hoima road
- Kampala-Gaba Salaama Road.

Summary of the Main Comments

As seen in the findings most participants agreed with the functions and role of the Capital City emphasizing the regional role and adding the role of Center of Recreation.

They all see the CBD as the Civic Center with modern residential areas no bodd-boda but good infrastructure for transportation and trade center. The rest of the city should be residential with all the services, industrial zones, shopping centers and markets.

All agreed that the rate of in-migration from the rural areas into Kampala should be slowed mainly by new cities, provision of services to the suburbs and rural planning and development on the national level.

Participants suggested all kinds of governmental and private intervention in order to enable the implementation of the planning, generally including land use and tax collection.

Regarding the transport infrastructure priority should be given to buses, rail, upgrading existing road network and NMT (non-motorised transportation).

Workshop 2 - KCCA

Main points of the 2nd stakeholders meeting during which the spatial and design aspects of the physical development framework and the physical development plan for KCCA were presented.

Date & time of meeting: July 20, 2012 9:30 am

Vneue: Metropole Hotel

Presentation Highlights:

Kampala today - current situation, potential and challenges

- Envisioned roles and functions of Kampala
- Participation of the public in the preparation of the GKPDF and KPDP
- KCCA Physical Development Plan

- Planning scenarios
- Short term 2020 – Business as usual
- Long Term 2040 “best case” – Balanced Urban System
- GKMA Population Forecast

Conceptual Metropolitan Structures

- Alternative 1: The Independent Satellite cities Model
- Alternative 2: The Urbanized Belt Model
- Alternative 3: The East-West Corridor Model
- Alternative 4: The Radial Model of Integrated Satellite Cities + East-West Corridor Model

Note: Alternative 4: Selected as the best choice.

Spatial Suitability Analysis:

- Purpose of spatial suitability analysis was to find suitable areas for metropolitan growth
- Analysis was done for:
- Land use
- Topography
- Metropolitan Road System
- Unsettled and Vacant Areas

9. Detailed Sites Analysis

- Wakiso-Nansana
- Ssisa – Nsangi

Spatial Suitability Balance Sheet for New Satellite Towns

GKMA Vision: Metropolis of Satellites

GKMA Recommended Strategic Policy

- To boost development of existing towns
- To plan and establish New Satellite Towns

Note: The consultants decided to expand the TOR scope and designed the GKMA long term (2040) – Physical Development Framework instead of limiting the planning to the 10 years planning period per the TOR signed.

10. Gkma Physical Development Framework

Five Factors of Regional Structure:

Factor 1: Kampala Special Planning Area (KSPA)

Factor 2: Transportation System

Factor 3: Subdivision into Metropolitan ZONES

Factor 4: Population Distribution

Factor 5: Metropolitan Services Hierarchy

11. KCCA Physical Development Plan 2020 – 2040

The Best Physical Structure for KCCA

Physical Structure = Spatial Distribution of Economy

Alternative Structural Models:

Ribbon Development Model

Focal Model

Integrated Model – Enhanced Foci Model

Note: Integrated Model – Enhanced Foci Model was selected

12. Seven Factors Of KCCA Urban Form

- Transportation System
 - Subdivision
 - Population Distribution
 - Landscape and Nature
 - City Spatial Economy & Services
 - City Center & CBD
 - Improving Residential Areas
13. Short Term (10 Years) Policy for Planning and Development Projects
- Kampala Special Planning Area Hierarchy
 - Action Areas – Suggested Design Projects (2013 – 2014)
 - Project 1: Ssisa & Nsangi New Satellite Town
 - Project 2: City Center Local Structure Plan
 - Project 3/4/5/6: New CBD DLDP
 - Project 7: Urban Freeway and Railway
 - Project 8: Lakefront and Central Park
 - Project 9: Local Service & Economy Focal Center Pilot Project
 - Project 10: Residential Planning Intervention Case Study

Questions, Reactions and Comments:

- After the presentation by the ROM consultants, the following were comments and questions from the councilors;
- Members proposed for the building of a second capital city like it is in Nigeria, because Kampala is already poorly planned and lacks space for a new plan.
- Members noted that the presentation did not include much planning for the outer lying areas including Mukono and Wakiso but concentrated on KCCA.
- The duration and financing of the structure implementation may be delayed and therefore failure to accomplish the plan.
- Compensation of the proposed southern ring and how it would be implemented.
- All Ugandan nationals to contribute a particular small amount of money to the construction of a new capital city.
- Members indicated that it is important to ensure that KCCA deals expeditiously with the legal aspects of the Special Planning Area to avoid conflicts which are likely to come up at the implementation stage.
- Members explained that all major plans for the city are always affected by political leaders; the political interference will always affect the technical decision.
- It was also noted that the planning zones should be prioritised since all of them can not be worked on at the same time.
- The members were of the view that the poor in the slums should be in cooperated into the plan and no driven out of the city or metropolitan area.
- Some members supported the proposal to turn some of the degraded wetlands into green parks and strict conservation of very sensitive wetlands that have not yet been degraded. In addition it was noted that it was not economical to pass roads in wetlands but destruction of the environment

Notes:

16. Members noted that the plan implementation action areas need to go beyond the CBD and look at the entire GKMA if the plan is to have an impact and guide the development of the Kampala.
17. It was noted that the matters concerning the Metropolitan Physical Planning Authority and implementation of the KCCA structure must be resolved in order to implement the PDF and the PDP.
18. It was also noted that action plans for industrial development in the planning zones need to be prepared to stimulate employment creation in the outer lying areas to reduce pressure on KCCA.

Responses to Questions, Reactions and Comments

- i) It was noted that the Kampala southern bypass had not been implemented because of the wetlands along the route. However, there is vivid evidence which shows that the economic benefits of the southern bypass are more important than the economic benefits of conserving the wetlands along the route and that without the southern bypass Kampala will come to a standstill.
- j) Members were further informed of the urgent need for traffic management including use of signals which have high impact. In addition, it was noted that even in future (2040) many people will use walking to move from one place to another and it is important to prepare a Non Motorized Transport master plan.
- k) The consultants indicated that they had understood the political environment and that in consultation with all stakeholders they had prepared a plan which goes beyond local politics. They also indicated that the final report will include joint resolutions drawn by all parties as part of easing the implementation phase. It was however noted that politicians work in the short term and that it is important to show the politicians the proposals in order for them to approve and adopt them
- l) The consultants further noted that the issue of local politics had been discussed with the World Bank and it was noted that there must be project champions who should work towards ensuring that the plans are implemented immediately.
- m) Members were informed that when the instrument for the Kampala Special Planning Area will be released, the Minister will issue policy guidelines. In addition members were informed that the gazette instrument was currently in the Ministry of Justice.
- n) Members were informed that there is an institutional framework which provides for the Metropolitan Physical Planning Authority(MPPA) and that once the MPPA is operationalised, authorities in the respective areas which implement the approved plans for their areas per the plans approved by the MPPA. It was noted that this was the reason why the Steering Committee was being attended by leaders from the metropolitan towns and counties

Participants in Consultative Forums and Workshops

Environment and Infrastructure Workshop

Name	Institution	Position
Eng. Alex Gisagara	NWSC	Chief Manager Engineering Services
Mr. Amayo Johnson	NWSC	Chief Mgr, Planning & Capital Dev'ment
Paddy B Twesigye	NWSC	Senior Mgr Projects, Planning & Cap Dev
Peter Twesigye R	NWSC	Economist (corporate planning dept)
Isaac Arinaitwe	NWSC	
Rukundo Tom	NFA	
Ms Norah Namakambo	MWE, Dir Env Affairs, Dept Wetland Management	Principal Wetlands Officer
Chebet Maikut	MWE, Dir Env Affairs, Climate Change Unit	
Kizito Emmanuel	KIEMP	Project Manager
Mike Mayale	KIEMP	BTC
Barbara Nakangu Bugembe	IUCN	Head of Uganda office
Rogers Niwamanya	Nature Uganda	Specialist Project Officer
Peter Wegulo	UN-Habitat	Programme Manager
Semakula Samson	Entebbe Municipality	Environmental Focal Point
DD Busajja	Entebbe Municipality	Physical Planner
Kadama Magaret	Entebbe Municipality	Physical Planner
Rebecca Ssabaganzi	Wakiso District	District Natural Resources Officer
Ruth Nakatude	Wakiso District	Physical Planner
James Musaazi	Wakiso District	Senior Planner
David Sekaboga	Kira Town Council	Environmental focal person/ SHI
Masengere George	Mukono Town Council	Environmental Officer
Musa Mutawe	Mukono Town Council	Physical Planner
Josiah Sserunjogi	Mukono Town Council	Town Engineer
Gubya Phoebe	KCCA	Senior Environmental Officer
Geoffrey Katabazi	KCCA Kawempe Division	Physical Planner

Name	Institution	Position
Kwesiga Max	KCCA Kawempe Division	Environmental Officer
Faridah	KCCA Makindye Division	Environmental Officer
Oluka Godfrey	KCCA Rubaga Division	Environmental Officer
Mr Kiggundu David Tamale	KIDIIP/KCCA	Programme Coordinator
Bonnie Nsambu	KIDIIP/KCCA	

Central Division Consultative Forum

Name	Institution / Parish	Title
Robert Ndiwalana	K.C.C.A-Central	Physical Planner
Roset Ahabwe	K.C.C.A	Intern
Kaliisa Abubakar	K.C.C.A	Intern
Musimani Idd Mubarak	K.C.C.A-Central	Inspector Of Schools
Muwanga John .M.	Mengo-P.D.C	Chairperson
Ahmed Hadja	CBO	Team Leader
Ki Iza .B. Sy Lvia	Nakasero I Parish	Sec. P.D.C
Galiwango Dereek	K.C.C.A-Central	Economic Planner
Lwanga Moses	K.C.C.A-Central	Agricultural Officer
Nabakka Annet Maxensm	K.C.C.A-Central	Plans Clerk
Akuma Jimmy	K.C.C.A-Central	Fisheries Officer
Kariisa Merab	K.C.C.A-Central	Deo
Night Alice	K.C.C.A-Central	Education Officer
Kyazze Manisulu	Kisenyi III P.D.C	Secretary
Pr. David Samolu	CCA	Founder/Direction
Iga Matovu R.	Kisenyi I P.D.C	Chairman
Hajat Namuddu	Kisenyi I	Councilor
Achieng Mary Claire	K.C.C.A Central	Bgt Officer
Nassanga Harriet	Education Kcca	Education Staff
Nakitto Jane	Kisenyi II	C/Man Tulibumu
Nyanzi Joseph .K.	Kisenyi II	P.D.C. Member
Mubamago Chris	Finance Central	Asst.
Mpanga Musisi	K.C.C.A	Asst Law Enforcement Officer
Ssengendo Ssalongo .J.	Nakivubo Shawuriyako Parish	Chairman P.D.C
Kizza Sam	Nakasero II Parish	Chairman P.D.C
Batanda Daniel	Old K'la Parish	P.D.C/Person
Okan Man	K'la Central Division	Clerk To Council
Abdul-Lateef Moses	Old K'la Parish	Committee Member
Wuma Mary	Kampala Central	Youth Officer
Nsangi Harriet	Kisenyi II	C/Person P.D.C
Ssemwogerere Twahar	Kisenyi II	Youth Leader
Nakiboneka Gorreti	Kampala Central	Health Inspector

Nakawa Division Consultative Forum

Name	Parish	Organisation
Egonda Flavia	Butabika	Dembe
Bogere Justine	Butabika	Dembe
Kiryia Umar		BIWG
Byabagambi Francis	Mbuya II Zone VI	Katwe Gate
Bagonza Augustus	Kiwatule	Kijofa
Ejindra.O. George	Najera	Gender
Kumawe Christopher	KCCA	KCCA
Kiwalabye Edward	Wandegeya	Kydea
Kiwanuka Somado	Banda B I	Kyosiga
Luliibe Moses	Kisasi	
Chukulwe Yusuf Ibanda	Topaz Org	Topaz Organisation
Kyomuhendo Judith	Topaz Org	Of All Nations
Buyinza Henry	Mail.Com	Topaz
Nalubwama Hajara	Butabika	Butabika
Nabalela Elizabeth	Mbuya II	Akutwala Ekiro
Ssenkaaba Richard	Bukoto II	Kigoowa I CDD Asst.
Muganire Moreen	Bukoto II	Kigoowa I CDD Asst.
Okello Jane	Butabika	Tuzegabe
Mrs Kasirye Joan	Bukoto II	Kasirye Joan
Mrs Matte Rose	Mbuya Barracks	Gutto
Mbuya Sharon		
Mirembe Beatrice		Butabika Vision Group
Makubuya J.K	Kyambogo	KCCA
Ssenyondo Deo	Bugolobi	B.Y.D.A
Kom Noman	Bugolobi	B.Y.D.A
Ochanda Rashid Osman	Kyanja KCCA	
Kamahoro Judith	Mbuya II	Mbuya Women Tailoring Group
Ira Florence	Floiran	KCCA-Commercial Officer
Kabogoza John	Kisasi	Kabogozajjo
Maguba Cathy	Butabika	Kiiombe Twegambe
Akampilira Kiswa	Kiswa	-
Mukasa Robert		
Weyasa John		
Mawanda M.D	Mbuya II	
Musabimana Vastwe	Mbuya II	Myabyimare
Mutesasire George	Tuula	L C
Aciro Grace	Naguru II	A.M.L
Jeremy Magimbi	KCCA-Nakawa	
Lakot Joyce	Naguru II	
Atee Mary Julian	Naguru I	KCCA
Betty Obeny	Luzira	
Buwongo G	Mbuya II	-
Ndawula Godfrey	Mutungo	

Name	Parish	Organisation
Asiimwe Era	Luzira	
Namiyingo Scovia	Luzira	
Munati Lydia Bona	Kiwatule	Fountain
Nassozi Sylvia	Kiwatule	Fountain
Lwanga Stephen	Luzira	Fountain
Kyobe Fred	Luzira	
Katabalira Deborah	Banda	
Semanda Evans	Butabika	
Senyojo Justine	Butabika	
Grace Lukabwe	Luzira	Chukabo
Kansime Roset	Butabika	
Katende Charles	Ntinda	
Lubanga Moses	Mutungo II	Hasa
Mr Mulebele Enzephani	Mbuya II	
Nakadama Asanat	Kat Co	C.B.O
Abili Sarah Akello	Naguru	A.L.M
Kahyange Mary	Bulamu	Kanyange
Komakech Godfrey	Luzira Portbell	
Dinobushoborozi Aloysius	Luzira	P.W.D
Mrs Agnes Mukasa	Mutungo	A.L.M/P.W.D
Magimbi Paul F	Bugolobi	
Lumama Abubaker	Kiwatule	
Pato M Paschal	Naguru I	
Ntahondi Timothy	Mutungo	
Deborah Lubalama	Naguru	
Okello Luay	Naguru	
Mwanje Paul	Kafoc	
Nusula Ndagire	Mbuya	
Mwandugwe Monica	Dembe	Butabika
Kifuko Hellen	Butabika	
Chikulwe Yusuf Ibanda	Mbuya	Topaz Org.
Mafabi Anthony	Mbuya	Topaz Org.
Kyomuhendo Judith	Mbuya	Topaz Org.
Nakabugo Angella		
Naziwa Hajarrah		
Onapa Dorcus	Luzira Prison	
Nakitende Nusurah	KCCA	
Kundhuba Patrick	Banda	
Mugisha Reuben	Bukoto II	
Mwanje Ben	KCCA	
Kazibwe Joseph	Luzira Parish	
Halimah Nsimbe	Kyanja	
Nakabugo Mary	Kyanja	
Kaggwa G.W	Kyanja	
Okecho Stephen	Kiswa	
Pr Perez Bariijuka	Kyanja	

Name	Parish	Organisation
Kalyango Ben M	Bugolobi	
Kisahamu Ashin	Bugolobi	
Rehema Mayega	Mayega	
Nakiryowa Jackline	KCCA	
Namuddu Gloria	KCCA	
Ogwang Walter	Banda	
Mustafa Mwesigye	Butabika	
Kakai Christine	Mutungo	
Wafula Eridondo	Nakawa	
Nakato Mpagi	Kiwatule	
Karutaro Jeniva	Kiwatule	
Annet T	Butabuka Seasonal	
Nakitende Nusurah		
Gwebalibatya Noeline	Glelire	
Ngoya Davis	Ngogas	
Wanyenze Susan Ruth	Kitintale	
Okure George M	Kiwatule	KCCA
Makubuya Kimuli	Kyambogo	KCCA
Oryang Andrew	Luzira Prisons	Prisons
Mugoya Kasiim	Luzira	
Tumwehe Robert	Luzira	
Musisi Semaka	Kawempe	
Patrick Orotin	Nakawa	
Okello Micheal	Nakawa	
Musa Byamukama	Nakawa	
Mujungu Ali	Nakawa	Mutungu
Daudah Lawabayo	Nakawa	
Buwongo G.	Mbuya II	
Nalwanga Sarah	Bukoto I	
Asiimwe Fatumah	Bukoto I	
Halimah Nsimbe	Kyanja I	Halimah
Nakabugo Mary	Kyanja I	Nakabugo
Rehema Mayega	Kyanja I	Mayega
Nannozi Sarah	Nakawa	Kyadea
Rukundo Joan	Nakawa/Kyanja	Joan
Nakaziba Bathina	Kiwatule	
Jerian Peace Mirembe	Nakawa-Kiswa	
Tushemerirwe Enid	Nakawa-Mutungo	T.E
Tungye Anna	Mutungo-Nakawa	
Namutebi Afuah	Nakawa	
Nakkazi Hasifwa	Nakawa	
Jane Kyalisiima	Nakawa	

Makindye Division Consultative Forum

Name	Organisation / Parish / Position
Kasujja J. B	PDC Kibuye II
Namanda Halimah	DDC Kabalaga
KIIza Moses	C/Man CBO Kibuye
Sseguya Billy	CBO/Yes We Can Dev't
Nalongo Ndagire J.F	PDC/LCII Kibuye II
Tumwebaze William	Admin.Asst-Kisugu
Ngobi Moses	Katwe II
Nyende Ismail	Admin.Asst. Kibuye
Sseruyange Daniel	Safu
Joseph Mary K	KCCA
Ndagire Tauba	KCCA
Ssendi Judith	KCCA
Zwimmenya Joseph	KCCA
Kikabi Jeffrey	KCCA
Ssetongo Francis	KCCA-Makindye-Educ
Kibaale Mary Frances	C/P Katwe I
Nassaka Felista	KCCA-Makindye
Ekwaru John Oluca	Vqice Of Disabled Africa
Ronald Sekibule Sekindi	Lyda-Makindye
Musisi Meddie	Makid Gen Work
Ejjuko Kayondo	C/Man PDC Luwafu
Mary Kayanja	PDC Kibuye
Kyeyune Christopher	KCCA-Makindye
Charles Kalisengawa	Ctrine Agency
Kabudde Arafat	Nkere Youth
Didi Katerega	C/M PDC
Haji H. Kibirige	C/Man Kasanga
Ninyesiga Jordan	Centered People
Abdul Malick Banyikidde	The Aids Initiative Ug Globe
Kigenyi Yusuf	Kyosp
Hassan Kenyi	C/C PDC
Flavia	KCCA-Makindye
Kasirye Habibu	C/Man PDC
Kyeyune Lawrence	KCCA Educ Dev't
Okenyi Geofrey	KCCA
Lukombwe Ceasor	KCCA
Nampijja Zainah	Nkere
Nansubuga Hanifah	KCCA/Clerk
Busulwa Dan	KCCA
Gwaivu Robert	Voice Of The Disabled Africa
Asaba Pius Kitembo	Economic Transformer
Ssenyonga Joseph	C/Man Nsambya Central
Ssalongo Keeya	Kibuye
Mashindano Yusuf	Makindye II

Name	Organisation / Parish / Position
James Mukibi Sserwanga	ICDDI
Tenywa Flavia	C/P Kwoda Katwe
Matovu Hanifa	Member PDC
Lukumbira Kasi	C/Man L.C II/PDC
Mawanda Isaac	Economic Planner
Othieno Godwin	Phy. Planner
Dunda B	-
Sseyonjo David	Ag Asst.Clerk

Rubaga Division Consultative Forum

Name	Organisation / Parish / Position
Mrs Mutebi Sarah	P.D.C
Wasswa Samuel	Press
Kabaliisa Maria	Lunda
Hajati Zam Namakula	P.D.C
Zawedda Sarah	P.D.C
Namwamira Habibah	N.G.O
Valentine Owor	P.D.C
Walugembe Lillian	P.D.C
Buwembo Mushid	D.P.O
David.S. Walabyeki	K.C.C.A-Lubaga(AAPO)
Allen Kazibwe	KCCA-Welfare Dept.
Abdallah Safari	KCCA
Nalongo Zzimbwe	P.D.C Natete
Dr. Joseph Senzoga	PhD
Nalwoga Dianah	P.D.C
Ssembalye Charles	Building
Mawanda H	P.D.C
Jasceat .N. Mugenyi	P.D.C
Rose Mary Kato	Adm.Asst
Kabaggoza Daniel	Building
Nantume Christine	C/Person P.D.C
Nsereko Christine	S.B.O
Kirunda Patrick	Health Inspector
Kalyesubula Ruth	C/Person
Kaddu Sarah	C/Person P.D.C
Mbaziira Henry	Lubya
Lwanga Hadijah	Kasubi
Magazi Richard	KCCA-Lubaga
Mulema Thomas	KCCA-Lubaga
Kyambadde Terenso	KCCA-Mutundwe
Kyobe Daniel	KCCA-Lubaga
Isaac Wamala	KCCA
Kikomyogo Henry	Lubaga
Kibuuka Eva	KCCA/Admin.Asst

Name	Organisation / Parish / Position
Kakooza Andrew	Npya
Kyakumwa Zam	KCCA
Babirye Angella	KCCA
Okello Florence	Kasubi
Henry Byomire	KCCA
Godfrey Oluka	KCCA
Menya Mahir	KCCA
Kizito Anthony	KCCA-Economist
Kabuye Ronald	C/Man P.D.C Luby
Emur Alex	P.D.C
Nairidde Solome	C/Person P.D.C
Francis Wolifira	DDC
Nsamba Eddy	P.D.C Mutundwe
D.K. Mmlambmzi	SATC
Babirye Roset	
Kayemba Vicent	KCCA-Intern
Ssesanga	P.D.C

Kawempe Division Consultative Forum

Name	Organisation / Parish / Position
Kimbugwe Herbert	C/Man P.D.C
Kikonde Benedict	C/Man P.D.C
Mukasa Ben Ntale	C.B.O K.K.D.C
Mungherera Seezi	Mpererwe P.D.C
Wairagala William	Mulago II P.D.C
Senkubuge Mujambuka	C/Man Kyebando P.D.C
Sekiti Siraje	C/Man P.D.C Makerere
Muyingo Patrick	Ug Energy Foundation
Katabazi Gk	KCCA
Kajoba Rehema	Kwegatta Dev.Group
Makonzi Micheal	Youth Get United Uganda
Kaliisa Akrum	Voice Of Youth Kawempe
Katamba Joy	Voice Of Youth Kawempe
Mugenyi Vnien	Voice Of Youth Kawempe
Namayanja Mariam	Chairman P.C.A
Eunice Kanya	Bwaise III Girl Child
Florence Masuliya	Tusayukirewamu Gd
Edith Mukasa	Omega Bakery
Kiwanuka Scott	Tebuyoleka Women's Group
Natumbwe Specioza	Youth And Adult Development Group
Katushabe D	K.C.C.A
Muhangi Christopher	Internship Physical Planning
Kibedi A N	K.C.C.A
Olinga A. K Joy	K.C.C.A
Komuhimbo Justine	K.C.C.A

Name	Organisation / Parish / Position
Nassolo Sylvia	K.C.C.A
Kiyumba Tonny	K.C.C.A
Kwesiga Maximus	K.C.C.A
Asiimwe Vicent	Mawda
Najjuma Racheal	Orpanage And Gurdian Group
Nakabiri Magare	K.C.C.A
Kamya Ssendendo	P.D.C Bwaise II
Ssebatooro Benon	G.H.O
Otim Denis	G.H.O/Good Hope Organisation
Ssembunya Yusuf	P.D.C Bwaise I Parish
Ssekiwunga Samuel	C/Man P.D.C
Mukasa Noah	Komaaboga Centre
Kisembo Julius	P.D.C-Kikaaya
Wasswa Nio	P.D.C
Kazibwe Stephen	C/P P.D.C Kawempe
Kizito Ken	Kyebando Youth Dev't

Wakiso District Consultative Meeting

Name	Title	Organization
James Musaazi	S/Planner	Wakiso
Nakalembe Prossy	S/Information Officer	Wakiso
Kiyingi Fredrick	D.E.O	Wakiso
Nakubulwa Zaina	Dcdo	Wakiso
Nakatudde Ruth	Phy Planner	Wakiso
Mugumbya Herbert	Auditor	-
Ssebi Haruna	S.P.O	-
Joseph Batuwe	Dss	-
Namanya H	D.F.O	-
Rebecca Ssabaganzi	Dnro	Wakiso
Anne Nakatew	Seo	Wakiso
Lujumwa Nathan	Acao	_Do_
Namubiru Rosemary	Vice C/P	_Do_
Ssentongo Allen	Sec For Health	_Do_
Semwanga Norman	Sec For Educ & Sports	Wakiso
Kivuma Herbert	D/P	Wakiso
Male Mukasa	Saeo	Wakiso
Mpakibi Robert	Dco	Wakiso Dlg
Seninde Ismail	Ag/De	Wakiso Dist
Semuyena F.K	Ag/Dwo	-Do-
Dr. Kisule Geoffrey	Ag/Dho	Wakiso Dist
Hon Dr Cox Sempebwa	Sec Production & Gender	Wakiso
Kasozi Gilbert	Dlo	Wakiso

Name	Title	Organization
Nakalembe Saphina	Sfo	Wakiso
Marion Masagazi	C/Council	-
Babiiha John	Cfo	-
Nalumansi Stella	Ag/De	-
Kiguli Simon	Ag.Dwo	Wakiso
Mpoza Esau	Dho	Wakiso
Kyamanywa Charles	Secproduction & Gender	Kcca
Katebalire Peter	Dlo	Kcca
Ssemambo J	Pp	Kcca
V.B.Byendaimira	Agc/Lurc	Mlhud

Entebbe Consultative Meeting

Name	Title	Organization
Balegga Annet	Speaker	Emc
Lutaaya Fred	Rep.Torodek	Emc
Ssegujja Anthony	C/Man Div B	Emc
Kimanye Simon	D/Mayor	Emc
Kasule David W	C/Man Div A	Emc
Bananuka Sarah	D/Rdc	Entebbe
Erinah Kasibante	Spo	Emc
Dd Busajja	Ph I	Emc
Kadama Magaret	Phy Planner	-
Pamela Kobusingye	Proct Officer	Emc
Kyeyune Don	Commander	Div A.
Kiwanuka A	-	Ebb
Kikomeko T	-	Emc
Eng V Z Qashayi	Citizen	Div A.
Tumusherure Chris	Citizen	Ebb
Serubiri Godfrey	C/Man	Manyago I
Fred Wassanyi	Church Pastor	Deliverance Church
Salongo Sekandi Richard	C/Man	Emc
Ssekawooya Arafat K.	D/Speaker	Div A
Mpimbo Madina	-	Div B
Kaggwa Andrew	Speaker Div A	Div A
Kiribakka Vicent	S/Planner	Kcca
Tumusiime Rose	C/R Emc	Emc
Kiryowa Fred	C/R Emc	Emc
Zzimula Molly	C/R Emc	Div A
Ssebugwawo Stephen	C/Man Bugoga	Div A/Emc
Bakahuuma Amooti J	C/Man	-
Mukasa Juma	Youth Counsellor	Emc

Name	Title	Organization
Babirye Hasifa Kataleke	Women Counsellor	Div A
Betty Ssewanyana	V.O	Emc
Kengne David R	Lci C/M	Banga
Zikuliza Paul	C/Man Bci	Lugonjo
Otim Robert	Sec/Lc	Emc/Div B
Kizito Kasozi	Resident	Emc/Div B
Kasawuli Abbas	Kiwafu Central	Resident
Nakyanzi Ritah Daisy	Municipal.Youth Councillor	Emc
Lubwama Deo	C/Man	Div B
Kaye Edward	C/Man Lcii	Div B
Sewankembo Elvis	Consultant	G.P.H.U
Nsubuga George	Speaker Div B	Div B
Bananuka Sarah	D/Drc Ebb	Presidents Office
Dembe Joseph	C/Man	Elmacus
Kyeyune Teddy	Deputy Div B	-
Mpimbo Sulaiman	-	-
Ssegawa Dalton	Director	Merryland High
Ayiko Ben	M/S	Ebb Hospt
Nakandi Sophie	Satc	Emc
Naddungu Jane	Kitoro Central	Emc
Ssemombme N.Y	C/Man	-
Nakiito Ritah	Sec Health Ebb Mun/C	Emc
Mutabazi Jimmy	Caller	Emc
Yebaza Johnnie	Senior Asst Eng	Emc
Lutaaya Edward	C/Man	Bunonko
Ssalongo Katalemwa	Citizen	Lugonjo
Kiconco Miriam	Sipp	Mol Hud
Vicent Byendamira	Alc	-Do-
Bukirwa Deborah	C/Man	-
Babirye M.Harriet	C/ Kiwafu Cent	-
Muyonjo Juliet	Statistician	Emc
Kagoda Alex	Citizen	Emc
Namugalu Dianah	Citizen	Emc
Nankya Edith	Citizen	Emc
Nalweyiso Nulu	Citizen	Emc
Mbabazi Racheal	Citizen	Emc
Nkubi Luke	Sfa	Emc
Kyandiru Agnes	Citizen	Div A

Name	Title	Organization
Magembe Jonathan	S.E.C	Emc
Serujonji Paul	Economist	Emc
S D Kabuye	Citizen	Kiwafu
Lwanga Ronnie	Citizen	Kitooro

Kira Consultative Meeting

Name	Position
Nkalubo Ronald	Councillor
Mugalula Apolo M	Councillor
Jagwe Brian M	Councillor
John R Ssenkeezi	Senior Auditor
Galiwango Eddie	Accounts Assistant
Mutaawe Ibrahim	Health Inspector
Kivumbi Apollo	Planner
Serunjogi Peter	Town Agent
Mupere Charles	In Charge Kira Lciii
Kunya Paul	Road Inspector
Lubega Robert	Town Agent
Mbowu Godrey	-
Mwesigwa Sam D	Town Engineer
Nakanywagi Lucy	Finance Officer
Lubega Annet	Examiner Of Accounts
Kukundakwe Charity	Student(Internship)
Kiconco Miriam	Senior Inspector(Physical Planning)
Kiyengo Richard	Mulhud
M. Mamurto	Mayor
Kalema Bikongoolo	Councillor
Kato Geoffrey	Physical Planner
Eiru Andrew	Councillor
Kinalwa David	Internship
Betty Ethel Naluyima	Councillor
Namazzi Irene	Scao
Elvis Nkambo	Records Assistant
Nabalamba Agnes	Accounts Assistant
Ssekiziyivu David Muya	Councillor
Nabankema Jenipher	Councillor
Kizito Gerald	Councillor
Samuel Afrika	Councillor
Nagujja Miriam	-
Mawemuko Lovinsa	Student
Kiryia Faizal	Clerk To Council

Name	Position
Lukwanzi Brenda	Student
Akwi Esther	Student
Ssengendo J.F	Town Agent
Bwogi Samson	Town Agent
Kavuma Ronald	Town Agent
Nantale Bena	Secretary
Nalubega Joan	Town Agent
Nankabirwa Jamia	Assistant Health Inspector
Muloya Higenyi A.M	Senior Education Officer
Kiyaga Musitafa	Councillor
Ssekaboga David	Senior Health Inspector
Ndagire Winfred	Woman Councillor
Nakanwagi Cissy Roy	Woman Councillor
Kirenzi Y	Engineer

Mukono Municipal Council Consultative Meeting

Name	Title
Kalemba Joseph	Data Analyst
Muwonge Gerald	Asst Statistician
Mwanje Caroline	Ass Finance Planner
Funayagala Annet	Sec Finance Planner
Zawedde Florence	Cashier
Mutyaba Leonard	-
Nakaddu Shamirah	Ass Physical Planner
Kibuuka Simon	Ass Data Analyst
Muyama Beatrice	-
Dorah Luniga	Data Analyst(Planning)
Rubbanni Boris	Researcher
Muwonge Andrew	Ass Accountant
Nankya Alice	Ass Human Resource Mgr.
Nerima Doreen	Intern Hrm
Bako Ashatu	Intern Human Resource Mgt
Chemutai Madina	Enviromentalist
Kadana Geshuy	Senior Accountant (Exp)
Kyagulaga Geofrey	Enviromentalist
Bbuye Martin	D.P.P Mukono
Kyamanywa Charles	Kcca
Katabazi G K	-
Ssemambo J	-
Kinbakila Vicent	-
Zinda Isaac	(Mmc)

Name	Title
Mutaawe Musah	Ag Asst Planner
Nakitto Doreen	Education Officer
Tino Perusi	Enviromentalist
Nakayiza Safinah	Enviroment Office
Namatovu Joan	Ass. To Records Officer
Mirembe Jacqueline	Senior Clerk To Council
Kalbbala Edith	Secretary
Nakitto Margaret	Municipal Education Officer
Nsimbi Jane	Ag. S.L.E.O
Josiah Sserunjogi	Municipal Eng

Kasangati Consultative Meeting

Name	Title	Organization
Muwanga Stephen	Parish Chief Wampewo	Nangabo
Ssaka Moses	Parish Chief	Nangabo
Kiviiri Ronald	Parish Chief	Nangabo
Dinali Miiro	Town Council Matugga	Gombe
Nanyanzi Rim Ritah	Parish Chief Gayaza	Nangabo
Nampeke Florence	Deputy Chief Matugga	Gombe Sub-County
Muwonge Abdu	Councillor Gayaza	Nangabo
Ssemakwa Joseph	Health Inspector	Kasangati
Lubinga Daniel	Parish Chief	Gombe
Nakiganda Jane	Secretary For Gender	Gombe
Kinene Edward	Secretary For Production	Gombe
Namugga Harimah	Secretary For Security	Gombe
Nakintu Prossy	Sas Gombe	Gombe
Ssewaguma Asaph	Secretary For Finance	Nangabo
Musoke Patrick	Secretary For Defence	Nangabo
Namuliwaye Safina	Secretary For Gender	Nangabo
Mawanda Joseph	Vice Chairman Lc Iii	Nangabo
Sempebwa Tony	Lc Iii Chairman	Nangabo Sub-County
Sennoga Ahmed	Sub-County Chief	Nangabo
Ssebuliba Nsereko	Vice Chairman Lc Iii	Gombe
Zaliwango Dorah	Community Development Officer	Nangabo

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Makindye, Katabi and Ssisa Sub-County Consultative Meeting

Name	Organization / Title
Mukasa G. Wilson	Katabi Sub-County
Makumbi Taddeo Sude	Katabi Sub-County
Namatovu Prossy	Katabi Sub-County
Nakalanzi M Kevin	Katabi Sub-County
Balwani Patrick	Katabi Sub-County
Charles S	Ssisa Sub-County
Mukasa J Sserwanga	Ssisa Sub-County
Nakyazze Harriet	Sub-County Chief Katabi
Nakacwa Joyce	Vice Chairman Ssisa Sub-County
Nabukenya Dorothy	Ssisa Sub-County
Muyooby Hood	Katabi Sub-County
Nabulya Joelia	Ssisa Sub-County
Ssesanga Joseph	Ssisa Sub-County
Kakumba Daniel	Katabi Sub-County
Muyanda John Paul	Katabi Sub-County
Kaggwa Rossette	Katabi/Wakiso District
Byekwaso Patric .C.	Ssisa Sub-County Chairman
Mwasaye Steven	Makindye Sub-County
Mutebi Ronald	Katabi Sub-County
Ssemakula Henry	Ssisa Subcounty
Nakatudde Ruth	Wakiso District Headquarters
Kayondo Ndawula Albashir	Ssisa Sub-County
Gerald Nsubuga	Makindye Sub-County
Kyakuwa Rose	Woman Councillor L.C.5 Ssisa Sub-County
Gageyi Joy	Ssisa Sub County
Kassim Mwenyango	Katabi Sub-County
Kyamulali Grace	Makindye Sub-County
Nabukenya Grace	Makindye Sub-County
Magatto Asheah	Ssisa Health Assistant
Nakibirige H	Makindye Sub-County
Kiwanuka Ben	Sabagabo Makindye
Nakabuye Sania	Makindye Sub-County

Wakiso TC, NansanaTC, Kyengera, Nsangi Sub-County Meeting

Name	Organization	Title
Nsangi Pauline	Kakiri Town Council	Town Agent
Bisirikirwa Matia	Kakiri Town Council	Physical Planner
Ssemakula Robinson	Kakiri Town Council	Town Engineer
Kasasa Godfrey	Nsangi Sub-County	Sub-County Chief

Name	Organization	Title
Mukasa Wilber Herman	Wakiso Town Council	Town Engineer
Mukasa Vicent	Wakiso Town Council	Town Clerk
Nansubuga Mirriam	Wakiso Sub-County	Sub-County Chief
Kimuli Robert	Kakiri Town Council	Town Agent
Kakumba Paddy	Kakiri Town Council	Town Clerk
Kyasanku .D.	Nansana Town Council	Town Clerk
Kizza Francis	Kakiri Town Council	Secretary Of Works
Annet .N. Mawejje	Wakiso Mumyuka	Secretary Of Finance
Damba .E.	Nansana Town Council	Secretary For Planner
Mirembe Joan .R.	Kyengera Town Council	Assistant Town Councillor
Yiga Geofrey	Wakiso Sub-County	Chair Man Lciii
Joloba James	Nansana Town Council	Town Engineer
Hana Nalya	Nsangi Sub-County	P/C
Muwaire Unuth	Nsangi Sub-County	P/C
Nankyanzi Fatuma	Nsangi Sub-County	Health Inspector
Lubega Robert	Wakiso Sub-County	Ass Sas
Nantambi Sylvia	Wakiso Sub-County	D/C
Kiwanuka Lule	Nsangi Sub-County	Vice Chairman
Kigozi Martin	Wakiso Local Council	Planner(Trainee)
Kiguli Simon	Wakiso District	Physical Planner
Namiro Rosette	Wakiso Society	Sub-County Chief
Mayambala	Mende Sub-County	Chairman
Nalumu Winnie	Nsangi Sub-County	Councillor
Mutessasira Yasin	-	-

Workshop 1 - Stakeholder and Civil Society

Name	Institution	Title
Faridah Kiggwe	KCCA	Planner
Ongora Emmanuel	NPA	Planner
Joloba James	Nansana Town Council	Town Engineer
Wasswa Godfrey	Makindye S/C	SAS
Kiiza Flora	Nabweru S/C	S/Chief
Benjamin Olobo	UNRA	Technical manager
Abner Besigye	KCCA/MKD	Ag SPATC (Mkd)
Katebalirwe Peter	KCCA	Planner
Joseph Ssemambo	KCCA	Ag. DPP
John Mpambala	KCCA	Senior Physical Planner
Turyamusiiima Apollo	KCCA Rubaga	Ass. Town Clerk
Francis Wakabi	Min. of Health	Engineer
John Tumwesigye	Min. of Health	Engineer
Mukasa Wilber Herman	Wakiso Town Council	Town Engineer
Robert Maseruka	Nabweru Sub county	Chairman
Namutebi Pamela	KCCA- Rubaga Div	Production officer
Ndugga Jamiru	Matugga mabanda market	Secretary

Name	Institution	Title
Dinah Miuro	Matugga Town Board	Ass. Town Clerk
Vicky Bukirwa Kalibbala	Buganda Land Board	Ass. Physical Planner
Zabali Flavia Musisi	KCCA	Planner
Brian Odella	ROM. Transportation	Supervisor
Atugonza Moses	ROM Transportation	Supervisor
Timothy Kitimbo	ROM Transportation	Supervisor
Godfrey B. Kisekka	Wakiso TC	Town Clerk
Ndagire Tauba	KCCA Makindye	Planning Unit
Ronald mbala	Min. Local Gov't	Urban Officer
Nakaddu Sarah	KCCA	Principal Accountant
Nansereko Zulfa	KCCA	Education officer
Mali Jaqueline	KCCA Kawempe Div	Planner
Othieno Godwin	KCCA	Planner
P.L. kanya	KCCA	Dir. Revenue
Moses Bwire	KCCA	D.A
Luzze Robert	Multiplex	Plo
Mugusa Joseph	Police fire brigade	Commissioner of police
Mukasa Kalura L.	Kakiri	C/Man LC III
Evelyn Kahoza	KCCA	Planner
Olore Ronald	UMI	Publicity
Katsigaire .S.	MLHUD	Director PP & UD
Bonnie Nsambu	KCCA	PE/KIIDP
Oryema Tonny	MLHUD	DPP
Mbulamuko Laban	MFPICD	Ass. Commissioner
Kaddu Sarah	Kasubi	Chairman PDC
Peter Kajju	KCCA	HPCA
Steven Mondo	CRDF NGO	Coordinator
Samalie Nabbose	Urban	Ass. Producer
Dickson Washington	ROM	Surveyor
Carmit soudry	SBI	
Irit leiserovits		
Keren Gil	SBI	Economist
Ndege Hawa Namugenyi	KCCA	Councilor
Mwijuka Jesca	Wakasanke Mkt	Sec General
Male Aisha	Wakasanke Mkt	Treasurer
Rwenduse .A.	NPA	Deputy Chair person
Patrick Muleme	UNRA	Project Engineer
Kyamanya Charles	KCCA	Principal Physical Planner
Mirembe Joan .R.	Local Gov't	Town clerk
Jeniffer .B. Kaggwa	KCCA	Dir. HR&A
Natuhwera Carolyn	KCCA	Environment officer
Kigundu Tamale	PC KIIDP/KCCA	Project Coordinator
Nakatinda Glady	Vision Group	Journalist
Jeremy .A. Magimbi	KCCA	Div. Educ. Officer Makindye
Molly Akello	KCCA	Gender & Community Dev't officer
Nantongo Christine	KCCA	Planner
Baker Serwamba	KCCA	Councilor
Kyasanku David	Nansana TC	Town Clerk
Ivan katongole	KCCA	Physical Planner
Galiwango A S	KCCA	Dir. Educ. & social services

Name	Institution	Title
Yunusu Lutaaya	KCCA	Driver
Julius Masereka	MOLG	Principal Urban Officer
Nabakka Annet	KCCA	Physical Planner
J. P. Kazoora	KCCA	PFO
Henry Ssebaggala	KCCA	Planner
Nandudu Winnie	KCCA Nakawa	Councilor
Yusuf Nsibambi	KCCA	Chairman
Lwanga Daudi	KCCA	Councilor
Kusiima Sarah	KCCA	Secretary
Nassanga Salima	Makindye	Chairperson L.C II
Tumushabe Hope	KCCA	Councilor
Kimanye Simon	EMC	D/Mayor
Kyambadde	Entebbe Municipal Council	For Town Clerk
Tumwebaze Charles	KCCA	Strategic Planning Cons.
Mutebi Ronald Paul	Nabweru Sub-County	Sec. Production
Rebecca Ssabaganzi	Wakiso	DNRO for CAO
Kayongo Godfrey	St.Balikuddembe	C/Man
Kalumba Paddy	Kakiri Town Council	Town Clerk
Mawanda Ishaq	KCCA Makindye	Planner
Kibedi.A. Nkuutu	KCCA Kawempe	DEO
Higobero. S	KCCA	SPATK
Raphart.C.Sleph	MLHUD	Consultant W.R
Henry Mugerwa	KCCA Kawempe	Ag. DMO
Felix Mukadaga	EACS	Chartered Surveyor
Kwanza Bob	KCCA	Advocate
Kiwanuka Ben	Makindye	Secretary Health
Hillary Ayesiga	NTV	Reporter
Bukenya Fred	LC-III Mende	Chairperson
Ndiwalana Robert	KCCA	Physical Planner
Kiryah Hassan	UMEU	Head Research
Muwanguzi John	KCCA	Councilor
Ssekamatte Dan	Wakiso TC	Speaker
Kisekka Mohammed	Kakiri Town Council	LC III Chairperson
Rwenfuna Abel	KCCA	Physical Planner
Ssemambwe N.J	EMC	Physical Planner
Muteekalya	KCCA	Senior Educ. Officer
Achilles Mugerwa	KCCA	Driver
Nserko J	KCCA	GCDO Nakawa
Namiro Rosette	Wakiso	Sub-County Chief
Namayanja Lillian	QAMC	Consultant
Kasasa Godfrey	Wakiso	SAS
Byaruhanga Buruhan	KCCA	Councilor
Male Mukasa	Wakiso	Senior Engineer
Mamuto Stewart	Sanyu Fm	Journalist
Opio Peter	UBOS	Principal Stat
Yiga Geoffrey L	Wakiso S/C	Chairman LC III
Herbert Nabansa	NEMA	DSO
Joyce Ssebugwawo	Lubaga	Mayor
Boogere GTK	Mayor ADC	Mayor ADC
Ntale Asuman		
Kadama.R. Margaret	Entebbe Mun . Council	Physical Planner

Name	Institution	Title
Kiribakka Vincent	KCCA	Senior Planner
Kalumba	KCCA	Commercial Officer
K.K	KCCA	Commercial Officer
Samia Babirye	Capital Fm	Reporter
Bakoli Sesaleh		Reporter
Kibuuka Adam	KCCA	Councilor LC5
Ekwam J.O	KCCA	COD
Kayiwa Evans	Radio Sapientia	Reporter
Sebagala	KCCA	Economic Planner
Muwayire sarah	KCCA	Councilor
Galiwango Sam	KCCA	Mayor's Driver
J. Behangaana	Mukono MC	Town Clerk
Solomon Lubambula	Power FM	Journalist
Mubiru Eddie	CBS FM	Reporter
Gubya Pheobe	KCCA	City Env. officer
Dr. James Semuwemba	KCCA	Water & Sanitation Manager
Jjembe Edgar .T.	KCCA	Div. Engineer-Nakawa
Nassazi Janat	KCCA	CAO
Kasigaire Johnson	KCCA-Nakawa	Health Officer
Masembe Joel	CEDO	
Mak Owor	New Vision	Journalist
Nabende Mike	CRDF_Uganda	Research
Owobusingye Elijah	KCCA	Councilor
Kasule Justine	KCCA Rubaga	SPATC
Daniel .M.	ULGA Mukono	P/O
Olive Nantume	KCCA	DFO
M. Bwete	KCCA	DFO
Ssenyondo .C	KCCA	Driver
Kato Geoffrey	Kira T.C	Phy. Planner
Sulaiman Kidandala	KCCA	Councilor
Vincent.B. Byendaimira	MLHUD	Ag. C/LURC
Tusaasirwa R.M	KCCA	SGCDO
Luseesa Derrick	ROM	Surveyor
D. Muganga	Pri Plan Partners	
Juliet Waiswa	N/Vision	Reporter
Taddeo .B.	New Vision	Reporter
Emma Kirunda	93 Kingdom FM	Reporter
Hajat Hamida .N.	KCCA	Councilor
Ozuma Beatrice	Magic FM	Reporter
Muwonge Joseph	MLUD	Driver
Pade J.W	MLHUD	Princ. Planner
Kiyimba Tonny	KCCA-Kawempe	Economist
Sempebwa Tonny	Wakiso. Nangabo S/C	LCIII Chairman
Kizito Anthony	KCCA Rubaga	Economist
Nakyaazze Harriet	Wakiso, Nangabo sub county	Sub county Chief
Nakintu Prossy	Gombe Sub county	Sub county chief
Higyenyi John	KCCA Nakawa	Senior Ass. TC
Nakitto Jane	KCCA Central	Social work/
Henry Byomire .I	KCCA Rubaga	Div. Engineer
Galiwango Dereck	KCCA	Economic Planner -Central
Byamukama John	KACITA	Prog. officer

Name	Institution	Title
Namala Saudah .K	Kakiri S/C	Sub county chief
Tumwine William	KCCA	Div. Town Clerk
Lukwaya Henry	KCCA	Councilor
Mutashaba Martin	Entebbe Mun. Council	Driver
Asiimwe Cate	Radio Sapientia	Reporter
Nantongo Martha	Radio Sapientia	Reporter
Luyirika Zahrah	KCCA	Councilor
Felix Oketcho	Magic Fm	Reporter
Kangumba Winnie	KCCA-Nakawa	Sen. Educ. Officer
Kyeyune Hamza	The Torch	Editor
Nakatudde Ruth	Wakiso Dist.	Physical Planner
Kayongo Riobina	KCCA	Town clerk
Ssebaggala Geoffrey	Nsangi sub-county	Chair person LCIII
Onno Emmanuel	NPA	DA
Achan Joyce O.	KCCA	Councilor
Sentongo Livingstone	Uganda Land Owner's Ass.	Member
Adam Kyazze K.	KCCA	Councilor
Ssebuliba Nsereko	Gombe S/C	Vice C/M
Kayongo Twaha	SHAMA	Director
Ntambazi Alfred	KCCA	Councilor
Lutalo Umar	Nsangi Sub-County Wakiso Dist.	Sub-County Chief
Mukasa Gerald Wilson	Katabi Sub-County Wakiso Dist.	Katabi LC III C/Man
Nsereko Madina	KCCA	Councilor
Nakuya Aidah	KCCA	Councilor
Edward Masiga	Min. water and Environment	Senior Economist
Kigonya Angen	KCCA	Councilor
Kaswa Thompson	KCCA	CDO/Rubaga
Okello Ayen .D.	KCCA	Consultant
Kakooza .G.	Nakasero mkt	C/Man
Allan sewanyana	KCCA	Councilor
Kironde Patrick	KCCA	Health Inspector
Misanvu Geraldine	KCCA	Councilor
Tumwesigye Margret	KCCA	Councilor
Mujuzi Joseph Lwanga	KCCA	Councilor
Francis .W.	KCCA	S. Accountant
Namisango Mai	The Razor	Journalist
Lukwago Shifrah	KCCA	Councilor
Kitimbo Paul	KCCA	Councilor
Nammanda Pauline	KIIDP	Admn. Asst
Mirembe Hamza	KCCA	Councilor
Margret Zawedde Kiryowa	KCCA	Councilor
James Onyango	KCCA	C/Man LCII
Maseruka Rebecca	Ssisa-Subcounty	Woman LCIII Councilor
Walusansa Sam	KCCA	Treasury
Nakibuuka .F.	WTC. Wakiso	
Matovu Dan	KCCA	Councilor
Masuba Evans	KCCA	Councilor youth
Magezi Richard	KCCA Rubaga	GCDO
Asiimwe Godfrey	KCCA	Councilor

Name	Institution	Title
Susan Namutesa	KCCA Makindye	DHI
Karuhanga Charles	KCCA Central	Senior Law enforcement officer
M.M. Mumeya	KCCA Central	
Ian Clark	KCCA Makindye Div.	Mayor
Matia Lwanga Bwanika	Wakiso	Chairperson
Dr. Walyomo Richard	Public Health Dept	DMO Makindye
Apollo Musume	KCCA	Councilor
Kamihanda Mirembe J.	KCCA	D/Mayor Kwp
Ssenyonjo .P. Livingstone	St Balikuddembe mkt	Vendor
Kiwanika David Fox	KIIDP	Off. Facilitator
Lutaaya Steven	Wakiso	Driver
Akwi stella	KIIDP	Attendant
Agatha Abeja	KIIDP	Secretary
Thresa Nakaweesi	KIIDP	Acc/ Ass
Andrew Kitaka	KCCA	Director Engineering & Tech. Services
Nanvuma Rehema .W.	Buganda Land Board	Physical Planner
Wagambire Sam	Kasanje Sub county	Sub county chief
Mpindi Bumali	KCCA	Councilor
Luyiga Bernad	KCCA	Councilor
Babirye Emmy Katende	KCCA	Councilor

Workshop 2 - KCCA

Name	Organization	Title
Erias Lukwago	KCCA	Lord Mayor
Serwamba Baker	KCCA	Chairperson (Adm&Hrm)
Adam Kibuuka	KCCA	Concellor (Adm&Hrm)
Namukasa Hamida	KCCA	Concellor (Adm&Hrm)
Mpindi Bumali	KCCA	Chairperson (Treasury Services)
Namugenyi Hawa Ndege	KCCA	Treasury Services
Nakuya Aida	KCCA	Treasury Services
Owobusingye Elaijah	KCCA	Chairperson (Eng.&Tech. Services)
Ssewanyana	KCCA	ENG.&TECH. SERVICES
Allan Aloysius		
Tumushabe Hope	KCCA	Eng.&Tech. Services
Luyirika Ssekibbala	KCCA	Chairperson (Ph&E)
Serwadda Sulaiman Kidandala	KCCA	Ph&E
Lukwaya Henry	KCCA	Ph&E
Byaruhanga Buruhan	KCCA	Chairperson (Edu.&Soc. Services)
Lwanga Joseph	KCCA	Edu.&Soc. Services
Kibalama	KCCA	EDU.&SOC. SERVICES
Lukwago Shifrah	KCCA	Chairperson (Legal Affairs)
Luyiga Bernard	KCCA	Legal Affairs
Margaret Zawedde	KCCA	Legal Affairs

Name	Organization	Title
Kiryowa	KCCA	LEGAL AFFAIRS
Joyce Achan Andoga	KCCA	Chairperson (Revenue Collection)
Bogere John Muwanguzi	KCCA	Revenue Collection
Muwayiire Sarah Naiga	KCCA	Revenue Collection
Babirye Emmy	KCCA	Chairperson (Gcs&Production)
Adam Kassim	KCCA	Gcs&Production
Tumwesigye Margaret	KCCA	Gcs&Production
Apollo Mugume	KCCA	Chairperson (Internal Audit)
Asiimwe Godfrey	KCCA	Internal Audit
Lwanga Daudi	KCCA	Internal Audit
Ntambazi Alfred	KCCA	Chairperson (Phy. Planning)
Nsereko Madina	KCCA	Physical Planning
Kigonya Agella	KCCA	Physical Planning
Dr. Ian Clark	Makindye	Mayor
Munaba Peruse	Makindye	Dep. Mayor
Tugainewo John	Makindye	C/Person
Nsereko David	Makindye	C/Person
Dr Kagoda	Makindye	C/Person
Mirembe Hamuza	Makindye	C/Person
Lukanga Amina	Makindye	C/Person
Bonabaana Margaret	Makindye	C/Person
Birungi Betty Nalongo	Makindye	Councillor
Kabonge Frank	Makindye	Councillor
Kabuye Sirajje	Makindye	Councillor
Kagolola Ibrahim	Makindye	Councillor
Kaweesi Nasimbwa Janat	Makindye	Councillor
Kibuuka Emmanuel B.	Makindye	Councillor
Kiggwe Paul	Makindye	Councillor
Kintu Emma	Makindye	Councillor
Kyeswa Annet	Makindye	Councillor
Lukoma Josephine N.	Makindye	Councillor
Mbabazi Beatrice	Makindye	Councillor
Muhumuza Robert	Makindye	Councillor
Mugerwa Anne	Makindye	Councillor
Kalisa Nuhu Mazimaka	Makindye	Councillor
Nanyonga Sophia	Makindye	Councillor
Nassuna Juliet	Makindye	Councillor
Ndagire Jane Frances	Makindye	Councillor
Sendiisa Makanga P.	Makindye	Councillor
Serugo Dithan	Makindye	Councillor
Tebandeke Dirisa	Makindye	Councillor
Wasswa Hamis	Makindye	Councillor
Balaba Angelo	Makindye	Councillor
Ssebagala Abdul	Makindye	Councillor
Nansubuga Hanifa	Makindye	Clerk To Council
Kalumba Ben	Nakawa	Mayor
Tushabe Betty	Nakawa	Dep. Mayor
Baringo Simon	Nakawa	C/Person
Zavuga A. Prossy	Nakawa	C/Person

Name	Organization	Title
Kalule Ali Salongo	Nakawa	C/Person
Muwanguzi Beatrice	Nakawa	C/Person
Kanga Constantine	Nakawa	C/Person
Kawere Richard	Nakawa	C/Person
Kabuleeta Steven	Nakawa	Concellor
Kamoga Grace	Nakawa	Concellor
Magimbi Juanitta	Nakawa	Concellor
Zaituni Bint Haruna	Nakawa	Concellor
Lubuuka Halima	Nakawa	Concellor
Mudiima Peter	Nakawa	Concellor
Magumba Cathy	Nakawa	Concellor
Nantume Deborah	Nakawa	Concellor
Nambooze Mariam	Nakawa	Concellor
Nandudu Winnie	Nakawa	Concellor
Lonyesi Angelo	Nakawa	Concellor
Kitosi Emmanuel	Nakawa	Concellor
Kisaame Samuel	Nakawa	Concellor
Kagga Fredrick	Nakawa	Concellor
Ssegane Andrew	Nakawa	Concellor
Ngobi Prossy Wanyana	Nakawa	Concellor
Ssekiziyivu Juma	Nakawa	Concellor
Nyombaire Tommy	Nakawa	Concellor
Akwi Harriet Suzan	Nakawa	Concellor
Tumuhairwe Stella	Nakawa	Concellor
Mutumba Meadie	Nakawa	Concellor
Mukiibi Dan Situke	Nakawa	Concellor
Munyagwa Mubarak S	Kawempe	Mayor
Kamihanda M. Ibrahim	Kawempe	Dep. Mayor
Sempiira Henry	Kawempe	C/Person
Bwoni	Kawempe	C/Person
Kanyerezi Eva	Kawempe	C/Person
Kanya Sarah	Kawempe	C/Person
Mayombo Daniel	Kawempe	C/Person
Luwaga Godfrey	Kawempe	C/Person
Katumba Rebecca N	Kawempe	Concellor
Nsimbe Ismail	Kawempe	Concellor
Wasswa Juma Sekyanzi	Kawempe	Concellor
Lukwago Ramathan Ishaq	Kawempe	Concellor
Kateregga Frank	Kawempe	Concellor
Sebugwawo Tadeo	Kawempe	Concellor
Mukooza Micheal	Kawempe	Concellor
Seribiri Charles	Kawempe	Concellor
Sembuzi Moses	Kawempe	Concellor
Nsumba Robert Sebatuka	Kawempe	Concellor
Kaliisa Charles	Kawempe	Concellor
Kazinga Leonard Sekamatte	Kawempe	Concellor
Mayanja Solomon	Kawempe	Concellor
Kigongo Francis Jingo	Kawempe	Concellor
Sembuya Alisat Najemba	Kawempe	Concellor
Ssenoga Christine Nalongo	Kawempe	Concellor

Name	Organization	Title
Najjuma Racheal	Kawempe	Concellor
Tebyasa Nanungi Alice	Kawempe	Concellor
Nanfuka Adiah Kabejja	Kawempe	Concellor
Asele Angella	Kawempe	Concellor
Kanjeyo Harriet Muhangi	Kawempe	Concellor
Walusimbi Shakur	Kawempe	Concellor
Liyima Ivan	Kawempe	Concellor
Nyakaana Godfrey Amooti	Central	Mayor
Okomo Resty	Central	Dep. Mayor
Mutabaazi Muhammed	Central	C/Person
Misaanvu Geraldine	Central	C/Person
Kalungi Abbas	Central	C/Person
Mpungu Hanifa	Central	C/Person
Katawera Erienza	Central	C/Person
Birungi Eva	Central	C/Person
Bahemuraki Sylvia	Central	Concellor
Nalubega Afua	Central	Concellor
Bwanika Badru	Central	Concellor
Kabagenyi Beatrice	Central	Concellor
Mugisha Aminah	Central	Concellor
Kyaligonza Peter Banura	Central	Concellor
Kyazike Eva	Central	Concellor
Namuddu Hanifah	Central	Concellor
Zulaika Yusuf	Central	Concellor
Baguma David	Central	Concellor
Mirimo Simon	Central	Concellor
Uhuru Salim	Central	Concellor
Kalenzi Ann	Central	Concellor
Tumusiime Maureen	Central	Concellor
Gwokyalya Christine	Central	Concellor
Batanda Daniel	Central	Concellor
Bahemuka Geoffrey	Central	Concellor
Mbaziira Francis	Central	Concellor
Mutaasa Mohammed	Central	Concellor
Kayondo Moses	Central	Concellor
Ozo Peter	Central	Concellor
Okau Mark	Central	Clerk To Council
Ssebuggwawo J. Nabbosa	Rubaga	Mayor
Nagawa Catherine	Rubaga	Dep. Mayor
Ssentamu Muhammed	Rubaga	C/Person
Kyobe Fred	Rubaga	C/Person
Buyungo Erias	Rubaga	C/Person
Bukenya Usman Moses	Rubaga	C/Person
Kalule Isaac	Rubaga	C/Person
Zimula Cissy Tebusweke	Rubaga	Concellor
Nampeera Lukia	Rubaga	Concellor
Nabawanuka Alixa Kaddu	Rubaga	Concellor
Nakimuli Dante Rose	Rubaga	Concellor
Sendyowa Sam. B	Rubaga	Concellor
Kimera Fatuma Ndagire	Rubaga	Concellor

Name	Organization	Title
Mukwaya Livingstone	Rubaga	Concellor
Nanyonjo Kisitu Harrient	Rubaga	Concellor
Sekidde James	Rubaga	Concellor
Namuddu Joyce	Rubaga	Concellor
Kavulu Francis	Rubaga	Concellor
Wasajja Eddie Ggulu	Rubaga	Concellor
Kasalirwe Edirisa Muwayira	Rubaga	Concellor
Kato Christopher	Rubaga	Concellor
Namatovu Margaret Sserwanga	Rubaga	Concellor
Kalungi Mubarak	Rubaga	Concellor
Nabukalu Margaret	Rubaga	Concellor
Luzze Fred	Rubaga	Concellor
Katende Elifazi Wagwa Enkuba	Rubaga	Concellor
Mutebi Moses	Rubaga	Concellor
Balaza Joseph	Rubaga	Concellor
Walugembe Night	Rubaga	Concellor
Ssemambo Joseph	KCCA	Ag. Director Physical Planning
Moses Nambale Bwire	KCCA	Director Internal Audit
Pheobe Lutaaya	KCCA	Director Revenue Collection
Faridah Kiggwe	KCCA	Physical Planner
Kusiima Anita	KCCA	Physical Planner
Othieno Godwin	KCCA	Physical Planner
Ivan Katongole	KCCA	Physical Planner
Kiidp		
Kiggundu Tamale	KCCA	Programme Coordinator
Nsambu Bonnie	KCCA/KIIDP	Programme Engenieer
Katsigaire Savino	MLHUD	Director Urban Development
Miriam Kiconco	MLHUD	Senior Urban Planner
Byendaimira Vincent	MLHUD	Ag. Commissioner, Land Use Regulation & Compliance

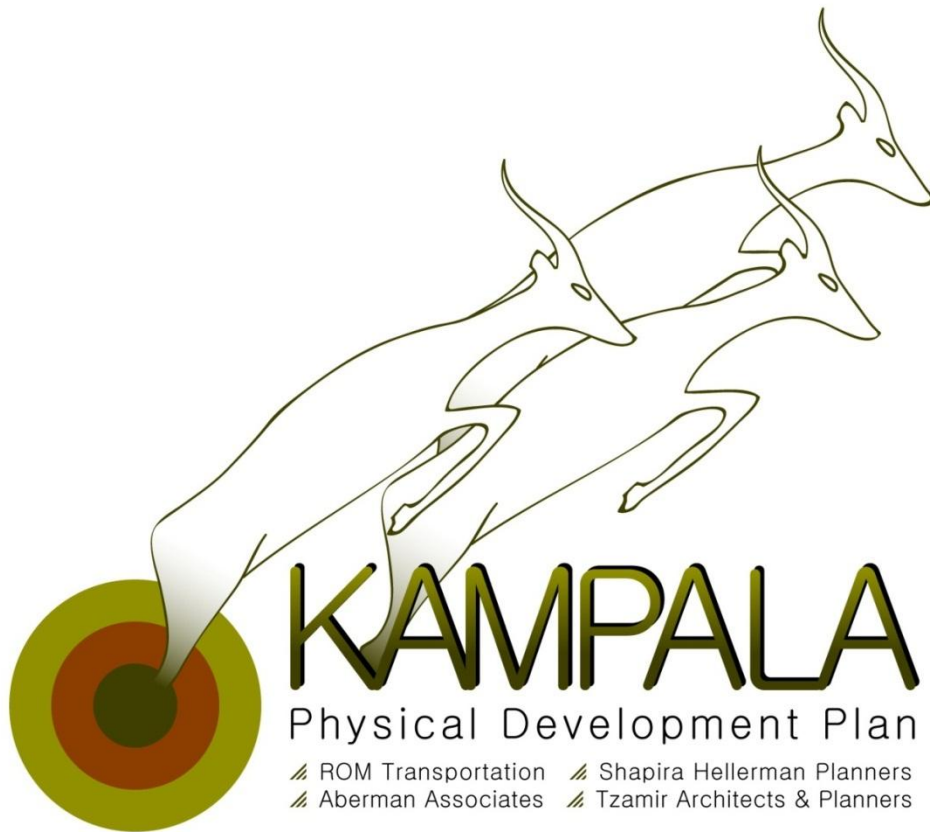
Appendix E: Training Report

Kampala Capital City Authority

Updating Kampala's Structure Plan and
Upgrading the Kampala GIS Unit

Training Report

| September 2012



ROM Transportation Engineering Ltd.
Shapira-Hellerman Planners
Larry Aberman & Associates
Tzamir Architects and Planners Ltd.
Ofek Aerial Photography Ltd.

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Document Verification

Job title		Updating Kampala's Structural Plan and Upgrading the Kampala GIS Unit		Job number GKMA-1	
Document title		Training Final Report		File reference	
Document ref		GKMA-2			
Revision	Date	Filename	Urban Planning and Management Training Report		
	10/8/2011	Description	Final Report		
			Prepared by	Checked by	Approved by
		Name	Hana	Jos	Moshe
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
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			Prepared by	Checked by	Approved by
		Name			
		Signature			

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1. Introduction

The training program was an integral part of the planning process and has been implemented on a number of levels, including the following:

- Constant consultations with the local team – while sharing opinions and methods
- Frontal instruction on pre-defined topics under the framework of a seminar or special meeting dedicated to a specific topic requiring further clarification and enhancement of knowledge

During the public participation process, which played a central role in the planning process, and following specific training on relevant topics, the local team was able to implement tools learned together with the planning team. Finally, advanced training was provided to a number of team members, focusing on the implementation of the plan, in Israel.

Initially the local team was based on the KCCA Planning Division and MoLHUD seconded staff and rapidly expanded to include assorted professionals from other relevant units of KCCA (Economic Planning, Education, Community Services, etc.). As the project evolved and conclusions were drawn from the public participation process, division planners joined the training sessions.

The local team included planners having advanced degrees in planning, some from Uganda Universities while others studied or were trained in various academic institutions abroad. While the planning team viewed the local team as integral planning team members, they also made sure that they underwent a comprehensive learning process, going through the entire planning scope as defined in the specifications. The local team was always attentive to these concerns, took an active part in training sessions and contributed to all processes. Team members were actively involved in assorted project activities as field surveys and public participation process. In the public participation process seconded staff progressed from observation, through participation to organizing and leading group discussions.

2. In Situ Training

Participants:

KCCA: Joseph Ssemambo, Peter Katebalirwe, Geoffrey Katabazi, Godwin Othieno, Charles Kyamanywa, Henry Ssebagala, Kiribakka Vincent, Bonne Nsambu.

MoLHUD: Vincent Byendaimira, Miriam Kiconco.

Table 1: Training Activities

Subject	Format / Activity	Location
Public Participation goals, principles and tools,	Lecture/exercise	KCCA
Training and preparation for conducting focus groups and consultative forums- the questionnaire	Before each meeting the teams meet for analysing the questioners/ exercise/ coordination.	KCCA
Structured management of focus groups and consultative forums and structured collection of information and opinions.	1.Exercises and preparation for conducting forums (at division meetings, district forums), 2.Implementation in the field (with the consultant's team) 3.Participation in focus groups as coordinators/conductors or observers and participants.	KCCA In the field in all the forums: divisions and districts KCCA
Analysis of the products toward assimilation of PP activities	Discussion about the summaries and findings of the meetings- identification of main issues.	KCCA
Physical Planning Act	Seminar discussion	KCCA
Kampala Capital City Act	Seminar discussion	KCCA
Preparation for the classification of the Parishes	Seminar discussion and tasking	KCCA
Preparation for the environmental meeting in August	First discussion about the structure and infrastructure of the meeting – preparation of questions and exercise	KCCA
The environmental meeting	Participation in discussion groups with the consultant's team	KCCA
Extended meetings for presentation of the plan	Preparation of meetings format, questions and variously leading and supporting group discussions.	Hotels in Kampala
Transportation surveys	Lecture + field demonstration	KCCA + Field
Transportation planning principles	Introduction to transportation planning: O-D tables, zones - Lecture	KCCA
S.W.O.T	The principles of the SWOT analysis in the strategic planning- Seminar discussion.	KCCA
The Structural Plan	Alternatives and evaluation- Seminar discussion	KCCA
GIS Training	detailed below	

3. GIS Training

GIS Training Needs Assessment

A training needs assessment was conducted between March 2012 to July 2012 through interviews, interactions with staff and inspection of the GIS equipment at the GIS unit. The seconded staff were the focus of the needs assessment but this also extends to other staff in the directorate of Physical Planning. The needs assessment criteria covered; basic computer knowledge, basic GIS knowledge, available GIS infrastructure, available data and system for updating managing the spatial data. Findings of the needs assessment are as follow;

- There were six seconded staff members from directorate of physical planning and project implementation unit. All of them had some priori experience with GIS but the basic GIS for data collection and production of simple cartographic outputs. Only two had novice GIS skills and can integrate data from various sources, analyze to produce thematic maps as well as utilize GIS tools in spatial planning.
- A total of 13 KCCA and MoLHUD technocrats compose the trainee group. The staff trained included Joseph Ssemambo, Peter Katebalirwe, Geoffrey Katabazi, Godwin Othieno, Charles Kyamanywa, Henry Ssebaggala, Kiribakka Vincent, Vincent Byendaimira, Miriam Kiconco, Bonne Nsambu. Most of these staff except Joseph and Godwin have left the institution.
- The general computer skills that the staff have include word processing, basic data management, some skills in single user desktop GIS.
- Therefore the training was tailored to include some basic computer skills, introductory GIS course building up into data capture skills using remotely sensed data and database design for integrated corporate GIS

GIS Training Provided

Following training needs assessment in application of GIS, a tailored training package was designed and implemented as part of the contract.

Table 2: GIS Training Activities

Subject	Format/Activity	Location
Introduction to GIS	Lecture and interaction with participants	KCCA GIS unit
GIS application areas	Lecture and brainstorm of applicability to functions related to participants work	KCCA GIS unit
Getting started with	Guide for step by step	KCCA GIS unit

Subject	Format/Activity	Location
ArcGIS	navigation of software, windows, interface and basic commands	
Spatial Analysis processes, Theory and basic concepts	Lecture and brainstorm of applications in work environment	KCCA GIS unit
Getting to Know ArcGIS, processing data	Guide for step by step navigation and basic analysis of data using KCCA data	KCCA GIS Unit
Problem conceptualization	Lecture and practicals	KCCA GIS unit
Group work on problem conceptualization	Practicals	KCCA GIS Unit
Group work, data requirement analysis	Practical	KCCA
Group work Structuring problem for spatial analysis	Practical	KCCA GIS Unit
Data preparation for problem solving	Practical	KCCA GIS Unit
Developing a Geodatabase	Practical	KCCA GIS Unit
Introduction to Remote Sensing for urban application	Lecture	KCCA GIS Unit
Using GPS for data collection	Practical	Field around Kampala

4. Advanced Training

As part of the training process, a number of senior planners and office holders visited Israel for advanced training. Following are the purposes of the visits:

- To enable the Consultant to tangibly present the implementation of the plan in a number of cities and sites in Israel
- To receive first hand explanations regarding strategic plans that became a reality (Tel Aviv, Herzliya, Jerusalem, Haifa, etc.)
- To exemplify the challenges faced by Israeli planners, mainly in topics that are also applicable to Kampala (urban renewal project in disadvantaged neighborhoods, transportation, wetlands, waterfronts, etc.)
- Meetings with managers of developing industrial areas

First Group Visit

Participants: Joseph Ssemambo, Peter Katebalirwe, Vincent Byendaimira

Itinerary - First Visit 19.2-27.2.2012

Date	City	Activity	Time	Escorts
19.2	Jerusalem	Arrival at Ben Gurion National Airport	14:15	Airport Taxi
	Jerusalem	Welcoming Dinner		Dr. Moshe Hirsh
20.2	Jerusalem	Visit to Jerusalem Transportation Master Plan	9:00-11:00	Dr. Moshe Hirsh
	Jerusalem	Jerusalem City Model	12:00-12:30	Dr. Moshe Hirsh
	Jerusalem	Meeting with Ofer Manor, City Model Project Architect	13.00-13.30	Dr. Moshe Hirsh
	Jerusalem	'Project Renewal in Israel' Field Trip	14.00-17.00	Hana Shapira Senior Officers from the Ministry of Construction and Housing
21.2	Herzliya	Meeting and Employment Area Field Trip	9:30-11:30	Ofra Bell, Manager of Industrial Zone Hana Shapira Jos Hellerman
	Tel Aviv-Jaffa	Lecture and City field trip with Tel Aviv-Jaffa Municipality Representatives	12:00-16:00	Arcitect Tami Gabrieli, Director of Planning, City of Tel Aviv Hana Shapira
22.2	Netanya (Ofek)	OFEK GIS Training Multivision Presentation Mapping, Digital Orthophoto, Satellite Photos GIS – Lidar & Mobile Mapping	10:00-16: 00:	David Sugarman Ofir Cohen
23.2	Haifa and Accra	Tzamir Architects & Planners Office, Accra Tour, Haifa BRT Field Trip and Tour	11:00-16:00	Yigal Tzamir

Date	City	Activity	Time	Escorts
24.2-25.2	Jerusalem Dead Sea	Old City Tour		Assaf/Guide
26.2	Jerusalem	Free time and Closure Meeting		Team Members
27.2		Flight back to Kampala	10.45	

Second Visit

Participant: Mr. Savino Katsigaire

The purpose of the visit, in addition to the aforesaid, was to present Israel's experience regarding urban planning and development from the national perspective. These issues were covered in meetings with Prof. Shamai Assif – former Director of the Planning Administration, Ministry of Interior, and Head of National Plan 2035 and with Mr. Dov Kahat – former Director General of the Ministry of Interior.

Itinerary - Second Visit 07.9-13.9.2012

Date	City	Activity	Time	Escorts
7.9	Jerusalem	Arrival at Ben Gurion National Airport	13:45	Airport Taxi. Hotel Leonardo
	Jerusalem	Welcoming Dinner	20.00	Rachel Amram +
8.9	Jerusalem	Old City Tour	From 10,00 All day	Rachel + Alex + guide
9.9	Jerusalem	Visit to Jerusalem City Model	9:30	Rachel + guided explanation
	Haifa (Taxi transfer)	Tzamir Architects & Planners Office,	13:00	Prof. Yigal Tzamir
	Tel-Aviv	Dinner and Night Tour	21:00	Sleeping in Tel – Aviv
10.9	Herzliya	Meeting and Field Trip at Employment Area	9:30-11:30	Hana Shapira Jos Hellerman
	Natanya	Mr. A. Tuchmeir, Chairman, Canada-Israel Group (International Real Estate Developers)	11:00	
		Netanya Waterfront and Wetlands Park Field Trip	12:00	

Date	City	Activity	Time	Escorts
		Ofek - GIS Systems and Kampala Mapping Presentation	14:00	
		Presentation National Plan 2035 Prof. Shamay Assif	16:00	
12.9	Tel Aviv-Jaffa	Sapir Engineers Ltd Rothschild Blvd	10:00	Hana Shapira
		Lecture and Field Trip throughout the city with Tel Aviv-Jaffa Municipality Representatives	12:00 14:00	Architect Tami Gabrieli, Director of Planning, City of Tel Aviv
		Dinner with Mr. Dov Kehat		
13.9	Departure in the morning to airport			

In addition to field trips in Jerusalem and Tel Aviv, the meetings included presentations on strategic planning issues. Also in this case emphasis was given to specific planning details and methods of implementation in the field.

Scheduled Third Visit

Participants: Mrs. Jennifer Musisi Executive Director KCCA, Charles Ouma, Jacqueline Assimwe, Bidongo Bosco Bernard, Prisca Assimwe, Isaac Ssempebwa, Eddgar Bwambale.

A third visit is scheduled for Mrs. J. Musisi, ED KCCA, in mid-October. The purpose of the visit, in addition to the aforesaid, is to expose the ED and the team to the implementation side of the proposed plans. Hence the emphasis on this trip is both on seeing the practical implementation of proposed elements (e.g. waterfront, wetlands park, inner city parking solutions, mass transit systems, etc.) and municipal issues (finance, revenue, parking management, etc.).

Itinerary - Scheduled Visit to Israel 14.10.12-19.10.12

Date	City	Activity	Time	Escorts
14.10 Sunday	Airport	Arrival at Ben Gurion National Airport and transfer to Jerusalem	11.55	Airport Taxi to Dan Hotel in Jerusalem

	Jerusalem	Tour in city centre + Welcoming Dinner	18.00	Dr. Moshe Hirsh Sleeping in Jerusalem
15.10 Monday	Jerusalem	Meeting with Eli Zituk, city treasurer and senior staff at Jerusalem City Hall to discuss city income sources (own, Government)	10.30 - 12.00	Dr. Moshe Hirsh
		Visiting Jerusalem Model at city Hall followed by light lunch at the main market	12-15.00	
		City tour – First round: Central bus station, Ein-Karem, Hospital complex	15-18	
		Dinner	20.00	
16.10 Tuesday	Jerusalem	Visit to Jerusalem parking authority – presentation + tour at parking control centre	9.15-11.30	Dr. Moshe Hirsh
	Jerusalem	Ministry of the Interior Director of Local Government	12:00-13.00	Mr . Jos Hellerman or Dr. M. Hirsh
	Tel- Aviv	Light Lunch and transfer to Tel Aviv	14:00	Dan Panorama Hotel
		Prof. Y. Tzmir with the ED – KPDP (team free)	16:00	
		Dinner – Zaid Group	19:00	Mr. Shalom Daskal
17.10 - Wednesday	Tel-Aviv	Welcome and Introduction to Tel Aviv - Tel Aviv municipality representative Map IT - Revenue simulation & assurance, billing & collection Solution – Zaid Group Light lunch	9:00-14:00	Mr. Shalom Daskal
	Tel-Aviv area	Gordon Complex, Bat Yam-Waterfront Development and Park Ariel Sharon (Waste Dump Rehabilitation) Prof. Yael Moria	14:00 - 17:00	Hana Shapira

		Dinner with Mr. Dov Kehat, past Director General Ministry of the Interior Night Tour of Jaffa	19:00	Hana Shapira & Jos Hellerman Sleeping in Tel Aviv
18.10	Tel-Aviv	Bank Dexia (Municipal Finance) - Mr. David Kapah (CEO)	10:00-10:45	Jos Hellerman
	Herzlia	Herzlia Industrial Park Management Authority Mrs. Ofra Bell (Director)	11:15-12:15	Jos Hellerman
		Park "Bassa" -Wetland Park	12:15	
		Light lunch- Herzlia Beach	12:30	
	Tel-Aviv	Field trip – Tel -Aviv (public parking solutions urban boulevards, mixed private public uses, markets etc.)	14:00-16:00	Hana Shapira and Architect Tami Gabrieli, Director of Planning, City of Tel Aviv
		Transfer to Dan Hotel Jerusalem	17:00	Sleeping in Jerusalem
19.10 Friday	Jerusalem	Historic and Religious Sites- Guided Tour	All day	
		Departure to Airport	20:00	

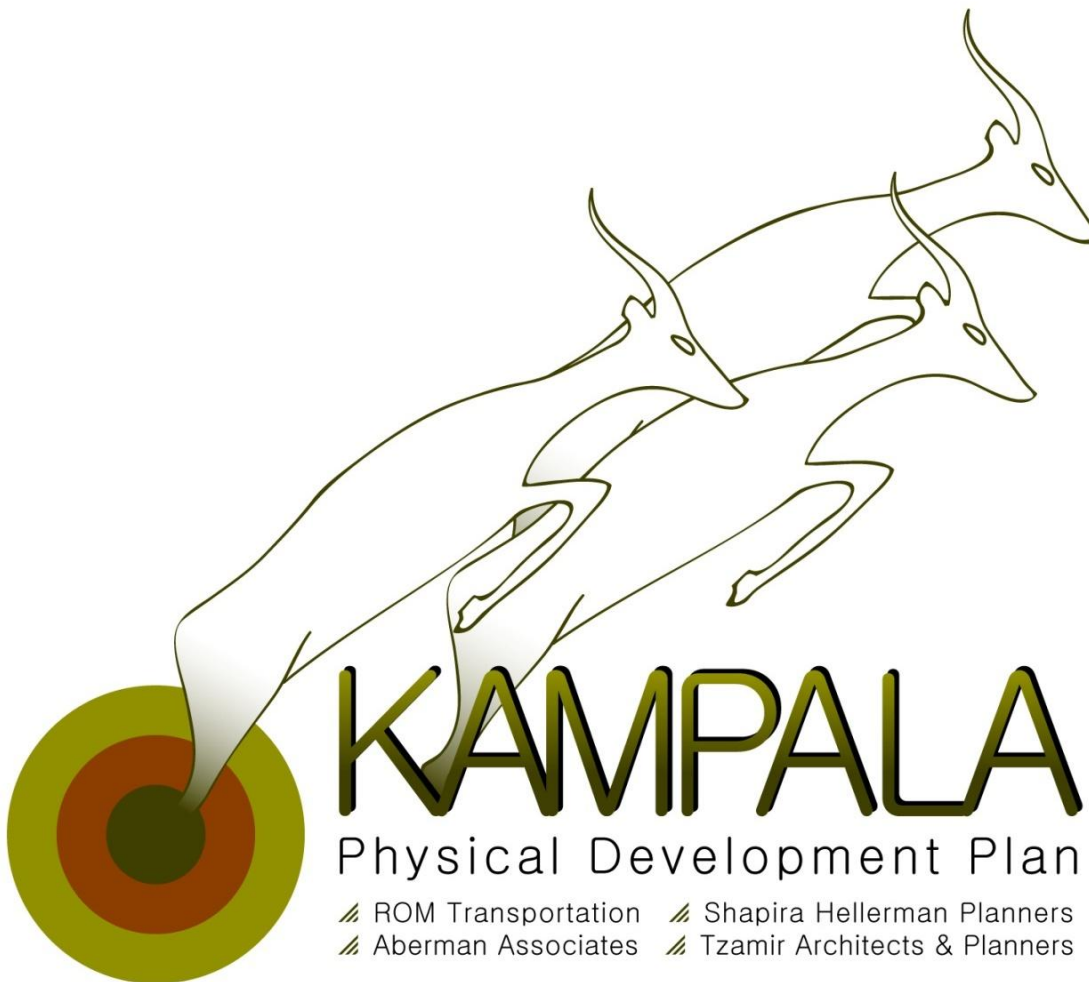
Appendix F: KCCA GIS Unit Upgrading Report

Kampala Capital City Authority

Updating Kampala Structure plan
and upgrading the Kampala GIS
unit

KCCA GIS Unit Upgrading Report

| September 2012



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Ofek Aerial Photography Ltd.

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Document Verification

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Document ref		GKMA-2			
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	10/8/2011	Description	Final Report		
			Prepared by	Checked by	Approved by
		Name	Shuaib	Jos	Moshe
		Signature			
		Filename			
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		Name			
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		Name			
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		Name			
		Signature			

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Upgrading GIS Unit

For purposes of illustrating what has been accomplished in the GIS unit its important to have an understanding of a GIS. A GIS is “An organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information. Its important to understand the components of a GIS, how they link and how each plays a equally important role in city management at KCCA. The diagram below illustrates the components of a GIS as

- **Personnel** (with skills and capacity to continuously update, develop applications and manage the data),
- Equipment (a whole range of appropriate GIS infrastructure including GPS units, Computers, Scanners, large scale Printers, data loggers and specialised equipment for monitoring environmental factors),
- and **space** in terms of offices and specialized GIS unit well equipped to sustain the acquisition and management of geodatabases. This would also include interfaces both computer based applications and analogue interfaces with the clients that are both internal departments and public.
- **Data** inclusive of management information and geodatabases both raster and vector format (including satellite imagery from high resolution up to medium resolution, stereo images, continuously updated basemap and other thematic map data useful in city management),

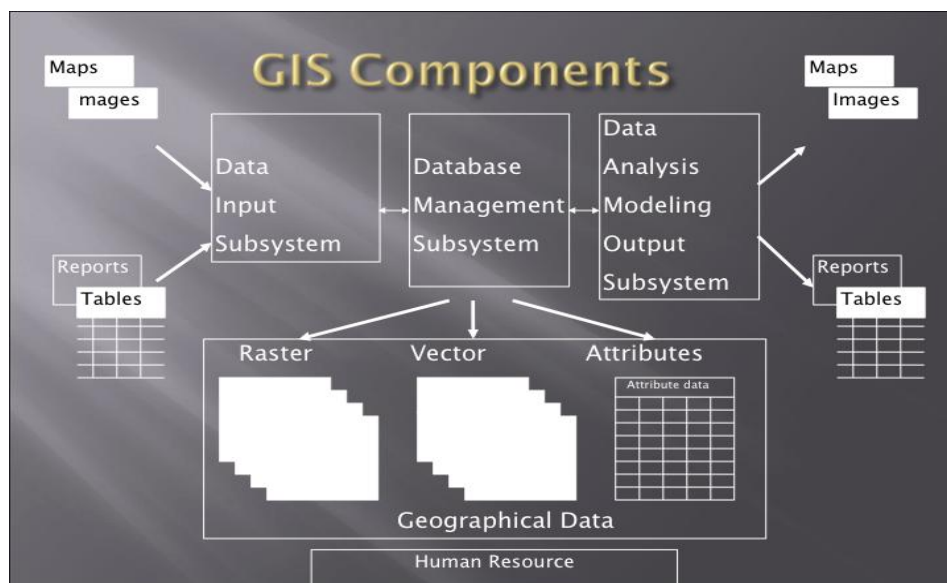


Figure 1: Creation of KCCA Geodatabase

Status of the GIS Unit

For components of personnel and space, KCCA has a functional GIS unit but will require continued upgrading in terms of increasing human resource, equipment and space. Capacity building in GIS competencies of conceptualizing, creation and application of GIS concepts and techniques has been implemented under this project. The training modules covered are in the Training Report. Because this is tailored, type of training theory and concepts modules were covered before participatorily developing two application domains were selected by the participants to acquaint in skills of data management from field data collection to storage, updating and management processes. The two application domains were; planning for and upgrading a neighborhood (chosen neighborhood is Nsambya-Katwe-Makindye area) and the second is Infracutre management focusing on roads and their ancillary infrastructure drainages to develop an application for maintenance and planning. For purposes of both groups working towards integration, the second group also focuses on the same neighborhood.

In addition, the staff were also taken to TelAviv and visited Ofek Mapping for exposure and short term training on information systems (LIDAR, etc.) and for city management. In summary, capacity has been upgraded to a level where staff have not only an understanding of GIS but can comfortably operate some basic GIS functions. However, since completion of the training the Planning Directorate has undergone significant reorganization. Some of the trained staff have been replaced by new staff (who have yet to commence employment). It will therefore be necessary to assess the new appointees and provide them appropriate training.

Spatial Data and Infrastructure for a GIS

- KCCA had basic layers but which are not up to date. These layers included topographic data, land use, some biophysical data, population, administrative, commercial entities, educational and health facilities.
 - The topographic data and land use layer are updated through the mapping which has been conducted by the project but other layers will continuously be updated even beyond the project
- There are also two-satellite imagery of high resolution for 2002 and 2010 but these do not cover the entire KCCA area.
- Three new workstations were installed in addition to a large format scanner and plotter. The equipment was assessed, as minimum infrastructure required managing the enormous analogue data at KCCA GIS unit and the land administration unit.
- However there is need for additional equipment to operationalize the GIS fully
 - A server with capacity to manage the large dataset and speed to enable access remotely
 - A networking of the GIS unit needs updating with the GIS unit server that can also be mirrored at the institutional server that exists

- GIS software of ArcGIS 10 was acquired and installed on the workstations and a module on problem analysis which will take the trainees through the process of data capture, processing, analysis and production.

Creation of KCCA Geodatabase

In conjunction with the mapping accomplished by OFEK, a spatial database was collated for planning purposes. From this spatial database with data layers sourced from different institutions, a geodatabase has been designed and physically created. The model for the geodatabase is a server-client type where a central server is created with all the data layers. Data relationships and integration was implemented by designing a physical data model for relational linkage that which would support querying on the server. The data server is implemented in an ArcGIS environment using SDE module. The model is a prototype and will be tested before fully launched. An illustration of the physical model is presented below. The data layers with attributes and information is attached in the appendix.

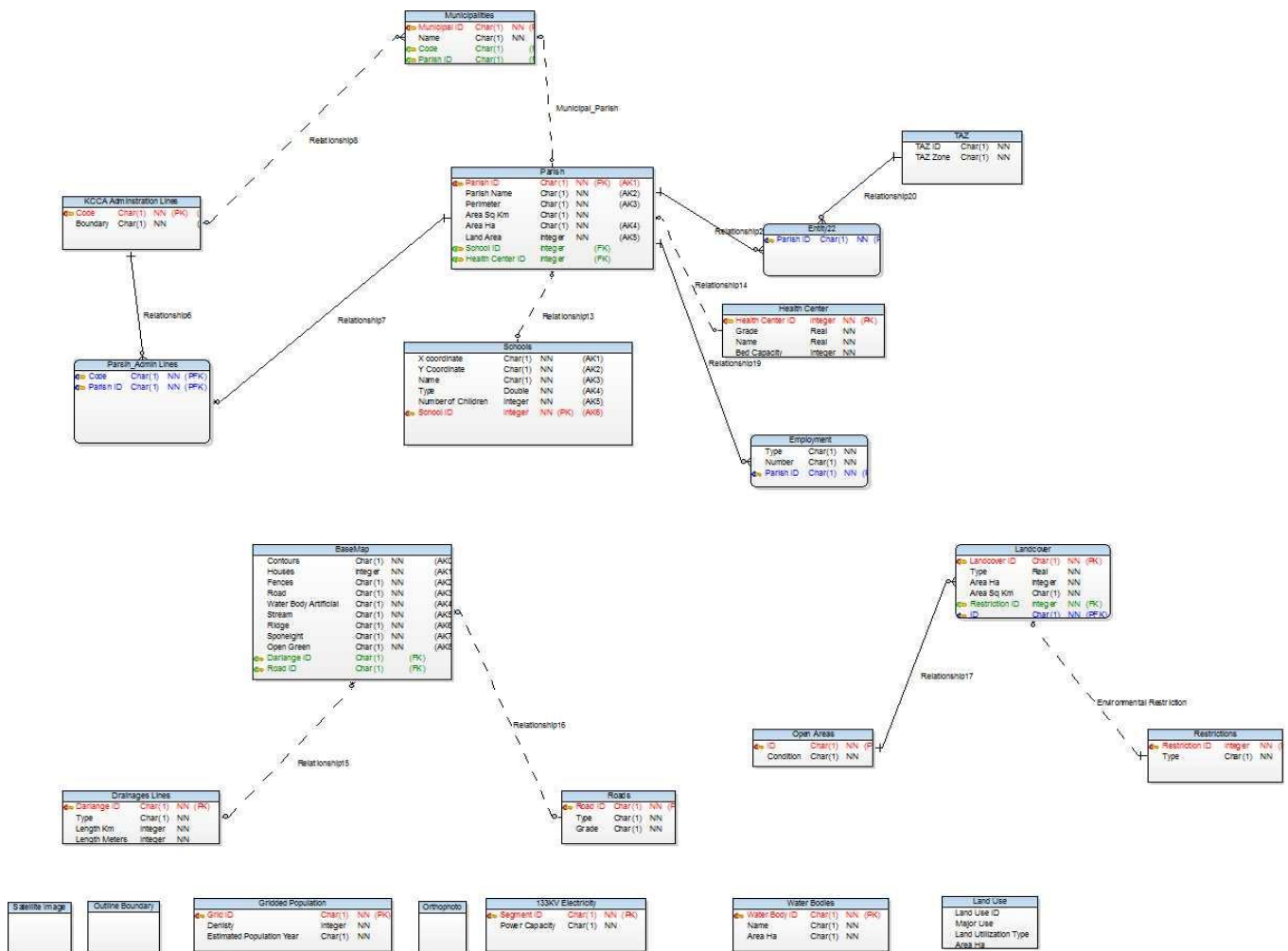


Figure 2: KCCA GIS Structure

Integration of the KCCA GIS and the Land Information System

The Ministry of Lands, Housing and Urban Development (MLHUD) engaged IGN France International (www.ignfi.com) to lead a Consortium with support from the World Bank for the Design, Supply, Installation, Implementation of the Land Information System and Securing of Land Records (DeSILISoR) Project. The project commenced February 2010 and is being piloted in Kampala, Jinja, Mukono, Wakiso, Masaka and Mbarara. The cadastral maps have been digitalized, the aerial photography finished and the digitalization of titles is nearing completion.

The key land data for Kampala will have to be integrated with the LIS for proper land management and planning. These key datasets are as follows;

- **Leasehold and Freehold Titles** for Kampala and KCCA are now available for the recording of transactions. However it will take 8-10 working days to retrieve these titles and complete the registration of a submitted transaction.
- **Mailo Titles** for Kibuga and Kyadondo have been computerized and are now available for the registering of transactions. Again it should be noted that it will take 8-10 working days to retrieve these titles and process a transaction.
- If the Metropolitan Planning Authority comes into existence, the other key dataset includes the **Mailo Titles** for Busiro, Butambala, Gomba, Mawokota all of which are part of former Mpigi to which the metropolitan planning extends.
- To the east, the metropolitan planning area extends to Mukono and the LIS has now completed the **Mailo Titles** for Kyaggwe

The computerisation of land administration services currently being implemented is expected to be completed by the end of February 2013. The time delay between submission and processing of transactions will gradually be shortened with effect from October 2012. Once fully installed the new Land Information System will: 1) significantly reduce the time required to check and update land titles; 2) enhance the security of the land registration process; and 3) reduce corruption related tendencies associated with checking, updating and transferring land titles. This is important for KCCA since a substantial part of urban planning development control and service delivery depends on a good land information system. Its integration with the GIS will be crucial.

Integration of the KCCA GIS and Rates Valuations

The supplementary valuations roll prepared in 2009-10 included georeferenced data (x,y coordinates). Close to 11,000 properties with valuations data (location, ownership, category, gross valuation, ratable valuation) have been incorporated in the KCCA GIS system by the project.

It is essential that all future valuation rolls include georeferenced data to enhance the management of the revenue collection process and to provide data of major significance for the future management and planning of the city.

It can also be noted that the detailed mapping of structures in KCCA produced by the project can and should support future valuations (planning, managing and QC).