

# **Nairobi - Emerging Metropolitan Region: Development Planning and Management Opportunities and Challenges**

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## **1 Introduction**

### **1-1 Overview**

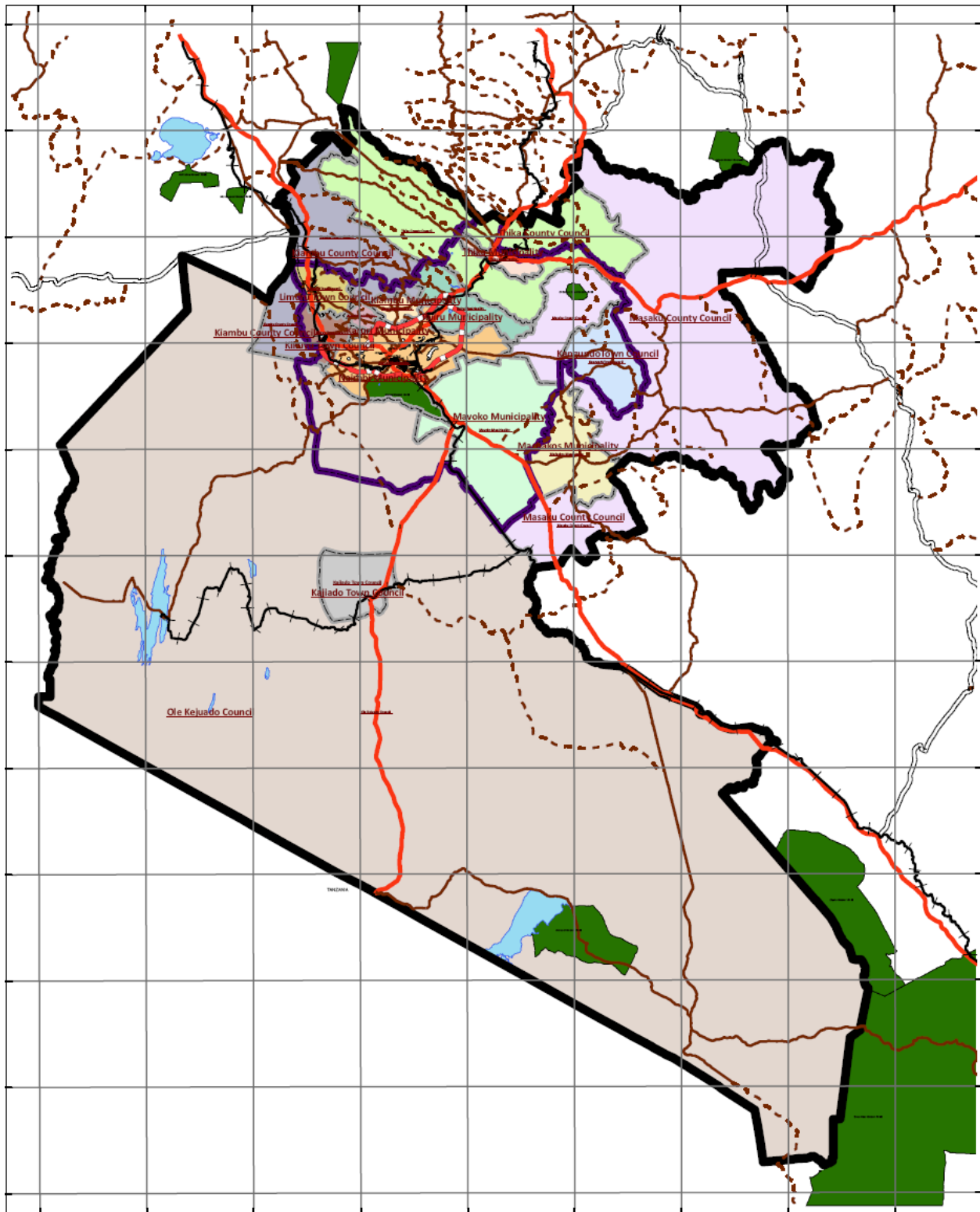
Kenya is located in Eastern part of Africa and has a total area of 582,646 Sq.km. 80% of Kenya's land area is semi-arid and only 20% is arable land. Kenya's capital city, Nairobi is centrally located in the country and covers an area of 684 square kilometres, and holds a population of 3.3 million people.

Kenya, like many other developing countries in Africa, is experiencing rapid urbanization growth (UN Habitat, 2008, p.102). Many cities and towns have grown in population size and also expanded spatially to form huge metropolitan regions. Metropolitan regions do present huge development opportunities. The rapid urbanization also generates a lot of problems and challenges – economically, socially and environmentally. Nairobi is one such metropolitan region in Kenya. What potential opportunities, problems and challenges face this new emerging metropolitan region? What is the way forward and what are possible solutions? This is the focus of this paper.

### **1-2 Defined Boundary of Metropolitan Region**

Nairobi metropolitan region covers approximately 32,000 km<sup>2</sup> – Figure 1-1. This covers 15 No. local authority areas – City Council of Nairobi (684 km<sup>2</sup>); County Councils of Kiambu, Olkejuado, Masaku and Thika; Municipal Councils of Ruiru, Thika, Kiambu, Limuru, Mavoko, and Machakos; and Town Councils of Karuri, Kikuyu, Kajiado, and Kangundo (Ministry of Nairobi Metropolitan Development, 2009, p. 38) .

*Figure 1-1: Nairobi Metropolitan Region*



Source: Kenmt Bill Engineers and Planners

### 1-3 Population Size and Growth in Metropolitan Regions

The projected population (2007) of the metropolitan region was estimated at 5,640,273 people – Table 1-1.

*Table 1-1: Nairobi Metropolitan Projected Population (2007)*

	Local Authority	Projected Population (2007)
1.	City Council of Nairobi	2,647,951
2.	Municipal County of Kiambu	76,004
3.	Municipal County of Limuru	112,324
4.	Municipal County of Machakos	192,377
5.	Municipal County of Mavoko	54,640
6.	Municipal County of Ruiru	127,074
7.	Municipal County of Thika	101,320
8.	Town Council of Kajiado	15,408
9.	Town Council of Karuri	105,607
10.	Town Council of Kangundo	15,408
11.	Town Council of Kikuyu	191,769
12.	County Council of Kiambu	375,558
13.	County Council of Masaku	607,599
14.	County Council of Olkejuado	495,943
15.	County Council of Thika	521,291
	Total	5,640,273

*Source: Adopted, Ministry of Nairobi Metropolitan Development, 2008, p.19.*

The metropolitan region population is projected to grow to 7.6 million people (2012), 10.8 million (2022), and 14.3 million (2030) – Table 1-2. Due to the rapid urbanization, it is estimated that by 2030, Kenya will be 61.5% predominantly urban population. It is also estimated that the Nairobi Metropolitan region will accommodate a bulk of this urban population.

*Table 1-2: Nairobi Metropolitan Projected Population Up to 2030*

Year	1999	2007	2012	2017	2022	2027	2030
Total National Population	28.7	36.3	41.5	47.2	52.9	58.7	62.1
Total Urban Population	5.4	9.0	12.3	16.9	23.1	31.7	38.2
Metropolitan Population	4.8	6.3	7.6	9.0	10.8	12.8	14.3
Urban % of National Population	18.8	24.8	29.6	35.8	43.7	54.0	61.5
NMR % of National Population	16.7	17.4	18.3	19.1	20.2	21.7	22.8
NMR % of Urban Population	88.5	70.3	61.7	53.3	46.3	40.2	37.0

*Source: Adopted, Ministry of Nairobi Metropolitan Development, 2008, p.21.*

### 1-4 Metropolitan Region Concerns and Challenges

Nairobi metropolitan region is faced with numerous problems and challenges. This includes, among others (Ministry of Nairobi Metropolitan Development, 2009, p.38) -

- Rapid urbanization and population growth
- High unemployment and low incomes

- Massive urban sprawl and encroachment into rich agricultural and water catchment areas
- Haphazard and uncoordinated and incompatible urban and rural development
- Rapid growth, inadequate and informal housing
- Poor provision and inadequate infrastructure and utility services
- Poor and inadequate community and social services
- Poor transport services
- Environmental degradation and poor sanitation
- Poor and uncoordinated governance system

## **2 Opportunities and Strengths in Metropolitan Region**

### **2-1 Overview**

Nairobi city and its metropolitan region is striving to be a regional and global service hub. Nairobi metropolitan region must find its place within the competing global cities and metropolitan regions. What strengths and opportunities does Nairobi metropolitan region have?

### **2-2 Opportunities and Strengths**

Nairobi metropolitan region has a wide range of opportunities to build on. These include (Ministry of Nairobi Metropolitan development, 2008, 9.16) –

- Large and growing population, skilled workforce and multi-cultural diversity
- Strategic geographical location locally, regionally and internationally
- Good climate and weather conditions all year round
- Well established commercial and industrial base
- Regional and international headquarters for several corporations and organizations
- Home to the UN lead agencies, UNEP and UN-Habitat
- Unique natural and tourist attractions
- Concentration of education and research institutions

### **2-3 Large and Growing Population**

Nairobi metropolitan region has a large and growing population. The year 2007 estimated population was 6.3 million people and this is projected to rise to 14.3 million people in 2030. For a growing economy, the large population provides a large workforce to run the growing economy in the metropolitan region. The large population is also a rich mix of multi-racial and ethnic culture.

### **2-4 Strategic Geographical Location**

Kenya and Nairobi city enjoy strategic geographical location – locally and internationally. Kenya is centrally located in relation to other parts of Africa. Kenya and Nairobi act as the natural gateway to the rest of Africa. The Great North Road corridor from Cape Town (South Africa) to Cairo (Egypt) passes through Nairobi. Nairobi international airport is 5.5 hours away from major cities in Africa. Nairobi provides the main access route for various markets in Africa, the Indian Ocean and South Asia.

### **2-5 Good Climate and Weather Conditions**

Nairobi is described as the “Green City in the Sun”. Nairobi has a pleasant climate and weather conditions throughout the year. The average temperature in Nairobi is 18 degrees centigrade and receives about 900 mm of rain annually.

### **2-6 Established Commercial and Industrial Base**

Nairobi and its metropolitan region are both the largest and well established commercial and industrial regions in East and Central Africa. Huge commercial establishments are found in Nairobi – Plate 2-1. Nairobi is also the home of huge manufacturing industries in the region.

*Plate 2-1: Business District: Nairobi - Established Central Business District*



*Source: Julius Mwelu/UN Habitat*

### **2-7 Local, Regional and International Headquarters**

Nairobi is the headquarters of many local, regional and international corporations and organizations. This includes – Safaricom, East African Breweries, Barclays Bank, Standard Chartered Bank, and Kenya Commercial Bank. Others include Coca Cola (Africa), British Airways, KLM, Qatar Airlines, Kenya Airways, BP Shell and Total.

### **2-8 Home to UN Headquarters and Diplomatic Missions**

Nairobi is the headquarters for United Nations Environmental Programme (UNEP) and UN-Habitat. Indeed Nairobi is the only city in the South and in developing countries to host UN-headquarters. Nairobi also accommodates the largest concentration of diplomatic missions in Africa.

### **2-9 Unique Natural and Tourism Attractions**

Nairobi National park is the only city natural park in the world. Within the metropolitan region there are many attractive natural features and conservation areas. These include Ol Donyo

Sabuk Game Reserve, Ngong Forest and Karura Forest. Nairobi is also within 1 hour easy reach to many tourist attractions such as Mt. Kenya, the Aberdares, Masai Mara and the Indian Ocean beaches.

### **2-10 Concentration of Education and Research Institutions**

Nairobi metropolitan region has a large concentration of education and research institutions in Kenya and Eastern and Central Africa. These institutions include – University of Nairobi, Kenyatta University, and Jomo Kenyatta University of Agriculture and Technology. Other international research institutions include The International Centre of Insect Physiology and Ecology (ICIPE), the International Livestock Research Institute (ILRI), and Kenya Medical Research Institute (KEMRI).

## **3 Challenges Facing Nairobi Metropolitan Region**

### **3-1 Overview**

Besides the opportunities and great development potential, Nairobi metropolitan region is faced with several challenges and threats. These challenges include –

- Depressed performance in population and demographic indicators
- Inadequate housing
- Depressed economic and employment opportunities
- Inadequate infrastructure and utilities
- Poor community and social services
- Inadequate transportation services
- Environmental pollution
- Poor safety and insecurity concerns
- Ineffective legal and governance institutions

### **3-2 Depressed Population and Demographic Indicators**

Like other regions in Kenya, Nairobi metropolitan region is experiencing very rapid urban population growth. Unfortunately, the rate of population growth is not matched with the rate of economic growth. The result is decreased average per capita and household income. Nairobi metropolitan region is therefore faced with increased poverty (Ministry of Nairobi Metropolitan Development, 2008, p.25). Nairobi has overall poverty headcount index of 21% (Kenya National Bureau of Statistics, 2007, p.51).

The metropolitan region also scores poorly in other demographic parameters. In 2009, 29% of Nairobi children under five had stunted growth due to poor nutrition. In 2009 Nairobi also had leading 10.8% HIV infection rate among adult women compared to 8% Kenya national average.

### **3-3 Inadequate Housing**

Kenya continues to experience serious housing shortage. At the national level the housing supply is a low 35,000 units per year compared to a high demand of 150,000 units per year (Ministry of National Planning and Vision 2030, 2008).

The prolonged housing shortage has led to the proliferation of unplanned and informal urban settlements. For example, 50% of Nairobi population lives in informal settlements. Indeed



Nairobi is home of some of the largest low income and informal urban settlements in Africa - Kibera and Mathare – Plate 3-1.

*Plate 3-1: Mathare Slums - Slums are home to over 50% of Nairobi residents*



*Source: Julius Mwelu/UN Habitat*

### **3-4 Depressed Economic Performance and Employment**

The rapid population growth in the metropolitan region is not matched with increased economic performance. This is reflected in increased unemployment and prevalent poverty (Ministry of Nairobi Metropolitan Development, 2008, p.25).

### **3-5 Inadequate Infrastructure and Utilities**

The provision of infrastructure and utilities in Nairobi metropolitan region is poor. The household level of access to electricity, water supply and waste disposal is low. Although Nairobi city has higher level of access to services – electricity connection at 75% of households, piped water at 76%, and sewer connection at 66% of households - the situation is worse in other smaller towns in the metropolitan region. The metropolitan region 2010 water demand is estimated at 1,000,000 m<sup>3</sup> per day compared to the low water supply of 400,000-500,000m<sup>3</sup> per day.

In Nairobi city, only 10% of solid waste generated is collected. Inadequate waste water and solid waste disposal services has resulted in widespread pollution of the environment—Plate 3-2.

*Plate3-2: Inadequate Waste Water and Solid Waste Disposal*



*Source: Julius Mwelu/UN Habitat*

### **3-6 Poor Community and Social Services**

Nairobi metropolitan region has inadequate community and social services to meet the rising demand. Schools and health facilities are not adequate. This is also true for open spaces, sports and recreational facilities. It is also noted that even when these facilities are available, they are ill-equipped and poorly maintained and managed.

In 2003 for example, primary school net attendance ratio was 85% and secondary schools at 32%. The situation is lower and worse in other smaller towns in the metropolitan region.

### **3-7 Inadequate Transportation Services**

Nairobi has severely limited mobility and poor transport system. Kenya's car population is between 400-500,000 units, of which 30-40% are in Nairobi. This means that Nairobi has a high car dependence level compared to other towns. Within the city, regional commuter distances are in excessive 30-40 kilometres long. In the metropolitan region urban transport is expensive and poorly run. Public transport in Nairobi is mainly run by the private matatu sector. This sector is often blamed for causing traffic congestion, accidents and flouting traffic rules.

### **3-8 Environmental Pollution**

Nairobi city and its metropolitan region is experiencing increased environmental pollution. This is mainly due to inadequate disposal of wastewater and solid waste. The metropolitan region is also experiencing increased air pollution due to increased motor vehicle traffic and emission from processing factories in Nairobi, Thika, Mavoko, Ruiru, Kikuyu and Limuru.



### **3-9 *Ineffective Legal and Government Institutions***

Nairobi metropolitan region brings together 15 No. local authorities that are independent, of different resource base and of different political persuasion. The metropolitan region covers 32,000km<sup>2</sup> and is spread over 4 No. provinces – Nairobi, Central, Rift valley and Eastern.

Under the Local Government Act, all the local authorities report to the Ministry of Local Government. The Ministry of Nairobi Metropolitan Development has no mandate over the formation, administration and management of local authorities. It has not been easy to coordinate activities of the two government ministries. It has not been easy to coordinate activities of 15 No. local authorities. The local authorities are not ready to forego their independence and report to the new metropolitan ministry. Other than Nairobi, the other local authorities have extremely limited financial and technical capacity.

## **4 Way Forward for Metropolitan Region**

### **4-1 *Overview***

In order to achieve effective development in Nairobi metropolitan region, the following measures have been undertaken or are proposed by the Government of Kenya. These intervention measures include –

- Establishment of Ministry of Nairobi Metropolitan Development
- Formulation of policy framework-Nairobi Metro 2030
- Preparation of Nairobi metropolitan spatial plan
- Improvement of housing
- Improvement of economic and investment opportunities
- Improved infrastructure and utilities
- Provision of better community and social services
- Improved transportation system
- Improved safety and security
- Effective legal and governance institutions

### **4-2 *Establishment of Ministry of Nairobi Metropolitan Development***

The development potential and attendant challenges facing Nairobi metropolitan region are indeed enormous. In order to give it the required push, in 2008 the government established a special ministry – the Ministry of Nairobi Metropolitan Development. The ministry was specifically formed to marshal government resources and political will to move forward the metropolitan region.

In a space of two years, the ministry has been able to undertake effective public and stakeholder consultation. The boundaries of the metropolitan region have been identified. The ministry has in 2008 formulated and prepared a key policy document - Nairobi Metro 2030. The ministry has established various technical departments and recruited required professional staff. The ministry is presently preparing the Nairobi Metro Spatial Plan.

### **4-3 *Policy Framework Nairobi Metro 2030***

Nairobi Metro 2030 is the metropolitan policy statement. The vision of Nairobi metropolitan region is to be “A World Class African Metropolis”. The objectives of the policy are to –

- Make Nairobi metropolitan region grow and develop into a world class African metropolis
- Create sustainable wealth and offer quality life to residents and people of Kenya, investors and visitors
- Integrate economic, social, cultural and environmental well being in the metropolitan region

#### **4-4 Preparation of Nairobi Metropolitan Spatial Plan**

The ministry has identified, as a priority, the preparation of Nairobi Metropolitan Spatial Plan. This will facilitate balanced and coordinated metropolitan and national growth. The spatial plan will also protect agricultural and water catchment areas. The spatial plan will also ensure coordinated development of strong growth centres outside the core Nairobi city.

#### **4-5 Housing Improvement**

The government has put in place measures to improve housing in the metropolitan region. In Nairobi, for example, slum upgrading projects have been initiated in Kibera – Plate 4-1. Other housing projects are proposed in Mavoko, Kajiado, Ruiru and Thika. By 2012, the Ministry of Nairobi Metropolitan Development aims at investing about Ksh 3.4 trillion in housing development.

*Plate 4-1: Slum Upgrading Project in Kibera*



*Source: Julius Mwelu/UN Habitat*

#### **4-6 Improved Economic and Investment Opportunities**

The government aims at improving the economic and investment climate in Nairobi metropolitan region. The metropolitan region will be established as a service centre, improve business

operating environment and enhance productivity. The government will introduce incentives to attract both local and international investments in all sectors of the economy.

#### ***4-7 Improve Infrastructure and Utilities***

The metropolitan region aims at development of world class infrastructure and utilities. Priority will be given to the infrastructure investment that supports Nairobi Metro 2030. The ICT sector will be integrated in the development and management of infrastructure and utilities.

#### ***4-8 Improve Transportation Services***

The metropolitan authority aims at improving the transport system in the region. This includes reduction in travel time and costs, improved connectivity and accessibility, increased public transport, and enhanced transport safety and security.

#### ***4-9 Improve Community and Social Services***

The metropolitan authority aims at improving the welfare of residents. This includes reduction in poverty levels, increase in overall income, and provide better schools, health facilities, sports and recreation facilities. This is particularly so in the low income areas.

#### ***4-10 Improved Safety and Security***

The metropolitan authority aims at making the region safe and secure. This includes sustained reduction in crime and mitigation measures against disaster.

#### ***4-11 Effective Legal and Government Institution***

It is proposed to – (i) build and sustain effective metropolitan governance system; (ii) ensure effective management systems; (iii) encourage and streamline stakeholder and community consultation; and (iv) ensure effective and prudent use of natural, financial, human and institutional resources.

## **5 Conclusion**

Metropolitan regions are now a reality in developing countries. Nairobi metropolitan region presents great development potential in Kenya and the East African region. The metropolitan region is set to be an international business and service hub.

In order to fully achieve this development potential, the metropolitan authorities must prepare strategic spatial plan. It is also important to invest in improved human welfare, housing, infrastructure and transport services. It is also important to have effective governance structure. Nairobi metropolitan strategy has important lessons for other regions in developing countries.

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