OPPORTUNITIES WITHIN THE NAIROBI INTEGRATED URBAN DEVELOPMENT MASTERPLAN (NIUPLAN)

AAK BUILD TALK,

5th SEPTEMBER,
NAIROBI, KENYA

By: Mr R.K.KAZUNGU
OUTLINE.

• Nairobi location and vital statistics
• Nairobi’s history in relation to urban planning
• Development Challenges in the City
• Nairobi Integrated Urban Development Master Plan (NIUPLAN)
• Current on going Initiatives supporting NIUPLAN
NAIROBI KENYA: IN CONTEXT

- Capital of Kenya
- Situated along the geographical coordinates 1°16'60" South latitude and 36°49' East longitude.
- Located at an altitude of 5672 above sea level.
NAIROBI POSITION ACCORDING TO NATIONAL SPATIAL PLAN

Zone 3: Highlands (Western, Central and Rift Valley)
Key Urban Centres:
- Kakamega, Kisumu, Kisii, Kericho, Eldoret, Kitale, Nakuru, Naivasha, Narok, Nyeri, Murang’a, Nyeri, Nyahururu, Embu, Meru

Zone 4
Key Urban Centres:
- Naivasha, Eldoret, Nakuru, Baringo, Kericho, Ngong, Kisumu, Kimite, Tola, Koru, Taita Taveta City

Zone 5: Coastal Region
Key Urban Centres:
- Mombasa, Malindi, Lamu, Kiwi, Kitis, Lami, Lamu, Mtwapa, Watamu, Gaiti, Kais lying, Mombasa, Ukunda

Zone 6: Eastern and South Eastern Region
Key Urban Centres:
- Malindi, Mtwapa, Watamu, Ukunda

Potential
- Agricultural production
- Water catchment
- Forestry
- Tourism and Culture
- Mineral Resources
- Energy Resources

Policies
- Enhanced agricultural production and value addition
- Investment in social and physical infrastructure
- Environmental conservation
- Intensive land use

Strategies
- Infrastructure provision to support value addition initiatives and human settlement
- Small and medium urban centres development
- Preservation of water towers and resources
- Rural development through provision of infrastructure, agricultural sector development and related economic activities

- Small and medium urban centres development

Potential
- Administrative hub
- Finance and capital hub
- Trade and Commerce
- Industry and value addition
- Transportation hub

Policies
- Sustainable urban land use and growth
- Balanced growth
- Development of built-up areas
- Development of key social and physical infrastructure

Strategies
- Development and rehabilitation of key infrastructure in priority nodal locations
- Services to under-served populations
- Environmental protection
- Conceiving and managing natural resources

Potential
- Port city and gateway to East Africa
- Tourism and culture
- Industrial development
- Trade and commerce
- Fisheries

Policies
- Development of tourism infrastructure
- Investment in physical and social infrastructure
- Sustainable use and exploitation of natural resources
- Strengthened development especially around key urban areas
- Resource conservation and cultural preservation

Strategies
- Selective development concentration
- Infrastructure provision in key urban and human settlement zones
- Environmental protection of parks including marine reserves and forests
- Conservation of unique cultural landscape and resources
- Small and medium urban centres development
- Development of tourism infrastructure, agricultural sector development and related economic activities

Policies
- Enhanced agricultural and food production
- Investment in physical and social infrastructure
- Development of tourism infrastructure
- Wholesome services and administration
NAIROBI: VITAL STATISTICS

Capital and largest city of Kenya.

- Land Area: 695 km²
- 4% Urbanization rate

- 7 Sub-Counties, 85 Wards
- Est. Population: 4M during night, 5M by day; Growth rate: 4.1%
- Average household size is 3.1 compared to a national figure of 4.4
- Contributes 60% of Kenya’s GDP

Structuring elements:
- Road network, National park, River system, Karua, Dagoreti & Ngong Forests, Airports & Strategic security installations
# Nairobi’s Planning history

<table>
<thead>
<tr>
<th>YEAR</th>
<th>MILESTONE</th>
<th>import</th>
</tr>
</thead>
<tbody>
<tr>
<td>1890</td>
<td>construction of the Kenya-Uganda railway,</td>
<td>need for a plan for a railway town</td>
</tr>
<tr>
<td>1898</td>
<td>first plan/town layout for the railway depot, main feature being the Nairobi Station and the railway line.</td>
<td>The plan resembles the town layout of Nairobi CBD today</td>
</tr>
<tr>
<td>1899</td>
<td>Nairobi becomes headquarters of Kenya Uganda railway as well as a colonial trading post</td>
<td>Planning on ad-hoc basis</td>
</tr>
<tr>
<td>1926</td>
<td><strong>Plan for a Settler Capital</strong> as the first zoning framework providing procedural zoning and development control principles for the</td>
<td>Plan principles premised on aesthetic function, spatial relationships and urban structure devoid of illegal developments.</td>
</tr>
</tbody>
</table>

- **Nairobi Boundary changes 1900-1963**

- **Nairobi railway station**
## Past Plans - Historical analysis covering 1948-1973

<table>
<thead>
<tr>
<th>Year</th>
<th>Plan Description</th>
<th>Details</th>
</tr>
</thead>
</table>
| 1948 | 1948 City Master plan | - Functionalism as the main principle  
- City was classified in zones,  
- Emphasis in making Nairobi more attractive for industrial investment.  
- Significantly influenced city development process as it was integrated into Govt budgetary process thereby guiding Govt investments in infrastructure & other urban services.  
Plan rendered irrelevant after independence since it never anticipated any drastic political/socio-economic changes due to the rapid population increase & the changed political landscape |

---

*Nairobi City structure before 1973*
1973-2000 Nairobi Metropolitan Growth Strategy; focus on decentralization & development of alternative service centers within the different city areas to reduce density in the central area.

Proposed secondary centers to develop as independent settlements with residential, commercial, industrial investments & other services.

Outlined mechanisms & spatial framework for city wide infrastructure development, social welfare services, facility development, urban land supply for development, and growth distribution.

Required huge capital investment which were never allocated; also lacked a framework to bring in private sector resources to assist implementing it.

- It further also failed to attract necessary central government financial & political support leading to failure of its implementation.
- Meanwhile, rapid urban growth continued to occur in a chaotic manner due to the gap left by the inadequate implementation of the plan.

1979 Land Use Rationalization was to provide a framework to guide city development by proposing densification of land uses in the city, but infrastructure and amenities were not improved to service the increased density.

The rationalisation zonal plan greatly influenced the development of the city & contributed to the current city structure.
1980s Sectoral Plans

- Sector-based approach in managing development process emerged at national and local level leading to fragmented interventions in urban development.
  - Nairobi Metropolitan Strategy
  - Nairobi Metropolitan Region Spatial Plan
  - Integrated Solid Waste Master Plan,
  - Water and Sewer Master Plans
  - Nairobi Urban Transport plan
  - Mass rapid Transport Plan
Major Urban Challenges

• Inefficient urban structure
• Mismatch between rate of urban growth & infrastructure development
• Institutional capacities - financing arrangements, human capacity
• External factors influencing urban development – interests rates, fiscal policies,
• Lack of urban character – influenced by urban design.
• Inadequate coordination between relevant organizations, among others
CoK 2010 ushered a new approach to urban planning that recognizes the role of planning in promoting sustainable development. Article 184 thereof provides for the governance & management of urban areas. And specifically:

- Reversal of centralized non-participatory governance in favor of planning done at the lowest practicable level, complete with structures & institutions to improve local planning governance.

(Cap 11) of CoK 2010—on devolved Government, provides for the setting up of County Governments. Schedule 4 thereof spells out County Planning & Development as one of the functions devolved to county governments.

b) County Government Act (2012) Part 2 (5&6), (Fourth Schedule, Article 5 (2), 186 (1) and 187 (2). This Act stipulates county Governments’ powers, functions and responsibilities to deliver services including land use planning.

c) Urban Areas and Cities Act, (2011) Part V thereof, places emphasis on Integrated planning as a framework within which all county governments must operate, and a basis of all county policies and plans. It further links planning & budgeting; providing a foundation for budgeting for planning services.

d) Environment Management & Coordination Act 1999 provides guidelines for environmentally sustainable development.

e) Public Health Act Cap 242 advocates for maintenance of clean and sanitary surroundings,
Nairobi City County with JICA technical assistance in 2012 formulated the Nairobi Integrated Urban Development Master plan (NIUPLAN, 2014-2030) as a broad framework to guide urban planning within Nairobi County.

The plan has marked a milestone in planning and urban development; it has underscored the role planning plays in guiding urban development.

Key Principles of the Plan

- Plan premised on the understanding that all sectors of urban development are interrelated and intertwined therefore any plan meant to influence urban development has to be integrated. This means that various development sectors have to align their investment plans & commit resources for the plan’s implementation.
- The city over the year has evolved a very inefficient structure & therefore NIUPLAN provides an opportunity for the city to reorder the urban structure.
- Promotes strong institutional coordination capacity for plan implementation.
## Methodology used in NIUPLAN Preparation

- Kenya 2010 promotes the right to participation of the people as one key principle and value for sustainable development.
- NIUPLAN preparation embraced a consultative framework to create a solid social foundation for success of the process. This was done through:

<table>
<thead>
<tr>
<th></th>
<th>Planning consultations in all 17 sub – counties of the city</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Inter –County consultations with 4 neighboring counties (Machakos, Kajiado, Kiambu &amp; Nyandarua on planning issues)</td>
</tr>
<tr>
<td>3.</td>
<td>Strategic Environmental Assessment consultations</td>
</tr>
<tr>
<td>4.</td>
<td>Workshops</td>
</tr>
<tr>
<td>5.</td>
<td>Civic education</td>
</tr>
<tr>
<td>6.</td>
<td>Essay competition for primary school pupils on future city</td>
</tr>
<tr>
<td>7.</td>
<td>NCC Master Plan Website</td>
</tr>
<tr>
<td>8.</td>
<td>Individual Visits/submissions</td>
</tr>
<tr>
<td>9.</td>
<td>Technical working groups meetings</td>
</tr>
<tr>
<td>10</td>
<td>Stakeholder Workshops</td>
</tr>
<tr>
<td>11</td>
<td>Advertisements in the Media</td>
</tr>
<tr>
<td>12</td>
<td>Individual Visits/submissions</td>
</tr>
</tbody>
</table>
Globally Attractive: Balanced Economic growth (geographical and sectoral, economic opportunities through well-planned mixed land use and urban structure)
Regional Integration: Linkages between commercial centres with efficient transport system, linkage between land uses, economic linkages with neighbouring regions.
Sustainability: Job opportunities, balance between economy and environment

Globally Attractive: Social services, security through urban management (sub-centre, land use, economy), tourism
Regional Integration: Preservation of heritage/historical assets
Sustainability: Social services, tourism, sub-centre development, promoting cultural identity

Globally Attractive: Green space, air quality, efficient land use, efficient urban structure
Regional Integration: Urban transport, balanced coordinated urban growth (green belts, land use), resource management
Sustainability: Conservation of green spaces, solid waste management, efficiency of resource use

Globally Attractive: Participatory management, open to stakeholders, accountable (transparent) urban management
Regional Integration: Service provision by NCC, coordination with neighbouring counties (infrastructure, resources)
Sustainability: proper urban management, urban management policy, city management structure

Nairobi 2030, Globally Attractive city that is iconic for regional integration and sustainability
KEY PROGRAMS PROPOSED IN NIUPLAN

1) **Urban Development Programs** meant to promote & accelerate integrated & efficient urban development through;

   - **CBD revitalisation & function strengthening**
     - CBD strengthening based on existing development plans
     - Network within CBD
   - **Strengthening of linkage between CBD and sub centers**
     - Location of sub centers
     - CBD and sub centers linkage
   - **Urban renewal of Old and derelict institutional housing**
     - Location of sub centers
     - CBD and sub centers linkage

2) **Urban transport development program** - linked to the urban development program and meant to support to the forming urban structure including CBD and the Sub-centres by way of transportation network & Public transport re-organization through;

   - **Modernization of Commuter Train Operation**
   - **Flyover in CBD to link the Railway city**
   - **Widening of Enterprize Road**
   - **Construction of Northern Part of Circumferential Road C-2**
   - **Public Transport System Policy and Guideline**

3) **Infrastructure development program** - to promote urban development through urban facilities development.
REVITALIZATION OF CBD

- Provide integrated road network
- Enhancement of transport system
- Proposal of new land use plan suitable to current urban condition

“Compact urban centre that is creative, livable, green, efficient, competitive and inclusive”

- Economy
  - Promote an inclusive urban economy

- Transport
  - Efficient, effective and inclusive transport system

- Environment
  - Healthy, green, thriving And secure Nairobi

- Urban space
  - Pedestrian-friendly urban space

Proposed development vision for CBD

CBD Road network plan

CBD Land use plan

Existing network
Proposed roads
Structure Plan (Sub –centre development supported by transportation)

- Formulation of development control guidelines
- Formulation of sub-centres detailed plans
- Formulation of detailed district plans
  EASTLANDS,
  - KILIMANI,
  - RUAI,
  - JAMUHURI,
  - UMOJA,
  - SOUTH B)
ONGOING PROJECT HIGHLIGHTED IN NIUPLAN

Loopline- light rail circuit around CBD to improve traffic flow between CBD and secondary centres.

Viaduct road over railway city linking industrial area to CBD.

Provide a parallel access to Mombasa Road and Jogoo road to the CBD.
Railway city Redevelopment

- Optimize use of currently derelict but prime located & adequately serviced urban land,
- Provide links between Nairobi CBD & Industrial area
- Promote southward expansion of the CBD that supported by enhanced transport system - meet CBD growth needs while embracing sustainable development principles.
- Revitalization through proposal of new land use plan suitable to current urban condition (multi-modal stations, commercial buildings, residential buildings, government buildings, green areas and pedestrian walkways among other facilities).
DETAILED AREA PLANNING

Detailed planning of Eastlands through urban renewal

Integrated Action Plan: Ruai Nodal Land Use Proposal

Detailed planning of Ruai Sub-centre through Konza-Kenol-Kangundo-Tala-Koma Rock-Ruai-Eastern ByPass Transport Corridor Planning
2. Urban transport development program
- linked to urban development program,
- Deviates from radial to orbital transportation arrangement thereby supporting the forming urban structure including CBD and the Sub-centres by transportation network,
- intended to manage demand & re-organize public transportation through placing emphasis on modal integration, multifunctional facilities & inclusion of pedestrian, NMT as well as service ducts as mandatory facilities in design of transportation infrastructure;

Source: JICA Study Team (JST)
3. Infrastructure development program
  - aims to promote urban development through urban facilities development.

Water Supply

- key constraint to urban development is inadequate supply of water,
- Sustainable supplies and use efficiency necessary
- Currently water supply in the county is at 540,000 cubic meters/day against a demand of 670,000 cubic meters/per day and this is expected to grow to 1.2 Million cubic meters/day by 2030.

Power

- Enhance energy provision for the County to propel county economic development. Current power demand for county is about 1240 MW.
- By 2030 energy demand for the county will rise to about 6,000 MW. This will account for 42% of the National demand which will be 14,275 MW.
Storm Water Drainage & sewerage

- Currently storm water drainage focuses on localized drainage networks. To address this, the county must prepare & implement an adequate storm water Drainage plan.
- Only less than 40% of city’s population is served/connected to the existing sewerage network.
- Need for the county to invest in expansion of the sewerage network & embrace alternative eco-friendly waste disposal systems.
- To improve the sewer coverage by 2030, the county expects to fully implement the NIUPLAN Sewer development proposals.
- This will increase the trunk sewers to 280km and permit increase of sewer coverage in the unserved and underserved areas of the county to 70%.

Solid Waste Management

- Nairobi currently generates about 2,000 metric tons of solid waste daily,
- Only 40% of this daily generation is collected & disposed of at Dandora open dumpsite.
- It is projected that by 2030, daily solid waste generation will rise to about 3,400 metric tons and approximately 78% of the same will collected & disposed of.
- Projected improved solid waste management by year 2030 is premised on the 3Rs+composting+ disposal at final sanitary landfill that should be constructed by 2016.
- Development of a Solid Waste final sanitary disposal Site - Already under the ISWM plan.
- Establishment of Intermediate Solid Waste treatment facility at Dandora.
The main sources of atmospheric air pollution are vehicles, industries, use of firewood & charcoal and open burning of waste.

- Installation of Integrated GIS for NCC Data Management System.
- Human Resource strengthening.
END

THANK YOU.